

**Fyzikálny ústav SAV**

**Správa o činnosti organizácie SAV  
za rok 2013**



Bratislava  
Január 2014

## **Obsah osnovy Správy o činnosti organizácie SAV za rok 2013**

1. Základné údaje o organizácii
2. Vedecká činnosť
3. Doktorandské štúdium, iná pedagogická činnosť a budovanie ľudských zdrojov pre vedu a techniku
4. Medzinárodná vedecká spolupráca
5. Vedná politika
6. Spolupráca s VŠ a inými subjektmi v oblasti vedy a techniky
7. Spolupráca s aplikačnou a hospodárskou sférou
8. Aktivity pre Národnú radu SR, vládu SR, ústredné orgány štátnej správy SR a iné organizácie
9. Vedecko-organizačné a popularizačné aktivity
10. Činnosť knižnično-informačného pracoviska
11. Aktivity v orgánoch SAV
12. Hospodárenie organizácie
13. Nadácie a fondy pri organizácii SAV
14. Iné významné činnosti organizácie SAV
15. Vyznamenania, ocenenia a ceny udelené pracovníkom organizácie SAV
16. Poskytovanie informácií v súlade so zákonom o slobodnom prístupe k informáciám
17. Problémy a podnety pre činnosť SAV

### ***PRÍLOHY***

- A Zoznam zamestnancov a doktorandov organizácie k 31.12.2013*
- B Projekty riešené v organizácii*
- C Publikáčná činnosť organizácie*
- D Údaje o pedagogickej činnosti organizácie*
- E Medzinárodná mobilita organizácie*

## 1. Základné údaje o organizácii

### 1.1. Kontaktné údaje

**Názov:** Fyzikálny ústav SAV

**Riaditeľ:** RNDr. Stanislav Hlaváč, CSc.

**Zástupca riaditeľa:** Ing. Peter Švec, DrSc.

**Vedecký tajomník:** Mgr. Peter Filip, PhD.

**Predseda vedeckej rady:** Doc. RNDr. Emil Běták, DrSc.

**Člen snemu SAV:** RNDr. Katarína Gmucová, CSc.

**Adresa:** Dúbravská cesta 9, 845 11 Bratislava 45

<http://www.fu.sav.sk>

**Tel.:** 02/59 410 501; 02/20 910 790

**Fax:**

**E-mail:** [lucia.kuchtova@savba.sk](mailto:lucia.kuchtova@savba.sk)

**Názvy a adresy detašovaných pracovísk:**

- **Spoločné pracovisko EIÚ a FÚ SAV**  
Vrbovská cesta 5051/110, 92101 Piešťany

**Vedúci detašovaných pracovísk:**

- **Spoločné pracovisko EIÚ a FÚ SAV**  
Ing. Rudolf Senderák, Piešťany

**Typ organizácie:** Príspevková od roku 1997

### 1.2. Údaje o zamestnancoch

Tabuľka 1a Počet a štruktúra zamestnancov

Štruktúra zamestnancov	K	K		K do 35 rokov		F	P	T
		M	Ž	M	Ž			
<b>Celkový počet zamestnancov</b>	116	89	27	24	10	108	82,63	59,27
<b>Vedeckí pracovníci</b>	75	67	8	15	3	69	55,98	55,98
<b>Odborní pracovníci VŠ</b>	23	13	10	9	5	21	10,31	3,29
<b>Odborní pracovníci ÚS</b>	18	9	9	0	2	18	16,34	0
<b>Ostatní pracovníci</b>	0	0	0	0	0	0	0	0

*K – kmeňový stav zamestnancov v pracovnom pomere k 31.12.2013 (uvádzať zamestnancov v pracovnom pomere, vrátane riadnej materskej dovolenky, zamestnancov pôsobiacich v zahraničí, v štátnych funkciách, členov Predsedníctva SAV, zamestnancov pôsobiacich v zastupiteľských zboroch)*

*F – fyzický stav zamestnancov k 31.12.2013 (bez riadnej materskej dovolenky, zamestnancov pôsobiacich v zahraničí v štátnych funkciách, členov Predsedníctva SAV, zamestnancov*

*pôsobiacich v zastupiteľských zboroch)*

*P – celoročný priemerný prepočítaný počet zamestnancov*

*T – celoročný priemerný prepočítaný počet riešiteľov projektov*

*M, Ž – muži, ženy*

Tabuľka 1b Štruktúra vedeckých pracovníkov (kmeňový stav k 31.12.2013)

Rodová skladba	Pracovníci s hodnosťou				Vedeckí pracovníci v stupňoch		
	DrSc.	CSc./PhD.	prof.	doc.	I.	IIa.	IIb.
<b>Muži</b>	15	52	3	3	19	28	20
<b>Ženy</b>	3	5	1	0	3	2	3

Tabuľka 1c Štruktúra pracovníkov podľa veku a rodu, ktorí sú riešiteľmi projektov

Veková štruktúra (roky)	< 31	31-35	36-40	41-45	46-50	51-55	56-60	61-65	> 65
<b>Muži</b>	14	8	11	2	3	11	9	2	13
<b>Ženy</b>	4	0	0	0	0	0	2	2	1

Tabuľka 1d Priemerný vek zamestnancov organizácie k 31.12.2013

	Kmeňoví zamestnanci	Vedeckí pracovníci	Riešitelia projektov
<b>Muži</b>	48,1	49,3	46,9
<b>Ženy</b>	46,2	50,4	47,9
<b>Spolu</b>	47,7	49,4	47,0

### 1.3. Iné dôležité informácie k základným údajom o organizácii a zmeny za posledné obdobie (v zameraní, v organizačnej štruktúre a pod.)

## 2. Vedecká činnosť

### 2.1. Domáce projekty

Tabuľka 2a Zoznam domácich projektov riešených v roku 2013

ŠTRUKTÚRA PROJEKTOV	Počet projektov		Čerpané financie za rok 2013 (v €)		
	A	B	A		B
			spolu	pre organi- záciu	
<b>1. Vedecké projekty, ktoré boli r. 2013 financované VEGA</b>	26	2	144185	156284	4281
<b>2. Projekty, ktoré boli r. 2013 financované APVV</b>	12	3	541999	349511	66542
<b>3. Projekty OP ŠF</b>	4	8	1256490	20000	492556
<b>4. Projekty centier excelentnosti SAV</b>	2	0	43442	42940	-
<b>5. Iné projekty (FM EHP, ŠPVV, Vedecko-technické projekty, ESF, na objednávku rezortov a pod.)</b>	0	0	-	-	-

*A - organizácia je nositeľom projektu*

*B - organizácia sa zmluvne podieľa na riešení projektu*

**2.2. Medzinárodné projekty****2.2.1. Medzinárodné projekty riešené v roku 2013**

Tabuľka 2b Zoznam medzinárodných projektov riešených v roku 2013

ŠTRUKTÚRA PROJEKTOV	Počet projektov		Čerpané financie za rok 2013 (v €)		
	A	B	A		B
			spolu	pre organi- záciu	
<b>1. Projekty 7. Rámcového programu EÚ</b>	2	2	70000	7797	20800
<b>2. Multilaterálne projekty v rámci vedeckých programov COST, ERANET, INTAS, EUREKA, ESPRIT, PHARE, NATO, UNESCO, CERN, IAEA, ESF (European Science Foundation), ERDF a iné</b>	3	4	5000	5000	4000
<b>3. Projekty v rámci medzivládnych dohôd o vedecko-technickej spolupráci</b>	1	1	26000	26000	15000
<b>4. Bilaterálne projekty</b>	6	6	7863	29863	35000
<b>5. Podpora medzinárodnej spolupráce z národných zdrojov (MVTs, APVV,...)</b>	3	4	18405	22988	9867
<b>6. Iné projekty financované alebo spolufinancované zo zahraničných zdrojov</b>	0	0	-	-	-

*A - organizácia je nositeľom projektu**B - organizácia sa zmluvne podieľa na riešení projektu*

## 2.3. Najvýznamnejšie výsledky vedeckej práce

### 2.3.1. Základný výskum

#### 1. miesto: Ladislav Šamaj (OKFS)

##### Presné riešenie štatistickej mechaniky Coulombovských systémov

Základnou prácou súboru je monografia napísaná v spolupráci so Z. Bajnokom. Monografia popisuje princípy integrovateľnosti (presnej riešiteľnosti) rôznych typov systémov interagujúcich častíc resp. spinov. Spájajúcim motívom je kvantová metóda inverzného rozptylu. Originálnym je zahrnutie kvantovej teórie poľa, konkrétne kompletne vyriešenie kvantového (1+1)-rozmerného sínus-Gordonovho modelu a termodynamiky dvojrozmerného klasického coulombovského plynu. Publikácie sa týkajú prevažne problému štatistického opisu klasických coulombovských systémov pri nízkych teplotách. Špeciálnu časť tvorí hľadanie základného stavu systému bodových nábojov medzi nabitými platňami, ktorý je idealizáciou problému efektívnej interakcie makro-iónov v elektrolyte. V tejto súvislosti bola nájdená nová efektívna metóda mriežkových sumácií cez coulombovské interakcie, ktorá vedie k rýchlo konvergujúcim radom. Fázová štruktúra, závisiaca od vzdialenosti medzi platňami, bola odvodená pre všeobecný prípad s dielektrickou nehomogenitou medzi platňami a médiom elektrolytu.

##### Exact solution of the statistical mechanics of Coulomb systems

The basic work of the set is the monograph written in collaboration with Z. Bajnok. The monograph deals with principles of integrability (exact solvability) of various types of systems of interacting particles or spins. The universal approach is the Quantum Inverse Scattering Matrix method. The originality of the book consists in inclusion of the Quantum Field Theory, namely the complete solution of the quantum (1+1)-dimensional sine-Gordon theory and of the thermodynamics of the classical two-dimensional Coulomb gas. The publications concern in general the statistical description of classical Coulomb systems at low temperatures. A special task is the searching for the ground-state of the system of pointlike particles between charged plates which correspond to an idealization of the problem of the effective interaction of macro-ions in an electrolyte. In connection with this problem, a new effective method of lattice summations over Coulomb interactions, which leads to quickly convergent series, was found. The phase structure, dependent on the distance between the plates, was derived for the general case with a dielectric inhomogeneity between the plates and the electrolyte medium.

##### Monografia:

1. **L. Šamaj**, Z. Bajnok: Introduction to the Statistical Physics of Integrable Many-body Systems, Cambridge University Press, Cambridge, UK (2013), 523 pp

##### CC:

1. **L. Šamaj**: Long-range correlations of the surface charge density between electrical media with flat and spherical interfaces, Contributions to Plasma Physics **52** (2012) 89-94, arXiv:1204.3446 [cond-mat.stat-mech].

2. **L. Šamaj**, E. Trizac, Strong-coupling theory for a polarizable planar colloid, Contributions to Plasma Physics **52** (2012) 53-57, arXiv:1111.5435 [cond-mat.soft].

3. **L. Šamaj**, E. Trizac: Strong-coupling electrostatics for two dissimilar charged walls, Physica B: Condensed Matter **407** (2012) 1953-1957.

4. **L. Šamaj**, E. Trizac: Ground state of classical bilayer Wigner crystals, *Europhysics Letters* **98** (2012) 36004, arXiv:1205.2460 [cond-mat.str-el].
5. **L. Šamaj**, E. Trizac: Critical phenomena and phase sequence in a classical bilayer Wigner crystal at zero temperature, *Physical Review B* **85** (2012) 205131, arXiv:1207.3920 [cond-mat.str-el].
6. **L. Šamaj**, E. Trizac: Ground-state structure of a bilayer Wigner crystal with repulsive dielectric images, *Europhysics Letters* **100** (2012) 56005, arXiv:1301.6627 [cond-mat.stat-mech].
7. **L. Šamaj**, Thermodynamics of two-component log-gases with alternating charges, *Journal of Statistical Physics* **152** (2013) 599-618, arXiv:1303.4236 [cond-mat.stat-mech].
8. **L. Šamaj**, Counter-ions at single charged wall: Sum rules, *European Physical Journal E* **36** (2013) 100 (1-8), arXiv:1304.4125 [cond-mat.soft].

Príspevok v zborníku:

1. E. Trizac, **L. Šamaj**: Like-charge colloidal attraction: a simple argument, in: *Proceedings of the International School on Physics "Enrico Fermi", Course 184: Physics of Complex Colloids*, ed. C. Bechinger, F. Sciortino, P. Ziherl, (IOS Press, Amsterdam-Oxford-Tokyo-Washington DC, 2013) 61-74, arXiv:1210.5843 [cond-mat.soft].

Kapitola v monografii v tlači:

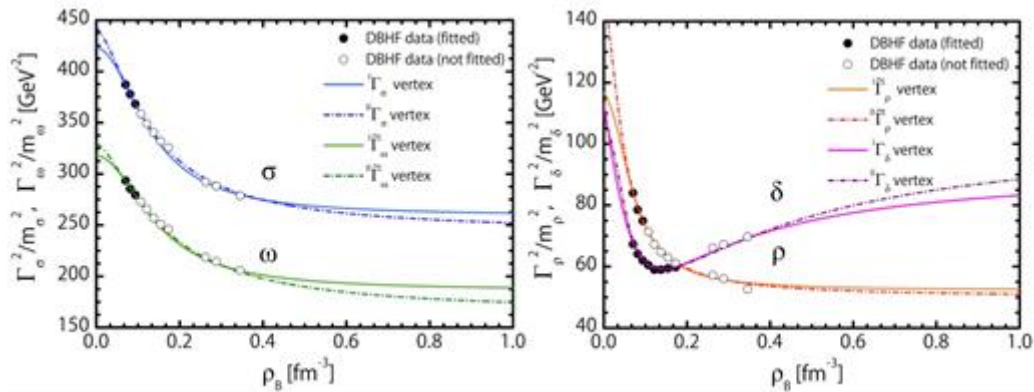
1. **L. Šamaj**, E. Trizac: *The Wigner strong-coupling approach*, výjde v "Electrostatics of Soft and Disordered Matter", ed. J. Dobnikar, D. S. Dean, A. Naji, R. Podgornik, (Pan Stanford Publishing), arXiv:1210.4032 [cond-mat.soft].

**2. miesto: Kristian Petrík (OJF), Š. Gmuca**

**Nová forma efektívnej hustotnej závislosti jadrovej interakcie v relativistickej hadrónovej teórii poľa**

Nedávny pokrok v astronomických pozorovaniach, najmä presný odhad hmotností pulzarov J1614-2230 a J0348+0432, ktorý dáva hodnoty blízke  $2M_{\odot}$ , vyžaduje, aby každá hodnoverná jadrová stavová rovnica dokázala zreprodukovat' tieto výsledky. Typickou črtou modelov, ktoré zahŕňajú hyperónové stupne voľnosti, kaónové kondenzáty, alebo iné formy exotickéj hadrónovej hmoty, je zmäkčovanie stavovej rovnice v dôsledku objavenia sa týchto častíc, čo komplikuje modelový popis týchto vysokých hmotností. Hustotne závislá relativistická hadrónová teória (HZRHT) poľa nie je výnimkou. Aby sme zlepšili, alebo obišli tento problém, predstavili sme nový prístup k efektívnej hustotnej závislosti modelov HZRHT, ktorý obsahuje 2-parametrickú triedu hustotne závislých funkcií. Táto trieda má niekoľko výhod oproti bežným voľbám závislosti na hustote, menovite, menší počet voľných parametrov, zvýšenú stabilitu extrapolácií do vysokých hustôt a univerzálnosť vzhľadom na rozličné dáta. 2-parametrická trieda bola predstavená v [1], kde slúžila ako základ pre novú parametrizáciu fundamentálnejších Dirac-Brueckner-Hartree-Fock výpočtov a tá bola následne použitá na získanie výsledkov pre symetrickú a čisto neutrónovú hmotu. Ukázali sme, aké dôležité sú spomínané prednosti našej novej triedy v porovnaní s inými efektívnymi závislosťami na hustote. V druhej publikácii [2] sme úspešne použili 2-parametrickú triedu pri beta-rovnovážnej hmote, so zameraním na lambda hmotu. Naše výsledky potvrdili užitočnosť tejto triedy hustotných funkcií a poskytli vylepšenú stavovú rovnicu. Veríme, že náš prístup je kľúčový pre hodnoverné vysoko-hustotné extrapolácie, a preto aj dôležitý pre akýkoľvek model stredného poľa vo fyzike kompaktných objektov.





*Obr.1* Zobrazené sú výsledky čiastočných fitov izoskalárnych ako aj izovektorových mezónovo-nukleónových vertexov získaných z DBHF dát (symboly). Fity boli uskutočnené s použitím 2-parametrickej triedy hustotných funkcií, ktorá poskytla stabilné a hodnovernejšie extrapolácie do vyšších hustôt.

*Fig.1* Results of the partial fits of isoscalar, as well as isovector meson-nucleon vertices extracted from the DBHF data (symbols) are shown. Fits were done using the 2-parametric class of density functions, which provided stable and more reliable extrapolations to higher densities.

### **New form of an effective density dependence of nuclear interaction in the relativistic hadron field theory**

Recent progress in astronomical observations, especially an accurate estimation of the mass of the pulsars J1614-2230 and J0348+0432, which yields values around  $2M_{\odot}$ , demands that any reliable nuclear equation of state (EoS) should be able to reproduce these results. Common feature of models that include hyperon degrees of freedom, kaon condensates or other forms of exotic hadronic matter, is softening of the EoS along with the appearance of such particles, which complicates the model description of these high masses. The density dependent relativistic hadron field (DDRHF) theory is no exception. To help improve, or overcome this issue, we presented a new approach to the effective density dependence of DDRHF models, which include an introduction of 2-parametric class of density dependent functions. This class has several advantages in comparison to the typical choices of a density dependence, namely smaller number of free parameters, enhanced stability of extrapolations to the higher densities and is universal with respect to various data. The 2-parametric class has been introduced in [1] and served as a base for a new parameterization of the more fundamental Dirac-Brueckner-Hartree-Fock calculations, which was subsequently used for obtaining results for symmetric and pure neutron matter. We have shown how important the mentioned assets of our new class are in comparison to other effective dependences on the density. In the second publication [2], we successfully applied the 2-parametric class to matter in beta-equilibrium, with focus on the lambda matter. Our results supported the usefulness of this class of density functions, and provided an improved equation of state. We believe that our approach is crucial for justifiable high-density extrapolations and thus important for any mean-field model of compact star physics.

1. **K. Petrík**, Š. Gmuca, On the effective density dependence of vertex functionals in relativistic hadron field theory, J. Phys. G: Nucl. Part. Phys. 39 (2012) 085113
2. **K. Petrík**, Š. Gmuca, Lambda matter in the effective density dependent mean-field model, Astron. Nachr. 334, No. 9, (2013) 1043 - 1046

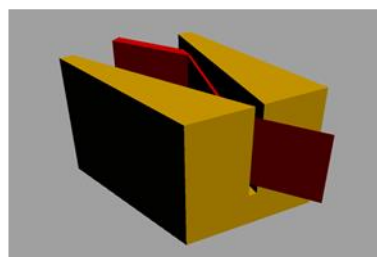
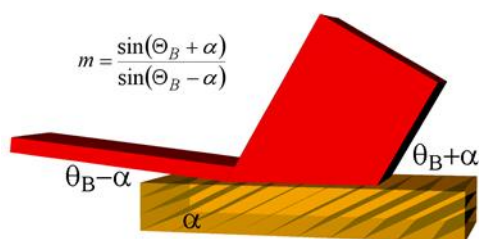
### 2.3.2. Aplikačný typ

#### 1. miesto: Peter Šiffalovič (OMN)

M. Jergel, K. Végső, E. Majková

#### **Vývoj a pilotná aplikácia nových prvkov rtg optiky pre extrémnu kompresiu a expanziu rtg zväzku**

Boli navrhnuté a v spolupráci s firmou Integra, TDS, s.r.o., Piešťany, pripravené originálne monolitické rtg monochromátory s novou pridanou funkcionalitou geometrickej kompresie resp. expanzie rtg zväzku na princípe opakovanej asymetrickej difrakcie v kanáliku tvaru písmena V (obr. 1) [1]. Vysoké kompresné (expanzné) faktory boli dosiahnuté originálnymi riešeniami potlačenia refrakčného efektu, ktoré boli experimentálne overené v kompresnom aj expanznom móde. Výhody rtg kompresorov pre kolimáciu rtg zväzku oproti tradičným riešeniam boli demonštrované na meraniach malouhlového rtg rozptylu (SAXS), kde bolo dosiahnuté rozlíšenie porovnateľné so synchrotrónom [2]. To otvára nové možnosti laboratórnych experimentov SAXS, bio-SAXS ale aj rtg difrakcie (XRD). Pilotné experimenty ukázali využitie expandérov rtg zväzku pre 2D zobrazovanie v režime absorpcie a fázového kontrastu s rozlíšením pod 10 mikrónov [3, 4].



*Obr. 1* Asymetrická difrakcia V- tvarovaný kanálikový monochromátor  
( $m$  je kompresný/expanzný pomer,  $\theta_B$  je Braggov uhol a  $\alpha$  je uhol asymetrie, RTG lúč je označený červenou farbou)

*Fig. 1* Asymmetric diffraction V- shaped channel-cut monochromator  
( $m$  is compression/expansion ratio,  $\theta_B$  is Bragg angle and  $\alpha$  denotes asymmetry angle, X-ray beam is marked by red color)

#### **Development and pilot application of new elements of X-ray optics for an extreme X-ray beam compression and expansion**

Original monolithic X-ray monochromators with a new added functionality of geometrical compression or expansion of the X-ray beam based on repeated asymmetric diffraction in a V-shaped channel (Fig. 1) were designed and prepared in collaboration with Integra, TDS, s.r.o. company, Piešťany [1]. High compression (expansion) factors were achieved by original solutions of the refraction effect suppression that were verified experimentally in the compression and expansion modes. Advantages of the X-ray compressors comparing with traditional solutions were demonstrated on the small-angle X-ray scattering (SAXS) measurements where a resolution comparable to a synchrotron beamline was achieved [2]. This opens new possibilities for laboratory SAXS and bio-SAXS experiments but also for X-ray diffraction (XRD). Pilot experiments

showed applicability of X-ray expanders for 2D imaging in the absorption and phase contrast regimes with a resolution below 10 microns [3, 4].

#### Kapitola v monografii / Chapter in monography

1. D. Korytár, P. Vagovič, C. Ferrari, P. Šiffalovič : X-ray Crystal Optics Based on Germanium Single Crystals, Chapter 3 in "Germanium - Characteristics, Sources and Applications", Edward. E. Feuerstein ed., pp. 105-140, ISBN 978-1-62948-181-4, Nova Science Publisher, New York 2013

#### Články v časopisoch CC / Papers in CC journals

2. M. Jergel, P. Šiffalovič, K. Végső, E. Majková, D. Korytár, Z. Zápražný, J. Perlich, B. Ziberi, M. Cornejo, P. Vagovič , Extreme X-ray Beam Compression for a High-Resolution Table-Top GISAXS Setup, J. Appl. Cryst. **46** (2013), 1544-1550 (IF 3.34)

3. D. Korytár, P. Vagovič, K. Végső, P. Šiffalovič, E. Dobročka, W. Jark, V. Áč, Z. Zápražný, C. Ferrari, A. Cecilia, E. Hamann, P. Mikulík, T. Baumbach, M. Fiederle, M. Jergel : Potential Use of V-Channel Ge(220) Monochromators in X-ray Metrology and Imaging, J. Appl. Cryst. **46** (2013), 945–952 (IF 3.34)

#### Recenzované zborníky z konferencií / Reviewed conference proceedings

4. D. Korytár, P. Vagovič, C. Ferrari, P. Mikulík, P. Šiffalovič, M. Jergel, K. Végső, E. Dobročka, Z. Zápražný, Process Induced Inhomogeneities in Higher Asymmetry Angle X-ray Monochromators, Proc. SPIE vol. 8848 - SPIE Optics & Photonics 2013 Exhibition, Symp. "Advances in X-Ray/EUV Optics and Components VIII", Ali Khounsary, Shunji Goto, Christian Morawe eds., San Diego 2013, 88480U

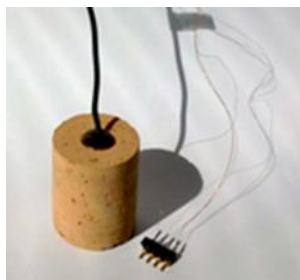
## **2. miesto: Ľudovít Kubičár (OFK)**

J. Hudec, D. Fidiriková, V. Štofanič, V. Vretenár

### **Prístroj na monitorovanie teplotno-vlhkostného režimu pamiatkových objektov s bezdrôtovým prenosom dát**

Renovácia a ochrana pamiatkových objektov patrí medzi prioritné programy v EÚ. Na Fyzikálnom ústave sme navrhli a skonštruovali prístroj s bezdrôtovou komunikáciou, ktorý monitorovaním teplotno-vlhkostného režimu umožňuje podať informácie o meniacom sa stave objektov. Stav pamiatkových objektov je sledovaný cez merania termofyzikálnych parametrov. Skonštruovaný prístroj realizuje operácie spojené s meraním, ukladaním dát a s bezdrôtovou komunikáciou. Pri návrhu prístroja bola zohľadnená nutnosť nízkej spotreby energie, dlhej výdrže a vysokej spoľahlivosti. Systém je vybavený softvérom, ktorý umožňuje jednoduchú manipuláciu s prístrojom, prostredníctvom počítača a bezdrôtového spojenia. Pri použití vhodnej antény na strane počítača je možné spojenie až na niekoľko kilometrov. Po spustení obslužného softvéru počítač vyhladá všetky prístroje v dosahu. Používateľ si potom vyberie, s ktorým chce nadviazať spojenie. Prístroj tiež podporuje solárne dobíjanie batérií, ktoré je vhodné najmä v nedostupných lokalitách. Prístroj zaznamenáva celý rad materiálových a niektorých meteorologických parametrov. Vyvedené I2C rozhranie umožňuje rozšírenie jednotky o ďalšie senzory. Pre meranie teploty a vlhkosti vzduchu je použitý senzor SHT75 (Obr. vpravo – puzdro nad krabičkou). Na meranie materiálových vlastností využívame termofyzikálne senzory (Obr. vľavo). Prístroj s nimi pracuje analógovým rozhraním, merané hodnoty potom konvertuje na digitálne 24-bitovým sigma-delta prevodníkom. Rýchlosť vzorkovania výstupu senzoru je nastaviteľná až po 50 Hz. Prístroj a konektory spĺňajú normu krytia IP68 (Obr. vpravo). Prístroj má dva nezávislé meracie kanály, takže vhodným umiestnením senzorov je možné určiť energetickú bilanciu objektu a transport vlhkosti v materiáli. Obr. vpravo ukazuje umiestnenie prístroja na stene objektu. Napájanie je zabezpečené dvomi RAM batériami veľkosti AA. Na obrázku, vedľa batérií, je možno vidieť aj modul bezdrôtovej komunikácie nRF24L01+. Prístroje boli nasadené napríklad na

monitorovanie teplotno-vlhkostného režimu veže katedrály sv. Martina v Bratislave.



### **Device using wireless data transmission for monitoring of the temperature-moisture regime of cultural objects**

Renovation and protection of cultural buildings falls into priority programs of the EU. Researchers of the Institute of Physics SAS have designed and constructed a device with wireless communication for monitoring the temperature-moisture regime. It provides information about changes of the state of objects. Monitoring of the state is based on long-term measuring of thermophysical parameters. Constructed device implements operations related to measurement, data storage, and wireless communication. Design of the device was focused on need of low power consumption, long life and high reliability. The system includes also software that enables easy manipulation with the device using a computer via wireless connection. Using a suitable antenna on the computer side the connection can be realized up to several kilometers. After starting the computer utility software finds all devices in range. Then the user can select the device which with he wish to establish a connection. The device also supports solar charging of the batteries. It is useful especially when it is used in inaccessible areas. The device records the full range of thermophysical parameters of material and some meteorological conditions of environment. Included I2C interface allows extension for additional sensors. Temperature and moisture sensor SHT75 (Fig. right hand – small black box above) is used for measure the atmosphere properties. For measuring of material properties we use thermophysical sensors (Fig. left hand). The device works with them via analog interface. The measured values are then converted to digital by 24-bit sigma - delta A/D converter. Sampling rate of the sensor signal can be set up to 50 Hz. Device and connectors fulfill IP68 standard (Fig. right). The device has two independent measuring channels, so placing sensors at the appropriate positions one can determine the energy balance of the building and moisture transport in the material. Figure (right) shows the location of the device on the wall of the building. Power is provided by two AA batteries of RAM type. In the picture you can see the wireless module nRF24L01+ next to the batteries. Devices have been already used for monitoring temperature-moisture regime of the tower of St. Martin Cathedral in Bratislava.

1. D. Fidriková, V. Vretenár, I. Šimková, V. Greif, J. Vlčko, P. Dieška, **I. Kubičár**: Sensor for Monitoring the Moisture in Porous Materials, Int J Thermophys (2013) 34, 1918-1929.
2. D. Fidriková, V. Greif, P. Dieška, V. Štofanič, **I. Kubičár**, J. Vlčko: Monitoring of the temperature-moisture regime in St. Martin's Cathedral tower in Bratislava, Environ Earth Sci (2013) 69, 1481-1489.
3. **I. Kubičár**, D. Fidriková, V. Štofanič: Monitoring of the temperature-moisture regime of the wall of St. Martin Cathedral tower in Bratislava. In Thermophysics 2012- Conference Proceedings : 17th International Meeting of Thermophysical Society, October 31-November 2, 2012, Podkylava, Slovak Republic. - Brno : University of Technology, 2012, 85-89.
4. J. Hudec, D. Fidriková, V. Vretenar, P. Dieška, **I. Kubičár**: In Thermophysics 2013- Conference

Proceedings : 18th International Meeting of Thermophysical Society, November 13 - November 15, 2013, Podkylava, Slovak Republic, Brno : University of Technology, 2013, 85-89.

5. D. Fidriková: Úloha vody v poréznych štruktúrach, Dizertačná práca, Fyzikálny ústav SAV, Bratislava, jún 2012.

### 2.3.3. Medzinárodné vedecké projekty

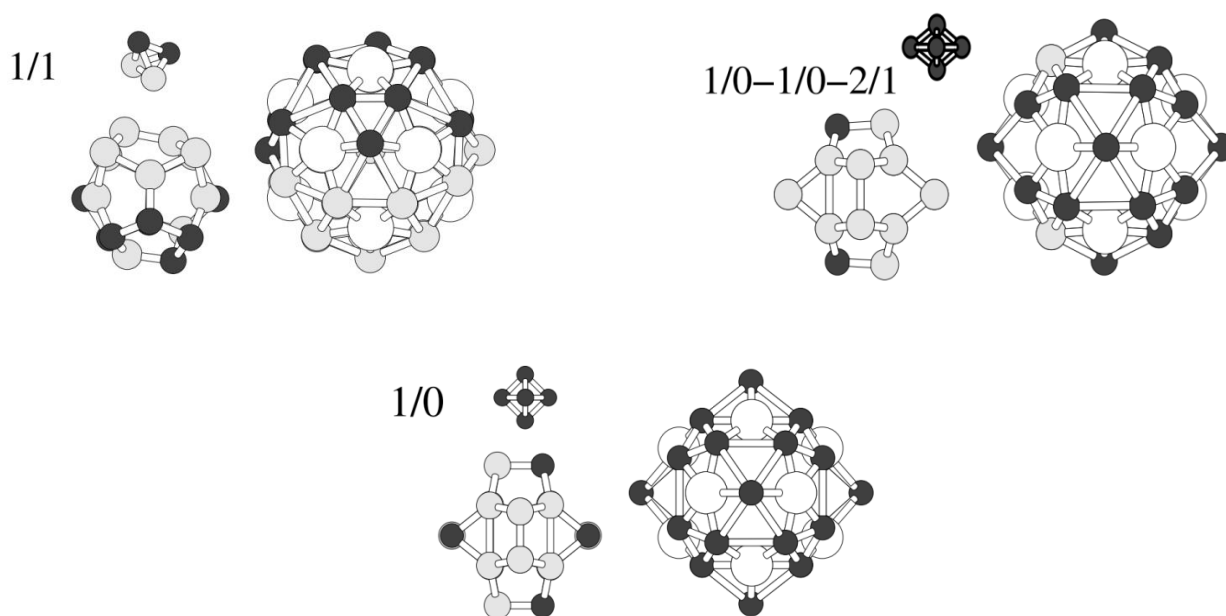
#### 1. miesto: Marek Mihalkovič (OFK)

C. L. Henley (Cornell University, USA), M. Widom (Carnegie Mellon University, USA)

#### Vyhľadávanie nových fáz kovových zliatin, modelovanie ich atómovej štruktúry

Zliatiny bohaté na hliník sa vyznačujú mimoriadne zložitou štruktúrou a anomálnymi elektronickými vlastnosťami (zliatina kovových prvkov môže byť v závislosti od atómovej štruktúry kovom, polovodičom, alebo dokonca izolantom). Ich štandardná príprava metódou chladenia taveniny je často znemožnená kinetickými bariérami, súperením štruktúrne veľmi rozdielnych fáz, štruktúrnymi transformáciami pri relatívne nízkej teplote (niekoľko sto stupňov Kelvina).

V sérii štyroch článkov publikovaných vo Physical Review B sme vyvinuli účinnú metódu vyhľadávania nových, doposiaľ neznámych fáz/štruktúr stabilných pri nízkych teplotách. V jednom prípade (Al-Cu-Sc, článok art. N° 092102) sme popísali nový (dnes experimentálne potvrdený) štruktúrny typ (základný štruktúrny motív v elementárnej bunke so 105 atómami je na obrázku), v iných prípadoch ide o známe štruktúry v novej kombinácii prvkov (art. N° 100201), alebo alternatívne nízko-teplotné podoby známych vysokoteplotných štruktúr (art. N° 064201), či o novú interpretáciu fázového diagramu technologicky významného systému Al-Fe (art. N° 014113). Vyvinuté metódy na báze teórie funkcionálu hustoty ("DFT"), fitovania empirických potenciálov, ako aj špeciálne žihacie algoritmy efektívne vyhľadávajúce rovnovážne štruktúry pri nízkych teplotách majú zrejmé uplatnenie v materiálovom výskume.



*Obr. 1* Štruktúrne motívy v troch fázach zliatiny AlCuSc, získané simulovaným chladením taveniny s použitím realistických medziatómových potenciálov z práce art. N° 092102 (biele guľky predstavujú atómy skandia, čierne medi, šedé hliníka)

*Fig. 1* Structural motifs in three phases of AlCuSc alloy, obtained by simulated cooling of melt using empirical potentials fitted to density-functional theory based data (article art. N° 092102). White spheres represent Sc atoms, gray Al, black Cu.

### **Prediction of structure and stability of metallic alloys with complex structure**

Al-rich aluminides often form in complex structures with genuine impact on physical properties: alloying metallic species can produce phases whose electronic properties for example range from metallic to semiconducting or even insulating.

Some phases only form in equilibrated state at low temperatures that may be inaccessible to experiments due to kinetic barriers.

In a series of four papers published in Phys. Rev. B, we have established effective approaches for modeling low-temperature equilibrium phases, and predicting their structure and stability. In one case (AlCuSc system, art. N° 092102) we described atomic motifs of a novel structure type (shown in Figure, labeled “1/0-1/0-2/1”), whose structure was later experimentally confirmed. In other cases, we screened electronic properties of hundreds of new alloys in a known structure (art. N° 100201), discovered low-temperature forms of a known complex high-temperature phase in Al-Ir system (art. N° 064201), or predicted new low-temperature phase in the technologically important AlFe alloy (art. N° 014113).

1. **Mihalkovic, M.**; Henley, C. L.: Caged clusters in Al<sub>11</sub>Ir<sub>4</sub>: Structural transition and insulating phase, Physical Review B 88,064201, 2013.
2. Mihalkovic, M.; Krajci, M.; Widom, M.: Prediction of stable insulating intermetallic compounds, Physical Review B 87, 100201, 2013.
3. **Mihalkovic, M.**; Henley, C. L.: Empirical oscillating potentials for alloys from ab initio fits and the prediction of quasicrystal-related structures in the Al-Cu-Sc system, Physical Review B 85, 092102, 2012.
4. **Mihalkovic, M.**; Widom, M.: Structure and stability of Al<sub>2</sub>Fe and Al<sub>5</sub>Fe<sub>2</sub>: First-principles total energy and phonon calculations, Physical Review B 85, 014113, 2012.

### **2. miesto: Martin Plesch (OKFS)**

J. Bouda, M. Pivluska, C. Wilmott (Masarykova univerzita Brno), J. Gould (University of Oxford), V. Vedral, O. Dahlsten (University of Oxford/ National University of Singapore)

### **Kvantová teória informácie, náhodnosť a štatistika**

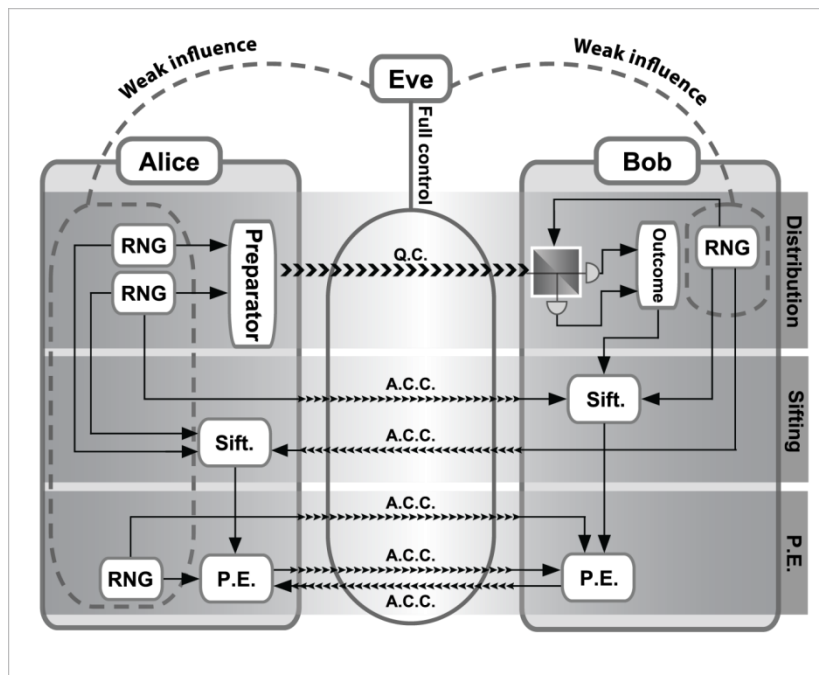
Náhodné čísla sú nevyhnutným zdrojom pre mnoho výpočtových a kryptografických protokolov. Táto skutočnosť je v klasickej teórii informácie dobre známa a existuje mnoho výsledkov týkajúcich sa vplyvu nedokonalkej náhodnosti na jednotlivé algoritmy, ale aj postupov na zlepšovanie kvality náhodnosti. Článkom [2] sme prispeli v tejto oblasti, keď sme navrhli zdokonalený typ veľmi známeho Hadamardovho extraktora, ktorý využíva dva nezávislé zdroje slabšej náhodnosti na vytváranie prakticky dokonale náhodných bitov.

V článku [1] sme ukázali, že využitie kvantových systémov dokáže zabezpečiť bezpečnosť protokolu, ktorý je pri použití klasických systémov a slabšej náhodnosti preukázateľne nezabezpečiteľný. Naopak sme ukázali, že najznámejší kvantový protokol BB84 je fatálne zraniteľný už pri minimálnom narušení dokonalosti používaných náhodných čísiel [3], obrázok 1.



V článku [6] sme sa venovali príprave náhodných bitov s pomocou nedôveryhodných kvantových zariadení a ukázali sme, že tvorba je možná aj z jediného min-entropického zdroja, čo je s využitím klasických zariadení nemožné.

Druhá časť prác sa zaoberá fundamentálnymi otázkami spojenia termodynamiky a časticovej štatistiky. V článku [4] sme reagovali na predtým uverejnený článok týkajúci sa vplyvu časticovej štatistiky na termodynamiku v špecifickom prípade Szilardovho stroja a opravili niektoré nesprávne výsledky. Komplexný článok dávajúci do súvisu informačnú hodnotu merania a extrahovateľnú prácu je pripravený na zaslanie do časopisu [5].



Obr. 1 Znáznornenie priebehu protokolu BB84 a vplyvu útočníka (Eve) na generátory náhodných čísel používaných komunikujúcimi stranami (Alice a Bob). Pomocou neho, spolu s úplnou kontrolou kvantového kanála (Q.C.) a prístupom ku klasickým komunikovaným dátam (A.C.C.), môže Eva zlomiť bezpečnosť protokolu.

Fig. 1 Depiction of the BB84 protocol and the influence of the adversary (Eve) on the Random Number Generators used by communicating parties (Alice and Bob). With the help of this influence, together with the full control on the quantum channel (Q.C.) and access to authenticated classical channels (A.C.C.), Eve can break the security of the protocol.

### **Quantum Information Theory, Randomness and Statistics**

Random numbers are a vital resource for many computational and cryptographic protocols. This fact is well known in classical information theory and there exist many results on the effect on imperfect – weak randomness on different algorithms, as well as protocols enhancing the quality of randomness. In paper [2] we contributed in this area by suggesting an improved version of a well-known Hadamard randomness extractor, which utilizes two independent sources of imperfect randomness to provide almost perfect random bits.

In our work [1] we showed that using quantum systems may provide security of cryptographic protocols that are provably insecure with only slightly weak randomness in classical theory. On contrary we showed that the well-known quantum key distribution protocol BB84 is totally insecure if even a negligible imperfectness in randomness used within the protocol occurs [3], see figure 1. In [6] we focused our research on device independent randomness production and showed the

possibility of randomness extraction from a single min-entropy source, what is provably impossible classically.

The second part of our work was devoted to fundamental aspects of connection of thermodynamics and particle statistics. In our comment [4] we reacted on a recent featured PRL letter about the influence of particle statistics on thermodynamics of a specific device – the Szilard engine. We corrected there several misunderstandings published in the original article and prepared also a complex manuscript on the same topic [5].

1. J. Bouda, M. Pivluska a **M. Plesch**: Encryption with weakly random keys using quantum ciphertext, Quantum Information and Computation **12** (2012) 0395-0403, arXiv:1109.1943 [quant-ph].
2. J. Bouda, M. Pivluska a **M. Plesch**, Improving the Hadamard extractor, Theoretical Computer Science **459** (2012) 69-76.
3. J. Bouda, M. Pivluska, **M. Plesch**, and C. Wilmott, Weak randomness seriously limits the security of quantum key distribution, Physical Review A **86** (2012) 062308, arXiv:1206.1287 [quant-ph].
4. **M. Plesch**, O. Dahlsten, J. Goold a V. Vedral, Comment on "Quantum Szilard Engine, Physical Review Letters **111** (2013) 188901, arXiv:1309.4209 [quant-ph]
5. **M. Plesch**, O. Dahlsten, J. Goold a V. Vedral, Measurement and particle statistics in the Szilard engine, arXiv:1203.0469 [quant-ph]
6. **M. Plesch** a M. Pivluska, Single min-entropy random source can be amplified, arXiv:1305.0990 [quant-ph]



**2.4. Publikačná činnosť** (úplný zoznam je uvedený v Prílohe C)

Tabuľka 2c Štatistika vybraných kategórií publikácií

<b>PUBLIKAČNÁ A EDIČNÁ ČINNOSŤ</b>	<b>A Počet v r. 2013/ doplňky z r. 2012</b>	<b>B Počet v r. 2013/ doplňky z r. 2012</b>	<b>C Počet v r. 2013/ doplňky z r. 2012</b>
<b>1. Vedecké monografie vydané v domácich vydavateľstvách</b> (AAB, ABB, CAB)	<b>0 / 0</b>	<b>0 / 0</b>	<b>0 / 0</b>
<b>2. Vedecké monografie vydané v zahraničných vydavateľstvách</b> (AAA, ABA, CAA)	<b>1 / 0</b>	<b>0 / 0</b>	<b>0 / 0</b>
<b>3. Odborné monografie, vysokoškolské učebnice a učebné texty vydané v domácich vydavateľstvách</b> (BAB, ACB)	<b>0 / 0</b>	<b>0 / 0</b>	<b>0 / 0</b>
<b>4. Odborné monografie a vysokoškolské učebnice a učebné texty vydané v zahraničných vydavateľstvách</b> (BAA, ACA)	<b>0 / 0</b>	<b>0 / 0</b>	<b>0 / 0</b>
<b>5. Kapitoly vo vedeckých monografiách vydaných v domácich vydavateľstvách</b> (ABD, ACD)	<b>0 / 0</b>	<b>0 / 0</b>	<b>0 / 0</b>
<b>6. Kapitoly vo vedeckých monografiách vydaných v zahraničných vydavateľstvách</b> (ABC, ACC)	<b>6 / 0</b>	<b>0 / 0</b>	<b>0 / 0</b>
<b>7. Kapitoly v odborných monografiách, vysokoškolských učebniciach a učebných textoch vydaných v domácich vydavateľstvách</b> (BBB, ACD)	<b>0 / 0</b>	<b>0 / 0</b>	<b>0 / 0</b>
<b>8. Kapitoly v odborných monografiách, vysokoškolských učebniciach a učebných textoch vydaných v zahraničných vydavateľstvách</b> (BBA, ACC)	<b>0 / 0</b>	<b>0 / 0</b>	<b>0 / 0</b>
<b>9. Vedecké a odborné práce v časopisoch evidovaných v Current Contents</b> (ADC, ADCA, ADCB, ADD, ADDA, ADDB, CDC, CDCA, CDCB, CDD, CDDA, CDDB, BDC, BDCA, BDCB, BDD, BDDA, Bddb)	<b>73 / 1</b>	<b>0 / 0</b>	<b>0 / 0</b>
<b>10. Vedecké a odborné práce v nekarentovaných časopisoch</b> (ADE, ADEA, ADEB, ADF, ADFA, ADFB, CDE, CDEA, CDEB, CDF, CDFA, CDFB, BDE, BDEA, BDEB, BDF, BDFA, BDFB)	<b>26 / 1</b>	<b>0 / 0</b>	<b>0 / 0</b>
<b>11. Vedecké a odborné práce v zborníkoch (konferenčných aj nekonferenčných, vydaných tlačou alebo na CD)</b>			
<b>a/ recenzovaných, editované</b> (AEC, AED, AFA, AFB, AFBA, AFBB, BEC, BED, CEC, CED)	<b>22 / 0</b>	<b>0 / 0</b>	<b>0 / 0</b>
<b>b/ nerecenzovaných</b> (AEE, AEF, AFC, AFD, AFDA, AFDB, BEE, BEF)	<b>28 / 1</b>	<b>0 / 0</b>	<b>0 / 0</b>

<b>12. Vydané periodiká evidované v Current Contents</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>13. Ostatné vydané periodiká</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>14. Vydané alebo editované zborníky z vedeckých podujatí (FAI)</b>	<b>2/0</b>	<b>0/0</b>	<b>0/0</b>
<b>15. Vedecké práce uverejnené na internete (GHG)</b>	<b>0 / 0</b>	<b>0 / 0</b>	<b>0 / 0</b>
<b>16. Preklady vedeckých a odborných textov (EAJ)</b>	<b>0 / 0</b>	<b>0 / 0</b>	<b>0 / 0</b>
<b>17. Heslá v odborných terminologických slovníkoch a encyklopédiách vydaných * (BDA, BDB)</b>	<b>0 / 0</b>	<b>0 / 0</b>	<b>0 / 0</b>

*A - pracovisko SAV je uvedené ako pracovisko (adresa) autora, alebo je súčasťou kolaborácie alebo iného združenia, ktoré je uvedené ako pracovisko (adresa) autora*

*B - pracovisko SAV nie je na publikácii uvedené, pretože prameň údaj o pracovisku autora neobsahuje, práca ale vznikla na pracovisku SAV*

*C - pracovisko SAV je uvedené ako materské pracovisko autora odlišné od pracoviska, na ktorom práca vznikla (napr. „on leave...“, „permanent address...“, „present address...“)*

*\* - uvádzajú sa len heslá, pri ktorých je uvedený autor a ich rozsah je min. 1 autorský hárok*

Tabuľka 2d Ohlasy

<b>OHLASY</b>	<b>A</b> <b>Počet v r. 2012/ doplnky z r. 2011</b>	<b>B</b> <b>Počet v r. 2012/ doplnky z r. 2011</b>
<b>Citácie vo WOS (1.1, 2.1)</b>	1949 / 0	0 / 0
<b>Citácie v SCOPUS (1.2, 2.2)</b>	96 / 1	0 / 0
<b>Citácie v iných citačných indexoch a databázach (9, 10)</b>	0 / 0	0 / 0
<b>Citácie v publikáciách neregistrovaných v citačných indexoch (3, 4)</b>	45 / 2	0 / 0
<b>Recenzie na práce autorov z organizácie (5, 6, 7, 8)</b>	0 / 0	0 / 0

*A - pracovisko SAV je uvedené ako pracovisko (adresa) autora, alebo je súčasťou kolaborácie alebo iného združenia, ktoré je uvedené ako pracovisko (adresa) autora, alebo pracovisko SAV nie je na publikácii uvedené, pretože prameň údaj o pracovisku autora neobsahuje, práca ale vznikla na pracovisku SAV*

*B - pracovisko SAV je uvedené ako materské pracovisko autora odlišné od pracoviska, na ktorom práca vznikla (napr. „on leave...“, „permanent address...“, „present address...“)*

## 2.5. Aktívna účasť na vedeckých podujatiach

Tabuľka 2e Vedecké podujatia

<b>Prednášky a vývesky na medzinárodných vedeckých podujatiach</b>	68
<b>Prednášky a vývesky na domácich vedeckých podujatiach</b>	35

## 2.6. Vyžiadané prednášky

Publikované príspevky sú súčasťou Prílohy C, kategória (AFC, AFD, AFE, AFF, AFG, AFH)

### 2.6.1. Vyžiadané prednášky na medzinárodných vedeckých podujatiach

doc. RNDr. Emil Běťák, DrSc.

07.-11.10.2013 CNR-2013 (Compound Nuclear Reactions), Maresias, SP, Brazília/  
Coalescence/pickup model for cluster emission

RNDr. Marián Krajčí, DrSc.

22.09.-25.09.2013 KRAJČÍ, Marián - HAFNER, J. Surfaces of complex intermetallic compounds as selective hydrogenation catalysts. In NANOVED 2013 & NANO INFO DAY : 6th International Conference on Nanosciences, Nanotechnologies, Nanomaterials and NANO INFO DAY of the Nanoforce Project. - Brno : TRIBUN EU, 2013, o-17. ISBN 978-80-263-0511-8.Type: AFG, Invited lecture

9.-12.12.2013 M. Krajčí, J. Hafner, Surfaces of intermetallic Ga-Pd compounds as selective hydrogenation catalysts: a DFT study, C-MAC Days 2013, Ljubljana, Slovenia, Book of Abstracts, p. 13, Invited lecture.

prof. Ing. Štefan Luby, DrSc.

02.-07.07.2013 LUBY, S.: Foresight in nanotechnologies, research and perspectives, NATO Advanced Study Institute Nanomaterials and Nanostructures, directors T. Wagner and M. Bardosova, Cork, Little Island

Mgr. Daniel Nagaj, PhD.

08.06.2013 CEQIP 2013, Valtice, Czech Republic/Quantum 3-SAT is QMA1-complete/invited talk

09.12.2013 ICTP-VAST regional school on Topological Phases and Quantum Computation, Hanoi, Vietnam/ Introduction to Quantum Computation and Complexity (5 lecture series)/ invited lectures

RNDr. Štefan Olejník, DrSc.

02.-06.09.2013 Numerical study of the SU(2) Yang-Mills vacuum state: Much ado about nothing?, pozvaná prednáška na workshope "QCD-TNT-III From quarks and gluons to hadronic matter: A bridge too far?", ECT, Trento, Taliansko

RNDr. Emil Pinčík, DrSc.

16.-19.05.2013, 2nd International Congress on Advanced Materials (AM2013), Zhenjiang, China:

1. Passivation of Si-based structures in KCN and HCN solutions and its Application on more types of solar cells

2. Aerodynamic model of spark discharge

8.12.2013 VIII international workshop on Semiconductor Surface Passivation SSP 2013, Krakow, Poľsko: Passivated MOS structures of Si-based semiconductors and their comparison with HfO<sub>2</sub>/Si structures

26.-28.09.2013 BITs 3rd Annual World Congress of Nanoscience and Nanotechnology 2013, Xi an, China: Optical properties of black silicon

26.-28.09.2013 BITs 3rd New Energy Forum – 2013, Xi an, China: About application of passivation processes on more types of Si-based solar cells

RNDr. Martin Plesch, PhD.

15.11.2013 Funding Researchers, Vilnius, PAQIT project within SoMoPro Program

RNDr. Peter Šiffalovič, PhD.

11.-13.09.2013 High-resolution Laboratory GISAXS Measurements in Direct Imaging Mode, 5th International SAXS / GISAXS Workshop, Karlsruhe, Germany

04.-06.07.2013 X-ray analysis and applications of self-assembled nanoparticles layers, 6th International Scientific Conference – Contemporary Materials 2013, Banja Luka, Bosna a Hercegovina

26.-28.09.2013 New non-equilibrium compression phase in the nanoparticle Langmuir film, 3rd Annual World Congress of Nanoscience & Technology, Xi'an, China

prof. Ing. Ivan Štich, DrSc.

04.-07.06.2013 Intricate mechanism of lateral and vertical manipulation of super-Cu atoms on the Cu:O Surface: Experiment and Theory, Physics boat workshop 2013, Helsinki

02.-06.12.2013 Magnetism and spin transport in transition metal organometallic molecules, 5th JCS International Symposium on Theoretical Chemistry, Nara, Japonsko,

Ing. Peter Švec, DrSc.

13.-14.05.2013 I. Černíčková, M. Mihalkovič, P. Švec, J. Janovec, Atomic structure of quasicrystalline approximants, Mikroskopie 2013, Lednice, ČR/ Invited lecture.

19.-22.03.2013 R. Szewczyk, P. Svec Sr., J. Salach, P. Švec, A. Bieńkowski, J. Hoško, D. Jackiewicz, M. Kamiński, W. Winiarski, Thermal annealing of soft magnetic materials and measurements of its magnetoelastic properties. Automatyka 2013, Warsaw, Pomiar Automatyka Robotyka nr 2/2013, 513-518/ Invited keynote lecture.

Mgr. Martin Veselský, PhD.

10.-16.05.2013 Symmetry energy and nucleon-nucleon cross sections, Shenzhen University, Shenzhen, Čína, Národný míting pre jadrové reakcie a jadrovú spektroskopiu

31.05.2013 - 01.06.2013 Symmetry energy and nucleon-nucleon cross sections, National and Kapodistrian University, Atény, Grécko, 22. výročné zasadanie gréckej jadrové-fyzikálnej

spoločnosti

Mgr. Martin Venhart, PhD.

29.10-02.11.2013 Spring Workshop on GEANT4, Sommerset West, Južná Afrika, séria prednášok o simuláciách v GEANT4

doc. Mgr. Mário Ziman, PhD.

22.-23.07.2013 Palacky University, Olomouc, Invitation to quantum measurements/ invited lectures at summer school

12.09.2013 Technical University, Munich-Garching, Quantum incompatibility summary talk/ invited talk at Quantum incompatibility workshop

23.09.2013 University of Siegen, Siegen, Dynamics of entanglement, invited talk at Quantum Entanglement Detection 4

## **2.6.2. Vyžiadané prednášky na domácich vedeckých podujatiach**

Mgr. Cyril Adamuščin, PhD.

30. 06. - 04.07.2013 (HS'13, Tatranské Matliare) Advanced nucleon electromagnetic structure model and charge proton rms radius

Mgr. Erik Bartoš, PhD.

30. 06. - 04.07.2013 (HS'13, Tatranské Matliare) The advanced nucleon electromagnetic structure model and prediction of hyperon electromagnetic form factors

RNDr. Stanislav Dubnička, DrSc.

30. 06. - 04.07.2013 (HS'13, Tatranské Matliare) Model independent  $f_0(500)$  and  $f_0(980)$  meson parameters by pion scalar form factor analysis

17.- 24.07.2013 (EPS-HEP 2013, Stockholm) Advanced nucleon EM structure model and its predictability

Dr. Ing. Mgr. Andrej Liptaj, PhD.

30. 06. - 04.07.2013 (HS'13, Tatranské Matliare) Meson decays  $B_s \rightarrow J/\psi + \eta(')$  and  $B \rightarrow K(*) + 2\nu$  in the covariant quark model

17.- 24.07.2013 (EPS-HEP 2013, Stockholm)  $B_s$  meson decays in the framework of the covariant quark model

prof. Ing. Štefan Luby, DrSc.

30.-31.05.2013 Nanotechnology in medicine, some benefits and threats, Conf. on Emerging Ethical Issues in S&T, UNESCO/COMEST, Hotel Falkensteiner, Bratislava/ invited paper

14.2.2013 Mission and targets of Academies of Sciences of Danube region in implementation of the EU Strategy for Danube region, 5th Meeting of EUSDR, PA7 Steering group, Borik, Bratislava, Ministry of Education SR/ invited paper.

Ing. Peter Švec, DrSc.

19.-21.06.2013 P. Švec, I. Janotová, J. Hoško, D. M. Kepaptsoglou, I. Mat'ko, D. Janičkovič, P. Švec Sr., Phase mapping of iron-based rapidly quenched alloys using precession electron diffraction Proceedings of the 19th International Conference on APPLIED PHYSICS OF CONDENSED MATTER (APCOM 2013), Hotel Patria, Štrbské Pleso, Slovak Republic, Eds. J. Vajda, I. Jamnický, ISBN 978-80-227-3956-6, p. 28-33/Invited plenary lecture

24.-28.11.2013 P. Švec, J. Zigo, I. Mat'ko, E. Pinčík, M. Balog, P. Švec Sr., Phase and orientation mapping of fine-grained structures by precession electron diffraction, Solid State Surface and Interface 2013 (SSSI VIII), Smolenice

25.-28.11.2013 In Proceedings of 8th Solid State Surfaces and Interfaces (SSSI 2013), Smolenice : Extended Abstract Book. - Bratislava : Comenius University Bratislava, 2013, p. 181. ISBN 978-80-223-3501-0/ Invited lecture

### 2.6.3. Vyžiadané prednášky na významných vedeckých inštitúciách

RNDr. Juraj Boháčik, CSc.

6.11.2013 Bogoliubov Institute of Theoretical Physics, Kiev, An Analytical Formula of Propagator for An-harmonic Oscillator with Time-dependent Mas, Frequency and Coupling Constant

RNDr. Peter Filip, PhD.

17.10.2013, Nuclear Science Division, Berkeley National Laboratory, Quenching of quarkonium decay in strong electromagnetic fields

Ing. Matej Jergel, DrSc.

12.12.2013 New developments towards high-resolution GISAXS in laboratory stimulated by synchrotron studies of nanoparticle self-assembly, MFF UK, Praha

Ing. Štefan Lányi, DrSc.

18. 12. 2013 CNR-IMM Catania, Transient-based-analysis

Mgr. Daniel Nagaj, PhD.

08.01.2013 Vienna theory lunch club/ Criticality without Frustration / seminar

20.01.2013 QIP 2013, Beijing, China/ Quantum speedup by quantum annealing (s M.Kieferovou, R.Sommom) / best poster

18.03.2013 CoQuS Colloquium, Vienna, Austria/ Quantum walks and scattering/ invited seminar

03.04.2013 ISI Torino/ Quantum walks and scattering/ seminar

05.09.2013 Mathematical Challenges in Quantum Information workshop, Isaac Newton Institute, Cambridge, UK/ Introduction to Quantum Complexity (2 lectures)/ invited lectures

25.10.2013 MIT Quantum Information Colloquium, Cambridge, MA, USA/ The good, bad and ugly side of Quantum Satisfiability/ invited seminar

RNDr. Daniel Reitzner, PhD.

09.07.2013 Quantum Measurements and Joint Measurability (TUM, München, Germany)

25.11.2013 Compatibility: Coexistence, Joint Measurability and the Algebra of Two Projections (Beijing, Čína)

27.05.2013 Coexistence of effects and the Algebra of Two Projections (Hannover, Germany)

19.06.2013 Quantum Measurements and Joint Measurability (Regensburg, Germany)

05.07.2013 Quantum Measurements and Joint Measurability (MPQ, München, Germany)

25.11.2013 Compatibility: Coexistence, Joint Measurability and the Algebra of Two Projections (Beijing, Čína)

prof. Ing. Ivan Štich, DrSc.

27.06.2013 University Regensburg, Molecules and surfaces:DFT and quantum Monte Carlo modeling of electron energy loss spectroscopy and non-contact AFM

29.12.2013 Tsukuba, Japonsko, Molecular magnets and spin filters: QMC study of transition metal-based organometallics

Mgr. Martin Venhart, PhD.

05.11.2013 University of Stellenbosch, Južná Afrika, Simulation of summing effects in complex

decay schemes using GEANT4

04.11.2013 iThemba Labs, Južná Afrika, Nuclear Structure of Odd-Au Isotopes

Mgr. Martin Veselský, PhD.

09.12.2013 How do the fission barriers of exotic nuclei really look like?, Flerov Laboratory of Nuclear Reactions

doc. Mgr. Mário Ziman, PhD.

31.01.2013 University of Wien, Viedeň, Direct estimation of decoherence rate

30.05.2013 Matematický ústav SAV, Bratislava, Entanglement-annihilating channels

28.11.2013 Palackého univerzita, Olomouc, Entanglement-annihilating vs. entanglement breaking

*Ak boli príspevky publikované, sú súčasťou Prílohy C, kategória (AFC, AFD, AFE, AFF, AFG, AFH)*

## 2.7. Patentová a licenčná činnosť na Slovensku a v zahraničí v roku 2013

### 2.7.1. Vynálezy, na ktoré bol udelený patent

### 2.7.2. Prihlásené vynálezy

V roku 2013 bola podaná v SR patentová prihláška č. 44-2013 (z 10.5.2013) s názvom: Konštrukčný prvok na báze jedno- a viacvrstvého kovového skla a spôsob jeho výroby (pôvodcovia: P. Švec, P. Švec ml., D. Janičkovič, M. Halász, J. Hoško).

V roku 2013 bola takisto podaná PCT (Patent Cooperation Treaty) prihláška PCT/SK2013/000014 s názvom „Spôsob uskutočňovania lokálnej nábojovej tranzientovej analýzy“ (pôvodca: Š. Lányi).

### 2.7.3. Predané licencie

### 2.7.4. Realizované patenty

*Finančný prínos pre organizáciu SAV v roku 2013 a súčet za predošlé roky sa neuvádzajú, ak je zverejnenie v rozpore so zmluvou súvisiacou s realizáciou patentu.*

## 2.8. Účasť expertov na hodnotení národných projektov (APVV, VEGA a iných)

Tabuľka 2f Experti hodnotiaci národné projekty

Meno pracovníka	Typ programu/projektu/výzvy	Počet hodnotených projektov
Běták Emil	VEGA	1
Gmuca Štefan	VEGA	3
Kliman Ján	VEGA	2
Krajčí Marián	VEGA	2
Luby Štefan	VEGA	5
Majková Eva	VEGA	2
Nádaždy Vojtech	APVV	1
Olejník Štefan	VEGA	1
Šiffalovič Peter	APVV	2

Švec Peter	VEGA	6
Venhart Martin	VEGA	1
Vretenár Viliam	Program na podporu mladých výskumníkov	1
Zíman Mário	APVV	6

## 2.9. Iné informácie k vedeckej činnosti.

Recenzie článkov v CC časopisoch: **207**

Recenzie v iných časopisoch: 4

Editori zborníkov: 4

Iné posudky: 1

Iná činnosť:



### 3. Doktorandské štúdium, iná pedagogická činnosť a budovanie ľudských zdrojov pre vedu a techniku

#### 3.1. Údaje o doktorandskom štúdiu

Tabuľka 3a Počet doktorandov v roku 2013

Forma	Počet k 31.12.2013				Počet ukončených doktorantúr v r. 2013					
	Doktorandi				Ukončenie z dôvodov					
	celkový počet		z toho novoprijatí		ukončenie úspešnou obhajobou		predčasné ukončenie		neúspešné ukončenie	
	M	Ž	M	Ž	M	Ž	M	Ž	M	Ž
<b>Interná zo zdrojov SAV</b>	10	1	4	0	2	2	0	0	0	0
<b>Interná z iných zdrojov</b>	0	0	0	0	0	1	0	0	0	0
<b>Externá</b>	2	0	1	0	0	0	0	0	0	0
<b>Spolu</b>	12	1	5	0	2	3	0	0	0	0
<b>Súhrn</b>	13		5		5		0		0	

#### 3.2. Zmena formy doktorandského štúdia

Tabuľka 3b Počty preradení

Z formy	Interná z prostriedkov SAV	Interná z prostriedkov SAV	Interná z iných zdrojov	Interná z iných zdrojov	Externá	Externá
Do formy	Interná z iných zdrojov	Externá	Interná z prostriedkov SAV	Externá	Interná z prostriedkov SAV	Interná z iných zdrojov
Počet						

#### 3.3. Zoznam doktorandov, ktorí ukončili doktorandské štúdium úspešnou obhajobou

Tabuľka 3c Menný zoznam ukončených doktorandov v roku 2013 úspešnou obhajobou

Meno doktoranda	Forma DŠ	Mesiace, rok nástupu na DŠ	Mesiace, rok obhajoby	Číslo a názov študijného odboru	Meno a organizácia školiteľa	Fakulta udeľujúca vedeckú hodnotu
Ing. Lucia Horváthová	interné štúdium hradené z iných zdrojov	9 / 2009	8 / 2013	4.1.3 Fyzika kondenzovaných látok a akustika	prof. Ing. Ivan Štich DrSc., Fyzikálny ústav SAV	Fakulta matematiky, fyziky a informatiky UK

Ing. Jozef Hoško	interné štúdium hradené z prostriedkov SAV	9 / 2010	8 / 2013	5.2.48 Fyzikálne inžinierstvo	Ing. Peter Švec DrSc., Fyzikálny ústav SAV	Fakulta elektrotechniky a informatiky STU
Ing. Irena Janotová	interné štúdium hradené z prostriedkov SAV	9 / 2010	8 / 2013	5.2.48 Fyzikálne inžinierstvo	Ing. Peter Švec DrSc., Fyzikálny ústav SAV	Fakulta elektrotechniky a informatiky STU
Mgr. Martina Miklošovičová	interné štúdium hradené z prostriedkov SAV	9 / 2006	6 / 2013	4.1.5 Jadrová a subjadrová fyzika	RNDr. Ondrej Šauša CSc., Fyzikálny ústav SAV	Fakulta matematiky, fyziky a informatiky UK
Mgr. Karol Végso	interné štúdium hradené z prostriedkov SAV	9 / 2009	4 / 2013	4.1.4 Kvantová elektronika a optika	Dr.Rer.Nat. Peter Šiffalovič PhD., Fyzikálny ústav SAV	Fakulta matematiky, fyziky a informatiky UK

*Zoznam interných a externých doktorandov je uvedený v Prílohe A.*

### 3.4. Zoznam akreditovaných študijných programov s uvedením VŠ

Tabuľka 3d Zoznam akreditovaných študijných programov s uvedením univerzity/vysokej školy a fakulty

Názov študijného programu (ŠP)	Názov študijného odboru (ŠO)	Číslo ŠO	Univerzita/vysoká škola a fakulta
	Všeobecná fyzika a matematická fyzika	4.1.2	Fakulta matematiky, fyziky a informatiky UK
	Fyzika kondenzovaných látok a akustika	4.1.3	Fakulta matematiky, fyziky a informatiky UK
	Kvantová elektronika a optika	4.1.4	Fakulta matematiky, fyziky a informatiky UK
	Jadrová a subjadrová fyzika	4.1.5	Fakulta matematiky, fyziky a informatiky UK
	Elektronika	5.2.13	
	Fyzikálne inžinierstvo	5.2.48	Fakulta elektrotechniky a informatiky STU

Tabuľka 3e Účasť na pedagogickom procese

Menný prehľad pracovníkov, ktorí boli menovaní do odborových komisií študijných programov doktorandského štúdia	Menný prehľad pracovníkov, ktorí pôsobili ako členovia vedeckých rád univerzít, správnych rád univerzít a fakúlt	Menný prehľad pracovníkov, ktorí získali vyššiu vedeckú, pedagogickú hodnotu alebo vyšší kvalifikačný stupeň
Doc. RNDr. Emil Běták, DrSc. (Jadrová a subjadrová fyzika)	Doc. RNDr. Emil Běták, DrSc. (Filozoficko-prirodovedecká fakulta Slezské univerzity, Česká republika)	RNDr. Jana Strišovská, PhD. (PhD., Univerzita Komenského v Bratislave)
Doc. RNDr. Emil Běták, DrSc. (odbor v zahraničí)	Prof. RNDr. Vladimír Bužek, DrSc. (Fakulta matematiky, fyziky a informatiky UK)	RNDr. Daniel Reitzner, PhD. (IIa)
Prof. RNDr. Vladimír Bužek, DrSc. (Všeobecná fyzika a matematická fyzika)	Prof., Ing. Štefan Luby, DrSc. (Katolícka univerzita v Ružomberku)	Mgr. Michal Sedlák, PhD. (IIa)
Mgr. Andrej Gendiar, PhD. (Všeobecná fyzika a matematická fyzika)	Prof., Ing. Štefan Luby, DrSc. (Trnavská univerzita v Trnave)	RNDr. Andrej Liptaj, PhD. (IIa)
Ing. Štefan Gmuca, CSc. (Jadrová a subjadrová fyzika)	RNDr. Eva Majková, DrSc. (Univerzita Komenského v Bratislave)	
RNDr. Emília Illeková, DrSc. (Fyzika kondenzovaných látok a akustika)	Ing. Vojtech Nádaždy, CSc. (Slovenský metrologický ústav, Slovensko)	
RNDr. Emília Illeková, DrSc. (materiály)		
RNDr. Emília Illeková, DrSc. (Fyzikálne inžinierstvo)		
Ing. Matej Jergel, DrSc. (Fyzika kondenzovaných látok a akustika)		

Ing. Matej Jergel, DrSc. (Kvantová elektronika a optika)		
Ing. Štefan Lányi, DrSc. (Elektronika)		
RNDr. Eva Majková, DrSc. (Kvantová elektronika a optika)		
RNDr. Eva Majková, DrSc. (Fyzikálne inžinierstvo)		
Ing. Vojtech Nádaždy, CSc. (Elektrotechnológie a materiály)		
RNDr. Štefan Olejník, DrSc. (Všeobecná fyzika a matematická fyzika)		
RNDr. Štefan Olejník, DrSc. (Jadrová a subjadrová fyzika)		
RNDr. Martin Plesch, PhD. (Teória vyučovania fyziky)		
RNDr. Ladislav Šamaj, DrSc. (Všeobecná fyzika a matematická fyzika)		
Dr.Rer.Nat. Peter Šiffalovič, PhD. (Kvantová elektronika a optika)		
RNDr. Anton Šurda, CSc. (Všeobecná fyzika a matematická fyzika)		
Ing. Peter Švec, DrSc. (Všeobecná fyzika a matematická fyzika)		
Ing. Peter Švec, DrSc. (Fyzika kondenzovaných látok a akustika)		
Ing. Peter Švec, DrSc. (Elektrotechnológie a materiály)		
Ing. Peter Švec, DrSc. (materiály)		
Ing. Peter Švec, DrSc. (Fyzikálne inžinierstvo)		
Mgr. Martin Veselský, PhD. (Jadrová a subjadrová fyzika)		

**3.5. Údaje o pedagogickej činnosti**

Tabuľka 3f Prednášky a cvičenia vedené v roku 2013

PEDAGOGICKÁ ČINNOSŤ	Prednášky		Cvičenia a semináre	
	doma	v zahraničí	doma	v zahraničí
Počet prednášateľov alebo vedúcich cvičení	5	3	1	4
Celkový počet hodín v r. 2013	261	77	2	164

*Prehľad prednášateľov predmetov a vedúcich cvičení, s uvedením názvu predmetu, úväzku, katedry, fakulty, univerzity/vysokej školy je uvedený v Prílohe D.*

Tabuľka 3g Aktivity pracovníkov na VŠ

1.	Počet pracovníkov, ktorí pôsobili ako vedúci alebo konzultanti diplomových a bakalárskych prác	10
2.	Počet vedených alebo konzultovaných diplomových a bakalárskych prác	15
3.	Počet pracovníkov, ktorí pôsobili ako školitelia doktorandov (PhD.)	9
4.	Počet školených doktorandov (aj pre iné inštitúcie)	17
5.	Počet oponovaných dizertačných a habilitačných prác	9
6.	Počet pracovníkov, ktorí oponovali dizertačné a habilitačné práce	6
7.	Počet pracovníkov, ktorí pôsobili ako členovia komisií pre obhajoby DrSc. prác	1
8.	Počet pracovníkov, ktorí pôsobili ako členovia komisií pre obhajoby PhD. prác	6
9.	Počet pracovníkov, ktorí pôsobili ako členovia komisií, resp. oponenti v inauguračnom alebo habilitačnom konaní na vysokých školách	3

**3.6. Iné dôležité informácie k pedagogickej činnosti**

## 4. Medzinárodná vedecká spolupráca

### 4.1. Medzinárodné vedecké podujatia

#### 4.1.1. Medzinárodné vedecké podujatia, ktoré organizácia SAV organizovala v roku 2013 alebo sa na ich organizácii podieľala, s vyhodnotením vedeckého a spoločenského prínosu podujatia

CEQIP 2013 - Central European Quantum Information Processing, Valtice, Česká republika, 75 účastníkov, 05.06.-09.06.2013

CEQIP'13 (Central European Quantum Information Processing workshop) bol už 10-tým stretnutím CEQIP. Tieto workshopy sú zamerané hlavne na aktuálne teoretické problémy kvantového spracovania informácie, sú ale otvorené akejkoľvek téme z oblasti kvantovej informácie. Workshop je organizovaný Kvantovým laboratóriom na Fakulte informatiky Masarykovej univerzity (Brno) a Výskumným centrom pre kvantovú informáciu na Fyzikálnom ústave Slovenskej akadémie vied v Bratislave.

Konferencia Hadron Structure '13, Tatranské Matliare, Slovensko, 66 účastníkov, 30.06.-04.07.2013

V dňoch 30. júna - 4. júla 2013 sa v Hoteli SOREA Hutník, Tatranské Matliare, uskutočnila v poradí siedma spoločná medzinárodná konferencia Hadron Structure '13. Konferencia je spoluorganizovaná Slovenskými fyzikálnymi inštitúciami (medzi nimi aj FÚ SAV) spoločne s Petrohradským ústavom jadrovej fyziky Ruskej akadémie vied v Gatčine, Ruská federácia.

Konferencie sa zúčastnilo 66 účastníkov z 15 krajín. Účastníci došli z mnohých významných univerzít a svetových inštitúcií ako CERN, JINR, DESY, po prvý krát bolo vo významnom počte zastúpené Turecko. Odznali 40' pozvané prednášky a 20' krátke obzorné prednášky na témy venované súčasným teoretickým a experimentálnym výsledkom v oblasti štruktúry hadrónov. Taktiež boli prezentované témy venované najnovším previerkam Štandardného modelu a jeho rozšíreniam, neutrínovej fyzike, fyzike LHC, ako aj mnohým iným súčasným fyzikálnym problémom.

Vybrané prezentované prednášky boli opublikované v medzinárodnom časopise Nuclear Physics B Proceedings Supplements, Volume 245 (2013).

Isospin, Structure, Reactions and Energy of Symmetry 2013, Častá - Papiernička, Slovensko, 38 účastníkov, 22.09.-27.09.2013

Konferencia má za cieľ vytvorenie platformy na pravidelné stretnutia slovenských a zahraničných vedcov, ktorí sú aktívni na poli jadrovej fyziky, špecificky so záujmom o experimentálne a teoretické aspekty fyziky exotických jadier a stavov jadrovej hmoty. Hlavnými témami boli:

- Jadrová štruktúra ťažkých jadier
- Tvarová koexistencia v atómových jadrách
- Kolektívne stavy v jadrách
- Produkcia neutrónovo-bohatých a supertiažkých jadier
- Reakcie zväzkov exotických izotopov
- Stavová rovnica jadrovej hmoty a energia symetrie.

Konferencie sa zúčastnilo 38 účastníkov z Európy, USA a Japonska a vytvorila dobrý základ pre pravidelné organizovanie podobných konferencií v budúcnosti.

NANOVED 2013 & NANO INFO DAY, Svit, Slovensko, 85 účastníkov, 22.09.-25.09.2013

Jarný workshop GEANT4, Somerset West, Južná Afrika, 25 účastníkov, 29.10.-02.11.2013

SWG 2013 (Spring Workshop on GEANT4), Somerset West, Južná Afrika spoluorganizovaný ústavom iThemba Labs (Južná Afrika) a Fyzikálnym ústavom SAV. Celkovo participovalo 25 účastníkov. Išlo o druhú edíciu zo série workshopov, ktorá začala akciou AWG 2011 v Častej-Papierničke. Témou boli simulácie v jadrovej fyzike nízkych energií, špecificky v gama spektroskopii, spektroskopii konverzných elektrónov a neutrónovej fyzike

THERMOPHYSICS 2013, Penzión Adam, Podkylava 188, Slovensko, 36 účastníkov, 13.11.-15.11.2013

Každoročné stretnutie termofyzikálnej spoločnosti a pracovnej skupiny Slovenskej fyzikálnej spoločnosti je konferenciou, ktorá umožňuje komunikáciu a stretnutie vedcov z rôznych krajín. Rozsah konferencie a zdieľanie vedomostí v odbore termofyzikálnych problémov transportu a akumulácie tepla. Témami konferencie sú konkrétne problémy fyzikálnych modelov a počítačové simulácie procesov transportu tepla, rovnako ako experimentálne merania termofyzikálnych vlastností širokého spektra nových materiálov vyvinutých v laboratóriách alebo v priemysle. Jedna z konferenčných sekcií predstavuje tiež návrh a vývoj pokročilých senzorov a prístrojov pre meranie transportu a akumulácie tepla, charakterizáciu materiálových parametrov, a pre sledovanie teplotného poľa v poréznych materiáloch v rôznych klimatických podmienkach pri rôznom obsahu vlhkosti v póroch. Stretnutie je otvorené pre širokú škálu výskumných pracovníkov s rôznymi problémami. Predpokladá sa spolupráca v oblasti termofyziky a ďalších príbuzných odboroch.

Solid State Surface and Interfaces, Smolenice, Slovakia, 108 účastníkov, 24.11.-28.11.2013

FÚ SAV zorganizoval v konferenčnom centre na Smolenickom zámku 8. ročník medzinárodnej konferencie Solid State Surfaces and Interfaces (SSSI VIII). Zúčastnilo sa ho viac ako 130 účastníkov z troch kontinentov sveta. Konferenčné témy pokrývali problematiku experimentálnej a teoretickej fyziky povrchov, tenkých vrstiev a rozhraní tuhých látok ako aj organických materiálov.

Pomerne veľký priestor mala problematika vysoteplotných supravodičov a takých súčiastok ako sú VLSI, slnečné články a senzory. Viacero prác prezentovalo výsledky využitia pozitronovej pri výskume vlastností tuhých látok. Okrem základných prednášok bolo prezentovaných 90 postrových vývesok. Zborník z konferencie vyjde v časopise Applied Surface Science (Elsevier) v roku 2014. Editorom špeciálneho čísla je jeden odborník z ISIR Osaka University, Japonsko a jeden z FÚ SAV. Z tohto pohľadu je konferencia SSSI VIII výnimočnou v Slovenskej republike. Konferencie sa zúčastnil aj štáb televízie RTVS Bratislava, ktorá zaznamenávala niektoré celé prednášky, odborné diskusie k nim, ako aj realizovala veľa rozhovorov s účastníkmi aj organizátormi konferencie.

**4.1.2. Medzinárodné vedecké podujatia, ktoré usporiada organizácia SAV v roku 2014 (anglický a slovenský názov podujatia, miesto a termín konania, meno, telefónne číslo a e-mail zodpovedného pracovníka)**

**4.1.3. Počet pracovníkov v programových a organizačných výboroch medzinárodných konferencií**

Tabuľka 4a Programové a organizačné výbory medzinárodných konferencií

Typ výboru	Programový	Organizačný	Programový i organizačný
Počet členstiev	7	5	14

## 4.2. Členstvo a funkcie v medzinárodných orgánoch

### 4.2.1. Členstvo a funkcie v medzinárodných vedeckých spoločnostiach, úniách a národných komitétach SR

Doc. RNDr. Emil Běták, DrSc.

Institute of Physics (funkcia: člen Fellowship Panelu)  
Institute of Physics (funkcia: Fellow)

RNDr. Pavol Butvin, CSc.

European Physical Society (funkcia: člen)

Prof. RNDr. Vladimír Bužek, DrSc.

American Physical Society (funkcia: člen)  
Institute of Physics (funkcia: Fellow)  
Optical Society of America (funkcia: Fellow)  
Rakúska akadémia vied (funkcia: zahraničný člen)

Mgr. Peter Filip, PhD.

European Physical Society (funkcia: individuálny člen)

Mgr. Andrej Gendiar, PhD.

Americká fyzikálna spoločnosť (funkcia: člen)  
Americká chemická spoločnosť (funkcia: člen)

RNDr. Mária Hartmanová, DrSc.

Material Research Community, Singapore (funkcia: člen)

RNDr. Emília Illeková, DrSc.

ICTAC - International Confederation of Thermal Analysis and Calorimetry (funkcia: člen)

Ing. Ján Ivančo, PhD.

American Chemical Society (funkcia: člen)  
Polish Synchrotron Radiation Society (funkcia: člen korešpondent)

Ing. Matej Jergel, DrSc.

Česko-Slovenská kryštalografická spoločnosť (funkcia: člen, 1996-2002 člen Rady)  
European Academy of Sciences and Arts (funkcia: člen)  
European Crystallographic Association (funkcia: individuálny člen)  
Národný komitét IUPAP (funkcia: člen)



RNDr. Dalibor Krupa, CSc., DPhil, Fellow IOP, FEPS

American Physical Society (funkcia: member)  
Bieloruská fyzikálna spoločnosť (funkcia: Čestný člen)  
European Physical Society (funkcia: Fellow)  
Európska fyzikálna spoločnosť (funkcia: člen)  
Institute of Physics (Great Britain) (funkcia: Fellow)  
Nemecká fyzikálna spoločnosť (funkcia: čestný člen)  
Poľská fyzikálna spoločnosť (funkcia: Čestný člen)  
Ruská fyzikálna spoločnosť (funkcia: Čestný člen)  
Science and Technology - International Energy Foundation (funkcia: Assistant Under Secretary)  
World Innovation Foundation (funkcia: Fellow)

Ing. Štefan Lányi, DrSc.

Česká společnost pro nové materiály a technologie (funkcia: člen)  
Materials Research Society (funkcia: člen)

Prof., Ing. Štefan Luby, DrSc.

Dunajská akademická konferencia (funkcia: prezident)  
Európska akadémia vied a umení (funkcia: senátor)  
Europska akademie vied a umení (funkcia: viceprezident)

Prof., RNDr. Eva Majerníková, DrSc.

American Physical Society (funkcia: členka)

RNDr. Eva Majková, DrSc.

Academia Europea Scientiarum et Artium (funkcia: socius ordinarius)  
ESUO Integrated Infrastructure Initiative (I3) “ELISA (funkcia: reprezentant SR)  
International Union of Vacuum Science, Technology and Applications, IUVSTA, Divízia tenkých vrstiev (funkcia: národný reprezentant)

RNDr. Igor Mat'ko, CSc.

Československá mikroskopická společnost (funkcia: člen)

Mgr. Kristian Petřík, PhD.

European Physical Society (funkcia: člen)

RNDr. Emil Pinčík, CSc.

International Committee of Analysis in Steel and Iron Industry - ICASI (funkcia: člen medzinárodného výboru)

RNDr. Martin Plesch, PhD.

Medzinárodný výbor IJSO (funkcia: Člen)

Medzinárodný výbor Turnaja mladých fyzikov (funkcia: Generálny tajomník)

Ing. Mgr. Peter Staňo, PhD.

American Physical Society (funkcia: člen)

prof. Ing. Ivan Štich, DrSc.

American Physical Society (funkcia: Člen)

Ing. Vladimír Štofanič, PhD.

IEEE-UFFC (funkcia: člen)

URSI (funkcia: člen)

Ing. Peter Švec, DrSc.

Československá mikroskopická spoločnosť (funkcia: člen)

Intl. Advisory Committee on Rapid Quenching (funkcia: člen)

Ing. Peter Švec, Jr., PhD.

Československá mikroskopická spoločnosť (funkcia: člen výboru)

European Microscopy Society (funkcia: člen)

#### 4.3. Účasť expertov na hodnotení medzinárodných projektov (EÚ RP, ESF a iných)

Tabuľka 4b Experti hodnotiaci medzinárodné projekty

Meno pracovníka	Typ programu/projektu/výzvy	Počet hodnotených projektov
Běťák Emil	EC FP7 - IEF, IIF - M. Curie	15
Gmuca Štefan	GACR	1
Jergel Matej	7RP	19
	bilaterálna dohoda o spolupráci SAV - NSC Taiwan	1
	HORIZON 2020 Strategy	19
Luby Štefan	PC Security	43
Plesch Martin	Leonardo da Vinci	1
Švec Peter	COST	72

#### 4.4. Najvýznamnejšie prínosy MVTS ústavu vyplývajúce z mobility a riešenia medzinárodných projektov a iné informácie k medzinárodnej vedeckej spolupráci

##### Experiment IS521 v CERNe

V rámci prípravy na experiment IS521 bol skonštruovaný unikátny systém transportu rádioaktívnych vzoriek schopný práce vo vysokom vákuu. Systém je založený na báze kovovej pásky, na ktorej budú depozíciou rádioaktívneho zväzku zo zariadenia CERN-ISOLDE

produkované vzorky izotopov ortuti. Kovová páska následne zabezpečí transport vzorky z miesta ožiarenia na miesto merania. Systém bol vyvinutý v synergii s Oddelením fyziky kovov. Programová INTC komisia schválila návrh experimentu predloženého medzinárodným tímom pod vedením Martina Veselského. Zámerom experimentu je študovať štiepenie ťažkých rádioaktívnych zväzkov za využitia budovaného komplexu HIE-ISOLDE. Experiment bol zaradený do programu CERNu pod označením IS581. Na vykonanie experimentu bolo pridelených 28 8-hodinových zmien (shiftov), teda takmer 10 dní zväzku, čo bol vôbec najvyšší počet zmien pridelený experimentu v rámci daného zasadania. Ide o významný úspech, a pre skupinu z Fyzikálneho ústavu SAV je to popri IS521 už druhý pridelený experiment, čo je unikátne v rámci krajín v strednej a východnej Európe, a dokazuje to medzinárodnú akceptáciu a viditeľnosť pracoviska.

### Experiment a spolupráca HADES v GSI

Fyzikálny ústav sa v roku 2013 stal znovu členom kolaborácie HADES v GSI Darmstadt, ktorej bol v minulosti zakladajúcim členom. Cieľom kolaborácie je **experimentálne štúdium jadrovej hmoty v extrémnych podmienkach**, ktoré vznikajú pri interakciách relativistických ťažkých iónov. Časť experimentálneho programu je zameraná na štúdium podivnosti v reakciách relativistických protónov a  $\pi$  mezónov s ľahšími jadrami. Kolaborácia za tým účelom ďalej vyvíja dileptónový spektrometer HADES a pracuje na jeho rozšírení o elektromagnetický kalorimeter, ktorý sa plánuje spustiť pri prechode spektrometra na urýchľovací komplex FAIR. Úloha našej skupiny je analýza piónovej produkcie a  $\pi$ - $\pi$  korelácií v zrážkach Au+Au pri energii 1,2 GeV/A a vývoj a test elementov elektromagnetického kalorimetra.

*Prehľad údajov o medzinárodnej mobilite pracovníkov organizácie je uvedený v Prílohe E.  
Prehľad a údaje o medzinárodných projektoch sú uvedené v kapitole 2 a Prílohe B.*

## **5. Vedná politika**

## **6. Spolupráca s univerzitami/vysokými školami, štátnymi a neziskovými inštitúciami okrem aktivít uvedených v kap. 2, 3, 4**

### **6.1. Spolupráca s univerzitami/VŠ (fakultami)**

**Názov univerzity/vysokej školy a fakulty:** Fakulta prírodných vied UMB

**Druh spolupráce (spoločné pracovisko alebo iné):** Výskumný projekt APVV-0050-11 (SIMEX)

**Začiatok spolupráce:** 2012

**Zameranie:** Výskum v oblasti jadrovej a subjadrovej fyziky

**Zhodnotenie:** Od 1. júla 2012 spoločne riešime projekt "Silno interagujúca hmota v extrémnych podmienkach (SIMEX)". Cieľom projektu je priniesť relevantné príspevky k chápaniu silných interakcií elementárnych častíc s dôrazom na javy, ktoré súvisia so súčasnými a budúcimi experimentmi pri vysokých excitačných energiách a vysokých hustotách jadrovej hmoty, a na vlastnosti hustej jadrovej hmoty relevantné pre zloženie a vnútornú štruktúru neutrónových hviezd. Riešiteľmi sú pracovníci z FÚ SAV, UMB v Banskej Bystrici a ÚEF SAV v Košiciach.

**Názov univerzity/vysokej školy a fakulty:** Slovenská technická univerzita v Bratislave

**Druh spolupráce (spoločné pracovisko alebo iné):** Fakulta chemickej a potravinárskej chémie

**Začiatok spolupráce:** 2010

**Zameranie:** Experimenty na charakterizáciu vlastností keramickej peny

**Zhodnotenie:** Spolupráca je v oblasti merania termofyzikálnych parametrov keramickej peny za účelom optimalizácie technológie výroby.

**Názov univerzity/vysokej školy a fakulty:** Slovenská technická univerzita v Bratislave

**Druh spolupráce (spoločné pracovisko alebo iné):** Katedra fyziky na FEI, Katedra stavebnej fyziky na SF

**Začiatok spolupráce:** 2010

**Zameranie:** experimentálne a teoretické

**Zhodnotenie:** Spolupráca je v oblasti merania termofyzikálnych parametrov stavebných materiálov. Odborným zameraním sa kolektívy navzájom dopĺňajú a tým zabezpečujú požadovanú úroveň spolupráce (kontakt na FÚ: L.Kubičár)

**Názov univerzity/vysokej školy a fakulty:** Slovenská technická univerzita v Bratislave

**Druh spolupráce (spoločné pracovisko alebo iné):** Oddelenie fyziky ÚJFI FEI STU

**Začiatok spolupráce:** 2012

**Zameranie:** Grant VEGA

**Zhodnotenie:** Spoločný projekt VEGA "Rozvoj a testovanie fyzikálnych modelov pre pulznú prechodovú metódu". Projekt má za úlohu spracovať a teoreticky analyzovať spoľahlivosť jednotlivých modelov pre impulznú metódu. Analýza neistoty merania pre jednotlivé parametre modelu slúži na korekciu geometrie vzoriek a tiež korekciu režimu merania. Výsledkom je zníženie chyby určenia meraných hodnôt termofyzikálnych parametrov. (V.Boháč, V.Vretenár, D.Fidriková)

**Názov univerzity/vysokej školy a fakulty:** Univerzita Komenského v Bratislave

**Druh spolupráce (spoločné pracovisko alebo iné):** Katedra inžinierskej geológie

**Začiatok spolupráce:** 2011

**Zameranie:** APVV projekt

**Zhodnotenie:** Spoločný APVV projekt "Štúdium vlastností hornín a vyšetrovanie štruktúrno-textúrnych charakteristík hornín s koreláciou na termofyzikálne a fyzikálno-mechanické vlastnosti." (V.Boháč, V.Vretenár, V.Štofanič, M.Markovič). Spolupráca je výhodná najmä z hľadiska vzájomného doplnenia experimentálnych techník pre komplexné vyšetrovanie vlastností materiálov. Odborným zameraním sa kolektívy navzájom dopĺňajú, čím sa zvyšuje

odborná úroveň spolupráce.

**Názov univerzity/vysokej školy a fakulty:** České vysoké učení technické v Praze, Česká republika  
**Druh spolupráce (spoločné pracovisko alebo iné):** Katedra materiálového inžinýrství a chemie / Department of Materials Engineering and Chemistry

**Začiatok spolupráce:** 2012

**Zameranie:** Organizácia konferencie THERMOPHYSICS

**Zhodnotenie:** Konferencia THERMOPHYSICS je zameraná na problémy vyšetrovania transportu tepla a s tým súvisiacich vedných odborov v oblasti základného aj aplikovaného výskumu. Kontakt V.Boháč, Org. výbor - <http://www.fch.vutbr.cz/lectures/thermophysics/2012/index3.php>

**Názov univerzity/vysokej školy a fakulty:** Fakulta chemická, Vysoké učení technické v Brně, VUT Brno, Česko

**Druh spolupráce (spoločné pracovisko alebo iné):** Ústav Fyzikální a Spotřební Chemie / Institute of Physical and Applied Chemistry

**Začiatok spolupráce:** 2012

**Zameranie:** Organizácia konferencie THERMOPHYSICS

**Zhodnotenie:** Konferencia THERMOPHYSICS je zameraná na problémy vyšetrovania transportu tepla a s tým súvisiacich vedných odborov v oblasti základného aj aplikovaného výskumu. Kontakt - V.Boháč, Org. výbor - <http://www.fch.vutbr.cz/lectures/thermophysics/2012/index3.php>

## **6.2. Významné aplikácie výsledkov výskumu v spoločenskej praxi alebo vyriešenie problému pre štátnu alebo neziskovú inštitúciu**

**Zadávatel', odberateľ, zmluvný partner:** Arcibiskupský úrad, Bratislava

**Názov aplikácie/objekt výskumu:** Monitorovanie teplotno- vlhkostného režimu veže katedrále sv. Martina v Bratislave

**Začiatok spolupráce:** 2011

**Stručný opis aplikácie/výsledku:** Inštalovali sme monitorovacie zariadenie do veže a pripravili dlhodobý monitoring po odsúhlasení s Pamiatkovým úradom. Monitoring bude podávať obraz o degradácii muriva v dôsledku environmentálnej záťaže.

**Zhodnotenie (uviesť i finančný efekt z aplikácie v € pre organizáciu SAV):** Pripravujú sa spoločné projekty s Pamiatkovým úradom ktoré zabezpečia finančný efekt pre FÚ a zároveň umožnia nadviazať užšie kontakty s organizáciami zaoberajúcimi sa ochranou pamiatok a majiteľmi pamiatkových objektov (kontakt FÚ: Ľ.Kubičár).

**Zadávatel', odberateľ, zmluvný partner:** Katedra inžinierskej geológie, Univerzita Komenského, Bratislava

**Názov aplikácie/objekt výskumu:** Monitorovanie teplotno-vlhkostného režimu pilierov kostola sv. Jakuba v Levoči

**Začiatok spolupráce:** 2012

**Stručný opis aplikácie/výsledku:** (kontaktná osoba: Ľ.Kubičár)

**Zhodnotenie (uviesť i finančný efekt z aplikácie v € pre organizáciu SAV):**

**Zadávatel', odberateľ, zmluvný partner:** Technický a skúšobný ústav stavebný, n.o. Bratislava

**Názov aplikácie/objekt výskumu:** Monitorovanie tuhnutia betónových zmesí

**Začiatok spolupráce:** 2010

**Stručný opis aplikácie/výsledku:** Zrealizovali sme prvé porovnávacie experimenty monitorovania tuhnutia betónových zmesí v akreditovanom laboratóriu. Cieľom je dobudovať metodiku monitorovania tak, aby mohla byť zaradená medzi štandardné testovacie metódy.

**Zhodnotenie (uviesť i finančný efekt z aplikácie v € pre organizáciu SAV):** Pripravujú sa spoločné projekty ktoré zabezpečia finančný efekt pre FÚ a zároveň umožnia nadviazať užšie

kontakty so stavebnými organizáciami. (kontakt FÚ: Ľ.Kubičár)

### **6.3. Iná činnosť využiteľná pre potreby spoločenskej praxe**

## **7. Spolupráca s aplikačnou a hospodárskou sférou okrem aktivít uvedených v kap. 2, 3, 4**

### **7.1. Spoločné pracoviská s aplikačnou sférou**

Názov pracoviska: Výskumné centrum svetla a svetelnej techniky

Partner(i): OMS Ltd. Dojč, STU Ba

Zameranie: Aplikačný projekt na výskum a vývoj pokročilých svietidiel

Rok založenia: 2010

Zhodnotenie: Začiatok realizácie projektu s objemom 939 990,- EUR je v roku 2011.

### **7.2. Kontraktový – zmluvný výskum (vrátane zahraničných kontraktov)**

Názov kontraktu: Monitorovanie tuhnutia betónových zmesí

Partner(i): Betón Racio s.r.o. Trnava

Začiatok spolupráce (v súlade s podpísaným kontraktom): 2011

Ukončenie spolupráce (ak ide o spoluprácu v krátkom období): trvá

Objem získaných prostriedkov v bežnom roku (€): 0

Stručný opis výstupu/výsledku: Realizovali sme demonštračný experiment monitorovania tuhnutia betónových zmesí priamo v priemyselnom akreditovanom laboratóriu. Cieľom je dobudovať metodiku monitorovania tak, aby mohla byť zaradená medzi štandardné testovacie metódy.

Zhodnotenie: Výsledky experimentu sú pozitívne a dávajú predpoklad k ďalšej užšej spolupráci na komerčnej ako aj projektovej bázi, s predpokladaným finančným efektom pre FÚ.

Názov kontraktu: Monitorovanie tuhnutia betónových zmesí

Partner(i): Považská cementáreň a.s. Ladce

Začiatok spolupráce (v súlade s podpísaným kontraktom): 2011

Ukončenie spolupráce (ak ide o spoluprácu v krátkom období): trvá

Objem získaných prostriedkov v bežnom roku (€): 1000

Stručný opis výstupu/výsledku: Realizovali sme demonštračný experiment priamo v teréne.

Zhodnotenie: Výsledky experimentu sú pozitívne a dávajú predpoklad ďalšej užšej spolupráci na komerčnej ako aj projektovej báze (kontakt FÚ: Ľ.Kubičár)

### **7.3. Iná činnosť využiteľná pre potreby hospodárskej praxe**



## 8. Aktivity pre Národnú radu SR, vládu SR, ústredné orgány štátnej správy SR a iné organizácie

### 8.1. Členstvo v poradných zboroch vlády SR, Národnej rady SR, ministerstiev SR, orgánoch EÚ, EP, NATO a pod.

Tabuľka 8a Členstvo v poradných zboroch Národnej rady SR, vlády SR, ministerstiev SR, orgánoch EÚ, EP, NATO a pod.

Meno pracovníka	Názov orgánu	Funkcia
Doc. RNDr. Emil Běták, DrSc.	Pracovná skupina pre fyziku Akreditačnej komisie	člen
RNDr. Stanislav Dubnička, DrSc.	vláda SR	Splnomocnený zástupca vlády SR v SUJV Dubna
Ing. Štefan Gmuca, CSc.	Národný tím technických expertov pre posudzovanie tovarov a technológií dvojakého použitia a vojenského materiálu	člen
RNDr. Stanislav Hlaváč, CSc.	Rada Úradu jadrového dozoru SR	člen rady
RNDr. Dušan Janičkovič	Podporné štruktúry pre 7.RP EU	Národný kontaktný bod (NCP) pre programový smer "Nanovedy, nanomateriály, nové materiály a nové výrobné technológie" 7. RP
	Podporné štruktúry pre 7.RP EU	Národný expert pre programový smer "Nanovedy, nanomateriály, nové materiály a nové výrobné technológie" 7.RP
Prof.,Ing. Štefan Luby, DrSc.	Programový výbor 7. RP téma Bezpečnosť	člen za SR
RNDr. Eva Majková, DrSc.	Programový výbor pre program IDEAS za SR	reprezentant SR
	High Level Group of EU Member States and FP7 Associated States on Nanoscience and Nanotechnologies	reprezentant SR
RNDr. Štefan Olejník, DrSc.	Komisia pre obhajoby doktorských dizertačných prác vo vednom odbore 010308 - Jadrová a subjadrová fyzika	predseda
Ing. Peter Švec, DrSc.	COST Domain Committee for MPNS	člen doménového výboru
	Department of Energy, Division of Materials Sciences and Engineering, Washington, USA	posudzovateľ
Mgr. Martin Veselský, PhD.	Výbor pre spoluprácu SR s CERN (Poradný orgán MŠ SR)	člen

### 8.2. Expertízna činnosť a iné služby pre štátnu správu a samosprávy

### 8.3. Členstvo v radách štátnych programov a podprogramov ŠPVV a ŠO

Tabuľka 8b Členstvo v radách štátnych programov a podprogramov ŠPVV a ŠO

Meno pracovníka	Názov orgánu	Funkcia
-----------------	--------------	---------

### 8.4. Prehľad aktuálnych spoločenských problémov, ktoré riešilo pracovisko v spolupráci s Kanceláriou prezidenta SR, s vládnyimi a parlamentnými orgánmi alebo pre ich potrebu

## 9. Vedecko-organizačné a popularizačné aktivity

### 9.1. Vedecko-popularizačná činnosť

#### 9.1.1. Najvýznamnejšia vedecko-popularizačná činnosť pracovníkov organizácie SAV

Tabuľka 9a Vedecko-popularizačná činnosť pracovníkov organizácie SAV

Meno	Spoluautori	Typ <sup>1</sup>	Názov	Miesto zverejnenia	Dátum alebo počet za rok
Mgr. Andrej Gendiar, PhD.		PB	Kvantová fyzika a teória relativity 1	Gymnázium Nitra, Piaristická 6	24.9.2013
Mgr. Andrej Gendiar, PhD.		PB	Kvantová fyzika a teória relativity 2	Gymnázium Nitra, Piaristická 6	25.9.2013
Mgr. Andrej Gendiar, PhD.		PB	Kvantová fyzika a teória relativity 3	Gymnázium Nitra, Piaristická 6	26.9.2013
Ing. Ján Ivančo, PhD.		PB	Deň otvorených dverí	FÚ SAV	14.11.2013
Ing. Ján Ivančo, PhD.		PB	Winter School of Synchrotron Radiation	Liptovský Ján	15.3.2013
Ing. Matej Jergel, DrSc.		iné	Deň otvorených dverí, prezentácia výskumných aktivít v OMN	Fyzikálny ústav SAV, Bratislava	14.11.2013
Ing. Matej Jergel, DrSc.		iné	Noc výskumníka, prezentácia výskumných aktivít v OMN	Stará tržnica, Bratislava	27.9.2013
Ing. Matej Jergel, DrSc.		iné	výstava Taiwan Nano 2013, člen delegácie SAV	Taipei World Trade Center	2.10.2013
Ing. Michal Kaiser	Vojtech Nádaždy	TL	Pomôžu organické polovodiče fotovoltike?	Quark	2013
RNDr. Dalibor Krupa, CSc., DPhil, Fellow IOP, FEPS		PB	Hmotnosť ľahkých kvatkov a život	Fyzika a etika	11.4.2013
RNDr. Dalibor Krupa, CSc., DPhil, Fellow IOP, FEPS		PB	Teória relativity a relativita hodnôt	Science on Stage	8.4.2013
RNDr. Dalibor Krupa, CSc., DPhil, Fellow IOP, FEPS	RNDr. Marián Kireš, PhD.	PU	Tvorivý učiteľ fyziky VI	ISBN 978-80-971450-0-2 Slovenská fyzikálna spoločnosť	9.4.2013
Dr. Ing. Mgr. Andrej Liptaj, PhD.		iné	Den otvorených dverí na Fyzikálnom ústave SAV, účasť, výpomoc.	Fyzikálny ústav SAV	21.11.2013
Prof., Ing. Štefan Luby, DrSc.		TL	Aká je budúcnosť nano technológie?	Quark, december 2013, s. 22	10.12.2013
Prof., Ing. Štefan Luby, DrSc.		TL	Bol to rok plný objavov	Zázračný svet, špeciál, december 2013, s. 6 - 8	6.12.2013
Prof., Ing. Štefan Luby, DrSc.		PB	Civilná bezpečnosť Európy a Slovenska v globálnom kontexte	Noc výskumníkov 2013	27.9.2013
Prof., Ing. Štefan Luby, DrSc.		PB	Čo má fyzika spoločné s bezpečnosťou	CVTI	31.1.2013

Prof.,Ing. Štefan Luby, DrSc.		TL	Dejiny nanotechnológie	Quark, november 2013, s. 18-19	10.9.2013
Prof.,Ing. Štefan Luby, DrSc.		PB	Kam kráča nanotechnológia	Noc výskumníkov 2013	27.9.2013
Prof.,Ing. Štefan Luby, DrSc.		PB	Mission and targets of Acad. Sci. from Danube region in implementation of the EU strategy for DR	EU SDR, PA 7 meeting	14.2.2013
Prof.,Ing. Štefan Luby, DrSc.		PB	Nanotechnology in medicine, some benefits and threats	UNESCO-COMEST, Falkensteiner BA	30.5.2013
Ing. Vojtech Nádaždy, CSc.		iné	Noc výskumníka, prezentácia výskumných aktivít v OMN	Stará tržnica	27.9.2013
Ing. Vojtech Nádaždy, CSc.	K. Nagy	iné	Vedenie práce "Solárne panely a ich uplatnenie v architektúre" študentky gymnázia pre stredoškolskú odbornú činnosť	Gymnázium Ladislava Novomeského, Tomášikova 2, Bratislava	11.4.2013
Ing. Vojtech Nádaždy, CSc.	M. Kaiser	TL	Pomôžu organické polovodiče fotovoltike?	Quark	15.11.2013
RNDr. Štefan Olejník, DrSc.		TL	Editoriál k téme Publikácie profesorov vymenovaných v období 10. októbra 2006 - 10. júla 2012 v databáze Web of Knowledge firmy Thomson Reuters	Newsletter ARRA, roč. 7, č. 1, str. 1	2013
RNDr. Štefan Olejník, DrSc.		PB	Higgsov bozón: pravdy a mýty (prednáška v rámci Dňa otvorených dverí FÚ SAV)	Fyzikálny ústav SAV	14.11.2013
RNDr. Štefan Olejník, DrSc.		PB	LEGO sveta, v ktorom žijeme	Hyde Park Slovenskej sporiteľne	16.10.2013
RNDr. Štefan Olejník, DrSc.		PB	Skrytý pôvab symetrie (Nobelova cena za fyziku 2013)	Fyzikálny ústav SAV	11.11.2013
Mgr. Kristian Petrík, PhD.		PU	Odborná recenzia a spolupreklad knihy Fyzika 50 myšlienok, ktoré by ste mali poznať - Joanne Baker	Vydavateľstvo SLOVART	2013
Mgr. Kristian Petrík, PhD.		PB	Štruktúra Vesmíru - Planéty, Galaxie, Vesmír	SLSP, Tomášikova 48, Bratislava	26.6.2013
RNDr. Martin Plesch, PhD.		PB	Noc výskumníka	Stará Tržnica, Bratislava	27.9.2013
Ing. Peter Švec, DrSc.		iné	Deň otvorených dverí FÚ	FÚ SAV	14.11.2013
Ing. Peter Švec, DrSc.	I. Maťko, P. Švec ml., E. Illeková, M.	MM	Komplexné kovové zliatiny a kompozity	FÚ SAV	15.5.2013

	Krajčí				
Ing. Peter Švec, DrSc.	P. Švec ml., J. Zigo	EX	Exkurzia študentov FEI STU	FÚ SAV	21.11.2013
Ing Peter Švec, Jr., PhD.		iné	Deň otvorených dverí FÚ	FÚ SAV	14.11.2013
Ing Peter Švec, Jr., PhD.		iné	Exkurzia študentov FEI STU	FÚ SAV	21.11.2013
Ing Peter Švec, Jr., PhD.		MM	Komplexné kovové zliatiny a kompozity	FÚ SAV	15.5.2013
Mgr. Martin Hodas	Andrej Vojtko, Peter Siffalovic, Karol Vegso, Jan Ivanco, Katarina Gmucova, Vojtech Nadazdy	EX	Deň otvorených dverí	Fyzikálny ústav	1
Ing. Ján Ivančo, PhD.	Pracovníci OMN	iné	Noc výskumníka	Stará tržnica, Bratislava	1
RNDr. Martin Plesch, PhD.		iné	Olympiáda mladých vedcov	www.ijso.sk	5
RNDr. Martin Plesch, PhD.		iné	Turnaj mladých fyzikov	www.tmfssr.sk	6
Mgr. Andrej Vojtko		EX	Deň otvorených dverí FÚ SAV	www.fu.sav.sk	1
Mgr. Andrej Vojtko		iné	Noc výskumníkov	http://www.nocvyskumnikov.sk/	1

<sup>1</sup> PB - prednáška/beseda, TL - tlač, TV - televízia, RO - rozhlas, IN - internet, EX - exkurzia, PU - publikácia, MM - multimédiá, DO - dokumentárny film

### 9.1.2. Súhrnné počty vedecko-popularizačných činností organizácie SAV

Tabuľka 9b Súhrnné počty vedecko-popularizačných činností organizácie SAV

Typ	Počet	Typ	Počet	Typ	Počet
prednášky/besedy	16	tlač	6	TV	0
rozhlas	0	internet	1	exkurzie	3
publikácie	2	multimediálne nosiče	2	dokumentárne filmy	1
iné	13				

### 9.2. Vedecko-organizačná činnosť

Tabuľka 9c Vedecko-organizačná činnosť

Názov podujatia	Domáca/ medzinárodná	Miesto	Dátum konania	Počet účastníkov
Vedecké spoločnosti a veda na Slovensku 2012	domáca	Bratislava	11.01.-11.01.2013	52
20. Konferencia slovenských fyzikov	domáca	Bratislava	02.09.-05.09.2013	-
NANOVED 2013 & NANO INFO DAY	domáca	Svit	22.09.-25.09.2013	85
CEQIP 2013 - Central	medzinárodná	Valtice, Česká	05.06.-09.06.2013	75

European Quantum Information Processing		republika		
Konferencia Hadron Structure '13	medzinárodná	Tatranské Matliare, Slovensko	30.06.-04.07.2013	66
Isospin, Structure, Reactions and Energy of Symmetry 2013	medzinárodná	Častá - Papiernička, Slovensko	22.09.-27.09.2013	38
Jarný workshop GEANT4	medzinárodná	Somerset West, Južná Afrika	29.10.-02.11.2013	25
THERMOPHYSICS 2013	medzinárodná	Penzión Adam, Podkylava 188, Slovensko	13.11.-15.11.2013	36
Solid State Surface and Interfaces	medzinárodná	Smolenice, Slovakia	24.11.-28.11.2013	108

### 9.3. Účasť na výstavách

### 9.4. Účasť v programových a organizačných výboroch národných konferencií

Tabuľka 9d Programové a organizačné výbory národných konferencií

Typ výboru	Programový	Organizačný	Programový i organizačný
Počet členstiev	0	2	3

### 9.5. Členstvo v redakčných radách časopisov

Prof. RNDr. Vladimír Bužek, DrSc.

European Physical Journal D (funkcia: editor)  
Journal of Modern Optics (funkcia: člen redakčnej rady)

RNDr. Stanislav Dubnička, DrSc.

MEDICUS (funkcia: člen redakčnej rady)

Mgr. Andrej Gendiar, PhD.

Acta Physica Slovaca (funkcia: manag. editor)

RNDr. Dalibor Krupa, CSc., DPhil, Fellow IOP, FEPS

Obzory matematiky, fyziky a informatiky (funkcia: člen)

Ing. Štefan Lányi, DrSc.

Československý časopis pro fyziku (funkcia: člen redakčnej rady)

Prof., Ing. Štefan Luby, DrSc.

Contemporary Materials (funkcia: člen redakčnej rady)

prof. Ing. Ivan Štich, DrSc.

Acta Physica Slovaca (funkcia: člen redakčnej rady)

Ing. Peter Švec, DrSc.

Journal of Materials Science and Technology (funkcia: člen redakčnej rady)

Kovové materiály - Metallic Materials (funkcia: člen redakčnej rady )

Mgr. Martin Veselský, PhD.

Nuclear Science and Techniques (funkcia: člen redakčnej rady)

## **9.6. Činnosť v domácich vedeckých spoločnostiach**

Mgr. Erik Bartoš, PhD.

Slovenská fyzikálna spoločnosť (funkcia: člen)

RNDr. Juraj Boháčik, CSc.

SFS (funkcia: hospodár)

RNDr. Pavol Butvin, CSc.

Slovenská fyzikálna spoločnosť (funkcia: člen)

Slovenská magnetická spoločnosť pri SVTS (funkcia: člen)

RNDr. Beata Butvinová, CSc.

Slovenská fyzikálna spoločnosť (funkcia: člen)

Slovenská magnetická spoločnosť (funkcia: člen Riadiaceho výboru)

Slovenská magnetická spoločnosť pri SVTS (funkcia: člen)

Prof. RNDr. Vladimír Bužek, DrSc.

Učená spoločnosť SAV (funkcia: predseda)

RNDr. Stanislav Dubnička, DrSc.

Slovenská fyzikálna spoločnosť (funkcia: člen)

Mgr. Peter Filip, PhD.

Slovenská fyzikálna spoločnosť (funkcia: člen výboru)

Ing. Štefan Gmuca, CSc.

Slovenská fyzikálna spoločnosť (funkcia: revízna komisia)

RNDr. Katarína Gmucová, CSc.

Slovenská fyzikálna spoločnosť (funkcia: člen)

RNDr. Emília Illeková, DrSc.

Slovenská fyzikálna spoločnosť (funkcia: členka )

Slovenská chemická spoločnosť (funkcia: členka)

Ing. Matej Jergel, DrSc.

Jednota slovenských matematikov a fyzikov (funkcia: člen)

Odborná skupina chémie a fyziky tuhých látok (funkcia: člen)

Slovenská fyzikálna spoločnosť (funkcia: člen)

Slovenská vákuová spoločnosť (funkcia: člen)

RNDr. Pavol Kalinay, CSc.

Slovenská fyzikálna spoločnosť (funkcia: člen)

RNDr. Marián Krajčí, DrSc.

Slovenská fyzikálna spoločnosť (funkcia: člen)

RNDr. Dalibor Krupa, CSc., DPhil, Fellow IOP, FEPS

Národný komitét IUPAP (funkcia: člen )

Rada slovenských vedeckých spoločností (funkcia: predseda)

Slovenská fyzikálna spoločnosť (funkcia: vedecký tajomník)

Ing. Štefan Lányi, DrSc.

Slovenská fyzikálna spoločnosť (funkcia: člen)

Prof., RNDr. Eva Majerníková, DrSc.

Slovenská fyzikálna spoločnosť (SFS) (funkcia: členka)

RNDr. Štefan Olejník, DrSc.

ARRA (funkcia: člen odbornej rady)

JSMF (funkcia: člen)

Učená spoločnosť SAV (funkcia: člen)

Mgr. Kristian Petřík, PhD.

Slovenská fyzikálna spoločnosť (funkcia: člen)

RNDr. Martin Plesch, PhD.

Odborná komisia Turnaja mladých fyzikov (funkcia: podpredseda)



RNDr. Daniel Reitzner, PhD.

Club of Individualities, Intenda Foundation (funkcia: Member)

RNDr. Jana Strišovská, PhD.

Slovenská nukleárna spoločnosť SNUS (funkcia: člen Mladej generácie SNUS)

prof. Ing. Ivan Štich, DrSc.

Učená spoločnosť SAV (funkcia: riadny člen)

Ing. Peter Švec, DrSc.

Učená spoločnosť SAV (funkcia: riadny člen)

#### **9.7. Iné dôležité informácie o vedecko-organizačných a popularizačných aktivitách**

## 10. Činnosť knižnično-informačného pracoviska

### 10.1. Knižničný fond

Tabuľka 10a Knižničný fond

<b>Knižničné jednotky spolu</b>		10429
z toho	knihy a zviazané periodiká	10429
	audiovizuálne dokumenty	
	elektronické dokumenty (vrátane digitálnych)	
	mikroformy	
	iné špeciálne dokumenty - dizertácie, výskumné správy	156
Počet titulov dochádzajúcich periodík		24
z toho zahraničné periodiká		23
Ročný prírastok knižničných jednotiek		12
v tom	kúpou	10
	darom	2
	výmenou	
	bezodplatným prevodom	
Úbytky knižničných jednotiek		
Knižničné jednotky spracované automatizovane		1247

### 10.2. Výpožičky a služby

Tabuľka 10b Výpožičky a služby

<b>Výpožičky spolu</b>		580
z toho	odborná literatúra pre dospelých	
	výpožičky periodík	120
	prezenčné výpožičky	460
MVS iným knižniciam		24
MVS z iných knižníc		152
MMVS iným knižniciam		
MMVS z iných knižníc		
Počet vypracovaných bibliografií		
Počet vypracovaných rešerší		2

### 10.3. Používatelia

Tabuľka 10c Užívatelia

Registrovaní používatelia	76
Návštevníci knižnice spolu (bez návštevníkov podujatí)	106

#### 10.4. Iné údaje

Tabuľka 10d Iné údaje

On-line katalóg knižnice na internete ( 1=áno, 0=nie)	1
Náklady na nákup knižničného fondu v €	529,48

#### 10.5. Iné informácie o knižničnej činnosti

## **11. Aktivity v orgánoch SAV**

### **11.1. Členstvo vo Výbore Snemu SAV**

RNDr. Katarína Gmucová, CSc.

- členka

### **11.2. Členstvo v Predsedníctve SAV a vo Vedeckej rade SAV**

RNDr. Eva Majková, DrSc.

- člen VR SAV
- podpredseda pre vedu a výskum

### **11.3. Členstvo vo vedeckých kolégiách SAV**

RNDr. Stanislav Hlaváč, CSc.

- VK SAV pre matematiku, fyziku a informatiku (člen)

Ing. Matej Jergel, DrSc.

- VK SAV pre matematiku, fyziku a informatiku (člen)

RNDr. Marián Krajčí, DrSc.

- VK SAV pre matematiku, fyziku a informatiku (člen)

Ing. Štefan Lányi, DrSc.

- VK SAV pre elektroniku, materiálový výskum a technológie (predseda)

RNDr. Ladislav Šamaj, DrSc.

- VK SAV pre matematiku, fyziku a informatiku (člen)

### **11.4. Členstvo v komisiách SAV**

Mgr. Andrej Gendiar, PhD.

- Edičná rada SAV (člen)

RNDr. Katarína Gmucová, CSc.

- Dislokačná komisia SAV (členka)
- Škodová komisia SAV (členka)

RNDr. Marián Krajčí, DrSc.

- Komisia SAV pre vyhodnocovanie medzinárodných projektov (člen)

Prof.,Ing. Štefan Luby, DrSc.

- Porota pre udeľovanie Medzinárodnej ceny SAV (člen)

RNDr. Eva Majková, DrSc.

- Komisia SAV pre vednú politiku a prognózy vývoja vedy a spoločnosti (predseda)
- Rada programu centier excelentnosti SAV (člen)
- Rada SAV pre vzdelávanie a doktorandské štúdium (člen)

RNDr. Štefan Olejník, DrSc.

- Komisia SAV pre informačné a komunikačné technológie (člen)

### **11.5. Členstvo v orgánoch VEGA**

Ing. Ján Ivančo, PhD.

- Komisia VEGA č.5 pre elektrotechniku, automatizáciu a riadiace systémy a príbuzné odbory informačných a komunikačných technológií (člen)

Ing. Matej Jergel, DrSc.

- Komisia č.7 pre strojárstvo a príbuzné odbory informačných a komunikačných technológií a materiálové inžinierstvo (člen)

RNDr. Marián Krajčí, DrSc.

- Komisia č. 1 (člen)

Ing. Peter Švec, DrSc.

- komisia VEGA č. 1 (člen)

Mgr. Martin Veselský, PhD.

- Komisia VEGA č. 1 pre matematické vedy, počítačové a informatické vedy a fyzikálne vedy (člen)

## 12. Hospodárenie organizácie

### 12.1. Výdavky PO SAV

Tabulka 12a Výdavky PO SAV (v €)

V ý d a v k y	Skutočnosť k 31.12.2013 spolu	v tom:			
		zo ŠR od zriaďovateľa	z vlastných zdrojov	z iných zdrojov	z toho: ŠF EÚ
<b>Výdavky spolu</b>	4257827	1855852	169209	223766	1177781
<b>Bežné výdavky</b>	3263921	1483886	158477	1621558	566573
<b>v tom:</b>	0				
mzdy (610)	1218754	906868	2210	309676	86504
poistné a príspevok do poisťovní (620)	422663	103765	3245	315653	224996
tovary a služby (630)	1005261	404001	164087	455173	170004
z toho: časopisy	12112	12112		0	
VEGA projekty	150035	150035		0	
MVTS projekty	70606	70606		0	
CE	42940	42940		0	
vedecká výchova	4320	4320		0	
bežné transfery (640)	587907	64932	6935	516040	77064
z toho: štipendiá	83694	64932	1451	17311	300
transfery partnerom projektov	8005			8005	8005
<b>Kapitálové výdavky</b>	993906	371966	10732	611208	611208
<b>v tom:</b>	0			0	
obstarávanie kapitálových aktív	0			0	
kapitálové transfery	0			0	
z toho: transfery partnerom projektov	0			0	

## 12.2. Príjmy PO SAV

Tabuľka 12b Príjmy PO SAV (v €)

<b>P r í j m y</b>	<b>Skutočnosť k 31.12.2013 spolu</b>	<b>v tom:</b>	
		<b>rozpočtové</b>	<b>z mimorozp. zdrojov</b>
<b>Príjmy spolu</b>	4422584	1875037	
<b>Nedaňové príjmy</b>	223444		
<b>v tom:</b>			
príjmy z prenájmu	14812		
príjmy z predaja výrobkov a služieb	129907		
iné	16349		
<b>Granty a transfery (mimo zdroja 111)</b>	2324103		
<b>v tom:</b>			
<b>tuzemské</b>	647445		
<b>z toho: APVV</b>	647445		
<b>iné</b>			
zahraničné	1676658		
z toho: projekty rámcového programu EÚ	1182949		
iné			

### **13. Nadácie a fondy pri organizácii SAV**

Názov: Fond na Podporu Mladých Pracovníkov FÚ

Zameranie: Prostriedky 9.812,54 EUR určené na podporu mladých vedeckých pracovníkov

Opis: Vytvorený na oddelení CVKI z daru občianskeho združenia Quniverse.



## **14. Iné významné činnosti organizácie SAV**

## **15. Vyznamenania, ocenenia a ceny udelené pracovníkom organizácie v roku 2013**

### **15.1. Domáce ocenenia**

#### **15.1.1. Ocenenia SAV**

##### **Krupa Dalibor**

Plaketa k 60. výročiu SAV

*Oceňovateľ: Predseda SAV*

*Opis: 11.09.2013 KC Smolenice*

##### **Luby Štefan**

Pamätaná medaila SAV k 60. výročiu

*Oceňovateľ: P SAV*

#### **15.1.2. Iné domáce ocenenia**

##### **Liptaj Andrej**

Súťaž prác mladých slovenských fyzikov 2013, druhá cena

*Oceňovateľ: Slovenská fyzikálna spoločnosť*

##### **Luby Štefan**

Identifikačný kód Slovenska

*Oceňovateľ: Artem*

### **15.2. Medzinárodné ocenenia**

##### **Luby Štefan**

Plaketa Dunajskej rektorskej konferencie k 30. výročiu

*Oceňovateľ: Dunajská rektorská konferencia*

##### **Plesch Martin**

Ocenenie za popularizačný počin roka vo fyzike

*Oceňovateľ: IUPAP*

*Opis: V mene IYPT*

**16. Poskytovanie informácií v súlade so zákonom č. 211/2000 Z. z. o slobodnom prístupe k informáciám v znení neskorších predpisov (Zákon o slobode informácií)**

## **17. Problémy a podnety pre činnosť SAV**

**Správu o činnosti organizácie SAV spracoval(i):**

Mgr. Peter Filip, PhD., 02-59410516

**Riaditeľ organizácie SAV:**

.....  
RNDr. Stanislav Hlaváč, CSc.

**Vedecký tajomník:**

.....  
Mgr. Peter Filip, PhD.

**Schválené Vedeckou radou Fyzikálneho  
ústavu SAV, dňa 31.1.2014:**

.....  
doc. RNDr. Emil Běták, DrSc.  
predseda VR

**Prílohy****Príloha A****Zoznam zamestnancov a doktorandov organizácie k 31.12.2013****Zoznam zamestnancov podľa štruktúry (nadväzne na údaje v Tabuľke 1a)**

	<b>Meno s titulmi</b>	<b>Úväzok (v %)</b>	<b>Ročný prepočítaný úväzok</b>
<b>Vedúci vedeckí pracovníci DrSc.</b>			
1.	Doc. RNDr. Emil Běták, DrSc.	100	1.00
2.	Prof. RNDr. Vladimír Bužek, DrSc.	100	1.00
3.	RNDr. Stanislav Dubnička, DrSc.	75	0.75
4.	RNDr. Emília Illeková, DrSc.	30	0.37
5.	Ing. Matej Jergel, DrSc.	100	1.00
6.	Ing. Ján Kliman, DrSc.	100	1.00
7.	RNDr. Marián Krajčí, DrSc.	100	1.00
8.	Ing. Ľudovít Kubičár, DrSc.	50	0.50
9.	Ing. Štefan Lányi, DrSc.	100	1.00
10.	Prof., Ing. Štefan Luby, DrSc.	100	1.00
11.	Prof., RNDr. Eva Majerníková, DrSc.	5	0.05
12.	RNDr. Eva Majková, DrSc.	50	0.54
13.	RNDr. Miroslav Nagy, DrSc.	100	0.00
14.	RNDr. Štefan Olejník, DrSc.	100	1.00
15.	RNDr. Ladislav Šamaj, DrSc.	100	1.00
16.	prof. Ing. Ivan Štich, DrSc.	100	1.00
17.	Ing. Peter Švec, DrSc.	100	1.00
<b>Vedúci vedeckí pracovníci CSc., PhD.</b>			
1.	RNDr. Stanislav Hlaváč, CSc.	100	1.00
2.	RNDr. Dalibor Krupa, CSc., DPhil, Fellow IOP, FEPS	50	0.50
3.	RNDr. Peter Mraňko, CSc.	25	0.25
4.	RNDr. Anton Šurda, CSc.	50	0.50
5.	RNDr. Gabriel Vlasák, CSc.	35	0.35
<b>Samostatní vedeckí pracovníci</b>			
1.	Mgr. Erik Bartoš, PhD.	100	1.00
2.	Ing. Vlastimil Boháč, CSc.	100	1.00
3.	RNDr. Juraj Boháčik, CSc.	50	0.50
4.	RNDr. Pavol Butvin, CSc.	100	1.00
5.	RNDr. Beata Butvinová, CSc.	100	1.00

6.	Mgr. Andrej Gendiar, PhD.	100	1.00
7.	Ing. Štefan Gmuca, CSc.	100	1.00
8.	RNDr. Katarína Gmucová, CSc.	100	1.00
9.	Doc.RNDr. Miroslav Grajcar, DrSc.	25	0.18
10.	Ing. Ján Ivančo, PhD.	100	1.00
11.	RNDr. Pavol Kalinay, CSc.	100	1.00
12.	Dr. Ing. Mgr. Andrej Liptaj, PhD.	100	1.00
13.	RNDr. Lubomir Martinovič, CSc.	100	0.00
14.	RNDr. Igor Mat'ko, CSc.	100	1.00
15.	Ing. Vladislav Matoušek, CSc.	100	1.00
16.	RNDr. Marek Mihalkovič, CSc.	100	1.00
17.	Ing. Vojtech Nádaždy, CSc.	100	1.00
18.	Mgr. Daniel Nagaj, PhD.	100	0.00
19.	RNDr. Emil Pinčík, CSc.	100	1.00
20.	RNDr. Martin Plesch, PhD.	100	1.00
21.	RNDr. Daniel Reitzner, PhD.	100	0.25
22.	Mgr. Michal Sedlák, PhD.	40	0.40
23.	Ing. Mgr. Peter Staňo, PhD.	25	0.58
24.	RNDr. Ondrej Šauša, CSc.	100	1.00
25.	Dr.Rer.Nat. Peter Šiffalovič, PhD.	100	1.00
26.	Ing. Igor Travěnc, CSc.	100	1.00
27.	Ing. Ivan Turzo, CSc.	30	0.30
28.	Mgr. Martin Venhart, PhD.	100	1.00
29.	Mgr. Martin Veselský, PhD.	100	1.00
30.	Doc. Mgr. Mário Ziman, PhD	100	1.00
<b>Vedeckí pracovníci</b>			
1.	Mgr. Cyril Adamuščin, PhD.	100	1.00
2.	Mgr. Ján Brndiar, PhD.	100	1.00
3.	RNDr. Róbert Brunner, CSc.	100	1.00
4.	Mgr. Maksym Demydenko, PhD.	100	0.08
5.	RNDr. René Derian, PhD.	100	1.00
6.	Ing. Danica Fidriková, PhD.	50	0.17
7.	Mgr. Peter Filip, PhD.	100	1.00
8.	Ing. Yuriy Halahovets, PhD.	100	1.00
9.	Ing. Irena Janotová, PhD.	100	0.36

10.	Mgr. Roman Krčmár, PhD.	100	0.00
11.	Mgr. Ľuboš Krupa, PhD.	100	0.00
12.	Mgr. Kristian Petrik, PhD.	70	0.70
13.	Dr. Sergey Phillippov, PhD.	75	0.75
14.	Mgr. Peter Rapčan, PhD.	100	1.00
15.	Ing. Jaroslav Rusnák, PhD.	100	1.00
16.	Mgr. Tomáš Rybár, PhD.	100	0.00
17.	RNDr. Jana Strišovská, PhD.	100	0.33
18.	Ing. Vladimír Štofanič, PhD.	25	0.25
19.	Ing. Peter Švec, Jr., PhD.	100	1.00
20.	RNDr. Kamil Tokár, PhD.	100	0.58
21.	RNDr. Robert Turanský, PhD.	100	1.00
22.	Mgr. Karol Végső, PhD.	100	0.51
23.	Ing. Viliam Vretenár, PhD.	100	1.00
<b>Odborní pracovníci s VŠ vzdelaním</b>			
1.	RNDr. Monika Benkovičová	100	0.68
2.	Mgr. Michal Daniška	5	0.03
3.	Mgr. Jozef Genzor	5	0.05
4.	Mgr. Martin Hodas	5	0.05
5.	Ing. Ján Hudec	5	0.02
6.	RNDr. Dušan Janičkovič	100	1.00
7.	Mgr. Uršula Juhásová	55	0.00
8.	Ing. Mária Jusková	35	0.35
9.	Ing. Michal Kaiser	5	0.02
10.	Ing. Mário Kotlár	40	0.27
11.	Ing. Jana Kováčová	100	1.00
12.	Mgr. Lucia Kuchtová	100	1.00
13.	RNDr. Jozef Leja	5	0.03
14.	Ing. Daniel Manca	5	0.02
15.	Ing. Rudolf Senderák, Piešťany	100	1.00
16.	Mgr. Ivan Siváček	5	0.05
17.	Prom. knih. Božena Številová	100	1.00
18.	Ing. Erika Verešová	29	0.29
19.	Mgr. Andrej Vojtko	5	0.05
20.	Mgr. Angelika Winczerová	100	0.83



21.	Ing. Martina Zemanová	100	1.00
22.	Mgr. Juraj Zigo	5	0.02
23.	Ing. Marta Zofcsáková	65	0.65
<b>Odborní pracovníci ÚSV</b>			
1.	Silvia Bačová	100	0.66
2.	Marta Bubničová	100	1.00
3.	Ľubomír Dostál	50	0.50
4.	Michal Halász	100	1.00
5.	Emília Hoffmanová	100	1.00
6.	Lenka Kabátová	100	1.00
7.	Jana Koláriková	100	1.00
8.	ml. Jana Koláriková	100	0.51
9.	Štefan Lučanský, dielňa	100	1.00
10.	Marian Markovič	100	1.00
11.	Vladimír Palanský, dielňa	100	1.00
12.	Gustáv Pomšár, ved. dielne, technik	100	1.00
13.	Miroslav Popelák, Piešťany	50	0.50
14.	Mária Reháková	60	0.60
15.	Ivan Sabo	60	0.60
16.	Oľga Švančarová	70	0.12
17.	Peter Zitto	100	0.76
18.	Jana Zvončeková, Piešťany	100	1.00

**Zoznam zamestnancov, ktorí odišli v priebehu roka**

	<b>Meno s titulmi</b>	<b>Dátum odchodu</b>	<b>Ročný prepočítaný úväzok</b>
<b>Vedúci vedeckí pracovníci DrSc.</b>			
1.	RNDr. Mária Hartmanová, DrSc.	1.1.2013	0.00
<b>Samostatní vedeckí pracovníci</b>			
1.	Ing. Lucia Horváthová, PhD.	26.8.2013	0.03
2.	Ing. Jozef Hoško, PhD.	16.8.2013	0.03
<b>Vedeckí pracovníci</b>			
1.	Ing. Teodóra Kocsisová, PhD.	7.6.2013	0.08
2.	Mgr. Viktor Majerník, PhD.	31.10.2013	0.17
3.	Mgr. Martina Miklošovičová, PhD.	28.6.2013	0.00
4.	Mgr. Gabriela Pleschová, PhD.	31.3.2013	0.00

5.	PhD. Eszter Simon, PhD.	31.3.2013	0.25
6.	Dr. Lukas Theussl, PhD.	31.8.2013	0.67
<b>Odborní pracovníci s VŠ vzdelaním</b>			
1.	Bc. Zuzana Branická	2.2.2013	0.08
2.	Mgr. Lenka Duffalová	30.9.2013	0.58
3.	Ing. Aneta Fecková	31.5.2013	0.24
4.	Ing. Anton Vrana	2.7.2013	0.00
<b>Odborní pracovníci ÚSV</b>			
1.	Dana Haasová	1.1.2013	0.00
2.	Alena Janičinová	30.11.2013	0.92
3.	Jana Nekanovičová	30.5.2013	0.42
4.	Ružena Palovská	19.10.2013	0.75

**Zoznam doktorandov**

	Meno s titulmi	Škola/fakulta	Študijný odbor
<b>Interní doktorandi hrazení z prostředků SAV</b>			
1.	RNDr. Monika Benkovičová	Fakulta elektrotechniky a informatiky STU	5.2.48 Fyzikálne inžinierstvo
2.	Mgr. Libor Čaha	Fakulta matematiky, fyziky a informatiky UK	4.1.2 Všeobecná fyzika a matematická fyzika
3.	Mgr. Michal Daniška	Fakulta matematiky, fyziky a informatiky UK	4.1.2 Všeobecná fyzika a matematická fyzika
4.	Mgr. Jozef Genzor	Fakulta matematiky, fyziky a informatiky UK	4.1.2 Všeobecná fyzika a matematická fyzika
5.	Mgr. Martin Hodas	Fakulta matematiky, fyziky a informatiky UK	4.1.4 Kvantová elektronika a optika
6.	Ing. Ján Hudec	Fakulta elektrotechniky a informatiky STU	5.2.48 Fyzikálne inžinierstvo
7.	Ing. Michal Kaiser	Fakulta elektrotechniky a informatiky STU	5.2.48 Fyzikálne inžinierstvo
8.	Ing. Daniel Manca	Fakulta matematiky, fyziky a informatiky UK	4.1.3 Fyzika kondenzovaných látok a akustika
9.	Mgr. Ivan Siváček	Fakulta matematiky, fyziky a informatiky UK	4.1.5 Jadrová a subjadrová fyzika
10.	Mgr. Andrej Vojtko	Fakulta matematiky, fyziky a informatiky UK	4.1.3 Fyzika kondenzovaných látok a akustika
11.	Mgr. Juraj Zigo	Fakulta matematiky, fyziky a informatiky UK	4.1.3 Fyzika kondenzovaných látok a akustika
<b>Interní doktorandi hrazení z jiných zdrojů</b>			
<i>organizácia nemá interných doktorandov hrazených z jiných zdrojů</i>			
<b>Externí doktorandi</b>			
1.	RNDr. Dušan Janičkovič	Fakulta elektrotechniky a informatiky STU	5.2.48 Fyzikálne inžinierstvo
2.	RNDr. Jozef Leja	Fakulta matematiky, fyziky a informatiky UK	4.1.5 Jadrová a subjadrová fyzika

## **Príloha B**

### **Projekty riešené v organizácii**

#### **Medzinárodné projekty**

#### **Programy: Medziakademická dohoda (MAD)**

##### **1.) Štruktúra vákua a mechanizmus uväznenia v $SU(N)$ škálovacích teóriách**

*(Vacuum structure and confinement mechanism in  $SU(N)$  gauge theories)*

**Zodpovedný riešiteľ:** Juraj Boháčik  
**Trvanie projektu:** 1.1.2011 / 31.12.2013  
**Evidenčné číslo projektu:**  
**Organizácia je koordinátorom projektu:** nie  
**Koordinátor:** Oleg Borisenko, Bogolyubov Institute for Theoretical Physics  
**Počet spoluriešiteľských inštitúcií:** 0  
**Čerpané financie:**

##### Dosiahnuté výsledky:

V nadväznosti na publikáciu „Monopoles in the Plaquette Formulation of the 3D  $SU(2)$  Lattice Gauge Theory“, (MPL A26 (2011), 1853 – 1807, sme študovali problém interakcie gluónov s fermiónmi. Tento problém sa v mriežkovej formulácii rieši dodaním chemického potenciálu do  $SU(n)$  symetrického gluonového Lagrangeánu na mriežke. Dosiahli sme zaujímavé výsledky pre nenulový chemický potenciál, a pripravujeme publikáciu na túto tému.

##### **2.) Doménová štruktúra a magnetické vlastnosti heterogénnych zliatin pripravených rýchlym ochladením taveniny**

*(Domain structure and magnetic properties of heterogeneous rapidly quenched alloys)*

**Zodpovedný riešiteľ:** Beata Butvinová  
**Trvanie projektu:** 1.1.2013 / 31.12.2015  
**Evidenčné číslo projektu:** č. 3  
**Organizácia je koordinátorom projektu:** áno  
**Koordinátor:** Fyzikálny ústav SAV  
**Počet spoluriešiteľských inštitúcií:** 2 - Poľsko: 2  
**Čerpané financie:**

##### Dosiahnuté výsledky:

Nanokryštalické zliatiny typu Finemet s nízkym obsahom Si (5 at.% a 9 at.% Si) a s 3 at.-%-nou substitúciou B fosforom spracované vo vákuu a v inertnej atmosfére boli výšetrované pomocou metódy MOKE v partnerskej inštitúcii zameriavajúc sa na vplyvy povrchov na ich výsledné magnetické vlastnosti a doménovú štruktúru. Zistili sme, že tlak povrchov (v rovine pásy) je výrazne redukovaný pre zliatiny obsahujúce fosfor. Domény pozorované na lesklej a matnej strane pásy po žíhaní v Ar sú vzhľadom na smer voči pozdĺžnej osi pásy komplementárne. Pásy žíhané vo vákuu vykazujú transverzálnu makroskopickú heterogenitu na oboch stranách rovnako.

(publikácia: 1 medzinárodná konferencia CSMAG2013 Košice, plný text v tlači)

Doménová štruktúra pásov Co-kovových skiel pre fluxgate senzory nenasvedčuje na priečnu heterogenitu ani na rôznosť protihľých povrchov. Žiňaním pod mech. napätím zavedená priečna anizotropia v týchto materiáloch znáša bez výraznejšej zmeny aj mechanické napätie spôsobené ohybom na 12 mm priemer sondy senzora.

## Programy: Medziústavná dohoda

### 3.) Relativistická jadrová fyzika

*(Experimental Physics of Relativistic Heavy and Light Ions)*

**Zodpovedný riešiteľ:** Ján Kliman  
**Trvanie projektu:** 1.1.2009 / 15.8.2013  
**Evidenčné číslo projektu:** 3983-1-09/11  
**Organizácia je koordinátorom projektu:** nie  
**Koordinátor:** Malachov A.I., Prof., DrSc.  
**Počet spoluriešiteľských inštitúcií:** 0  
**Čerpané financie:** JINR: 30000 €

#### Dosiahnuté výsledky:

V 2013 roku bol vykonaný experiment SCAN na supravodivom urýchľovači Nuklotron s cieľom vytvorenia  $\eta$  mezonových jadier, t.j. hľadáním kváziviazaných stavov  $\eta$  mezonu a terčových jadier vnútorného terča urýchľovača. Základná idea experimentu je založená na skúmaní rozpadu S11 (1535) rezonancie excitovanej v terčových jadrách po záchyte  $\eta$  mezonu. V prípade malého impulzu terčových jadier sa rezonancia S11 rozpadá pomocou emisie dvoch  $\pi$  párov. Detekcia týchto korelovaných párov je základnou ideou separácie rozpadu rezonancie S11 (1535) od ostatných produktov reakcií. Ako najvhodnejší kandidát bola vybraná reakcia  $d+^{13}\text{C}$ , pretože izotop  $^{13}\text{C}$  je halo jadro, ktorého posledný neutrón je ľahko oddeliteľný od jadra. Skúmaná bola reakcia  $d+^{13}\text{C} = t+^{12}\text{C} + \eta + Q$ , kde energetický balans  $Q$  je kladný. Výsledkom je pozorovanie  $\eta$  jadier s efektívnou hmotnosťou  $M_{\text{eff}} = 1480 \pm 18 \text{ MeV}/c^2$  s šírkou  $\sigma = 23 \text{ MeV}/c^2$  pri energii deuteronov  $T_d = 1,5 \text{ GeV}/\text{nucl}$ . Pri druhom pokuse boli získané blízke parametre  $M_{\text{eff}} = 1493 \pm 4 \text{ MeV}/c^2$  s šírkou  $\sigma = 38,3 \text{ MeV}/c^2$  pri energii deuteronov  $T_d = 1,9 \text{ GeV}/\text{nucl}$ . Získané výsledky sú dobrým predpokladom pre ďalšie detailné skúmanie  $\eta$  mezonových jadier. Predbežné výsledky boli publikované (S.V.Afanasiev, Search for  $\eta$ -Mesic Nuclei at the Nuclotron. Relativistic Nucl. Phys. Proc. Int. Conf. RNP 2012, 17. - 23 Jun 2012, Stará Lesná, Slovakia, JINR Dubna 2013, p.82-88.)

## Programy: Medzivládna dohoda

### 4.) Syntéza a vlastnosti jadier na hranici stability

*(Synthesis and Properties of Nuclei at the Stability Line)*

**Zodpovedný riešiteľ:** Ján Kliman  
**Trvanie projektu:** 1.1.2010 / 1.1.2014  
**Evidenčné číslo projektu:**  
**Organizácia je koordinátorom projektu:** nie  
**Koordinátor:** Itkis M.G. Prof., DrSc.  
**Počet spoluriešiteľských inštitúcií:** 0

**Čerpané financie:** SUJV: 15000 €

Dosiahnuté výsledky:

Experimentálne štúdium procesu fúzie urýchlených ťažkých iónov s transuránmi je sústredené na hmotnostný spektrometer MASHA a cyklotrón U400M Laboratória jadrových reakcií SÚJV Dubna. Hlavná aktivita bola sústredená do dvoch smerov. Syntéza  $^{283}\text{Cn}$  bola realizovaná s použitím jadrovej reakcie  $^{48}\text{Ca} + ^{238}\text{U} \rightarrow ^{286}(112) \rightarrow ^{283}(112) + 3n$ . Napriek tomu, že pred vykonaním experimentu bol skonštruovaný a uvedený do prevádzky rotačný terč, ktorý umožňoval 8-násobné zvýšenie intenzity zväzku  $^{48}\text{Ca}$ , nepodarilo sa akumulovať v 500 hodinovom experimente dózu ťažkých iónov potrebnú pre získanie niekoľkých atómov  $^{283}\text{Cn}$  s úplnou kinematickou identifikáciou.

Druhý smer je hľadanie nových, perspektívnych neutrón-nadbytočných izotopov prvkov, vhodných kandidátov na syntézu nových supertiažkých prvkov. Bola vykonaná séria experimentov s použitím jadrovej reakcie mnoho-nukleonového prenosu  $^{48}\text{Ca} + ^{238}\text{Th} \rightarrow ^{224-232}\text{Rn} + xn, p$ . Boli získané základné fyzikálne charakteristiky o 6 nových izotopoch. Základné výsledky boli publikované (A.M.Rodin, et al. Measurements of Separation Efficiency of the MASHA Facility with Respect to Short-Lived Mercury Isotopes. Hyperfine Interactions (accept.)), (A.M.Rodin, et al. MASHA: A Mass Spectrometer on Beam of Heavy Ions for Investigation of Isotopes of Heavy and Superheavy Elements, Instruments and Techniques for Experiments (accept.))

**5.) Vytvorenie elektronickej aparatury pre experimenty v relativistickej fyzike ťažkých a ľahkých iónov na urýchľovači Nuclotron**

*(Creation of electronic equipment for experiments in relativistic nuclear physics of heavy and light ions at the Nuclotron accelerator)*

<b>Zodpovedný riešiteľ:</b>	Vladislav Matoušek
<b>Trvanie projektu:</b>	1.1.2012 / 31.12.2013
<b>Evidenčné číslo projektu:</b>	08626319/1020103-7400000000
<b>Organizácia je</b>	áno
<b>koordinátorom projektu:</b>	
<b>Koordinátor:</b>	Fyzikálny ústav SAV
<b>Počet spoluriešiteľských inštitúcií:</b>	1 - Rusko: 1
<b>Čerpané financie:</b>	JINR: 26000 €

Dosiahnuté výsledky:

V tomto roku bola nainštalovaná stanica vnútorných terčov na hlavný prstenec urýchľovačového komplexu Nuklotrónu a vykonalo sa vákuové a funkčné odskúšanie pomocou kontrolného alfa žiariča, preverila sa teplotná stabilita systému pri plnej prevádzke vo vákuu. Bolo dodané a odskúšané havarijné ručné ovládanie stanice vnútorných terčov. Toto zariadenie bude slúžiť v prípade poruchy hlavného systému počas experimentu na manuálne vysunutie terčov z priestoru zväzku.

Stanica bola počas experimentu použitá na testovacie meranie jej parametrov v reálnych podmienkach experimentu.

Získali sme prvé predbežné výsledky z reálnej prevádzky. Merania boli zamerané na vyhodnotenie možného vplyvu nepravidelností pohybu terčov na namerané spektrá. Z výsledkov vyplýva, že plynulosť pohybu terčov vo zväzku vplýva na kvalitu nameraných dát a je potrebné minimalizovať prípadné nerovnomernosti v pohybe správnym nastavením parametrov.

Ďalej sme overili správnu funkciu merania magnetického poľa, celkovej intenzity žiarenia z interakcie zväzku a zvoleného terča, zberu dát z detektorov.

## Programy: COST

### 6.) Termodynamika v kvantovom režime

*(Thermodynamics in the quantum regime)*

<b>Zodpovedný riešiteľ:</b>	Vladimír Bužek
<b>Trvanie projektu:</b>	30.4.2013 / 29.4.2017
<b>Evidenčné číslo projektu:</b>	MP1209-MoU
<b>Organizácia je koordinátorom projektu:</b>	nie
<b>Koordinátor:</b>	University of Exeter
<b>Počet spoluriešiteľských inštitúcií:</b>	10 - Rakúsko: 1, Belgicko: 1, Nemecko: 2, Dánsko: 1, Fínsko: 1, Veľká Británia: 2, Švajčiarsko: 1, Portugalsko: 1
<b>Čerpané financie:</b>	Podpora medzinárodnej spolupráce z národných zdrojov: 2600 €

#### Dosiahnuté výsledky:

Projekt je navrhnutý a plní ciele tak, aby podporoval výmenu a koordináciu vedeckých pracovníkov za účelom vytvorenia medzinárodnej znalostnej základne v dôležitej novo-vznikajúcej vednej oblasti: kvantovej termodynamike.

### 7.) Pokročilá rentgenová priestorová a časová metrológia

*(Advanced X-ray spatial and temporal metrology)*

<b>Zodpovedný riešiteľ:</b>	Matej Jergel
<b>Trvanie projektu:</b>	16.11.2012 / 15.11.2016
<b>Evidenčné číslo projektu:</b>	MP1203
<b>Organizácia je koordinátorom projektu:</b>	nie
<b>Koordinátor:</b>	Dr. Philippe ZEITOUN, CNRS LOA, ENSTA, Chemin de la Hunier, 91671 Palaiseau
<b>Počet spoluriešiteľských inštitúcií:</b>	19 - Nemecko: 1, Dánsko: 1, Španielsko: 2, Estónsko: 1, Fínsko: 1, Francúzsko: 2, Veľká Británia: 1, Grécko: 1, Maďarsko: 1, Švajčiarsko: 1, Írsko: 2, Taliansko: 1, Poľsko: 1, Portugalsko: 1, Rumunsko: 1, Slovinsko: 1
<b>Čerpané financie:</b>	SAV: 4000 €

#### Dosiahnuté výsledky:

V rámci pracovnej skupiny č.1 "Priestorová metrológia rtg optiky" sme pokračovali v komplexnej analýze opracovania povrchov rtg monochromátorov, pričom podľa výsledkov z predchádzajúceho roka sme sa zamerali na Ge(220) a porovnanie chemického leštenia a jednobodového diamantového sústruženia (single point diamond turning - SPDT). Skúmali sme vplyv úberu materiálu na kvalitu povrchu, ktorú sme posudzovali metódami vysokorozlišovacej rtg difrakcie, atómovej silovej mikroskopie a hrotovej profilometrie. Zistili sme, že morfológia povrchu pri SPDT nezávisí od úberu materiálu, pričom nízkofrekvenčné zložky drsnosti boli oproti leptanému povrchu o 1 rád potlačené. To znamená, že metóda SPDT poskytuje vysokú planaritu povrchu s odchýlkou niekoľko nm na dĺžke 1 mm oproti leptaniu, ktoré vykazuje morfológiu povrchu typu pomarančovej šupky. Lokálna drsnosť je pritom u oboch metód porovnateľná pod 1 nm. Nevýhodou SPDT sa

ukázala parazitná periodicita od pohybu rezného nástroja s periódou okolo 1  $\mu\text{m}$ , ktorá môže spôsobiť zosilnenie efektov od difúzneho rozptylu, čo bude treba v ďalšom riešiť.

Pomocou mikrofokusného rtg zdroja sme porovnali parametre výstupných zväzkov z Ge(220) V-kanálikových monochromátorov v kompresnom móde a Ge(220) paralelných kanálikových monochromátorov kombinovanými so štrbinou ako aj s výpočtami štrbinových kolimátorov. Boli použité V-kanálikové monochromátory s kompresným pomerom 21 a 15, ktoré boli dosiahnuté koncentračným gradientom resp. rôznymi asymetriasmi difraktorov. Výsledky jednoznačne preukázali výhody kolimácie rtg zväzku kompresorom - vyššia intenzita a menší rozmer pri porovnateľnej divergencii. Merania malouhlového rtg rozptylu pri šikmom dopade na povrchovej mriežke poskytli rozlíšenie porovnateľné s meracou stanicou synchrotrónu, ktoré v režime "oversampling" umožnilo detekovať periódu 1  $\mu\text{m}$  na povrchoch opracovaných metódou SPDT.

V snahe zvýšiť intenzitu komprimovaného rtg lúča boli pomocou dynamickej teórie rtg difrakcie urobené základné výpočty Ge(111) V-kanálikových monochromátorov a porovnané s Ge(220) monochromátormi v rôznych konfiguráciách z hľadiska parametrov výstupného rtg zväzku (šírka, integrálna intenzita a kompresný pomer). Na základe toho bol navrhnutý V-kanálikový asymetrický Ge(111) monochromátor, ktorý dáva vyššiu intenzitu ako Ge(220) monochromátor pri porovnateľnom kompresnom pomere 20.

## 8.) Koloidné aspekty nanovied pre inovatívne procesy a materiály

*(Colloidal Aspects of Nanoscience for Innovative Processes and Materials)*

<b>Zodpovedný riešiteľ:</b>	Eva Majková
<b>Trvanie projektu:</b>	1.6.2011 / 18.1.2016
<b>Evidenčné číslo projektu:</b>	COST CM1101
<b>Organizácia je koordinátorom projektu:</b>	nie
<b>Koordinátor:</b>	Prof. Piotr WARSZYNSKI J. Haber Institute of Catalysis and Surface Chemistry Poland,
<b>Počet spoluriešiteľských inštitúcií:</b>	0
<b>Čerpané financie:</b>	

### Dosiahnuté výsledky:

Výsledky sú sumarizované v publikáciach: P. Siffalovic et al, Re-assembly and oxidation of a silver nanoparticle bilayer probed by in-situ X-ray reciprocal space mappinga zaslane do The Journal of Physical Chemistry.

K. Vegso et al. A non-equilibrium transient phase revealed by in situ GISAXS tracking of the solvent-assisted nanoparticle self-assembly, zaslane do J. Nanoparticle Research

## 9.) Fundamentálne problémy kvantovej fyziky

*(Fundamental Problems in Quantum Physics)*

<b>Zodpovedný riešiteľ:</b>	Mário Ziman
<b>Trvanie projektu:</b>	11.4.2011 / 10.4.2015
<b>Evidenčné číslo projektu:</b>	oc-2010-1-7320
<b>Organizácia je</b>	nie

**koordinátorom projektu:**

**Koordinátor:** Dr. Angelo Bassi, Department of Physics, University of Trieste, Italy  
**Počet spoluriešiteľských inštitúcií:** 7 - Rakúsko: 1, Nemecko: 1, Španielsko: 1, Veľká Británia: 1, Švajčiarsko: 1, Írsko: 1, Portugalsko: 1  
**Čerpané financie:** Podpora medzinárodnej spolupráce z národných zdrojov: 4000 €

Dosiahnuté výsledky:

V publikovanej práci [Phys. Rev. A 88, 032316 (2013)], sme matematicky charakterizovali triedu tzv. previazanie-anihilujúcich (EA) dynamík otvorených kvantových systémov. Identifikovali sme špeciálnu triedu bi-separabilných stavov, ktoré zodpovedajú EA dynamikám podobne ako previazané stavy zodpovedajú tzv. EB dynamikám. Odvozené kritérium sme demonštrovali na príklade lokálneho a globálneho depolarizačného šumu a rozšírili sme doteraz známe intervaly parametrov šumu previazanie-anihilujúcich dynamík.

**Programy: CERN/MŠ**

**10.) CERN - ISOLDE (CERN - ISOLDE)**

**Zodpovedný riešiteľ:** Martin Veselský  
**Trvanie projektu:** 1.1.2009 / 31.12.2015  
**Evidenčné číslo projektu:** CERN - ISOLDE  
**Organizácia je koordinátorom projektu:** áno  
**Koordinátor:** Fyzikálny ústav SAV  
**Počet spoluriešiteľských inštitúcií:** 4 - Švajčiarsko: 2, Slovensko: 2  
**Čerpané financie:**

Dosiahnuté výsledky:

V roku 2013 bol v rámci zasadania komisie INTC ( ISOLDE and n-TOF Committee ) predložený vysvetľujúci list k návrhu experimentu (Proposal) pre štúdium štiepenia ťažkých rádioaktívnych zväzkov na budovanom komplexe HIE-ISOLDE ( M. Veselský et al., (d,p)-induced fission of heavy radioactive beams ) s využitím aktívneho terča ACTAR. Zámer bol opätovne posúdený komisiou a schválený ako časť fyzikálneho programu pre HIE-ISOLDE pod označením IS581. Celkovo boli publikované 4 články v CC časopisoch.

**Programy: 7RP**

**11.) (Quantum Information Entanglement-Enabled Technologies)**

**Zodpovedný riešiteľ:** Vladimír Bužek  
**Trvanie projektu:** 1.2.2010 / 31.7.2013  
**Evidenčné číslo projektu:**  
**Organizácia je koordinátorom projektu:** áno  
**Koordinátor:** Fyzikálny ústav SAV  
**Počet spoluriešiteľských inštitúcií:** 6 - Nemecko: 1, Francúzsko: 1, Veľká Británia: 1, Švajčiarsko: 1, Taliansko: 2  
**Čerpané financie:** European Commission: 7797 €  
Podpora medzinárodnej spolupráce z národných zdrojov: 988 €



Dosiahnuté výsledky:

V rámci projektu sme sa zamerali na splnenie nasledovných cieľov:

- Koordinácia všetkých QIPC aktivít v Európe
- Definovanie a rozširovanie spoločnej vízie QIPC výskumu
- Zabezpečenie udržateľnosti rozvoja tejto vednej oblasti do budúcnosti

Táto koordinačná aktivita vytvorila a udržiava pan-Európsku spoločnú výskumnú platformu. Bolo to dosiahnuté naviazaním kontaktov, vytvorením špecifických podmienok pre spoluprácu a vyjednaním formálnej štruktúry, prostredníctvom vedeckých propagačných stretnutí a okrúhlych stolov za účasti najkvalitnejších medzinárodných expertov z QIPC komunity. Takéto ciele môžu byť dosahované iba na celoeurópskej úrovni.

**12.)** (*Simulators and Interfaces with Quantum Systems*)

<b>Zodpovedný riešiteľ:</b>	Vladimír Bužek
<b>Trvanie projektu:</b>	1.5.2013 / 30.4.2016
<b>Evidenčné číslo projektu:</b>	600645
<b>Organizácia je koordinátorom projektu:</b>	nie
<b>Koordinátor:</b>	Universitaet Ulm
<b>Počet spoluriešiteľských inštitúcií:</b>	11 - Rakúsko: 2, Nemecko: 2, Dánsko: 1, Veľká Británia: 2, Švajčiarsko: 3, Holandsko: 1
<b>Čerpané financie:</b>	Podpora medzinárodnej spolupráce z národných zdrojov: 2667 €

Dosiahnuté výsledky:

V rámci projektu skúmame dynamiku previazanej (entanglovanej) štruktúry multipartitného systému v rámci jeho disipačnej evolúcie. Charakterizujeme procesy vedúce k špecifickej forme previazanosti výstupov a poskytujeme návod pre ich identifikáciu pomocou reťazenia špeciálnych lineárnych "máp" s previazanosť-anihilujúcimi operáciami. Aplikovateľnosť nášho prístupu ilustrujeme pomocou skúmania vplyvu lokálnych a globálnych depolarizačných šumov na všeobecné viac-Qbitové stavy. Pozorujeme rozdielne správanie sa previazania v systémoch pod vplyvom takýchto šumov: pôvodne skutočné previazanie sa rozkladá prostredníctvom postupného oddeľovania sa častíc v prípade lokálneho šumu, zatiaľ čo v prípade globálneho šumu vznikajú medzistavy zhlukov previazania. Taktiež analyzujeme definitívnu fázu časového vývoja, kedy nastáva zánik previazanej (entanglovanej) štruktúry.

**13.)** (*Quantum Interfaces, Sensors and Communication based on Entanglement*)

<b>Zodpovedný riešiteľ:</b>	Mário Ziman
<b>Trvanie projektu:</b>	1.2.2010 / 31.1.2013
<b>Evidenčné číslo projektu:</b>	
<b>Organizácia je koordinátorom projektu:</b>	nie
<b>Koordinátor:</b>	Institute of Theoretical Physics, University of Warsaw
<b>Počet spoluriešiteľských inštitúcií:</b>	16 - Austrália: 1, Rakúsko: 0, Nemecko: 6, Dánsko: 1, Španielsko: 1, Veľká Británia: 4, Švajčiarsko: 0, Taliansko: 0, Holandsko: 1,

**Čerpané financie:** Poľsko: 2  
Europska komisia: 20800 €

Podpora medzinárodnej spolupráce z národných zdrojov: 600 €

Dosiahnuté výsledky:

Jedna publikovaná práca [Phys. Rev. A 88, 032316 (2013)], v ktorej sme matematicky charakterizovali triedu tzv. previazanie-anihilujúcich (EA) dynamík otvorených kvantových systémov. Identifikovali sme špeciálnu triedu biseparabilných stavov, ktoré zodpovedajú EA dynamikám podobne ako previazané stavy zodpovedajú tzv. EB dynamikám. Odvozené kritérium sme demonštrovali na príklade lokálneho a globálneho depolarizačného šumu a rozšírili sme doteraz známe intervaly parametrov šumu EA dynamík. V článku [Phys. Rev. B 87, 165303 (2013)] sme študovali kvantovú bodku v rezervoári spinových nečistôt interagujúcich cez spin-orbitálnu interakciu. Ukázali sme, že typický čas relaxácie spinu v takomto rezervoári je mikrosekunda a že dekoherencia spôsobená takou interakciou je odstrániteľná pomocou metódy spinového echa.

#### **14.) Kvantové technológie pre Európu**

*(Quantum Technologies for Europe)*

**Zodpovedný riešiteľ:** Mário Ziman  
**Trvanie projektu:** 1.2.2013 / 31.1.2016  
**Evidenčné číslo projektu:** 600788  
**Organizácia je koordinátorom projektu:** áno  
**Koordinátor:** Fyzikálny ústav SAV  
**Počet spoluriešiteľských inštitúcií:** 6 - Nemecko: 1, Španielsko: 1, Francúzsko: 1, Švajčiarsko: 1, Taliansko: 1, Švédsko: 1  
**Čerpané financie:**

Dosiahnuté výsledky:

V rámci tejto koordinačnej akcie, ktorá sa začala realizovať v roku 2013, sme sa venovali najmä nasledovným témam: aktualizácia databáz obsahujúcich dáta o európskom výskume v oblasti kvantovej teórie informácie, vypísanie výziev a stanovenie podmienok na organizáciu celoeurópskej konferencie QIPC, dvoch letných škôl a popularizačnej aktivity "Quantum Envoy".

#### **Programy: Multilaterálne - iné**

#### **15.) Optimization of plasmonic nano-templates for enhanced light trapping in novel photovoltaic devices**

*(Optimization of plasmonic nano-templates for enhanced light trapping in novel photovoltaic devices )*

**Zodpovedný riešiteľ:** Eva Majková  
**Trvanie projektu:** 1.1.2011 / 31.12.2013  
**Evidenčné číslo projektu:** II-20100246 EC  
**Organizácia je koordinátorom projektu:** áno  
**Koordinátor:** Fyzikálny ústav SAV  
**Počet spoluriešiteľských inštitúcií:** 0  
**Čerpané financie:**

Dosiahnuté výsledky:

## 16.) Pokročilý výskum povrchov a povlakov pre nastupujúcu generáciu RTG difrakčnej optiky

*(Surface engineering and advanced coatings for the next generation of X-ray diffractive optics)*

**Zodpovedný riešiteľ:** Peter Šiffalovič  
**Trvanie projektu:** 1.9.2013 / 31.8.2016  
**Evidenčné číslo projektu:**  
**Organizácia je koordinátorom projektu:** áno  
**Koordinátor:** Fyzikálny ústav SAV  
**Počet spoluriešiteľských inštitúcií:** 2 - Rakúsko: 2  
**Čerpané financie:**

### Dosiahnuté výsledky:

V prvých troch mesiacoch riešenie projektu sme zadefinovali jednotlivé pracovné fázy, a to:

1. Numerické simulácie SPDT obrábanie Cu monokryštálu
2. SPDT opracovanie plošných difrakčných kryštálov pomocou SPDT
3. Meranie povrchovej a podpovrchovej kryštalickej štruktúry.

## Programy: Bilaterálne - iné

## 17.) Kovové pásy pre magnetické senzory

*(Metallic ribbons for magnetic sensors)*

**Zodpovedný riešiteľ:** Pavol Butvin  
**Trvanie projektu:** 1.1.2012 / 31.12.2013  
**Evidenčné číslo projektu:** SK-CZ 0078-11  
**Organizácia je koordinátorom projektu:** áno  
**Koordinátor:** Fyzikálny ústav SAV  
**Počet spoluriešiteľských inštitúcií:** 1 - Česko: 1  
**Čerpané financie:** APVV: 1513 €

### Dosiahnuté výsledky:

Spomedzi materiálov pripravených rýchlym ochladením taveniny ostávajú pre využitie na fluxgate senzory magnetického poľa Co-kovové sklá naďalej favoritom. FeNbCuBSi Finemety napriek dosiahnutiu podstatne silnejšej priečnej anizotropie a vďaka vyššej teplote žihania lepšej možnosti minimalizovať vnútorné mechanické napätia vznikajúce zvíjaním pásy do toroidu, Finemety nedosahujú šum v ráde jednotiek pT pri 1 Hz ale o rád horší. Navyše prisilná anizotropia zvyšuje nárok na excitačné pole. Na príčine vyššieho šumu nie je vnútorná mikroskopická heterogenita čiastočne (nano)kryštalických Finemetov ale ťažšie redukovateľná magnetostrikcia a vyššia Curieova teplota.

## 18.) Analýza tenzorových sietí pomocou renormalizačnej grupy v systémoch hyperbolickej/sférickej deformácie

*(Renormalization group analysis by tensor network form of energy scale deformation)*

**Zodpovedný riešiteľ:** Andrej Gendiar  
**Trvanie projektu:** 1.4.2013 / 31.3.2017

**Evidenčné číslo projektu:** 25400401  
**Organizácia je koordinátorom projektu:** nie  
**Koordinátor:** Department of Physics, Faculty of Science, Kobe University, 657 8501 Kobe, Japan  
**Počet spoluriešiteľských inštitúcií:** 0  
**Čerpané financie:**

Dosiahnuté výsledky:

Zostrojili sme nekonečnú postupnosť hyperbolických geometrií konvergujúcich k Euklidovskej geometrii. Pozorovali sme, že aj infinitezimálne malé zakrivenie vedie na strednopoľovú triedu univerzality. Na výpočet sme využili numerický algoritmus Corner Transfer Matrix Renormalization Group (CTMRG), ktorý sme zovšeobecнили na riešenie problémov v neeuklidovskej geometrii. Vyvinuli sme úplne nový spôsob variačného numerického výpočtu na štvorcovej geometrii pre ľubovoľný spinový model. Ide o tzv. "sweeping procedure". Vypočítali sme magnetizačné profily, ako aj iné termodynamické funkcie pre frustrovaný q-stavový clock model v prítomnosti piatich rôznych magnetických polí.

**19.) Optimalizácia tenzorových sieťových stavov minimalizačným princípom a jej aplikácia na kvantové systémy**

*(Optimisation of Tensor Network State by means of a minimal principle and its application to Quantum Systems)*

**Zodpovedný riešiteľ:** Andrej Gendiar  
**Trvanie projektu:** 1.4.2010 / 31.3.2013  
**Evidenčné číslo projektu:** 22540388  
**Organizácia je koordinátorom projektu:** nie  
**Koordinátor:** Department of Physics, Faculty of Science, Kobe University, 657 8501 Kobe, Japan  
**Počet spoluriešiteľských inštitúcií:** 0  
**Čerpané financie:**

Dosiahnuté výsledky:

Zostrojili sme nekonečnú postupnosť hyperbolických geometrií konvergujúcich k Euklidovskej geometrii. Pozorovali sme, že aj infinitezimálne malé zakrivenie vedie na strednopoľovú triedu univerzality. Na výpočet sme využili numerický algoritmus Corner Transfer Matrix Renormalization Group (CTMRG), ktorý sme zovšeobecнили na riešenie problémov v neeuklidovskej geometrii. Ukázali sme škálovanie entanglovanej entropie ako funkcie polomeru Guassovej krivosti.

**20.) Leonardo da Vinci Program – IVT/PLM**

*(Leonardo da Vinci Program – IVT/PLM)*

**Zodpovedný riešiteľ:** Ľudovít Kubičár  
**Trvanie projektu:** 18.3.2013 / 15.9.2013  
**Evidenčné číslo projektu:** 2012-1-ES1-LEO02-48615  
**Organizácia je** nie

**koordinátorom projektu:**

**Koordinátor:**

**Počet spoluriešiteľských** 1 - Španielsko: 1

**inštitúcií:**

**Čerpané financie:**

Dosiahnuté výsledky:

Projekt bol zameraný na optimalizáciu konštrukcie termofyzikálnych senzorov. Podstatou konštrukcie je kovová guľôčka, v ktorej je uložený ohrievací element a prvok na meranie teploty. Hľadali sme geometrické usporiadanie prvkov v guľôčke, ktorú sme vhodným spôsobom konštrukčne modifikovali. Vhodnosť konštrukcie sa testovala kalibráciou senzora vo vode a glyceríne. Porovnanie matematického modelu s reálnou konštrukciou umožnilo nájsť usporiadanie prvkov v guľôčke, ako aj technológiu lepenia jednotlivých častí senzora. Optimálny tvar senzora umožňuje dosiahnuť nasledovnú neurčitosť merania: tepelná vodivosť  $< 5\%$ , teplotná vodivosť  $< 8\%$ , špecifické teplo  $< 5\%$ . Presnosť merania termofyzikálnych parametrov tekutín s nárastom viskozity sa zvyšuje.

**21.) Pokročilé nanočasticové senzory plynov pre ochranu životného prostredia, zdravotníctvo a detekcie výbušnín**

*(Advanced nanoparticle gas sensors for environmental protection, health improvement and explosive detection)*

**Zodpovedný riešiteľ:** Štefan Luby  
**Trvanie projektu:** 1.1.2013 / 31.12.2015  
**Evidenčné číslo projektu:**  
**Organizácia je** áno  
**koordinátorom projektu:**  
**Koordinátor:** Fyzikálny ústav SAV  
**Počet spoluriešiteľských** 0  
**inštitúcií:**  
**Čerpané financie:** SAV/CNR: 2000 €

Dosiahnuté výsledky:

Ukončil sa výskum senzorov acetónu na báze nanočastíc oxidu železa  $\text{Fe}_2\text{O}_3$ , výsledky sa predniesli na konferencii MAST Praha 2013 a spracovali do časopisu Key Engineering Materials. Citlivosť senzorov je dostačujúca na diagnózu glykémie. Preskúmala sa teplotná stabilita nanočastíc oxidov železa a železa-kobaltu pri žíhaní do  $700^\circ\text{C}$ , kedy sa začínajú tvoriť nové fázy. Sensory sa môžu používať do pracovnej teploty  $500^\circ\text{C}$ . Langmuir-Blodgettovou metódou sa pripravili vzorky senzorov plynov na báze nanočastíc železa zmiešaných s nanočasticami paládia s cieľom zvýšiť odozvu senzorov na redukujúce plyny.

**22.) K nízkonákladovej vysoko účinnej organickej fotovoltike na báze polymérov s použitím grafénu a nanočastíc vzácnych kovov**

*(Towards low-cost and highly efficient polymer-based organic photovoltaics via Incorporation of graphene and noble metal nanoparticles)*

**Zodpovedný riešiteľ:** Eva Majková  
**Trvanie projektu:** 1.10.2013 / 30.9.2016  
**Evidenčné číslo projektu:** SAS - TUBITAK JRP 2013/6  
**Organizácia je** nie

**koordinátorom projektu:**

**Koordinátor:**

**Počet spoluriešiteľských** 0

**inštitúcií:**

**Čerpané financie:** SAV MVTs: 5000 €

Dosiahnuté výsledky:

Projekt zo slovenskej strany sa začal riešiť v októbri. Realizovali sme prvé experimenty zamerané na výskum efektu zabudovania plazmonických nanočastíc do polymérneho blendu na jeho elektrické, štruktúrne a optické vlastnosti

**23.) Príprava a štúdie nanočasticových súborov pre plazmonické aplikácie**

*(Preparation and studies of nanoparticle arrays for plasmonic applications)*

**Zodpovedný riešiteľ:** Eva Majková

**Trvanie projektu:** 1.1.2012 / 31.12.2014

**Evidenčné číslo projektu:** SAS-NSC JRP 2011/05

**Organizácia je** áno

**koordinátorom projektu:**

**Koordinátor:** Fyzikálny ústav SAV

**Počet spoluriešiteľských** 0

**inštitúcií:**

**Čerpané financie:** SAV/NSC Taiwan: 22000 €

Podpora medzinárodnej spolupráce z národných zdrojov: 22000 €

Dosiahnuté výsledky:

Vyhodnotili sme výsledky z experimentu 2012 o procesoch v samousporiadaných súboroch pri fotolýze a ozonolýze s použitím experimentov GISAXS a GIWAXS. Experimenty sme realizovali vo Výskumnom centre synchrotrónového žiarenia NSRRC Hsin chu. Výsledky sú spracované do publikácie P. Siffalovic et al, Re-assembly and oxidation of a silver nanoparticle bilayer probed by in-situ X-ray reciprocal space mappinga zaslane do The Journal of Physical Chemistry

V r. 2013 sme na uvedenom pracovisku skúmali efekt impulsného laserového žiarenia (trvanie impulzu 30 ns) v oblasti UV žiarenia na polymérnu zmes P3HT-PCBT s cieľom preskúmať procesy pri formovaní objemovej heteroštruktúry. Tieto poznatky su dôležité pre prípravu organických fotovoltaičných článkov na báze polymérov.

**24.) Detekcia malých magnetických polí pomocou fyzikálne spracovaných rýchlochladených zliatin**

*(Physically processed rapidly quenched alloys for detection of low magnetic fields)*

**Zodpovedný riešiteľ:** Peter Švec

**Trvanie projektu:** 1.11.2013 / 31.10.2016

**Evidenčné číslo projektu:**

**Organizácia je** áno

**koordinátorom projektu:**

**Koordinátor:** Fyzikálny ústav SAV

**Počet spoluriešiteľských** 1 - Turecko: 1

**inštitúcií:**

**Čerpané financie:** U SAV: 4000 €

Dosiahnuté výsledky:

Na základe orientačných požiadaviek stanovených pre magnetické obvody typu fluxgate sme navrhli prvé z možných systémov magneticky mäkkých materiálov, kde sme s výhodou využili podobnosť nárokov na materiály jadier senzorov a na magnetické tienenia. Pripravili sme systém na báze Co a Fe rýchlym ochladením taveniny v amorfnom stave. Preskúmali sme jeho základné štruktúrne a magnetické vlastnosti a stabilitu s ohľadom na predpokladanú potrebu následnej termomagnetickej optimalizácie. Poznatky sme zhrnuli v abstrakte spoločného príspevku s tureckým partnerom na konferenciu ICSM 2014, ktorá sa bude konať v Ankare.

**25.) Funkčné vlastnosti nových amorfných a nanokryštalických magnetických materiálov**  
(*Functional properties of newly developed amorphous and nanocrystalline magnetic materials*)

**Zodpovedný riešiteľ:** Peter Švec  
**Trvanie projektu:** 1.1.2013 / 31.12.2014  
**Evidenčné číslo projektu:** APVV SK-PL-0043-12  
**Organizácia je** áno  
**koordinátorom projektu:**  
**Koordinátor:** Fyzikálny ústav SAV  
**Počet spoluriešiteľských** 2 - Poľsko: 2  
**inštitúcií:**  
**Čerpané financie:** APVV: 350 €

Dosiahnuté výsledky:

Partneri spoločne zvolili rámcovo dva skúmané systémy – materiály pripravené na FÚ SAV na báze Fe a na báze Co a materiály firmy Hitachi. Prvé aktivity sa sústredili na získanie poznatkov o magnetostrikčných a magnetoelastických vlastnostiach skúmaný systémov po relaxácii v prítomnosti magnetických polí. Komplementárna experimentálna báza partnerov umožnila pripraviť a premerať magnetoelastické vlastnosti vzoriek v tvare toroidov v ťahu aj v tlaku a zhodnotiť výsledky s ohľadom na možné aplikácie v mechatronike. Výsledky boli prezentované v pozvanej prednáške a dvoch ďalších prednáškach a publikované v zborníku z konferencie Automatyka 2013 (Pomiary Automatyka Robotyka nr 2/2013, 513-518.), APCOM2013 a CSMAG2013 (Acta Phys. Polonica).

**Projekty národných agentúr**

**Programy: VEGA**

**1.) Jadrové reakcie od MeV k hviezdám**

(*Nuclear reactions from MeV to stars*)

**Zodpovedný riešiteľ:** Emil Běták  
**Trvanie projektu:** 1.1.2010 / 31.12.2013  
**Evidenčné číslo projektu:** 2/0029/10  
**Organizácia je** áno  
**koordinátorom projektu:**  
**Koordinátor:** Fyzikálny ústav SAV  
**Počet spoluriešiteľských** 0  
**inštitúcií:**  
**Čerpané financie:** VEGA: 4632 €

Dosiahnuté výsledky:

Na výpočty predrovnovážnej emisie zložených častíc (od deuterónu po časticu alfa) sa bežne používa tzv. model Iwamotu a Haradu; pre alfa častice vylepšený Bisplinghoffom. Charakteristickou veličinou tu je prekryv nukleónov (ktoré vytvárajú zloženú časticu) v priestore hybností. Model bol sformulovaný a používa sa bez spinových premenných. Paralelná verzia modelu vyvinutá na našom ústave používa jazyk hustôt stavov. V minulom období sme ukázali schodnú cestu, ako tam zaviesť spinové premenné, ale ilustrovali sme to iba v prípade počiatočného štádia reakcie. Tento prístup bol teraz zovšeobecnený a demonštrovali sme jeho možnosti na emisii častíc alfa (najsilnejšie viazaných klastrov) a deuterónov (najslabšie viazané) z reakcie  $^{197}\text{Au}+p$  pri energii 62 MeV. Výpočty so započítaním spinových premenných - okrem toho, že takýto výpočet je konzistentnejší - znateľne vylepšujú súhlas s dátami pre časticu alfa; vplyv na emisiu deuterónov je slabší.

**2.) Rozvoj a testovanie fyzikálnych modelov pre pulznú prechodovú metódu**

*(Development and testing of physical models for the pulse transient method)*

<b>Zodpovedný riešiteľ:</b>	Vlastimil Boháč
<b>Trvanie projektu:</b>	1.4.2012 / 31.12.2014
<b>Evidenčné číslo projektu:</b>	2/0182/12
<b>Organizácia je koordinátorom projektu:</b>	áno
<b>Koordinátor:</b>	Fyzikálny ústav SAV
<b>Počet spoluriešiteľských inštitúcií:</b>	0
<b>Čerpané financie:</b>	VEGA: 869 €

Dosiahnuté výsledky:

Projekt rieši matematicko-štatistické metódy testovania fyzikálnych modelov pre pulznú prechodovú metódu. Spracovanie a návrh testovacích procedúr je podriadený konkrétnym experimentálnym usporiadaniam a geometrii vzoriek a vplyvu rušivých efektov odvodu tepla z povrchu vzorky, ktoré zhoršujú presnosť určenia výstupných parametrov koeficientu tepelnej a teplotnej vodivosti a koeficientu mernej tepelnej kapacity.

Vplyv odvodu tepla bol vyriešený v modeloch, ktoré zahŕňajú koeficient prestupu tepla medzi voľným povrchom vzorky a jej okolím. V reálnom experimente je situácia komplikovaná geometriou vzorky. Preto boli v minulosti odvodené modely pre geometriu s valcovou symetriou a geometriu kvádrov so štvorcovou podstavou. V rámci testovacích metód bola vyvinutá metóda testovania vplyvu neurčitosti vstupných parametrov na výsledné parametre modelu, ktoré získavame fitovacími procedúrami. Takýmto spôsobom sme získali hodnoty neurčitostí pre uvedené termofyzikálne parametre a pre koeficient prestupu tepla. Analýza neurčitostí prispieva k zmapovaniu vplyvu geometrie pre rôzne hrúbky vzoriek v tvare cylindrov a hranolov so štvorcovou podstavou. Výsledky boli publikované v rámci prednášok a príspevkov v zborníkoch.

Výsledky analýzy slúžia na nastavenie experimentálnych parametrov ďalších experimentov tak, aby sa minimalizovali výsledné neurčitosti merania.

**3.) Faktory obmedzujúce ciele ovplyvnenie magneticky mäkkých vlastností kovových pásov**

*(Factors that limit the possibilities to tailor the soft-magnetic properties of metallic ribbons.)*

<b>Zodpovedný riešiteľ:</b>	Pavol Butvin
<b>Trvanie projektu:</b>	1.1.2011 / 31.12.2013



**Evidenčné číslo projektu:** 2/0056/11  
**Organizácia je koordinátorom projektu:** áno  
**Koordinátor:** Fyzikálny ústav SAV  
**Počet spoluriešiteľských inštitúcií:** 0  
**Čerpané financie:** VEGA: 1853 €

Dosiahnuté výsledky:

Najvýznamnejší účinok prídavku P na úkor B v nízkokremíkových FeNbCuB/PSi Finemetoch je oslabenie rovinného tlaku povrchov na vnútro pásy. Zistili sme, že za tlak povrchov na vnútro pásy je zodpovedná najmä povrchová kryštalizácia a nie tvorba kysličníkov. Fosfor zjavne obmedzuje povrchovú kryštalizáciu, hoci jeho obsah pri povrchoch nie je vyšší ako v objeme pásy. To sú dôvody, prečo charakteristická anizotropia typu "ťažká os" aj koercivita vyvolané žihaním v inertnom plyne sú napriek vyššej magnetostrikcii mierne slabšie ako v porovnateľných Finemetoch bez P. Je zrejmé, že tento následok povrchovej aktivity fosforu v páskach Finemetov je dobrý smer pre ďalšiu optimalizáciu Finemetov s vyššou indukciou v nasýtení.

**4.) Vplyv zmien povrchových charakteristík na magnetické vlastnosti tenkých kovových pások**

*(Influence of changes of surface features on magnetic properties of thin metallic ribbons)*

**Zodpovedný riešiteľ:** Beata Butvinová  
**Trvanie projektu:** 1.1.2012 / 31.12.2014  
**Evidenčné číslo projektu:** 02/0056/12  
**Organizácia je koordinátorom projektu:** áno  
**Koordinátor:** Fyzikálny ústav SAV  
**Počet spoluriešiteľských inštitúcií:** 0  
**Čerpané financie:** VEGA: 1004 €

Dosiahnuté výsledky:

Rozšírením pozorovacích metodík (SEM, EDS a MS) sa podarilo ukázať, že samotná existencia oxidov na povrchu nanokryštalickej pásy typu Finemet nevedie k tvorbe súvislej vrstvy, ktorá by stláčala vnútro pásy v jej rovine. Makroskopické sily ovplyvňujúce magnetické vlastnosti v páskach spracovaných v prostredí inertného plynu (charakteristický tvar hysteréznej slučky, magnetická anizotropia...) sú spôsobované povrchovou kryštalizáciou. Táto je výrazná najmä v zliatinách na báze Fe s nízkym obsahom Si. Meranie dilatácie vo vákuu a v inertnej atmosfére ukázalo, že pre takéto materiály kryštalizácia v inertnej atmosfére začína skôr ako vo vákuu a pravdepodobne od povrchu, ako potvrdzuje MS. XRD výsledky naznačujú, že substitúciou P za B možno dosiahnuť po nanokryštalizácii menšie zrno, obmedzenie povrchovej kryštalizácie a zlepšenie magneticky mäkkých vlastností nízkokremíkových Finemetov.

## 5.) Mezonová spektroskopia a overenie Štandardného Modelu presnejším vyhodnotením Alfa(M\_Z) a miónovej g-2 anomálie

*(Meson spectroscopy and Standard Model verification by a more precise evaluation of Alfa(M\_Z) and the muon g-2 anomaly)*

**Zodpovedný riešiteľ:** Stanislav Dubnička  
**Trvanie projektu:** 1.1.2010 / 31.12.2013  
**Evidenčné číslo projektu:** 2/0009/10  
**Organizácia je koordinátorom projektu:** áno  
**Koordinátor:** Fyzikálny ústav SAV  
**Počet spoluriešiteľských inštitúcií:** 5 - Francúzsko: 2, Taliansko: 2, Rusko: 1  
**Čerpané financie:** VEGA: 8685 €

### Dosiahnuté výsledky:

Prenesením precíznej experimentálnej informácie o totálnom účinnom priereze procesu elektron-pozitrónovej anihilácie na dva nabité pióny využitím analytických vlastností piónového formfaktora sa predpovedalo modelovo-nezávislé správanie piónového elektromagnetického formfaktora v priestoru-podobnej oblasti, ktoré jednoznačne diskriminuje viaceré modely inšpirované QCD extrapolujúce asymptotickú formulu QCD do experimentálne merateľnej oblasti. Rozšírený Unitárny a analytický model elektromagnetickej štruktúry nukleónov bol aplikovaný na sofistikovanú predpoveď hyperónových elektromagnetických formfaktorov súčasne v priestorupodobnej a časupodobnej oblasti. Statické parametre hyperónov boli predpovedané a porovnané s predpoveďami chirálnej poruchovej teórie. Rozšírený model nukleónov bol tak isto použitý na predpovede vektorových a tenzorových polarizácií v procese  $e^+e^- \rightarrow p \bar{p}$ . Bol rozpracovaný kovariantný kvarkový model na predpovede rozpadových širok B mezonov v rozpadoch  $B_s \rightarrow J/\psi + \eta'$  a  $B \rightarrow K^{**} + 2\pi$ .

## 6.) Analýza mnohočasticových korelácií v ultrarelativistických zrážkach ťažkých iónov

*(Analysis of multi-particle correlations in ultra-relativistic heavy ion collisions)*

**Zodpovedný riešiteľ:** Peter Filip  
**Trvanie projektu:** 1.1.2011 / 31.12.2013  
**Evidenčné číslo projektu:** 1/0171/11  
**Organizácia je koordinátorom projektu:** áno  
**Koordinátor:** Fyzikálny ústav SAV  
**Počet spoluriešiteľských inštitúcií:** 0  
**Čerpané financie:** VEGA: 1737 €

### Dosiahnuté výsledky:

Pomocou analýzy azimutálnych korelácií častíc vznikajúcich v zrážkach jadier  $197\text{-Au} + 197\text{-Au}$ , boli študované rozdiely v transverzálnej hydrodynamickej expanzii hustej partónovej hmoty, separátne pre častice obsahujúce antikvarky alebo/a kvarky. Bolo zistené, že parametre expanzie antičastíc sa líšia od parametrov expanzie častíc v závislosti od energie zrážky 7.7 - 200 GeV/n, pričom parametre sa viacej líšia pri nižších energiách. Hmota a antihmota vznikajúca v zrážkach Au+Au expanduje takmer rovnako už pri energii jadier  $E_{\text{cms}}=200$  GeV/n. V prípade anti-protónov bola nameraná anomálna expanzia so záporným koeficientom  $v_2$  v oblasti malých priečných

hybností, ktorá sa nedá vysvetliť hydrodynamickým modelom. Boli opublikované články v Physical Review Letters a Physical Review C s explicitným poďakovaním Grantovej agentúry VEGA. V roku 2013 boli skúmané aj údaje zo zrážok silno deformovaných jadier  $^{238}\text{U} + ^{238}\text{U}$ , pričom bolo zistené, že zhoda experimentálnych údajov s teoretickými Monte-Carlo výpočtami sa dosiahne iba za predpokladu prekvapujúco malej kvadrupólovej deformácie jadra  $^{238}\text{U}$ , ktorá je o 50 percent menšia než tabuľková hodnota. Pokus vysvetliť tento prekvapujúci výsledok predpokladaním statickej oktapólovej deformácie jadra  $^{238}\text{U}$  narazil na bariéru nedostatku výpočtového výkonu. Zväčšenie výpočtovej sily (výkonu) použitím GPU technológie bolo vzhľadom na časové a finančné možnosti projektu odložené do budúcnosti. V rámci riešenia projektu bol analyzovaný aj úplne nový mechanizmus vzniku azimutálnej asymetrie dileptónových párov z rozpadu  $J/\Psi$ ,  $\Phi$  a Upsilon častíc, ktorý vzniká v dôsledku kvantovej superpozície tripletného a singletného stavu ( $cc'$ ), ( $ss'$ ), a ( $bb'$ ) mezónov v silnom magnetickom poli. Výsledky boli prezentované na konferenciách, ihneď opublikované, a stali sa základom pre nový projekt.

## 7.) Vývoj algoritmov pre klasifikáciu fázových prechodov

*(Development of algorithms for classification of phase transitions)*

<b>Zodpovedný riešiteľ:</b>	Andrej Gendiar
<b>Trvanie projektu:</b>	1.1.2012 / 31.12.2014
<b>Evidenčné číslo projektu:</b>	2/0074/12
<b>Organizácia je koordinátorom projektu:</b>	áno
<b>Koordinátor:</b>	Fyzikálny ústav SAV
<b>Počet spoluriešiteľských inštitúcií:</b>	0
<b>Čerpané financie:</b>	VEGA: 556 €

### Dosiahnuté výsledky:

Venovali sme sa vplyvu zakrivenia kvantovomechanických spinových systémov na zmenu triedy univerzality vo fázovom prechode. Zostrojili sme nekonečnú postupnosť hyperbolických geometrií konvergujúcich k Euklidovskej geometrii. Pozorovali sme, že aj infinitezimálne malé zakrivenie vedie na strednopoľovú triedu univerzality. Na výpočet sme využili numerický algoritmus Corner Transfer Matrix Renormalization Group (CTMRG), ktorý sme zovšeobecnil na riešenie problémov v neeuklidovskej geometrii. Vyvinuli sme úplne nový spôsob variačného numerického výpočtu na štvorcovej geometrii pre ľubovoľný spinový model. Ide o tzv. "sweeping procedure". Preformulovali sme Axelrodov model a študovali sme v ňom fázové prechody.

## 8.) Stabilita ťažkých jadier a neutrónové hviezdy

*(On stability of heaviest nuclei and neutron star)*

<b>Zodpovedný riešiteľ:</b>	Štefan Gmuca
<b>Trvanie projektu:</b>	1.1.2013 / 31.12.2015
<b>Evidenčné číslo projektu:</b>	2/0176/13
<b>Organizácia je koordinátorom projektu:</b>	áno
<b>Koordinátor:</b>	Fyzikálny ústav SAV
<b>Počet spoluriešiteľských inštitúcií:</b>	0
<b>Čerpané financie:</b>	VEGA: 9264 €

Dosiahnuté výsledky:

Na zariadení MASHA vo FLNR JINR, Dubna, boli po prvýkrát identifikované nové neutrónovo-bohaté izotopy  $^{229-232}\text{Rn}$  v reakciách  $^{48}\text{Ca}+^{232}\text{Th}$ . V rámci relativistického hustotne-závislého modelu s rôznymi formami hustotnej závislosti bola študovaná Lambda hmota v beta-rovnováhe. Extrahovali sme viacero nových parametrizácií hustotnej závislosti z DBHF výpočtov jadrovej hmoty. Ukázali sme, že výber hustotnej závislosti má podstatný vplyv na štruktúru kompaktných hviezd.

**9.) Nanokompozitné tenké vrstvy – vlastnosti a použitie v senzorike**

*(Nanocomposite thin films – properties and applications in sensorics)*

**Zodpovedný riešiteľ:** Katarína Gmucová  
**Trvanie projektu:** 1.1.2013 / 31.12.2016  
**Evidenčné číslo projektu:** VEGA 2/0165/13  
**Organizácia je koordinátorom projektu:** áno  
**Koordinátor:** Fyzikálny ústav SAV  
**Počet spoluriešiteľských inštitúcií:** 0  
**Čerpané financie:** VEGA: 3087 €

Dosiahnuté výsledky:

Študovali sme vplyv plazmónovej rezonancie na redukčno-oxidačné reakcie. Ukázali sme, že v závislosti na povahe detekovaných iónov je plazmonický povrch elektródy schopný zosilniť alebo potlačiť voltcoulometrickú odozvu. Fraktálna dimenzia povrchu tvoreného monovrstvou plazmonických Ag nanočastíc v organickej obálke, ktorú sme získali pomocou analýzy oxidácie feroxyanidu draselného, poukázala na čiastočne blokovaný povrch elektródy. Pri osvetlení sme pozorovali posun k vyššej fraktálnej dimenzii, čo sa dá vysvetliť zdanlivo homogénnejším povrchom elektródy pri šírení sa plazmónových polaritónov.

**10.) Vplyv expozičných podmienok na vývoj binárnych a ternárnych fáz v komplexných kovových zliatinách na báze hliníka**

*(Influence of exposure conditions on evolution of binary and ternary phases in aluminium-based complex metallic alloys)*

**Zodpovedný riešiteľ:** Emília Illeková  
**Trvanie projektu:** 1.1.2012 / 31.12.2014  
**Evidenčné číslo projektu:** 1/0143/12  
**Organizácia je koordinátorom projektu:** nie  
**Koordinátor:** Materiálovotechnologická fakulta STU v Trnave  
**Počet spoluriešiteľských inštitúcií:** 0  
**Čerpané financie:** Fyzikálny ústav SAV: 3237 €

Dosiahnuté výsledky:

Projekt (2012-2014) je zameraný na štúdium štruktúrne komplexných fáz v prevažne kovových systémoch. V roku 2013 bola hlavná pozornosť venovaná identifikácii fáz v binárnych a ternárnych zliatinách na báze Al, určeniu ich stability pri rôznych teplotách a testovaniu korózných vlastností vybraných zliatin. Vo výskume boli využité metódy TEM, SEM (vrátane EDX), rtg. a elektrónovej

difrakcie, DTA a potenciostatické skúšky vo vodnom roztoku NaCl.

**11.) Senzorické vlastnosti usporiadaných nanočasticových vrstiev**  
(*Sensing properties of layers based on ordered nanoparticle arrays*)

**Zodpovedný riešiteľ:** Ján Ivančo  
**Trvanie projektu:** 1.1.2012 / 31.12.2014  
**Evidenčné číslo projektu:**  
**Organizácia je** áno  
**koordinátorom projektu:**  
**Koordinátor:** Fyzikálny ústav SAV  
**Počet spoluriešiteľských** 0  
**inštitúcií:**  
**Čerpané financie:** VEGA: 9781 €

Dosiahnuté výsledky:

V rámci druhého roku riešenia projektu VEGA sme sprevádzkovali zariadenie pre charakterizácie teplotných závislostí statickej a dynamickej odozvy senzorov pre stopové koncentrácie plynov. Vyhodnotili sme odozvy senzorov pracujúcich v režime rezistoru na báze usporiadaných nanočasticových vrstiev Fe<sub>2</sub>O<sub>3</sub> pre stopové koncentrácie acetónu a NO<sub>2</sub>; dosiahnutá odozva s hodnotou 23 pre 1 ppm NO<sub>2</sub> naznačuje, že detektory sú aplikovateľné aj pre koncentrácie NO<sub>2</sub> významne nižšie ako 1 ppm (pripravená publikácia bola akceptovaná v časopise Key Engn. Materials). Boli pripravené masky pre realizáciu technológie prípravy testovacích štruktúr „on-chip“ s integrovaným vyhrievaním senzora ako aj masky pre testovanie senzorov „on-wafer“. Skúmame možnosť zvýšenia odozvy senzorov na báze usporiadaných Langmuir-Blodgettovej nanočasticových vrstiev Fe<sub>2</sub>O<sub>3</sub> pridaním Pd nanočastíc. Ďalej overujeme použitie Fe<sub>2</sub>O<sub>3</sub> nanočasticových vrstiev aj vo funkcii hradlovej elektródy pre senzory na báze FET.  
Publikácie: AFE04, AFE05, AFE06, AFBA03, AFA03, AFC11

**12.) Pokročilé fotovoltické štruktúry s efektom plazmónovej excitácie na kovových nanočasticiach**

(*Advanced photovoltaic structures with the effect of plasmonic excitation on metallic nanoparticles*)

**Zodpovedný riešiteľ:** Matej Jergel  
**Trvanie projektu:** 1.1.2011 / 31.12.2014  
**Evidenčné číslo projektu:** 2/0041/11  
**Organizácia je** áno  
**koordinátorom projektu:**  
**Koordinátor:** Fyzikálny ústav SAV  
**Počet spoluriešiteľských** 0  
**inštitúcií:**  
**Čerpané financie:** SAV: 12948 €

Dosiahnuté výsledky:

Pokračovali sme v optimalizácii prípravy solárnych článkov na báze P3HT/PC61BM s cieľom maximalizovať účinnosť fotokonverzie. Optimalizáciou viacerých krokov (UV čistenie substrátu, prebublávanie aktívnej zmesi argónom, predĺženie žiarenia rotačne nanosenej zmesi v parách rozpúšťadla...) sme dosiahli zvýšenie účinnosti až na 3.4%, čím sme sa dostali na úroveň

zodpovedajúcu súčasnemu štandardu.

Pripravili sme prvé solárne články s novými typmi polymérov PTB7 a PBDTTT-CF v kombinácii s fullerénom PC71BM a za pridania činidla DIO, ktoré zlepšuje vzájomnú rozpustnosť zložiek. Na článku s aktívnou zmesou PTB7/ PC71BM sme dosiahli účinnosť 6.7%, ktorá ale veľmi rýchlo s degradovala s časom. Zmes PBDTTT-CF/PC71BM dala pomerne stabilnú účinnosť 5.5%.

Skúmali sme vplyv zabudovania plazmonických nanočastíc do objemovej heteroštruktúry P3HT/PC61BM solárneho článku a na prednú ITO elektródu. Dosiahli sme zlepšenie prúdu nakrátko o približne 8% a v súvislosti s tým podobné zlepšenie externej kvantovej účinnosti (EQE) pri pridaní 0.1wt% Au nanočastíc o priemere 7 nm do objemu aktívnej vrstvy. Účinnosť článku ale poklesla o 17% v dôsledku horšieho plniaceho faktora I-V krivky. Toto sa nám podarilo odstrániť pridaním 0.1wt% Ag nanočastíc o priemere 12 nm, kde sme okrem zvýšenia EQE dosiahli aj 10% zvýšenie účinnosti.

Pokračovali sme v analýze optických vlastností prednej ITO elektródy s plazmonickými nanočasticami ako aj objemovej heteroštruktúry s nanočasticami. Merania transmitancie a reflektancie od UV po IR oblasť boli porovnávané s výpočtami metódou FDTD (finite-difference time-domain method) pre rôzne konfigurácie a koncentrácie zabudovaných nanočastíc. Bolo zistené, že už malé koncentrácie nanočastíc spôsobujú zmeny v spektre, čo súhlasí s meraniami účinnosti solárnych článkov.

Pomocou malouhlového a veľkouhlového rozptylu rtg žiarenia na synchrotrónovom zdroji sme skúmali vplyv odstránenia surfaktantu na samousporiadané súbory plazmonických Ag nanočastíc. Merania boli robené in situ pod UV ožiarení. Odstránenie surfaktantu viedlo k strate samousporiadania a aglomerácii a oxidácii nanočastíc, ktorých kinetika bola podrobne analyzovaná.

Pomocou malouhlového a veľkouhlového rozptylu rtg žiarenia na synchrotrónovom zdroji sme tiež začali skúmať vplyv plazmonických nanočastíc a vplyv laserového žiarenia na objemovú heteroštruktúru P3HT/PC61BM. Takéto žiarenie je kompatibilné s kontinuálnou prípravou solárnych článkov vo výrobnom procese. V súčasnosti tieto výsledky sumarizujeme pre následnú analýzu.

Vyvinuli sme postup prípravy superhydrofóbných povrchov na báze SiO<sub>2</sub> nanočastíc s kontaktným uhlom väčším ako 165 stupňov. Tento postup sme aplikovali na prednú ITO elektródu solárnych článkov ako multifunkčný povlak, ktorého hierarchická drsnosť zväčší difúzny rozptyl a absorbciu svetla v aktívnej vrstve a ktorý zároveň bude vodoodpudivý so samočistiacou a protinámrazovou schopnosťou. Týmto postupom sme dosiahli 6% zvýšenie účinnosti fotokonverzie a EQE solárneho článku na báze P3HT/PC61BM.

### 13.) Výskum kvark-gluónových stavov hadrónov v dynamike ich rozptylu

*(Research of quark-gluon states of hadrons within dynamics of diffraction)*

<b>Zodpovedný riešiteľ:</b>	Dalibor Krupa
<b>Trvanie projektu:</b>	1.1.2011 / 1.1.2013
<b>Evidenčné číslo projektu:</b>	2 / 0137 / 11
<b>Organizácia je koordinátorom projektu:</b>	áno
<b>Koordinátor:</b>	Fyzikálny ústav SAV
<b>Počet spoluriešiteľských</b>	0

**inštitúcií:**

**Čerpané financie:** VEGA: 575 €

Dosiahnuté výsledky:

Bol vypracovaný postup novej aplikácie mnohokanálovej interakčnej schémy elementárnych častíc, na analýzu ich vlastností a ich vnútornej kvarkovej a gluónovej štruktúry priamo z nameraných účinných priereзов rozptylu meraných pri ich vysoko energetických zrážkach, ktorý obchádza doterajšie problémy spojené s nejednoznačnosťou určenia rozptylových fáz určených metódou fázovej analýzy. Originálna mnohokanálová interakčná schéma elementárnych častíc, má vysokú výpovednú hodnotu o vnútornej dynamike kvarkových a gluónových konštituentov častíc interagujúcich pri vysokých energiách, pri ktorých sa vytvárajú zložené častice s veľmi krátkou dobou života a s celou varietou možností rozpadov do rôznych rozpadových módoв. Aplikácia na rezonančný stav  $f_0(1370)$  umožnila výskum vnútornej štruktúry tohto skalárneho mezónu v závislosti na postupnom otváraní rozpadov na dva  $\pi$  mezóny, na pár mezónov  $K$ -  $\bar{K}$ , 4  $\pi$  mezóny a mezóny  $\eta$ . Pomerne skromné vstupné experimentálne údaje potrebné na konkluzívnu analýzu sa postupne dopĺňajú z publikácií niektorých experimentov z experimentov na LHC v CERN, ako aj z elektrón pozitronových urýchľovačov na BESIII kolaborácii v Institute of High Energy Physics v Číne a z Belle experimentu na urýchľovači v Japonskej Tsukube. V rozpade častice  $Y(4260)$  bol identifikovaný intermedialny stav  $Z_c(3900)$ , ktorý je vážnym kandidátom na exotický stav zložený zo štyroch kvarkov (D.Krupa: Search for exotic states continues, v tlači).

**14.) Kombinovaný rastrovací tranzientový mikroskop**

*(Combined Scanning Transient Microscope)*

**Zodpovedný riešiteľ:** Štefan Lányi  
**Trvanie projektu:** 1.1.2011 / 31.12.2013  
**Evidenčné číslo projektu:** 2/0063/11  
**Organizácia je koordinátorom projektu:** áno  
**Koordinátor:** Fyzikálny ústav SAV  
**Počet spoluriešiteľských inštitúcií:** 0  
**Čerpané financie:** VEGA: 2814 €

Dosiahnuté výsledky:

Bol dokončený a testovaný prototyp mikroskopu, využívajúci na definovanie a reguláciu vzdialenosti sondy od zobrazovaného povrchu laterálnu silovú interakciu. Režim LF-AFM (Lateral Force AFM) bol zvolený preto, že modulácia kapacity medzi sondou a analyzovaným povrchom vibrujúcou sondou je zanedbateľne malá, resp. podstatne menšia ako by bola v prípade sondy kmitajúcej kolmo na povrch. Boli získané reprodukovateľné obrazy povrchu. Publikáčna činnosť priamo súvisiaca s mikroskopom bola zastavená kvôli podanej patentovej prihláške.

**15.) Spracovanie mnohorozmerných experimentálnych dát v jadrovej fyzike**

*(Multidimensional experimental data processing in nuclear physics)*

**Zodpovedný riešiteľ:** Vladislav Matoušek  
**Trvanie projektu:** 1.1.2012 / 31.12.2014  
**Evidenčné číslo projektu:** 2/0071/12  
**Organizácia je** áno

**koordinátorom projektu:**

**Koordinátor:** Fyzikálny ústav SAV  
**Počet spoluriešiteľských inštitúcií:** 0  
**Čerpané financie:** VEGA: 2409 €

Dosiahnuté výsledky:

1. V oblasti vývoja efektívnych metód dekonvolúcie sme rozšírili balík dekonvolučných metód o metódy "boosted blind" dekonvolúcie a upravili metódy SVD dekompozície (Singular Value Decomposition) pre efektívnejšie spracovanie gamma-spektier. Ukázalo sa, že v špecifických prípadoch tieto metódy poskytujú lepšie výsledky ako doteraz používané metódy. Ďalej sme rozpracovali možnosť zahrnutia Waveletových transformácií pre výpočet počiatočného odhadu pre algoritmy iteratívnych dekonvolučných metód. Tieto transformácie sú schopné viac zohľadniť variabilitu tvaru pík v závislosti od energie a tým dosiahnuť lepšiu dekompozíciu gamma-spektier. Zlepšeným počiatočným odhadom je možné skvalitniť získané výsledky a znížiť počet potrebných iterácií, čo znamená zníženie výpočtových nárokov.
2. V oblasti eliminácie pozadia v mnohorozmerných spektrách sme rozpracovali možnosť adaptívneho prispôsobenia veľkosti okna v metódach odhadu zložitých tvarov pozadia založených na SNIP algoritme. Tento prístup by eliminoval nutnosť zadávania pevnej veľkosti okna užívateľom vopred, čo môže výrazne zlepšiť kvalitu odhadnutého pozadia.
3. V oblasti zberu, analýzy a vizualizácie mnohoparametrických koincidenčných spektier sme nami vyvinuté sofistikované algoritmy dekonvolúcie a odhadu pozadia, navrhnuté pre použitie len v programovom balíku Daqprovis, upravili do prenositeľnej formy samostatných knižníc pre platformu Windows, Linux a prostredie ROOT. Keďže ide o veľké množstvo rutín, bol za týmto účelom vyvinutý špeciálny program na automatickú analýzu závislostí funkcií v zdrojovom kóde DAQProVisu. Následne boli upravené zdrojové kódy funkcií 1-,2- a 3-parametrickej dekonvolúcie do prenositeľnej formy a otestované v prostredí ROOTu.

**16.) Štúdium elektricky aktívnych defektov v systémoch s organickými polovodičmi pre fotovoltiku**

*(Study of electrically active defects in systems with organic semiconductors for photovoltaics)*

**Zodpovedný riešiteľ:** Vojtech Nádaždy  
**Trvanie projektu:** 1.1.2012 / 31.12.2014  
**Evidenčné číslo projektu:** 2/0157/12  
**Organizácia je** áno  
**koordinátorom projektu:**  
**Koordinátor:** Fyzikálny ústav SAV  
**Počet spoluriešiteľských inštitúcií:** 0  
**Čerpané financie:** VEGA: 2160 €

Dosiahnuté výsledky:

Pokračovali sme v charakterizácii štruktúrnych, optických a elektrických vlastností tenkých vrstiev vybraných organických polovodičov poly[methylphenylsilylene] (PMPSi), poly(p-phenylene vinylene) (PPV) a poly(3-hexylthiophene) (P3HT), ktoré boli pripravované metódou rotačného nanášania v inertnej atmosfére v glovebox-e. Vďaka získaným výsledkom sme zvýšili účinnosť nášho štandardného laboratórneho organického slnečného článku na báze zmesi P3HT a derivátu fullerénu (PCBM) na 3.4%.



Pomocou elektrochemickej komôrky vyvinutej v predchádzajúcom roku sme určili cyklickou voltametriou absolútne polohy energetických hladín HOMO a LUMO vyšetrovaných polymérov, ktoré sú v dobrej zhode s publikovanými údajmi. Táto komôrka slúžila na vývoj a testovanie novej unikátnej spektroskopickéj metódy na určenie energetického rozdelenia defektných stavov v zakázanom páse organických polovodičov. Metóda je založená na detekcii oxidačno-redukčných reakcií na rozhraní elektrolyt/vyšetrovaná vrstva organického polovodiča, ktorý tvorí pracovnú elektródu v elektrochemickej komôrke. Na prototypickom polyméri PMPSi sme demonštrovali možnosť tejto metódy detegovať elektrónovú štruktúru hustoty stavov a ich zmeny vplyvom degradácie s UV žiarením v širokom rozsahu energie (6 eV) a koncentrácie (6 rádov).

### 17.) Uväznenie a vlastnosti základného stavu v kvantovej chromodynamike a v riešiteľných modeloch

*(Confinement and Properties of the Ground State in Quantum Chromodynamics and Solvable Models)*

**Zodpovedný riešiteľ:** Štefan Olejník  
**Trvanie projektu:** 1.1.2013 / 1.12.2016  
**Evidenčné číslo projektu:** 2/0072/13  
**Organizácia je koordinátorom projektu:** áno  
**Koordinátor:** Fyzikálny ústav SAV  
**Počet spoluriešiteľských inštitúcií:** 0  
**Čerpané financie:** VEGA: 4632 €

#### Dosiahnuté výsledky:

V r. 2013, prvom roku riešenia projektu, sme skúmali hlavne nasledujúce problémy:

- približný tvar vlnového funkcionálu vákua Yangovej-Millsovej kalibračnej teórie v numerických simuláciách na mriežke,
- fyzikálne vákuum niektorých presne riešiteľných modelov kvantovej teórie poľa v hamiltonovskej formulácii.

Výsledky boli uverejnené v jednom odbornom článku, v jednom článku, ktorý je zaslaný na uverejnenie v odbornom časopise a v troch konferenčných príspevkoch.

### 18.) Výskum interakcie vodného HCN roztoku s viacerými druhmi kremíkových štruktúr

**Zodpovedný riešiteľ:** Emil Pinčík  
**Trvanie projektu:** 2.1.2012 / 31.12.2014  
**Evidenčné číslo projektu:** VEGA 2/0076/12  
**Organizácia je koordinátorom projektu:** áno  
**Koordinátor:** Fyzikálny ústav SAV  
**Počet spoluriešiteľských inštitúcií:** 1 - Japonsko: 1  
**Čerpané financie:** VEGA: 5278 €

#### Dosiahnuté výsledky:

Skúmali sme pasivované štruktúry SiO<sub>2</sub>/Si pripravované v roztoku HClO<sub>4</sub>. Vyčistené dosky Si

(1 0 0) boli ponorené do 1 M vodného roztoku  $\text{HClO}_4$ . Oxidácia prebehla pri kladnom predpätí na vzorke. Výsledky získané pri pasivácii pri pasivácii v roztokoch sme porovnali s výsledkami na porovnateľných vzorkách pasivovaných termálnou oxidáciou pri  $850^\circ\text{C}$ . Výsledné hrúbky oxidov získaných pri elektrochemickej resp. tepelnej oxidácii boli  $\sim 15$  nm resp.  $\sim 7,5$  nm. Všetky pripravené štruktúry  $\text{SiO}_2/\text{Si}$  boli pasivované v roztokoch HCN alebo KCN. Nízka hustota defektných stavov dosahujúca približne  $10^{11} \text{ eV}^{-1}\text{cm}^{-2}$  bola stanovaná na vzorkách s vrstvou  $\text{SiO}_2$  pripravenou elektrochemicky, pasivovanou vo vodnom roztoku HCN a žíhanou vo vákuu pri nízkych teplotách. Ukázali sme, že reziduálne elektrónové pasce na rozhraní, ktoré sme pozorovali pomocou Q-DLTS alebo C-V metódy je možné čiastočne transformovať na na mobilné a/alebo imobilné nabitie častice, ktoré posúvajú "flat-band" napätie zodpovedajúcich MOS štruktúr a zväčšujú hysteréziu ich C-V kriviek.

Publikácie: ADCA35, ADCA47, ADCA48, ADEB13, ADEB18, ADEB19, AFA08, AFC14, AFDA04, AFE07, AFE08, AFFA02, AFG02, AFG14, AFG21, AFG22, AFG23, AFHA01, AFHA05, AFHA06, AFHA07, AFHA08

## 19.) Výskum mikroštruktúrnych, elektrických a optických vlastností polovodičovo-dielektrických systémov

**Zodpovedný riešiteľ:** Emil Pinčík  
**Trvanie projektu:** 2.1.2013 / 31.12.2015  
**Evidenčné číslo projektu:** VEGA 1/0853/13  
**Organizácia je koordinátorom projektu:** nie  
**Koordinátor:** Inštitút Aurela Stodolu Žilinskej Univerzity  
**Počet spoluriešiteľských inštitúcií:** 0  
**Čerpané financie:** VEGA: 1044 €

### Dosiahnuté výsledky:

V tomto roku sme realizovali teoretické modelovanie a experimentálne merania tunelových prúdov cez ultratenkú vrstvu  $\text{SiO}_2$ . Štruktúry  $\text{Al}/\text{SiO}_2/\text{Si}$  boli pripravené pomocou oxidácie kremíka v  $\text{HNO}_3$  (metóda NAOS). Táto metóda používa oxidáciu vzoriek Si vo vriacej 68%  $\text{HNO}_3$ , pričom vzniká ultratenká (menej ako 3 nm hrubá) vrstva  $\text{SiO}_2$  s nízkym zvodovým prúdom, ktorá je vhodná pre využitie pri výrobe LSI, ako aj TFT. Zvodový prúd môže byť ďalej redukovaný takzvaným post-metalizačným žíhaním pri  $200^\circ\text{C}$  vo vodíkovej atmosfére. Pri predpätí 1V hodnota zvodového prúdu dosahuje  $1/4$  až  $1/20$  zvodového prúdu nameraného za rovnakých podmienok na štruktúre s 1,5 nm hrubým termickým oxidom. Nízka hodnota zvodového prúdu sa pripisuje (i) nízkej hustote stavov rozhrania oxid/polovodič a (ii) vysokej nespojitosti pásov na rozhraní NAOS  $\text{SiO}_2/\text{Si}$ , ktorá je dôsledkom vysokej atomárnej hustoty vrstvy  $\text{SiO}_2$ .

Pri porovnávaní výsledkov simulácií s experimentom bola pozornosť zameraná na nasledovné otázky: (i) vplyv štruktúrnych parametrov oxidovej vrstvy (hrúbka, dielektrická konštanta, atď.), (ii) vplyv kvantových efektov, (iii) význam jednotlivých zložiek tunelujúceho prúdu. Výsledky ukazujú značný vplyv kvantových efektov na tunelujúci prúd tečúci cez ultratenký oxid súčiastky MOS a poskytujú užitočnú informáciu pre porovnanie príspevkov rozličných mechanizmov tunelovania v závislosti od štruktúrnych vlastností.

Publikácie: ADEB19, AFC14, AFDA04, AFE08

## 20.) Lokálne vlastnosti komplexných spinových systémov

*(Local properties of complex spin systems)*

**Zodpovedný riešiteľ:** Martin Plesch  
**Trvanie projektu:** 1.1.2012 / 31.12.2014  
**Evidenčné číslo projektu:** 2/0072/12  
**Organizácia je koordinátorom projektu:** áno  
**Koordinátor:** Fyzikálny ústav SAV  
**Počet spoluriešiteľských inštitúcií:** 0  
**Čerpané financie:** VEGA: 1158 €

### Dosiahnuté výsledky:

Práce boli zamerané na fundamentálne vzťahy termodynamiky a kvantovej teórie informácie, ako aj na problematiku tvorby náhodnosti pomocou kvantových zariadení. V rámci projektu bola publikovaná jedna publikácia v PRL, dve publikácie boli zaslané na posudzovanie.

## 21.) Kvantovo-informatické konvexné štruktúry

*(Quantum-informational convex structures)*

**Zodpovedný riešiteľ:** Michal Sedlák  
**Trvanie projektu:** 1.1.2013 / 31.12.2015  
**Evidenčné číslo projektu:** 2/0125/13  
**Organizácia je koordinátorom projektu:** áno  
**Koordinátor:** Fyzikálny ústav SAV  
**Počet spoluriešiteľských inštitúcií:** 0  
**Čerpané financie:** VEGA: 7533 €

### Dosiahnuté výsledky:

Pre ľubovoľnú konvexnú množinu zavádzame koncept hraničnosti, ktorý zachytáva najefektívnejší spôsob akým možno vyjadriť element ako konvexnú kombináciu dvoch bodov z hranice množiny. Toto číslo meria (bez potreby konkrétnej topológie) ako ďaleko je daný element od hranice množiny. Vieme ukázať, že jeden z bodov na hranici môžeme vždy vybrať ako extrémálny. Sústredili sme sa na výpočet hraničnosti pre množiny kvantových stavov, kanálov a pozorovateľných. Vieme ukázať, že hraničnosť úzko súvisí so (semi)normami, ktoré poskytujú operačnú interpretáciu hraničnosti. Konkrétne minimálna pravdepodobnosť chyby pre rozlišovanie dvojice kvantových zariadení je zdola ohraničená hraničnosťou každého z nich. Pre stavy a pozorovateľné je toto dolné ohraničenie tesné. Pre nekonečnorozmerné kvantové objekty je hraničnosť nulová, pretože všetky body množiny sú na jej hranici.

## 22.) Štatistická fyzika priestorovo ohraničených systémov

*(Statistical physics of confined systems)*

**Zodpovedný riešiteľ:** Ladislav Šamaj  
**Trvanie projektu:** 1.1.2012 / 31.12.2014  
**Evidenčné číslo projektu:** 2/0049/12  
**Organizácia je** áno

**koordinátorom projektu:**

**Koordinátor:** Fyzikálny ústav SAV  
**Počet spoluriešiteľských inštitúcií:** 0  
**Čerpané financie:** VEGA: 9264 €

Dosiahnuté výsledky:

V oblasti Coulombovských systémov medzi nabitými platňami boli odvodené nové sumačné pravidlá pre profily hustoty a párové korelačné funkcie častíc. Bol presne vyriešený jednorozmerný problém symetrického Coulombovského plynu s logaritmickou interakciou, s podmienkou alternácie kladných a záporných nábojov. Pred ukončením je riešenie problému vybratia náboja z dvojrozmerného Wignerovho kryštálu a zodpovedajúca transformácia mriežky.

Zaoberali sme sa jednorozmerným popisom nestacionárnych difúzných tokov v nehomogénnych kanáloch. Použitie rigorózne homogenizačnej mapovacej techniky nam umožnilo nájsť nové korekcie k zovšeobecnenej Fick-Jacobsovej rovnici, závisiace od časových zmien celkového toku. Ukázali sme taktiež, že mapovacia technika môže byť preformulovaná pomocou previazaných dynamik priečných momentov hustoty, čo ponúka ďalšiu užitočnú fyzikálnu interpretáciu tejto metódy.

**23.) Dynamika uväznených molekulárnych systémov v nanometrových póroch**

*(Dynamics of confined molecular systems within nanoscale pores)*

**Zodpovedný riešiteľ:** Ondrej Šauša  
**Trvanie projektu:** 1.1.2010 / 31.12.2013  
**Evidenčné číslo projektu:** 2/0099/10  
**Organizácia je koordinátorom projektu:** áno  
**Koordinátor:** Fyzikálny ústav SAV  
**Počet spoluriešiteľských inštitúcií:** 0  
**Čerpané financie:** Fyzikálny ústav SAV: 474 €

Dosiahnuté výsledky:

Boli zmerané doby života ortopozitrónia (o-Ps) v širokom rozsahu teplôt (25-300 K) pre hexadekán uväznený v silikagele Develosil s priemernou veľkosťou pórov 3 nm. V tomto prípade rozmery pórov sú porovnateľné s dĺžkou molekuly alkánu (2,2 nm). Ukázali sa rozdiely v správaní sa hexadekánu v zaplnených póroch oproti prípadu, keď póry nie sú úplne naplnené. Pri malom plnení (pod 10 % hm.) sa pri nízkych teplotách generujú voľné objemy s anomálnym koeficientom teplotnej rozťažnosti voľnoobjemových kavít, čo sa vysvetľuje praskaním tenkej vrstvy hexadekánu na vnútornom povrchu stien pórov matrice. Tieto procesy budú podrobnejšie študované v ďalších experimentoch.

Pomocou pozitronovej anihilačnej časovej spektroskopie (PALS) sa skúmali nanopóry v uhlíkových vláknach s rôznymi špecifickými povrchmi, pripravených na Ústave polymérov SAV. Boli stanovené priemerné veľkosti pórov pre jednotlivé vzorky, ako aj horná hranica priemernej veľkosti pórov na 0,7 nm v týchto materiáloch.

## 24.) NANOCOMPSYM: Počítačové simulácie na nanoškále

(*NANOCOMPSYM: Computer modeling on the nanoscale*)

**Zodpovedný riešiteľ:** Ivan Štich  
**Trvanie projektu:** 1.1.2012 / 31.12.2014  
**Evidenčné číslo projektu:** 2/0007/12  
**Organizácia je** áno  
**koordinátorom projektu:**  
**Koordinátor:** Fyzikálny ústav SAV  
**Počet spoluriešiteľských** 0  
**inštitúcií:**  
**Čerpané financie:** VEGA: 11580 €  
 FU SAV: 14916 €

### Dosiahnuté výsledky:

Venovali sme sa štyrom oblastiam: 1) NC-AFM (Non-Contact Atomic Force Microscopy) nanomanipulácii atómov na povrchoch, 2) nanotribológii, 3) modelovaniu organometalických systémov na báze prechodových kovov a 4) kvantovému transportu cez nanoprechody na báze fotospínateľnej molekuly azobenzénu. V (1) sme študovali najmä nanomanipuláciu atómov (Cu a Co) na zoxidovanom povrchu Cu(110)-O (c(6x2) a p(2x1)). Tieto výsledky sú priamo naviazané na experimenty, ktoré uskutočnil náš partner, prof. Sugawara a jeho skupina na Osaka University. Ukázali sme, že tento povrch je stabilizovaný vdW silami a to aj napriek tomu, že je silne viazaný aj kovalentnými interakciami. Ukázali sme tiež, že pri kovových povrchoch je nutné uvažovať tienie disperzných koeficientov použitých v DFT+vdW metódach. Objasnili sme mechanizmus manipulácie Cu atómov na rekonštrukcii p(2x1) ako vertikálnu manipuláciu, pri ktorej však, prekvapivo, nedochádza k zmene apexu hrotu. Modelovanie manipulácie sa previedlo kombináciou DFT techník na určenie bariér a kinetického Monte Carla, ktoré umožňuje explicitne modelovať (pomalu) dynamiku hrotu. Pri manipulácii Co atómu sme zistili, že dochádza k jeho delokalizácii (rotácii) na makroskopických časových škálach (minúty). Detailné štúdium povrchu potenciálnej energie ukázalo, že ide pravdepodobne o hrotom indukovaný prechod z chemisorbovaného do fyzisorbovaného stavu. V oblasti (2) sme študovali nanotribológiu nanočastíc antimónu na povrchu MoS<sub>2</sub>. Tieto systémy experimentálne študuje náš partner na Univerzite Giessen, prof. Schirmeisen. Ukázali sme, že pri tomto systéme neexistuje superlubrická frikčná vetva a objasnili mechanizmus trenia. V oblasti (3) sme študovali najmä plné sendviče vanád-benzénu. Na základe DFT modelovania sa tento systém pokladal za polokovový feromagnet, a preto za ideálneho kandidáta pre realizáciu spinového filtra. QMC výpočtami sme ukázali, že tieto systémy sú feromagnetické izolanty, a preto, bez ďalšej funkcionalizácie, nie sú príliš vhodné ako materiál pre spinové filtre. V oblasti (4) sme previedli modelovanie konduktancie nanoprechodu zlato-azobenzén-zlato a ukázali, že pomer on/off (trans/cis) konduktancií je cca. 2 a nie dva rády, ako ukazovali predošlé modely, a preto tento systém nie je vhodný ako molekulový spínač, ako sa doposiaľ predpokladalo.

## 25.) Kovové materiály s komplexnou štruktúrou

(*Metallic materials with complex structure*)

**Zodpovedný riešiteľ:** Peter Švec  
**Trvanie projektu:** 1.1.2011 / 31.12.2013  
**Evidenčné číslo projektu:** VEGA 2/0111/11  
**Organizácia je** áno  
**koordinátorom projektu:**  
**Koordinátor:** Fyzikálny ústav SAV  
**Počet spoluriešiteľských** 0  
**inštitúcií:**

**Čerpané financie:** VEGA: 20302 €

Dosiahnuté výsledky:

Spojením vedeckých aktivít v oblasti experimentálno-teoretických prístupov s prvoprincípovými a klasickými výpočtami sme navrhli a pripravili nové kovové systémy bohaté na Al a systémy bohaté na Fe a feromagnetické prvky. Preskúmali sme ich štruktúru a vybrané vlastnosti. Stanovili sme vhodné typy a množstvá prídavných prvkov pre systémy na báze Al vedúce k vzniku kvázikryštalických a iných komplexných fáz, určili sme štruktúry týchto fáz a pridali ich do existujúcich databáz štruktúr. Vo vybraných intermetalických systémoch Al-Co a GaPd sme stanovili katalytické vlastnosti a ich súvis so štruktúrou povrchov týchto fáz.

Vytvorili sme nové feromagnetické systémy s vysokou magnetizáciou v nasýtení a stanovili sme podmienky pre jej optimalizáciu. Ukázali sme, že je možné pripraviť sériu systémov na báze Fe-Co-Nb-Si-B konvenčným rýchlym ochladením, v objemovom amorfnom stave a v pseudoobjemovom stave vo forme viacvrstvových amorfných pások s rovinným rozhraním medzi vrstvami, stanovili sme ich štruktúru, oblasť stability a vlastnosti.

Vhodným termomagnetickým spracovaním sme zoptimalizovali vybrané magneticky mäkké materiály na báze Fe-Cu-Nb-Si-B/P so zníženým obsahom Si, vysvetlili sme príčiny zlepšenia vybraných magnetických vlastností. Podobne sme zoptimalizovali systém na báze Co-Cr-Fe-Si-B na dosiahnutie rekordne nízkeho šumu pri premagnetovaní a vysoký tieniaci efekt voči magnetickému poľu.

Súbežne sme rozvíjali experimentálnu a výpočtovú infraštruktúru, metodiky skúmania objemov a povrchov kovových materiálov a nástroje na interpretácii získaných poznatkov. Významným spôsobom sme rozvinuli o.i. techniky in-situ sledovania zmien mikroštruktúry pri fázových transformáciách.

Súčasťou aktivít bol aktívny prenos poznatkov, školenie doktorandov a mladých vedeckých pracovníkov a disseminácia odborných výsledkov o.i. organizovaním vedeckých podujatí (medzinárodná konferencia, workshop) a intenzívnou popularizáciou.

K výstupom projektu patria o.i. 3 kapitoly v knihách zahr. vydateľstiev, 16 CC publikácií, 7 pozvaných prednášok na medzinárodných podujatiach.

## **26.) Energia symetrie pri super-saturačnej hustote**

*(Symmetry energy at super-saturation density)*

**Zodpovedný riešiteľ:** Martin Veselský  
**Trvanie projektu:** 1.1.2011 / 31.12.2013  
**Evidenčné číslo projektu:** VEGA-2/0105/11  
**Organizácia je koordinátorom projektu:** áno  
**Koordinátor:** Fyzikálny ústav SAV  
**Počet spoluriešiteľských inštitúcií:** 0  
**Čerpané financie:** VEGA: 4625 €

Dosiahnuté výsledky:

Skupina z OJF FÚ SAV sa v rámci analýzy experimentu S394 (kolaborácia ASY-EOS), zamerala na simulácie komponentov pričného toku častíc, menovite smerovaného a eliptického toku. Pre simulácie bol použitý rozšírený model BUU, vyvinutý na OJF FÚ SAV, kde sa in-medium nukleón-nukleónové účinné prierezy odhadujú zo stavovej rovnice po transformácii na Van der Waalovu stavovú rovnicu. S pomocou nateraz dostupných dát boli určené vyplývajúce limitácie na parametre stavovej rovnice jadrovej hmoty, ako sú nestlačiteľnosť a hustotná závislosť energie symetrie.

Skupina z OJF FÚ SAV v spolupráci s Univerzitou v Liverpooli pracovala na analýze experimentu na štúdium vzbudených hladín jadier  $^{177,179}\text{Au}$  na urýchľovačovom komplexe Univerzity v Jyväskylä (Fínsko). Celkovo bolo publikovaných 5 článkov v CC časopisoch.

## **27.) Vývoj termofyzikálnych senzorov na monitorovanie tuhnutia betónových zmesí** (*Thermophysical sensors development for monitoring of concrete setting*)

**Zodpovedný riešiteľ:** Viliam Vretenár  
**Zodpovedný riešiteľ v organizácii SAV:** Viliam Vretenár  
**Trvanie projektu:** 1.1.2012 / 31.12.2014  
**Evidenčné číslo projektu:** 2/0190/12  
**Organizácia je koordinátorom projektu:** áno  
**Koordinátor:** Fyzikálny ústav SAV  
**Počet spoluriešiteľských inštitúcií:** 0  
**Čerpané financie:** VEGA: 2568 €

### Dosiahnuté výsledky:

V rámci riešenia projektu boli dosiahnuté nasledovné výsledky:

- v spolupráci s Technickým a skúšobným ústavom stavebným, n.o. a súkromnou spoločnosťou Betón Racio, s.r.o. sme pokračovali v meraní a vyhodnocovaní série meraní na štandardných cementových kašiach, za použitia 2 rozdielnych cementov (obsah C3A fázy). Termofyzikálne merania sú korelované s normovanými skúškami na cementovom trámčekoch, tj. pevnosť v tlaku a v ohybe, dynamický modul pružnosti, Vikatov test atď. Vyhodnocovanie stále prebieha.
- bola zrealizovaná numerická analýza vplyvu heterogenít meraného materiálu na výsledné termofyzikálne parametre pri použití dynamických meracích metód (jedno aj dvojprvkových), kde sme okrem iného poukázali na neplatnosť kritéria homogénnosti pre niektoré typy heterogénnych štruktúr. Výsledok ovplyvňuje potenciálny rozsah použitia termofyzikálnych senzorov v rôznych aplikáciách, ako napríklad samotné monitorovanie tuhnutia betónovej zmesi.
- v rámci projektu boli finančne podporené dokončovacie práce na vývoji novej meracej jednotky pre termofyzikálne senzory RTMW, umožňujúcej meranie rýchlych teplotných odoziev s väčšou citlivosťou, ako aj bezdrôtový prenos nameraných údajov.

## **28.) Testovanie kvantových prístrojov** (*Testing quantum devices*)

**Zodpovedný riešiteľ:** Mário Ziman  
**Trvanie projektu:** 1.1.2011 / 31.12.2013  
**Evidenčné číslo projektu:** 2/0127/11  
**Organizácia je koordinátorom projektu:** áno  
**Koordinátor:** Fyzikálny ústav SAV  
**Počet spoluriešiteľských inštitúcií:** 0  
**Čerpané financie:** VEGA: 11580 €

Dosiahnuté výsledky:

Boli publikované 2 články Phys. Rev. A 88, 032316 (2013) a Phys. Rev. A 88, 062328 (2013), v ktorých sme matematicky charakterizovali previazanie-anihilujúce kvantové dynamiky v prípade dvoj-časticových a mnoho-časticových systémov. Použitím Choi-Jamiolkowskeho formalizmu sme našli triedu stavov, ktoré zodpovedajú týmto typom dynamík, a teda sme našli analogický vzťah ako medzi previazaným stavmi a tzv. EB dynamikami. Odvodené matematické techniky sme demonštrovali na príklade depolarizačných šumov. Vo viac-časticovom prípade sme objavili, že lokálny a globálny depolarizačný šum majú kvalitatívne odlišné previazanie a disociačné vlastnosti.

**Programy: APVV**

**29.) Štúdium vlastností hornín a vyšetrovanie štruktúrno-textúrnych charakteristík hornín s koreláciou na termofyzikálne a fyzikálno-mechanické vlastnosti**

*(Study of rocks properties and investigation of structural and textural characteristic in correlation with thermophysical and physico-mechanical properties)*

<b>Zodpovedný riešiteľ:</b>	Vlastimil Boháč
<b>Trvanie projektu:</b>	1.5.2011 / 31.10.2014
<b>Evidenčné číslo projektu:</b>	APVV-641-10
<b>Organizácia je koordinátorom projektu:</b>	áno
<b>Koordinátor:</b>	Fyzikálny ústav SAV
<b>Počet spoluriešiteľských inštitúcií:</b>	0
<b>Čerpané financie:</b>	APVV: 34333 €

Dosiahnuté výsledky:

V treťom roku riešenia projektu APVV bol vyšetrovaný vplyv rušivých efektov na výsledné neistoty meraných parametrov v závislosti od geometrie vzoriek, pokračovali sme v monitorovaní teplotno-vlhkostných zmien v tufovom masíve na lokalite múzea skalných obydlí v Brhlovciach a analyzovali sme rozdiel dát pre špecifické štruktúry materiálov pri meraní termofyzikálnych parametrov pomocou prechodových a rovnovážnych metód. V rámci projektu bola postavená nová elektronická jednotka RTA-V1 pre jednosondové prechodové a stacionárne metódy, ktorá je optimalizovaná pre plošné typy odporových zdrojov tepla.

Pre impulznú prechodovú metódu bola vypracovaná analýza vplyvu rôznej geometrie a hrúbky vzoriek na celkovú neurčitost' fitovaných parametrov vyhodnocovaných modelmi pre tieto geometrie. Nové modely zohľadňujú tepelné straty z povrchu vzorky boli použité na analýzu vplyvu uvedeného efektu pre rôzne hrúbky vzoriek pre cylindrickú a kuboidnú formu vzoriek. Analýzou neistôt sme našli optimálnu geometriu pre porézne kamenné materiály a celkovú dobu zberu dát pri meraní teplotnej odozvy na impulz.

V oblasti monitorovania stavu vlhkosti a teploty tufového masívu v hĺbke 10, 38 a 58cm. Na lokalite múzea skalných obydlí v Brhlovciach boli nájdené vplyvy vlhkosti na zmeny vedenia tepla pre rôzny obsah vody v póroch štruktúry tohto typu kameňa v rámci 2-3%, čo je v súlade s dátami vlhkostných závislostí podobných prírodných materiálov v teplotnom rozsahu, ktorý je typický pre uvedenú lokalitu, teda od -5 do 35°C. Najväčšie zmeny v rámci ročných období sme pozorovali pre najmenšiu hĺbku 10cm. Zlepšili sme spôsob vyhodnocovania meraní precíznejším fitovaním pozadia a výsledkom boli stabilnejšie dáta teplotnej závislosti, ktoré pri metóde vyhodnocovania len z jedného bodu pozadia vykazovali zdanlivé efekty zmien teploty počas dňa (noc/deň). Zmenou procedúry vyhodnocovania boli tieto efekty odstránené.

Pre heterogénne materiály bol analyzovaný súvis štruktúry a rozdielov medzi hodnotami



termofyzikálnych parametrov meraných prechodovými metódami na jednej strane a ustálenými a rovnovážnymi metódami na strane druhej. Numerická analýza teplotného poľa indukovaného v priebehu merania sa vykonáva v režimoch ustáleného, alebo dynamického stavu pre fázové štruktúry s rôznym tvarom častíc ako kritériou homogenity.

### 30.) Kvantová informácia mnohočasticových systémov

*(Quantum Information of Many Body Systems)*

**Zodpovedný riešiteľ:** Vladimír Bužek  
**Trvanie projektu:** 1.10.2013 / 30.9.2017  
**Evidenčné číslo projektu:** APVV-0808-12  
**Organizácia je koordinátorom projektu:** áno  
**Koordinátor:** Fyzikálny ústav SAV  
**Počet spoluriešiteľských inštitúcií:** 0  
**Čerpané financie:** APVV: 5085 €

#### Dosiahnuté výsledky:

V rámci projektu sme navrhli univerzálnu elektronicky kontrolovanú jednotku pre spracovanie kvantovej informácie uloženej v spinových stavoch kvantových bodiek (dots) v Ge/Si nano-materiáli. Jednotlivé Q-bity môžu byť ovládané prostredníctvom indukovanej elektrickej dipólovej spinovej rezonancie, s časom prepínania spinov pod 100 ps. Dlhodosahová väzba medzi Q-bitmi je prenášaná prostredníctvom rezonančného elektrického poľa v supravodivom transmisnom rezonátore. Ukázali sme, že operačný čas pod 20 ns je možný pre prípad previazaného iSWAP hradla. Absencia Dresselhausovej spin-orbitálnej interakcie (SOI) a prítomnosť netypicky silnej interakcie typu Rashba SOI umožňujú presnú kontrolu transversálnej väzby medzi Q-bitmi pomocou externého kolmo-orientovaného elektrického poľa. Takéto elektrické pole slúži ako spínač typu zapni-vypni pre kvantové hradlá, a umožňuje ovplyvňovať g-faktor, pričom dvoj-Qbitové a jedno-Qbitové hradlá môžu pracovať nezávislým spôsobom. Zistili sme, že voľné Q-bity nie sú citlivé voči nábojovému šumu a fonónom. Skúmali sme aj možné stratégie pre zvýšenie spoľahlivosti šumom limitovaných hradiel.

### 31.) Kryštálové prvky rtg optiky pre kompresiu a expanziu zväzku

*(Crystal elements of X-ray optics for beam compression and expansion)*

**Zodpovedný riešiteľ:** Matej Jergel  
**Trvanie projektu:** 1.7.2012 / 31.12.2015  
**Evidenčné číslo projektu:** APVV-308-11  
**Organizácia je koordinátorom projektu:** áno  
**Koordinátor:** Fyzikálny ústav SAV  
**Počet spoluriešiteľských inštitúcií:** 0  
**Čerpané financie:** APVV: 35329 €

#### Dosiahnuté výsledky:

- Pokračovali sme v komplexnej analýze opracovania povrchov rtg monochromátorov, pričom podľa výsledkov z predchádzajúceho roka sme sa zamerali na Ge(220) a porovnanie chemického

leštenia a jednobodového diamantového sústruženia (single point diamond turning - SPDT). Metóda SPDT bola realizovaná s 3 rôznymi hrúbkami úberu materiálu. Rtg difrakcia s vysokým rozlíšením ukázala prítomnosť periodického narušenia povrchu s periódou  $\sim 1$   $\mu\text{m}$  nezávisle od úberu. Lokálna drsnosť vyhodnotená atómovou silovou mikroskopiou bola nezávisle od úberu 0.7 nm, čo bolo ešte o 0.1-0.2 nm menej ako pre povrch leptaný. Kontaktná profilometria potvrdila, že morfológia povrchu pri SPDT nezávisí od úberu, pričom nízkofrekvenčné zložky drsnosti boli oproti leptanému povrchu o 1 rád potlačené. Výhody použitia metódy SPDT nezávisle od úberu materiálu oproti leptaniu tak boli potvrdené.

- Pomocou mikrofokusu rtg zdroja boli urobené pilotné testy výstupných zväzkov z Ge(220) V-kanálikových monochromátorov s faktormi kompresie 15 a 21 a porovnané s meraniami paralelných kanálikových monochromátorov a výpočtami štrbinových kolimátorov, ktoré jednoznačne preukázali výhody kolimácie rtg zväzku kompresorom - vyššia intenzita a menší rozmer pri porovnateľnej divergencii. Merania malouhlového rtg rozptylu pri šikmom dopade na mriežke poskytli rozlíšenie porovnateľné s meracou stanicou synchrotrónu, ktoré v režime "oversampling" umožnilo detekovať periódu 1  $\mu\text{m}$  na povrchoch opracovaných metódou SPDT.

- Na základe úspešných pilotných testov s kompresiou rtg zväzku sa v ďalšom zameriame na zvýšenie intenzity výstupného rtg zväzku. Idea zvýšenia intenzity spočíva vo väčšej intrinzickej šírke a integrálnej intenzite difrakcie Ge111. Za týmto účelom bol pomocou dynamickej teórie rtg difrakcie modelovaný a porovnaný výstupný rtg zväzok z rôznych typov kanálikových monochromátorov na difrakciách Ge220 a Ge111 z hľadiska šírky, integrálnej intenzity a kompresného pomeru. Na základe toho bol navrhnutý V-kanálikový asymetrický Ge(111) monochromátor, ktorý dáva vyššiu intenzitu ako Ge(220) monochromátor pri porovnateľnom kompresnom pomere 20.

## 32.) Mikroštruktúra zliatin na báze Fe-Al

*(Microstructure of Fe-Al based alloys)*

<b>Zodpovedný riešiteľ:</b>	Igor Matko
<b>Trvanie projektu:</b>	1.1.2012 / 31.12.2013
<b>Evidenčné číslo projektu:</b>	SK-CZ-0096-11
<b>Organizácia je koordinátorom projektu:</b>	áno
<b>Koordinátor:</b>	Fyzikálny ústav SAV
<b>Počet spoluriešiteľských inštitúcií:</b>	2 - Česko: 2
<b>Čerpané financie:</b>	APVV: 885 €

### Dosiahnuté výsledky:

Na MFF UK pokračoval výzkum vzoriek Fe-Al pripravených v prvom roku riešenia projektu. Niektoré vzorky boli tiež implantované vodíkom. Tento výskum sa sústredil okrem iného na využitie metód pozitronovej anihilačnej spektroskopie k štúdiu defektov indukovaných implantovanými iónmi.

Na spoluriešiteľskom pracovisku ÚFM AV ČR Brno bola hlavná pozornosť venovaná výskumu súvislosti medzi magnetickými vlastnosťami objemu a povrchu kryštalických vzoriek Fe-Al s koncentraciami 28-33-35 at.% Al.

Vedľa Fe-Al zliatin pripravených klasickou technológiou bola pozornosť venovaná tiež Fe-Al zliatinám pripraveným mechanickým legovaním a ich vlastnostiam.

Pre prípravu vzoriek Fe-Al metódou rýchleho ochladenia taveniny bola úspešne použitá technika

podtlakového liatia taveniny (“suction casting“) zariadením EB-MAM 1 (fy. Edmund Bühler). Vzorky boli pripravené vo forme valčekov o priemere 4 mm a dĺžke ~3 cm.

Technika rovinného liatia taveniny na rýchlo rotujúci valec (“planar flow casting“), ktorou možno pripraviť vzorky vo forme tenkých pásov sa ukázala byť ťažko využiteľná, zloženia s vyšším obsahom Fe na vzduchu prudko oxidovali.

Za účelom porovnania vzoriek pripravených rýchlym chladením s tradičnými zliatinami pripravenými v prvom roku bolo vykonaná simultánna termická a termogravimetrická analýza (DSC / TGA) pomocou TA instruments SDT Q600. Neboli pozorované evidentné rozdiely v nameraných charakteristikách pre oba typy materiálov.

Priebehy TGA pre oblasť fázového diagramu, kde sa vyskytuje feromagnetický stav vykazujú rozličný priebeh prechodu do paramagnetického stavu v závislosti od zloženia. Pre nižší obsah Al (18 a 20 at. %) ide o jednoduchý (jednostupňový) prechod pri  $T_c$  s hodnotou blízko polohe prechodu na fázovom diagrame. Pre vyšší obsah Al (24 a 25 at. %) ide o zložitejší prechod, pozostávajúci zrejme až z troch stupňov.

Interpretácia zatiaľ nie je celkom objasnená, zrejme to súvisí s existenciou zmesi fáz a príslušnými prechodmi v danej oblasti diagramu.

Analýza bude predmetom ďalšej spolupráce a jej výsledky sú spracovávané do ďalšej publikácie.

### 33.) Úloha defektov v organických polovodičoch pre slnečné články

*(Role of defects in organic semiconductors for solar cells)*

<b>Zodpovedný riešiteľ:</b>	Vojtech Nádaždy
<b>Trvanie projektu:</b>	1.7.2012 / 31.12.2015
<b>Evidenčné číslo projektu:</b>	APVV-0096-11
<b>Organizácia je koordinátorom projektu:</b>	áno
<b>Koordinátor:</b>	Fyzikálny ústav SAV
<b>Počet spoluriešiteľských inštitúcií:</b>	2 - Slovensko: 2
<b>Čerpané financie:</b>	APVV: 42600 €

#### Dosiahnuté výsledky:

Predmetom našich aktivít bola charakterizácia štruktúrnych, elektrických a optických vlastností vybraných polymérov: poly[methylphenylsilylene] (PMPSi), poly(p-phenylene vinylene) (PPV) a poly(3-hexylthiophenu) (P3HT). Išlo o zistenie miery usporiadanosti vo vrstvách jednotlivých polymérov metódou GI-XRD, morfológie povrchu pomocou AFM, absorbancie v oblasti UV-Vis a vplyvu zmien v podmienkach prípravy a post-depozičného spracovania na tieto vlastnosti. Pomocou získaných údajov sme zdokonalili technologický postup prípravy slnečných článkov na báze P3HT a derivátu fullerénu (PCBM) a zvýšili účinnosť nášho laboratórneho slnečného článku na 3.4 %. Ťažiskom záujmu bol vývoj novej unikátnej spektroskopickkej metódy na určenie energetického rozdelenia defektných stavov v zakázanom páse organických polovodičov. Ide o elektrochemickú metódu, ktorá je založená na detekcii oxidačno-redukčných reakcií v elektrochemickej komôrke, kde vyšetrovaná vrstva organického polovodiča tvorí pracovnú elektródu. Tento prístup umožňuje meraním impedancie pri vhodne zvolenej frekvencii sledovať elektrónovú štruktúru hustoty stavov v zakázanom páse v širokom rozsahu energie (6 eV) a koncentrácie (6 rádov). Metódu sme úspešne otestovali na prototypickom polyméri PMPSi, kde sme pozorovali očakávané rozdelenie hustoty stavov a jeho zmeny vplyvom degradácie s UV žiarením, ktoré boli získané inými elektrickými a optickými metódami. Taktiež sme získali prvé komplexné spektrá hustoty stavov pre PPV a P3HT. Všetky tri skúmané polyméry vykazujú podobné správanie z hľadiska tvorby defektných stavov pod HOMO po UV degradácii. Okrem toho

sme terajšou technológiou pripravili slnečné články s novými polovodivými polymérmi Poly({4,8-bis[(2-ethylhexyl)oxy]benzo[1,2-b:4,5-b]dithiophene-2,6-diyl}{3-fluoro-2-[(2-ethylhexyl)carbonyl]thieno[3,4-b]thiophenediyl}) (PTB7) a Poly[1-(6-{4,8-bis[(2-ethylhexyl)oxy]-6-methylbenzo[1,2-b:4,5-b]dithiophen-2-yl}-3-fluoro-4-methylthieno[3,4-b]thiophen-2-yl)-1-octanone] (PBDTTT –CF). Vďaka ich schopnosti absorbovať svetelné žiarenie až do 750 nm (absorpčná hrana P3HT je 650 nm) sme dosiahli účinnosť 6.7% pre PTB7 a 5.5% pre PBDTTT-CF. Ide o nedávno vyvinuté polyméry, ktoré majú podobné absorpčné charakteristiky. Zistili sme však u nich rôzne rýchlosti degradácie vplyvom svetelného žiarenia. Spomínané zistenia a pozorovania budú predmetom ďalšieho skúmania v budúcom roku.

### 34.) Silno interagujúca hmota v extrémnych podmienkach

*(Strongly Interacting Matter under Extreme Conditions)*

**Zodpovedný riešiteľ:** Štefan Olejník  
**Trvanie projektu:** 1.7.2012 / 31.12.2015  
**Evidenčné číslo projektu:** APVV-0050-11  
**Organizácia je** áno  
**koordinátorom projektu:**  
**Koordinátor:** Fyzikálny ústav SAV  
**Počet spoluriešiteľských inštitúcií:** 2 - Slovensko: 2  
**Čerpané financie:** APVV: 7004 €

#### Dosiahnuté výsledky:

Projekt je riešený v spolupráci s pracovníkmi Univerzity Mateja Bela v Banskej Bystrici a Ústavu experimentálnej fyziky SAV v Košiciach. Vo FÚ SAV sme skúmali približný tvar vlnového funkcionálu vákua (VFV) Yangovej-Millsovej kalibračnej teórie (kvantovej chromodynamiky bez dynamických kvarkov) v numerických simuláciách na mriežke. Tento tvar, modifikovaný o člen, ktorý sa blíži k nule v spojitom limite, je v zhode s numerickými výsledkami pre testovacie konfigurácie neabelovských konštantných polí a abelovských rovinných vln. Výsledky boli uverejnené v dvoch konferenčných príspevkoch a v článku, ktorý je zaslaný na uverejnenie v odbornom časopise.

### 35.) Výskum nových pasivačných procesov štruktúr na báze kremíka

*(Research of New Passivation Processes of Si-based Structures)*

**Zodpovedný riešiteľ:** Emil Pinčík  
**Trvanie projektu:** 1.7.2012 / 30.6.2015  
**Evidenčné číslo projektu:** APVVV-0888-11  
**Organizácia je** áno  
**koordinátorom projektu:**  
**Koordinátor:** Fyzikálny ústav SAV  
**Počet spoluriešiteľských inštitúcií:** 2 - Nemecko: 1, Japonsko: 1  
**Čerpané financie:** APVV: 50770 €

#### Dosiahnuté výsledky:

Zamerali sme sa na skúmanie vlastností rozhrania veľmi tenkej vrstvy SiO<sub>2</sub> na amorfnom

hydrogenovanom kremíku. Po depozícii PECVD povrch a-Si:H nie je pokrytý dobre definovanou izolačnou vrstvou. Na jeho opracovanie sme použité tri metódy: (i) indukzívne viazaná plazma použitá na plazmovú anodickú oxidáciu, (ii) RF plazma v úlohe zdroja kladných kyslíkových iónov pre iónový implantačný proces metódou tzv. plazmovej imerzie a (iii) dielektrický bariérový výboj zapálený pri vysokom tlaku. Chemická oxidácia sa uskutočňovala vo vriacej azeotropickej zmesi kyseliny dusičnej s vodou. Elektrické vlastnosti rozhrania SiO<sub>2</sub> s polovodičom pre štruktúry založené na a-Si:H aj Si boli zlepšené spracovaním v roztokoch KCN a/alebo HCN. Pozorovali sme kladný vplyv tohto postupu pri pasivácii solárnych článkov typu p-i-n a-Si:H.

Publikácie: ADCA35, ADCA47, ADCA48, ADEB13, ADEB18, ADEB19, AFA08, AFC14, AFDA04, AFE07, AFE08, AFFA02, AFG02, AFG14, AFG21, AFG22, AFG23, AFHA01, AFHA05, AFHA06, AFHA07, AFHA08

### 36.) Zvyšovanie tuhosti ľahkých konštrukčných prvkov aplikáciu nových kovových materiálov

*(Application of advanced metallic materials for stiffness enhancement of lightweight structural components)*

<b>Zodpovedný riešiteľ:</b>	František Šimančík
<b>Zodpovedný riešiteľ v organizácii SAV:</b>	Peter Švec
<b>Trvanie projektu:</b>	1.5.2011 / 31.10.2014
<b>Evidenčné číslo projektu:</b>	APVV-0647-10
<b>Organizácia je koordinátorom projektu:</b>	nie
<b>Koordinátor:</b>	
<b>Počet spoluriešiteľských inštitúcií:</b>	0
<b>Čerpané financie:</b>	APVV: 28542 €

#### Dosiahnuté výsledky:

Preskúmali sme stabilitu zliatin a ich fáz v systémoch bohatých na Al s ohľadom na možné prídavky prvkov vedúcich k stabilizácii fáz zodpovedných za zvýšenú tuhosť. Experimentálne sme ukázali, že želané mechanické vlastnosti v systéme Al-Cr je možné dosiahnuť pridaním 1 at. % Fe (1x Mat. Sci. Engn. A). Štruktúrnou analýzou sme ukázali, že systém pozostáva z väčšej časti z fcc-Al, z menšej časti (30-40%) zo (zložitých) štruktúr Al-tranzitív, v prípade Al-Cr najmä typu Al<sub>45</sub>Cr<sub>7</sub> (104 atómov v elementárnej bunke). Výpočtami metódou funkcionálu hustoty (VASP, 2x PRB) sme preverili možnosti legovania tejto štruktúry ďalšími prvkami najmä tranzitívnych kovov za predpokladu, že štruktúra pripravená rýchlym ochladením a žihaním bude obsahovať fázy fcc-Al a fázy typu Al<sub>45</sub>Cr<sub>7</sub>. V tejto štruktúre sme preskúmali vplyv obsahu pridaného Fe, Mn, V a Ti na jej stabilitu. Ukázali sme, že existuje optimálny interval rozpustnosti jednotlivých legujúcich prvkov na Hume-Rotheryho stabilizáciu tejto fázy v dôsledku prehĺbenia hustoty stavov pri Fermiho hladine legovaním. Rozvinuli sme metódy mapovania fáz a ich orientácie v jemnozrnných štruktúrach a aplikovali sme ho na skúmané kovové a kompozitné systémy na báze Al (J. Alloys and Compounds, Mat. Trans., pozvaná prednáška).

### 37.) nanoQMC: Kvantové Monte-Carlo pre nanočastice a transport

*(nanoQMC: Quantum Monte-carlo for nanoparticles and transport)*

<b>Zodpovedný riešiteľ:</b>	Ivan Štich
<b>Trvanie projektu:</b>	1.9.2009 / 21.8.2013

**Evidenčné číslo projektu:** LPP-0392-09  
**Organizácia je koordinátorom projektu:** áno  
**Koordinátor:** Fyzikálny ústav SAV  
**Počet spoluriešiteľských inštitúcií:** 2 - Taliansko: 1, USA: 1  
**Čerpané financie:** APVV: 14 €

Dosiahnuté výsledky:

Vzhľadom k tomu, že doktorandka obhajovala dizertáciu v auguste, project sme riešili len asi 6 mesiacov. Zamerali sme sa najmä štúdium plných sendvičov vanád-benzénu. U tohto a podobných 1-d organometalických systémov s prechodovými prvkami sa základe DFT modelovania predpokladalo, že systém je polokovový feromagnet, a preto ideálny kandidát pre realizáciu spinového filtra. QMC výpočtami sme študovali magnetickú a elektrónovú štruktúru systémov  $V_nBz_{n+1}$ ,  $n=1, 2, 3$  a ukázali, že tieto systémy sú feromagnetické izolanty, a nie polokovové feromagnety, a preto, bez ďalšej funkcionalizácie, nie sú príliš vhodné ako materiál pre spinové filtre.

**38.) NANOTIP: SPM procesy indukované hrotom: zobrazovanie a nanomanipulácia**  
(*NANOTIP: Tip-induced SPM processes: Imaging and nanomanipulation*)

**Zodpovedný riešiteľ:** Ivan Štich  
**Trvanie projektu:** 1.7.2012 / 31.12.2015  
**Evidenčné číslo projektu:** APVV-0207-11  
**Organizácia je koordinátorom projektu:** áno  
**Koordinátor:** Fyzikálny ústav SAV  
**Počet spoluriešiteľských inštitúcií:** 0  
**Čerpané financie:** APVV: 55 €

Dosiahnuté výsledky:

Venovali sme sa trom oblastiam: 1) NC-AFM (Non-Contact Atomic Force Microscopy) nanomanipulácii atómov na povrchoch, 2) nanotribológii, 3) kvantovému transportu cez nanoprechody na báze fotospínateľnej molekuly azobenzénu. V (1) sme študovali najmä nanomanipuláciu atómov (Cu a Co) na zoxidovanom povrchu Cu(110)-O (c(6x2) a p(2x1)). Tieto výsledky sú priamo naviazané na experimenty, ktoré uskutočnil náš partner, prof. Sugawara a jeho skupina na Osaka University. Ukázali sme, že tento povrch je stabilizovaný vdW silami, a to aj napriek tomu, že je silne viazaný aj kovalentnými interakciami. Ukázali sme tiež, že pri kovových povrchoch je nutné uvažovať tienenie disperzných koeficientov použitých v DFT+vdW metódach. Objasnili sme mechanizmus manipulácie Cu atómov na rekonštrukcii p(2x1) ako vertikálnu manipuláciu, pri ktorej však, prekvapivo, nedochádza k zmene apexu hrotu. Modelovanie manipulácie sa previedlo kombináciou DFT techník na určenie bariér a kinetického Monte Carla, ktoré umožňuje explicitne modelovať (pomalú) dynamiku hrotu. U manipulácie Co atómu sme zistili, že dochádza k jeho delokalizácii (rotácii) na makroskopických časových škálach (minúty). Detailné štúdium povrchu potenciálnej energie ukázalo, že ide pravdepodobne o hrotom indukovaný prechod z chemisorbovaného do fyzisorbovaného stavu. V oblasti (2) sme študovali nanotribológiu nanočastíc antimónu na povrchu MoS<sub>2</sub>. Tieto systémy experimentálne študuje náš partner na Univerzite Giessen, prof. Schirmeisen. Ukázali sme, že u tohto systému neexistuje

superlubrická frikčná vetva a objasnili mechanizmus trenia trenia. V oblasti (3) sme previedli modelovanie konduktancie nanoprechodu zlato-azobenzén-zlato a ukázali, že pomer on/off (trans/cis) konduktancií je cca. 2 a nie dva rády, ako ukazovali predošlé modely, a preto tento systém nie je vhodný ako molekulový spínač, ako sa doposiaľ predpokladalo.

### **39.) Nanokryštalické a kvázikryštalické kovové systémy s cielene modifikovanou štruktúrou a morfológiou**

*(Nanocrystalline and quasicrystalline metallic systems with tailored structure and morphology)*

**Zodpovedný riešiteľ:** Peter Švec  
**Trvanie projektu:** 1.7.2012 / 31.12.2015  
**Evidenčné číslo projektu:** APVV-0492-11  
**Organizácia je koordinátorom projektu:** áno  
**Koordinátor:** Fyzikálny ústav SAV  
**Počet spoluriešiteľských inštitúcií:** 0  
**Čerpané financie:** APVV: 40000 €  
UEF SAV: 24531 €

#### Dosiahnuté výsledky:

Kombináciou experimentálno-teoretických prístupov sme navrhli a pripravili nové kovové systémy bohaté na Al a systémy bohaté na Fe a feromagnetické prvky (MatSciEngn.). Preskúmali sme ich štruktúru a vybrané vlastnosti. Stanovili sme vhodné typy a množstvá prídavných prvkov pre systémy na báze Al vedúce ku vzniku komplexných fáz spevňujúcich maticu základného materiálu, určili sme štruktúry týchto fáz a pridali ich do existujúcich databáz štruktúr (Jallcom). Vo vybraných intermetalických systémoch AlPd a GaPd sme stanovili katalytické vlastnosti a ich súvis so štruktúrou povrchov týchto fáz (PRB, J. Chem. Phys). Aj v spolupráci sme vyšetrili štruktúru a fázové transformácie v širokom spektre zliatin, nanokryštalických, nanoporóznych a práškových systémov a ich kompakto, stanovili sme oblasti ich stability, vznikajúce štruktúry a význam povrchových javov na ich fyzikálne a technické vlastnosti (Jallcom, JThermAnalCal., MatSci.Engn). Využili sme vyvinuté metódy termomagnetického spracovania na ovplyvnenie veľkosti magnetoimpedancie a magnetickej anizotropie v nanokryštalických systémoch na báze Fe-Co a Fe-Ni, ukázali sme, že touto metódou je možné dosiahnuť výrazné zvýšenie parametrov materiálov pre využitie v senzorike. Poznatky z prípravy viacvrstvových pseudoobjemových kovových skiel sme využili pri príprave dvojvrstiev z materiálov dvoch rôznych chemických zložení na báze Fe-Mo-C-B vykazujúcich magnetokalorický jav. Vzniknuté dvojvrstvy s kompozitnou amorfnou štruktúrou vykazovali pri teplotách tesne pod 300K len magnetický fázový prechod a výrazné rozšírenie maxima magnetickej entropie vedúce k zväčšeniu intervalu pracovných teplôt pre využitie magnetokalorických vlastností.

### **40.) Progresívne nanokryštalické a amorfné materiály pre aplikáciu vo vybraných špičkových zariadeniach výkonovej elektroniky**

*(Progressive nanocrystalline and amorphous materials for application in selected high-power electronic devices)*

**Zodpovedný riešiteľ:** Peter Švec  
**Trvanie projektu:** 1.10.2013 / 31.7.2016  
**Evidenčné číslo projektu:** APVV-0460-12  
**Organizácia je koordinátorom projektu:** nie  
**Koordinátor:** Elektrotechnický výskumný a projektový ústav a.s.

**Počet spoluriešiteľských inštitúcií:** 0  
**Čerpané financie:** APVV: 12000 €

Dosiahnuté výsledky:

Spracovali sme fyzikálne, technologické a technické požiadavky na perspektívne magnetické obvody pre výkonovú elektroniku. Pripravili sme prvé predzliatiny na báze Fe-Si-B na zhotovenie magnetických obvodov z rýchlochladených pások v amorfnom a nanokryštalickom stave. Začali sme adaptáciu metód a zariadení na termomagnetické spracovanie magnetických obvodov pripravených z týchto materiálov a na meranie ich štruktúry a vlastností. Vypracovali sme prvé postupy pre návrh delených magnetických obvodov a ich meranie a pripravili sme metodológiu vhodného delenia obvodov.

**41.) Štúdium kryštálovej štruktúry a termodynamických vlastností komplexných kovových zliatin na báze hliníka respektíve zinku**

*(Study of crystal structure and thermodynamic properties of aluminum-base and zinc-base complex metallic alloys)*

**Zodpovedný riešiteľ:** Peter Švec  
**Trvanie projektu:** 1.7.2012 / 31.12.2015  
**Evidenčné číslo projektu:** APVV-0076-11  
**Organizácia je koordinátorom projektu:** nie  
**Koordinátor:** Materiálovotechnologická fakulta STU v Trnave  
**Počet spoluriešiteľských inštitúcií:** 0  
**Čerpané financie:** APVV: 26000 €

Dosiahnuté výsledky:

Pripravili sme viaceré binárne a ternárne systémy na báze Al-prechodový kov, ktoré pri príprave alebo počas fázových prechodov tvoria komplexné intermetalické fázy. Za súčasného rozvoja a využitia prvoprincípových metód, výpočtov pásovej štruktúry a celkovej energie systému kombinovaného s tzv. simulovaným žiňaním typu replica-exchange. (2x PRB, pozvaná prednáška) sme overili prvoprincípovú predpoveď štruktúrneho prechodu a vzniku intermetalických fáz s charakterom izolantu v systémoch obsahujúcich Os, Ru, Ir, Re.

Popísali sme povrchy komplexných fáz (napr. Al-Pd, Al-Cr, Ga-Pd) s ohľadom na ich katalytické vlastnosti (2x PRB, 1x J. Chem.Phys, pozvaná prednáška.). Preskúmali sme vznik komplexnej U-fázy v systéme AlPd-Co za nerovnovážnych a kvázirôvnovážnych podmienok (KEM, Jallcom) pomocou termickej analýzy a rtg. a elektrónovej difrakcie, stanovili sme oblasť vzniku kompozične homogénnej U-fázy. Experimentálne sme zmapovali a interpretovali štruktúru kvázikryštalických aproximantov na atomárnej úrovni (pozvaná prednáška). Spravili sme aj úvodnú štúdiu štruktúry a stability komplexnej fázy, tzv. Q-skla, vznikajúcej v systéme Al-Fe-Si pravdepodobne fázovým prechodom prvého druhu (poster).

**42.) Energia symetrie v štruktúre jadrovej hmoty**

*(Energy of Symetry in Structure of Nuclear Matter)*

**Zodpovedný riešiteľ:** Martin Venhart  
**Trvanie projektu:** 1.7.2012 / 31.12.2015  
**Evidenčné číslo projektu:** APVV-0177-11



**Organizácia je koordinátorom projektu:** áno  
**Koordinátor:** Fyzikálny ústav SAV  
**Počet spoluriešiteľských inštitúcií:** 0  
**Čerpané financie:** APVV: 67683 €

Dosiahnuté výsledky:

V analýze dát získaných v roku 2012 pre izotop  $^{177}\text{Au}$  bolo výrazne pokročené. Bol identifikovaný silne spárovaný rotačný pás založený na dierovom stave  $h11/2$  protónu. Tento pás naznačuje odklon od axiálnej symetrie v izotope  $^{178}\text{Hg}$ . Teoretické výpočty charakterizujúce tento jav sú v príprave. Bol pozorovaný  $E0$  prechod dokazujúci výskyt fenoménu tvarovej koexistencie v jadre  $^{177}\text{Au}$ . Vzbudené stavy izotopu  $^{179}\text{Au}$  boli študované na Univerzite v Jyväskylä (Fínsko) za použitia spektrometra SAGE. Analýza dát stále prebieha. V SÚJV Dubna pokračoval vývoj hmotnostného spektrometra MASHA. Realizovaný bol experiment, ktorý mal za cieľ študovať jadrovú reakciu  $^{48}\text{Ca} + ^{238}\text{U}$  s produkciou izotopu  $^{283}\text{Cn}$ . Počas ožarovania terča nebol pozorovaný ani jeden jednoznačný prípad pozorovania rozpadu izotopu  $^{283}\text{Cn}$ .

Boli dokončené kódy na výpočet beta-rovnovážnej jadrovej hmoty hustotne závislého relativistického modelu stredného poľa so zahrnutím všetkých podivných hadrónov (hyperónov) z najľahšieho baryónového oktetu. Získané boli nové parametrizácie z fitov ab-initio Dirac-Brueckner-Hartree-Fock modelov, pričom bola využitá vlastná dvoj-parametrická trieda hustotne závislých funkcií. Parametrizácie boli použité v efektívnych modeloch symetrickej, neutrónovej a beta-rovnovážnej hmoty na výpočet stavových rovníc, ako aj Tolman-Oppenheimer-Volkoffových rovníc pre kompaktné objekty. Boli mapované Fock výmenné členy do modelov stredného poľa s cieľom zlepšiť pochopenie efektívnej hustotnej závislosti. Základný model bol rozšírený na všetky relevantné mezóny a zovšeobecnil vzťahy pre efektívnu formuláciu self-energie v rámci týchto pokročilých teórií.

Bola zorganizovaná konferencia ISTROS 2013 v Účelovom zariadení NR SR, ktorej sa zúčastnilo okolo 40 participantov. Zorganizovaný bol workshop SWG2013 v Kapskom meste (Južná Afrika), ktorý bol zameraný na GEANT4 simulácie v jadrovej fyzike.

Celkovo boli publikované 8 články v CC. časopisoch a prednesené 2 pozvané prednášky na medzinárodných konferenciách.

### 43.) Komplexnosť kvantovej informácie

*(Complexity of quantum information)*

**Zodpovedný riešiteľ:** Mário Ziman  
**Zodpovedný riešiteľ v organizácii SAV:** Mário Ziman  
**Trvanie projektu:** 1.5.2011 / 30.4.2014  
**Evidenčné číslo projektu:** APVV-0646-10  
**Organizácia je koordinátorom projektu:** áno  
**Koordinátor:** Fyzikálny ústav SAV  
**Počet spoluriešiteľských inštitúcií:** 0  
**Čerpané financie:** APVV: 41222 €

Dosiahnuté výsledky:

Počas roka 2013 sme pracovali súbežne na všetkých podprojektoch WP1-4, ale opublikované

výsledky sa týkajú najmä WP4. Získali sme výsledky skúmania realizácie kvantových bitov v polovodičových bodkách v graphene a v kremíku, ktoré dopĺňajú naše predošlé analýzy v polovodiči GaAs a umožňujú porovnanie výhod jednotlivých materiálov, čo bolo cieľom projektu. Ďalej sme pokračovali v rozbere možnosti prenosu koherentného spinového signálu na veľkú vzdialenosť, prostredníctvom voľného náboja v dvoj- a jedno-rozmerných polovodičoch. Taktiež sme ukončili obsažnú analýzu efektívnych interakcií medzi nukleárnymi spinmi sprostredkovanú delokalizovaným nábojom. Na základe odvodennej formy tejto interakcie sme potom vyšetrovali dekoherenciu elektrónového spinu a možnosti jej aktívnej korekcie, relaxačné časy a ich fundamentálne limity, a využiteľnosť efektívnej interakcie v cyklických polarizačných schémach. V rámci WP1 sme matematicky charakterizovali a analyzovali EA dynamiky kvantového systému, ktoré popisujú šumy úplne redukujúce kvantové previazanie, a teda reprezentujú tie najmenej žiaduce zdroje chýb pri kvantovom spracovaní informácie. Spomínané výsledky boli publikované v článkoch Phys. Rev. B 87, 165303 (2013), Phys. Rev. B 88, 045441 (2013), Phys. Rev. Lett. 111, 186805 (2013), Phys. Rev. A 88, 062328 (2013). Predmetom WP2 a WP3 bola obsiahlejšia analýza zložitosti 3-SAT problému a spinových modelov v hyperbolických priestoroch.

## **Programy: Štrukturálne fondy EÚ Výskum a vývoj**

### **44.) Budovanie Centra excelentnosti pre nové technológie v elektrotechnike – II. etapa**

<b>Zodpovedný riešiteľ:</b>	Karol Fröhlich
<b>Zodpovedný riešiteľ v organizácii SAV:</b>	Eva Majková
<b>Trvanie projektu:</b>	1.2.2010 / 31.1.2013
<b>Evidenčné číslo projektu:</b>	26240120011
<b>Organizácia je koordinátorom projektu:</b>	nie
<b>Koordinátor:</b>	
<b>Počet spoluriešiteľských inštitúcií:</b>	0
<b>Čerpané financie:</b>	ASFEU: 226534 €

#### Dosiahnuté výsledky:

### **45.) Priemyselné výskumné centrum bezpečnostných rizík havárií so stratou chladiva v jadrových elektrárnach**

<b>Zodpovedný riešiteľ:</b>	Štefan Gmuca
<b>Trvanie projektu:</b>	1.2.2011 / 31.1.2015
<b>Evidenčné číslo projektu:</b>	26220220147
<b>Organizácia je koordinátorom projektu:</b>	nie
<b>Koordinátor:</b>	VÚEZ a.s. Levice
<b>Počet spoluriešiteľských inštitúcií:</b>	0
<b>Čerpané financie:</b>	

Dosiahnuté výsledky:

Bola obstaraná a zostavená urýchľovačová časť zariadenia IBS na spätný rozptyl iónov vrátane HV zdroja 250 kV. Iónovo-optická trasa, terčová komora a detekčná a elektronická časť budú dodané začiatkom roka 2014. Zariadenie je primárne určené na detekciu stopových znečistení vzoriek zo slučky VIKTÓRIA.

**46.) Dobudovanie infraštruktúry FÚ SAV v oblastiach výskumu a diagnostiky nanočastíc, nanomateriálov a materiálov s využitím metód jadrovej fyziky**

*(Completion of Infrastructure of IOP SAS in Research and Diagnostics of nanoparticles, nanomaterials and materials using Methods of Nuclear Physics)*

**Zodpovedný riešiteľ:** Stanislav Hlaváč  
**Trvanie projektu:** 1.11.2012 / 30.4.2014  
**Evidenčné číslo projektu:** ITMS 26210120023  
**Organizácia je koordinátorom projektu:** áno  
**Koordinátor:** Fyzikálny ústav SAV  
**Počet spoluriešiteľských inštitúcií:** 0  
**Čerpané financie:**

Dosiahnuté výsledky:

Bolo uskutočnené výberové konanie na obstaranie infraštruktúry. Na detašovanom pracovisku FÚ SAV v Piešťanoch sa pripravujú priestory pre jej umiestnenie.

**47.) Efektívne riadenie výroby a spotreby energie z obnoviteľných zdrojov**

**Zodpovedný riešiteľ:** Marián Janek  
**Zodpovedný riešiteľ v organizácii SAV:** Eva Majková  
**Trvanie projektu:** 1.6.2010 / 31.5.2013  
**Evidenčné číslo projektu:** 26240220028  
**Organizácia je koordinátorom projektu:** nie  
**Koordinátor:**  
**Počet spoluriešiteľských inštitúcií:** 0  
**Čerpané financie:**

Dosiahnuté výsledky:

V rámci projektu sa dokončilo budovanie solárnych fotovoltických panelov vrátane experimentálnych modulov, celý systém sa testuje.

**48.) Centrum aplikovaného výskumu nanočastíc**

**Zodpovedný riešiteľ:** Eva Majková  
**Trvanie projektu:** 1.10.2009 / 30.9.2013  
**Evidenčné číslo projektu:** 26240220011  
**Organizácia je koordinátorom projektu:** áno  
**Koordinátor:** Fyzikálny ústav SAV

**Počet spoluriešiteľských inštitúcií:** 0  
**Čerpané financie:**

Dosiahnuté výsledky:

**49.) Výskumné Centrum svetla a svetelnej techniky**  
(*Research center of light*)

**Zodpovedný riešiteľ:** Eva Majková  
**Trvanie projektu:** 2.12.2010 / 30.12.2014  
**Evidenčné číslo projektu:** 26220220150  
**Organizácia je koordinátorom projektu:** nie  
**Koordinátor:** OMS s.r.o  
**Počet spoluriešiteľských inštitúcií:** 0  
**Čerpané financie:**

Dosiahnuté výsledky:

Obstarali sme ďalšiu skupinu zariadení pre výskumno-vývojové laboratórium v OMS Dojč, a v súčasnosti ich implementujeme. Zároveň pripravujeme inovatívne návrhy aplikácie nanočastíc pre modifikáciu spektrálneho zloženia svetla LED lámp podľa aktivít projektu.

**Programy: Štrukturálne fondy EÚ Bratislavský kraj**

**50.) Kompetenčné centrum pre nové materiály, pokročilé technológie a energetiku**  
(*Competence Centre for New Materials, Advanced Technologies and Energetics*)

**Zodpovedný riešiteľ:** Karol Fröhlich  
**Zodpovedný riešiteľ v organizácii SAV:** Eva Majková  
**Trvanie projektu:** 1.8.2011 / 31.11.2014  
**Evidenčné číslo projektu:** ITMS 26240220073  
**Organizácia je koordinátorom projektu:** nie  
**Koordinátor:**  
**Počet spoluriešiteľských inštitúcií:** 0  
**Čerpané financie:** ASFEU: 71552 €

Dosiahnuté výsledky:

Projekt KC pokračuje, pre FU SAV sú všetky prístroje zakúpené. V rámci projektu sa zaoberáme využitím nanočasticových súborov, v príprave ktorých máme dlhoročnú expertízu a skúmame na inovatívne plazmonické fotovoltické štruktúry so zabudovanými kovovými nanočasticami s cieľom navrhnuť technologický postup pre zvýšenie ich externej kvantovej účinnosti. V rámci druhého cieľa projektu vyvíjame postup na prípravu semitransparentného fotovoltického článku laserovou abláciou s použitím U

### 51.) Výskumno-vývojové centrum pre pokročilé rtg technológie

**Zodpovedný riešiteľ:** Matej Jergel  
**Trvanie projektu:** 1.6.2012 / 30.11.2014  
**Evidenčné číslo projektu:** ITMS 26220220170  
**Organizácia je koordinátorom projektu:** nie  
**Koordinátor:** Integra TDS  
**Počet spoluriešiteľských inštitúcií:** 0  
**Čerpané financie:** ASFEU: 33063 €

#### Dosiahnuté výsledky:

Bola navrhnutá zostava pre merania malouhlového rtg rozptylu SAXS a GISAXS a vybratý mikrofokusačný zdroj a detektora podľa špecifikácií v návrhu projektu. Návrh zostavy je ukončený, ako aj VO na zdroj, detektor a všetky pomocné komponenty. Dodávky predpokladáme v 1. štvrtroku 2014, čo umožní dostatočný časový priestor na testovanie navrhnutých komponentov difrakčnej optiky.

### 52.) Centrum aplikovaného výskumu nových materiálov a transferu technológií

*(Centre for Applied Research of New Materials and Technology Transfer)*

**Zodpovedný riešiteľ:** Jaromír Pastorek  
**Zodpovedný riešiteľ v organizácii SAV:** Eva Majková  
**Trvanie projektu:** 1.9.2013 / 31.8.2015  
**Evidenčné číslo projektu:** ITMS 26240220088  
**Organizácia je koordinátorom projektu:** nie  
**Koordinátor:**  
**Počet spoluriešiteľských inštitúcií:** 0  
**Čerpané financie:**

#### Dosiahnuté výsledky:

V súčinnosti s dodávateľmi zariadenia a stavby projektu sme pripravili analýzu požiadaviek na inštaláciu transmisného elektrónového mikroskopu s atomárnym rozlíšením. Na základe meraní okolitých elektromagnetických polí sme navrhli a rozpracovali variantné riešenia ochrany zariadenia proti emf rušeniu

### 53.) Centrum excelentnosti na výskum a vývoj konstrukčných kompozitných materiálov pre strojársku, stavebnú a medicínsku aplikáciu II

**Zodpovedný riešiteľ:** František Simančík  
**Zodpovedný riešiteľ v organizácii SAV:** Peter Švec  
**Trvanie projektu:** 1.7.2010 / 30.6.2014  
**Evidenčné číslo projektu:** ITMS 26240120020

**Organizácia je** nie  
**koordinátorom projektu:**  
**Koordinátor:**  
**Počet spoluriešiteľských** 0  
**inštitúcií:**  
**Čerpané financie:** ASFEU: 161407 €

Dosiahnuté výsledky:

Novoinštalované experimentálne metodiky, najmä precesná elektrónová difrakcia, spolu s výpočtovými metódami tuhých látok boli využité pri určení detailných fázových máp a kryštalografických orientácií nanokryštalických kompozitov na báze hliníka a na báze feromagnetických prvkov. Metódy boli úspešne aplikované aj na analýzu povrchov a fázovej štruktúry širšej triedy pokročilých materiálov. Výsledky boli prezentované o. i. v dvoch pozvaných prednáškach na medzinárodných konferenciách.

**54.) Aplikovaný výskum pokročilých fotovoltaiických článkov**

*(Applied research of advanced photovoltaic cells)*

**Zodpovedný riešiteľ:** Peter Šiffalovič  
**Trvanie projektu:** 1.9.2010 / 31.8.2013  
**Evidenčné číslo projektu:** ITMS 26240220047  
**Organizácia je** áno  
**koordinátorom projektu:**  
**Koordinátor:** Fyzikálny ústav SAV  
**Počet spoluriešiteľských** 0  
**inštitúcií:**  
**Čerpané financie:**

Dosiahnuté výsledky:

Úspešne sme uzatvorili projekt štrukturálnych fondov EÚ. Za najdôležitejší výsledok považujeme implementáciu plazmonicky aktívnych nanočastíc do aktívnej vrstvy organického solárneho článku. Ukázali sme zvýšenie prúdu na krátko v modifikovanom polymérnom solárnom článku. Zvýšenie prúdu môžeme pripísať zvýšenej generácii excitónov v okolí plazmonicky aktívnych nanočastíc.

**Programy: Štrukturálne fondy EÚ Vzdelávanie**

**55.) Centrum rozvoja doktorandov - vzdelávanie založené na vedeckých poznatkoch**

*(Center for PhD students development - education based on science methods )*

**Zodpovedný riešiteľ:** Martin Plesch  
**Trvanie projektu:** 1.4.2010 / 31.3.2013  
**Evidenčné číslo projektu:** 26110230006  
**Organizácia je** áno  
**koordinátorom projektu:**  
**Koordinátor:** Fyzikálny ústav SAV  
**Počet spoluriešiteľských** 0  
**inštitúcií:**  
**Čerpané financie:** ASFEÚ: 20000 €

Dosiahnuté výsledky:

V priebehu roka 2013 sa vo februári uskutočnila záverečná konferencia projektu, kde sa vyhodnotili jeho výsledky. Koncom marca projekt skončil.

**Programy: Centrá excelentnosti SAV**

**56.) Centrum excelentnosti pre funkcionalizované viacfázové materiály**

**Zodpovedný riešiteľ:** Marián Krajčí  
**Trvanie projektu:** 1.8.2011 / 31.12.2014  
**Evidenčné číslo projektu:**  
**Organizácia je koordinátorom projektu:** áno  
**Koordinátor:** Fyzikálny ústav SAV  
**Počet spoluriešiteľských inštitúcií:** 0  
**Čerpané financie:** P SAV: 40100 €

Dosiahnuté výsledky:

Vlastnosti magnetických dvojvrstiev na báze Fe-Si-B/Co-Si-B sme podrobne popísali využitím kombinácie mikroštruktúrnych, fyzikálnych a magnetických metód. Magnetoopticky skúmané rozdiely v doménovej štruktúre povrchov jednovrstvových pások a dvojvrstiev sme korelovali s tvarom a objemovými magnetickými vlastnosťami pások. Intermetalické zliatiny AlPd a GaPd so štruktúrou B20 (FeSi) boli identifikované ako aktívne a selektívne katalyzátory pre hydrogenáciu acetylénu. Aby sme porozumeli molekulárnym mechanizmom katalýzy, urobili sme detailnú analýzu atómovej štruktúry povrchov týchto zliatin. Ďalej sme vyvinuli postup prípravy superhydrofóbných povrchov na báze SiO<sub>2</sub> nanočastíc s kontaktným uhlom väčším ako 165 stupňov, ktorý sme aplikovali na transparentnú elektródu solárnych článkov ako multifunkčný povlak s cieľom zvýšiť absorpciu svetla v aktívnej vrstve, a zároveň dosiahnuť samočistiace a protinámrazové vlastnosti povrchu. Týmto postupom sme dosiahli 6% zvýšenie účinnosti fotokonverzie (PCE) a externej kvantovej účinnosti (EQE) solárneho článku na báze P3HT/PC61BM. Skúmali sme tiež vplyv zabudovania Ag a Au plazmonických nanočastíc do objemovej heteroštruktúry P3HT/PC61BM. Ukázali sme, že už veľmi malé koncentrácie rádovo 0.1wt% zlepšujú PCE a EQE rádovo o 10%, zatiaľ čo vyššie koncentrácie sú kontraproduktívne.

**57.) Centrum excelentnosti – Kvantové technológie**

*(Center of Excellence – Quantum Technologies)*

**Zodpovedný riešiteľ:** Mário Ziman  
**Trvanie projektu:** 1.2.2009 / 31.1.2013  
**Evidenčné číslo projektu:**  
**Organizácia je koordinátorom projektu:** áno  
**Koordinátor:** Fyzikálny ústav SAV  
**Počet spoluriešiteľských inštitúcií:** 4 - Slovensko: 4  
**Čerpané financie:** P SAV: 2840 €

Dosiahnuté výsledky:

V roku 2013 bol projekt ukončený - bežal iba jeden mesiac. Všetky plánované výskumné práce boli zrealizované v predošlom období - v roku 2012.

## **Príloha C**

### **Publikačná činnosť organizácie (zoradená podľa kategórií)**

#### **AAA Vedecké monografie vydané v zahraničných vydavateľstvách**

- AAA01      ŠAMAJ, Ladislav - BAJNOK, Zoltán. Introduction to the Statistical Physics of Integrable Many - body Systems. Cambridge : Cambridge University Press, 2013. 504 s. ISBN 978-1-107-03043-5.

#### **ABC Kapitoly vo vedeckých monografiách vydané v zahraničných vydavateľstvách**

- ABC01      GMUCOVÁ, Katarína - MÜLLEROVÁ, J. Amorphous Photovoltaics: Organics Versus Inorganics. In Amorphous Materials: New Research. Chapter 1. - New York : Nova Science Publishers, Inc., 2013, p. 1-26. ISBN 978-1-62417-678-4.
- ABC02      ILLEKOVÁ, Emília. Kinetics of structural relaxation in glasses : Chapter 8. In Thermal Analysis of Micro, Nano- and Non-Crystalline Materials : Transformation, Crystallization, Kinetics and Thermodynamics. - Dordrecht/Heidelberg/N.York/London : Springer, 2013, p. 175-194. ISBN 978-90-481-3149-5.
- ABC03      ILLEKOVÁ, Emília - ŠESTÁK, J. Crystallization of Metallic Micro-, Nano-, and Non-Crystalline Alloys : Chapter 13. In Thermal Analysis of Micro, Nano- and Non-Crystalline Materials : Transformation, Crystallization, Kinetics and Thermodynamics. - Dordrecht/Heidelberg/N.York/London : Springer, 2013, p. 257-289. ISBN 978-90-481-3149-5.
- ABC04      K LAPETEK, P. - LÁNYI, Štefan. Electrostatic Fields : Chapter 8. In K LAPETEK, Petr. Quantitative Data Processing in Scanning Probe Microscopy : SPM Applications for Nanometrology. - Amsterdam : Elsevier, 2013, p. 191-205. ISBN 978-1-4557-3058-2.
- ABC05      KORYTÁR, Dušan - VAGOVIČ, Patrik - FERRARI, C. - ŠIFFALOVÍČ, Peter. X-ray crystal optics based on Germanium single crystals. In Germanium : characteristics, sources and applications. - New York : Nova Sci Publ., 2013, p. 105-140.
- ABC06      KRAJČÍ, Marián - HAFNER, J. Catalytic Properties of Five-Fold Surfaces of Quasicrystal Approximants : Chapter 36. In Aperiodic Crystals. - Dordrecht : Springer, 2013, p. 269. ISBN 978-94-007-6430-9.

#### **ADCA Vedecké práce v zahraničných karentovaných časopisoch impaktovaných**

- ADCA01      ANDREYEV, A.N. - LIBERATI, V. - ANTALIC, S. - ACKERMANN, D. - BARZAKH, A. - BREE, N. - COCOLIOS, T.E. - DIRIKEN, J. - ELSEVIERS, J. - FEDOROV, D. - FINK, D. - FRANCHOO, S. - HEINZ, S. - HESSBERGER, F.P. - HOFMANN, S. - HUYSE, M. - IVANOV, O. - KHUYAGBAATAR, J. - KINDLER, B. - KOSTER, U. - LANE, J.F.W. - LOMMEL, B. - MARSH, B. - MOLKANOV, P. - NISHIO, K. - PAGE, R.D. - PATRONIS, N. - PAUWELS, D. - RADULOV, D. - SARO, S. - SELIVERSTOV, M. - SJODIN, M. - TSEKHANOVICH, I. - VAN DEN BERGH, P. - VAN DUPPEN, P. - VENHART, Martin - VESELSKÝ, Martin. Alpha-decay spectroscopy of the chain Ti-179(g) - Au-175(g) - Ir-171(g) - Re-167(m). In Physical Review C, 2013, vol. 87, no. 5, 054311. (3.715 - IF2012). (2013 - Current Contents, WOS, SCOPUS). ISSN 0556-2813.
- ADCA02      BALOG, Martin - YU, P. - QIAN, M. - BEHULOVÁ, M. - ŠVEC, Peter - CICKA,



- R. Nanoscaled Al-AlN composites consolidated by equal channel angular pressing (ECAP) of partially in situ nitrided Al powder. In Materials Science and Engineering A, 2013, vol. 562, p. 190-195. (2.108 - IF2012). (2013 - Current Contents, WOS, SCOPUS). ISSN 0921-5093.
- ADCA03 BAMIDELE, J. - BRNDIAR, Ján - GULANS, A. - KANTOROVICH, L. - ŠTICH, Ivan. Critical importance of van der Waals stabilization in strongly chemically bonded surfaces: Cu(110):0. In Journal of Chemical Theory and Computation, 2013, vol. 9, no. 12, p. 5578-5584. (5.389 - IF2012). (2013 - Current Contents). ISSN 1549-9618.
- ADCA04 BARTOSIK, M. - DANIEL, R. - MITTERRER, C. - MAŤKO, Igor - BURGHAMMER, M. - MAYRHOFER, P.H. - KECKES, J. Cross-sectional x-ray nanobeam diffraction analysis of a compositionally graded CrNx thin film. In Thin Solid Films, 2013, vol. 542, p. 1-4. (1.604 - IF2012). (2013 - Current Contents). ISSN 0040-6090.
- ADCA05 BENKOVIČOVÁ, Monika - VÉGSO, Karol - ŠIFFALOVÍČ, Peter - JERGEL, Matej - LUBY, Štefan - MAJKOVÁ, Eva. Preparation of gold nanoparticles for plasmonic applications. In Thin Solid Films, 2013, vol. 543, p. 138-141. (1.604 - IF2012). (2013 - Current Contents). ISSN 0040-6090.
- ADCA06 BENKOVIČOVÁ, Monika - VÉGSO, Karol - ŠIFFALOVÍČ, Peter - JERGEL, Matej - MAJKOVÁ, Eva - LUBY, Štefan - ŠATKA, A. Preparation of sterically stabilized gold nanoparticles for plasmonic applications. In Chemical Papers, 2013, vol. 67, no. 9, p. 1225-1230. (0.879 - IF2012). (2013 - Current Contents). ISSN 0366-6352.
- ADCA07 BERTHOLD, R. - KREINER, G. - BURKHARDT, U. - HOFFMANN, S. - AUFFERMANN, G. - PROTS, Y. - DASHJAV, E. - AMARSANAA, A. - MIHALKOVIČ, Marek. Crystal structure and phase stability of the Phi phase in the Al-Mg-Zn system. In Intermetallics, 2013, vol. 32, p. 259-273. (1.857 - IF2012). (2013 - Current Contents). ISSN 0966-9795.
- ADCA08 BURŠÍKOVÁ, V. - HARTMANOVÁ, Mária - NAVRÁTIL, V. - MANSILLA, C. Influence of deposition conditions on electrical and mechanical properties of Sm2O3 doped CeO2 thin films prepared by EB-PVD (+IBAD) methods. Part 2 : Indentation hardness and effective elastic modulus. In Russian Journal of Electrochemistry, 2013, vol. 49, no. 7, p. 619-627. (0.501 - IF2012). (2013 - Current Contents). ISSN 1023-1935.
- ADCA09 DANIEL, R. - KECKES, J. - MAŤKO, Igor - BURGHAMMER, M. - MITTERRER, C. Origins of microstructure and stress gradients in nanocrystalline thin films: The role of growth parameters and self-organization. In Acta Materialia, 2013, vol. 61, p. 6255-6266. (3.941 - IF2012). (2013 - Current Contents, WOS, SCOPUS). ISSN 1359-6454.
- ADCA10 DRUMMOND, M.C. - JOSS, D.T. - PAGE, R. - SIMPSON, J. - O'DONNELL, D. - ANDGREN, K. - BIANCO, L. - CEDERWALL, B. - DARBY, I.G. - EECKHAUDT, S. - GOMEZ-HOMILLOS, M.B. - GRAHN, T. - GREENLEES, P.T. - HADINIA, B. - JONES, P.M. - JULIN, R. - JUUTINEN, S. - KETELHUT, S. - LEPPAENEN, A.P. - LEINO, M. - NYMAN, M. - PAKARINEN, J. - RAHKILA, P. - SANDZELIUS, M. - SAPPLE, P.J. - SAREN, J. - SAYGI, B. - SCHOLEY, C. - SORRI, J. - THOMSON, J. - UUSITALO, J. - VENHART, Martin. Low-lying excited states in the neutron-deficient isotopes Os-163 and Os-165. In Physical Review C, 2013, vol. 87, no. 5, 054309. (3.715 - IF2012). (2013 - Current Contents, WOS, SCOPUS). ISSN 0556-2813.
- ADCA11 DUBECKÝ, Matúš - JUREČKA, P. - DERIAN, René - HOBZA, P. - OTYEPKA, M. - MITÁŠ, L. Quantum Monte Carlo methods describe noncovalent interactions with subchemical accuracy. In Journal of Chemical Theory and Computation, 2013,

- vol. 9, no. 10, p. 4287-4292. (5.389 - IF2012). (2013 - Current Contents). ISSN 1549-9618.
- ADCA12 DUBNIČKA, Stanislav - DUBNIČKOVA, A.Z. - IVANOV, M.A. - LIPTAJ, Andrej. Decays B-s-J/psi eta and B-s-J/psi plus eta' in the framework of covariant quark model. In Physical Review D, 2013, vol. 87, no. 7, 074021. (4.691 - IF2012). (2013 - Current Contents). ISSN 1550-7998.
- ADCA13 ELSEVIERS, J. - ANDREYEV, A.N. - HUYSE, M. - VAN DUPPEN, P. - ANTALIC, S. - BARZAKH, A. - BREE, N. - COCOLIOS, T.E. - COMAS, V.F. - DIRIKEN, J. - FEDOROV, D. - FEDOSSEEV, V.N. - FRANCHOO, S. - GHYS, L. - HEREDIA, J.A. - IVANOV, O. - KOESTER, U. - MARSH, B.A. - NISHIO, K. - PAGE, R.D. - PATRONIS, N. - SELIVERSTOV, M.D. - TSEKHANOVICH, I. - VAN DER BERGH, P. - VAN DE WALLE, J. - VENHART, Martin - VERMOTE, S. - VESELSKÝ, Martin - WAGEMANS, C. Beta-delayed fission of 180Tl. In Physical Review C, 2013, vol. 88, 044321. (3.715 - IF2012). (2013 - Current Contents, WOS, SCOPUS). ISSN 0556-2813.
- ADCA14 EUCHNER, H. - YAMADA, T. - ROLS, S. - ISHIMASA, T. - KANEKO, Y. - OLLIVIER, J. - SCHOBER, H. - MIHALKOVIČ, Marek - DE BOISSIEU, M. Tetrahedron dynamics in the icosahedral quasicrystals i-ZnMgSc and i-ZnAgSc and the cubic 1/1-approximant Zn6Sc. In Journal of Physics: Condensed Matter, 2013, vol. 25, no. 11, 115405. (2.355 - IF2012). (2013 - Current Contents, WOS, SCOPUS). ISSN 0953-8984.
- ADCA15 FIDRÍKOVÁ, Danica - GREIF, V. - DIEŠKA, P. - ŠTOFANIK, Vladimír - KUBIČÁR, Ľudovít - VLČKO, J. Monitoring of the temperature-moisture regime in St. Martin 's Cathedral tower in Bratislava. In Environmental Earth Sciences, 2013, vol. 69, no. 4, p. 1481-1489. (1.445 - IF2012). (2013 - Current Contents). ISSN 1866-6280.
- ADCA16 FIDRÍKOVÁ, Danica - VRETENÁR, Viliam - ŠIMKOVÁ, I. - GREIF, V. - VLČKO, J. - DIEŠKA, P. - KUBIČÁR, Ľudovít. Sensor for monitoring the moisture in porous materials. In International Journal of Thermophysics, 2013, vol. 34, no. 6, p. 987-1166. (0.568 - IF2012). (2013 - Current Contents). ISSN 0195-928X.
- ADCA17 FILIPPOV, S.N. - MELNIKOV, A.A. - ZIMAN, Mário. Dissociation and annihilation of multipartite entanglement structure in dissipative quantum dynamics. In Physical Review A, 2013, vol. 88, no. 6, 062328. (3.042 - IF2012). (2013 - Current Contents, WOS, SCOPUS). ISSN 1050-2947.
- ADCA18 FILIPPOV, S.N. - ZIMAN, Mário. Bipartite entanglement-annihilating maps: necessary and sufficient condition. In Physical Review A, 2013, vol. 88, 032316. (3.042 - IF2012). (2013 - Current Contents, WOS, SCOPUS). ISSN 1050-2947.
- ADCA19 GUPTA, P. - GANGULI, T. - ŠVEC, Peter Jr. - SINHA, A.K. - GUPTA, A. - ŠVEC, Peter - SINGH, M.N. - REDDY, V.R. - DEB, S.K. Effect of Co addition on the atomic ordering of FeCo-phase in nanocrystalline Fe<sub>81</sub>-xCoxNb<sub>7</sub>B<sub>12</sub> alloys (x520.25, 27, 40.5, 54, 60.75): An anomalous diffraction and Mossbauer study. In Journal of Applied Physics, 2013, vol. 114, 083516. (2.210 - IF2012). (2013 - Current Contents, WOS, SCOPUS). ISSN 0021-8979.
- ADCA20 HALLGREN, S. - NAGAJ, Daniel - NARAYANASWAMI, S. The local Hamiltonian problem on a line with eight states is QMA-complete. In Quantum Information and Computation, 2013, vol. 13, no. 9-10, p. 0721-0750. (1.646 - IF2012). (2013 - Current Contents). ISSN 1533-7146.
- ADCA21 HARTMANOVÁ, Mária - NÁDAŽDY, Vojtech - KUNDRACIK, F. - MANSILLA, C. Influence of deposition conditions on electrical and mechanical properties of Sm<sub>2</sub>O<sub>3</sub>-doped CeO<sub>2</sub> thin films prepared by EB-PVD (+IBAD) methods. Part 1: Effective relative permittivity. In Applied Surface Science, 2013, vol. 269, p. 65-71. (2.112 - IF2012). (2013 - Current Contents, WOS, SCOPUS). ISSN 0169-4332.

- ADCA22 HORVÁTHOVÁ, Lucia - DUBECKÝ, Matúš - MITÁŠ, L. - ŠTICH, Ivan. Quantum Monte Carlo study of  $\pi$ -bonded transition metal organometallics: Neutral and cationic vanadium-benzene and cobalt-benzene half sandwiches. In Journal of Chemical Theory and Computation, 2013, vol. 9, no. 1, p. 390-400. (5.389 - IF2012). (2013 - Current Contents). ISSN 1549-9618.
- ADCA23 HOŠKO, Jozef - JANOTOVÁ, Irena - ŠVEC, Peter Jr. - MAŤKO, Igor - JANIČKOVIČ, Dušan - ŠVEC, Peter. Structure analysis of CoFeBSiNb(Ga) pseudobulk metallic glasses. In Applied Surface Science, 2013, vol. 269, p. 77-80. (2.112 - IF2012). (2013 - Current Contents, WOS, SCOPUS). ISSN 0169-4332.
- ADCA24 HOŠKO, Jozef - JANOTOVÁ, Irena - ŠVEC, Peter Jr. - VLASÁK, Gabriel - MAŤKO, Igor - JANIČKOVIČ, Dušan - GEMMING, T. - STOICA, M. - ŠVEC, Peter. Magnetostriction behavior of pseudobulk CoFeBSiBNb(Ga) systems. In Journal of Superconductivity, 2013, vol. 26, no. 4, p. 797-800. ISSN 0896-1107.
- ADCA25 ILLEKOVÁ, Emília - KRIŠTIK, Jozef - MACOVÁ, Eva - MAŤKO, Igor - ŠAÚŠA, Ondrej. Rearrangement of hexadecane molecules confined in the nanopores of a controlled pore glass using positron annihilation and differential scanning calorimetry. In Journal of Thermal Analysis and Calorimetry, 2013, vol. 113, p. 1187 - 1196. (1.982 - IF2012). (2013 - Current Contents). ISSN 1388-6150.
- ADCA26 JANOTOVÁ, Irena - HOŠKO, Jozef - ŠVEC, Peter Jr. - JANIČKOVIČ, Dušan - VLASÁK, Gabriel - ŠVEC, Peter. The study of magnetically soft Fe-B-P based nanostructures. In Journal of Superconductivity and Novel Magnetism, 2013, vol. 26, no. 4, p. 793-796. (0.702 - IF2012). (2013 - Current Contents, WOS, SCOPUS). ISSN 1557-1939.
- ADCA27 JANOTOVÁ, Irena - HOŠKO, Jozef - ŠVEC, Peter Jr. - MAŤKO, Igor - JANIČKOVIČ, Dušan - ŠVEC, Peter - GEMMING, T. - STOICA, M. The study of structure Fe-B-P based metallic glasses. In Applied Surface Science, 2013, vol. 269, p. 102-105. (2.112 - IF2012). (2013 - Current Contents, WOS, SCOPUS). ISSN 0169-4332.
- ADCA28 JERSEL, Matej - ŠIFFALOVIČ, Peter - VÉGSO, Karol - MAJKOVÁ, Eva - KORYTÁR, Dušan - ZÁPRAŽNÝ, Zdenko - PERLICH, J. - ZIBERI, B. - CORNEJO, M. - VAGOVIČ, P. Extreme x-ray beam compression for a high-resolution table-top grazing-incidence small-angle x-ray scattering setup. In Journal of Applied Crystallography, 2013, vol. 46, p. 1544-1550. (3.343 - IF2012). (2013 - Current Contents, WOS, SCOPUS). ISSN 0021-8898.
- ADCA29 JIRÁSKOVÁ, Y. - HENDRYCH, A. - ŽIVOTSKÝ, O. - BURSÍK, J. - ZÁK, T. - PROCHÁZKA, I. - JANIČKOVIČ, Dušan. Surface magneto-optical and Mossbauer observations of Fe-Al. In Applied Surface Science, 2013, vol. 276, p. 68-75. (2.112 - IF2012). (2013 - Current Contents, WOS, SCOPUS). ISSN 0169-4332.
- ADCA30 KALINAY, Pavol. Moment expansion for mapping of the confined diffusion. In Physical Review E, 2013, vol. 87, 032143. (2.313 - IF2012). (2013 - Current Contents, WOS, SCOPUS). ISSN 1539-3755.
- ADCA31 KALINAY, Pavol. When is the next extending of Fick-Jacobs equation necessary ? In Journal of Chemical Physics, 2013, vol. 139, 054116. (3.164 - IF2012). (2013 - Current Contents). ISSN 0021-9606.
- ADCA32 KECKES, J. - DANIEL, R. - MITTERER, C. - MAŤKO, Igor - SARTORY, B. - KOEPF, A. - WEISSENBACHER, R. - PITONAK, R. Self-organized periodic soft-hard nanolamellae in polycrystalline TiAlN thin films. In Thin Solid Films, 2013, vol. 545, p. 29-32. (1.604 - IF2012). (2013 - Current Contents). ISSN 0040-6090.
- ADCA33 KLINOVAJA, J. - STAŇO, Peter - YAZDANI, A. - LOSS, D. Topological superconductivity and majorana fermions in RKKY systems. In Physical Review Letters, 2013, vol. 111, no. 18, 186805. (7.943 - IF2012). (2013 - Current Contents,

- WOS, SCOPUS). ISSN 0031-9007.
- ADCA34 KLOEFFEL, Ch. - TRIF, M. - STAŇO, Peter - LOSS, D. Circuit QED with hole-spin qubits in Ge/Si nanowire quantum dots. In Physical Review B, 2013, vol. 88, no. 24, 241405R. (3.767 - IF2012). (2013 - Current Contents, WOS, SCOPUS). ISSN 1098-0121.
- ADCA35 KOPANI, M. - MIKULA, M. - TAKAHASHI, M. - RUSNÁK, Jaroslav - PINČÍK, Emil. FTIR spectroscopy of silicon oxide layers prepared with perchloric acid. In Applied Surface Science, 2013, vol. 269, p. 106-109. (2.112 - IF2012). (2013 - Current Contents, WOS, SCOPUS). ISSN 0169-4332.
- ADCA36 KORYTÁR, Dušan - VAGOVIČ, Patrik - VÉGSO, Karol - ŠIFFALOVIČ, Peter - DOBROČKA, Edmund - JARK, W. - ÁČ, V. - ZÁPRAŽNÝ, Zdenko - FERRARI, C. - CECILIA, A. - HAMANN, E. - MIKULÍK, P. - BAUMBACH, T. - FIEDERLE, M. - JERGEL, Matej. Potential use of V-channel Ge(220) monochromators in X-ray metrology and imaging. In Journal of Applied Crystallography, 2013, vol. 46, p. 945-952. (3.343 - IF2012). (2013 - Current Contents, WOS, SCOPUS). ISSN 0021-8898.
- ADCA37 KRAJČÍ, Marián - HAFNER, J. Surfaces of intermetallic compounds: An ab initio DFT study for B20-type AlPd. In Physical Review B, 2013, vol. 87, no. 3, 035436. (3.767 - IF2012). (2013 - Current Contents, WOS, SCOPUS). ISSN 1098-0121.
- ADCA38 KRAJČÍ, Marián - HAFNER, J. Structure and chemical reactivity of the polar three-fold surfaces of GaPd a density-functional study. In Journal of Chemical Physics, 2013, vol. 138, no. 12, 124703. (3.164 - IF2012). (2013 - Current Contents). ISSN 0021-9606.
- ADCA39 KURAEV, E.A. - LIPTAJ, Andrej. Production of an arbitrary number of lepton and pion pairs at peripheral hadron collisions. In Journal of Physics G, 2013, vol. 40, no. 1, 015104. (5.326 - IF2012). (2013 - Current Contents). ISSN 0954-3899.
- ADCA40 LIBERATI, V. - ANDREYEV, A.N. - ANTALIC, S. - BARZAKH, A. - COCOLIOS, T.E. - ELSEVIERS, J. - FEDOROV, D. - FEDOSEEV, V.N. - HUYSE, M. - JOSS, D.T. - KALANINOVA, Z. - KOESTER, U. - LANE, J.F.W. - MARSH, B. - MENGONI, D. - MOLKANOV, P. - NISHIO, K. - PAGE, R.D. - PATRONIS, N. - PAUWELS, D. - RADULOV, D. - SELIVERSTOV, M. - SJOEDIN, M. - TSEKHANOVICH, I. - VAN DEN BERGH, P. - VAN DUPPEN, P. - VENHART, Martin - VESELSKÝ, Martin. Beta-delayed fission and alfa decay of <sup>178</sup>Tl. In Physical Review C, 2013, vol. 88, 044322. (3.715 - IF2012). (2013 - Current Contents, WOS, SCOPUS). ISSN 0556-2813.
- ADCA41 MARTINOVIČ, Lubomír - GRANGÉ, P. Hamiltonian formulation of exactly solvable models and their physical vacuum states. In Physics Letters B, 2013, vol. 724, p. 310-315. (4.569 - IF2012). (2013 - Current Contents, WOS, SCOPUS). ISSN 0370-2693.
- ADCA42 MIHALKOVIČ, Marek - KRAJČÍ, Marián - WIDOM, M. Prediction of stable insulating intermetallic compounds. In Physical Review B, 2013, vol. 87, no. 10, 100201. (3.767 - IF2012). (2013 - Current Contents, WOS, SCOPUS). ISSN 1098-0121.
- ADCA43 MIHALKOVIČ, Marek - HENLEY, C.L. Caged clusters in Al<sub>11</sub>Ir<sub>4</sub>: Structural transition and insulating phase. In Physical Review B, 2013, vol. 88, 064201. (3.767 - IF2012). (2013 - Current Contents, WOS, SCOPUS). ISSN 1098-0121.
- ADCA44 MOSER, A. - SALZMANN, I. - OEHZELT, M. - NEUHOLD, A. - FLESCH, H.-G. - IVANČO, Ján - POP, S. - TOADER, T. - ZAHN, D. - SMILGIES, D.M. - RESEL, R. A disordered layered phase in thin films of sexithiophene. In Chemical Physics Letters, 2013, vol. 574, p. 51-55. (2.145 - IF2012). (2013 - Current Contents). ISSN 0009-2614.
- ADCA45 PETRÍK, Kristián - GMUCA, Štefan. Lambda matter in the effective density

- dependent mean-field model. In *Astronomische Nachrichten*, 2013, vol. 334, no. 9, p. 1043-1046. (1.399 - IF2012). (2013 - Current Contents, SCOPUS, NASA ADS). ISSN 0004-6337.
- ADCA46 PETRÍK, Kristián - GMUCA, Štefan. On the effective density dependence of vertex functionals in the relativistic hadron field theory (vol 39, 085113, 2012). In *Journal of Physics G*, 2013, vol. 40, no. 4, 049501. (5.326 - IF2012). (2013 - Current Contents). ISSN 0954-3899.
- ADCA47 PINČÍK, Emil - KOBAYASHI, H. - RUSNÁK, Jaroslav - TAKAHASHI, M. - BRUNNER, Róbert. About electrical properties of passivated SiO<sub>2</sub>/Si structures prepared electro-chemically in HClO<sub>4</sub> solutions. In *Applied Surface Science*, 2013, vol. 269, p. 148-154. (2.112 - IF2012). (2013 - Current Contents, WOS, SCOPUS). ISSN 0169-4332.
- ADCA48 PINČÍK, Emil. Progress in applied surface, interface and thin film science 2012 Solar renewable energy news III, May 14-18, 2012, Florence, Italy (SURFINT-SREN III). In *Applied Surface Science*, 2013, vol. 269, p. 1. (2.112 - IF2012). (2013 - Current Contents, WOS, SCOPUS). ISSN 0169-4332.
- ADCA49 PLESCH, Martin - DAHLSTEN, O. - GOOLD, J. - VEDRAL, V. Comment on "Quantum Szilard Engine". In *Physical Review Letters*, 2013, vol. 111, no. 18, 188901. (7.943 - IF2012). (2013 - Current Contents, WOS, SCOPUS). ISSN 0031-9007.
- ADCA50 RADULOV, D. - CHIARA, C.J. - DARBY, I.G. - DE WITTE, H. - DIRIKEN, J. - FEDOROV, D.V. - FEDOSSEEV, N. - FRAILE, L.M. - HUYSE, M. - KOSTER, U. - MARSH, B.A. - PAUWELS, D. - POPESCU, L. - SELIVERSTOV, M.D. - SJODIN, A.M. - VAN DEN BERGH, P. - VAN DUPPEN, P. - VENHART, Martin - WALTERS, W.B. - WIMMER, K. Beta decay of <sup>61</sup>Mn to levels in <sup>61</sup>Fe. In *Physical Review C*, 2013, vol. 88, 014307. (3.715 - IF2012). (2013 - Current Contents, WOS, SCOPUS). ISSN 0556-2813.
- ADCA51 REEB, D. - REITZNER, Daniel - WOLF, M.M. Coexistence does not imply joint measurability. In *Journal of Physics A: Mathematical and Theoretical*, 2013, vol. 46, 462002. (1.766 - IF2012). (2013 - Current Contents). ISSN 1751-8113.
- ADCA52 ROTHE, S. - ANDREYEV, A.N. - ANTALIC, S. - BORSCHEVSKY, A. - CAPPONI, L. - COCOLIOS, T.E. - DE WITTE, H. - ELIAV, E. - FEDOROV, D.V. - FEDOSSEEV, V.N. - FINK, D.A. - FRITZSCHE, S. - GHYS, L. - HUYSE, M. - IMAI, N. - KALDOR, U. - KUDRYAVTSEV, Yu. - KOSTER, U. - LANE, J.F.W. - LASSEN, J. - LIBERATI, V. - LYNCH, K.M. - MARSH, B.A. - NISHIO, K. - PAUWELS, D. - PERSHINA, V. - POPESCU, L. - PROCTER, T.J. - RADULOV, D. - RAEDER, S. - RAJABALI, M.M. - RAPISARDA, E. - ROSSEL, R.E. - SANDHU, K. - SELIVERSTOV, M.D. - SJODIN, A.M. - VAN DEN BERGH, P. - VAN DUPPEN, P. - VENHART, Martin - WAKABAYASHI, Y. - WENDT, K.D.A. Measurement of the first ionization potential of astatine by laser ionization spectroscopy. In *Nature Communications*, 2013, vol. 4, 1835. (10.015 - IF2012). (2013 - Current Contents). ISSN 2041-1723.
- ADCA53 ŠAMAJ, Ladislav. Thermodynamics of two-component log-gases with alternating charges. In *Journal of Statistical Physics*, 2013, vol. 152, no. 4, p. 599-618. (1.400 - IF2012). (2013 - Current Contents). ISSN 0022-4715.
- ADCA54 ŠAMAJ, Ladislav. Counter- ions at single charged wall: Sum rules. In *European Physical Journal E*, 2013, vol. 36, no. 9, 100. (1.824 - IF2012). (2013 - Current Contents). ISSN 1292-8941.
- ADCA55 SCHAUER, F. - NÁDAŽDY, Vojtech - GMUCOVÁ, Katarína - WEIS, Martin Jr. - KUŘITKA, I. - ROHOVEC, J. - TOUŠEK, J. - TOUŠKOVÁ, J. - LÁNYI, Štefan. Charge transient, electrochemical and impedance measurements as tools for characterization of nano-heterostructural organic/inorganic semiconductors. In

- Nanoscience and Nanotechnology Letters, 2013, vol. 5, no. 4, p. 439-443. (0.886 - IF2012). (2013 - Current Contents). ISSN 1941-4900.
- ADCA56 ŠEBO, Pavol - ŠVEC, SR., Peter - JANIČKOVIČ, Dušan - ILLEKOVÁ, Emília - ZEMÁNKOVÁ, Milina - PLEVACHUK, Yu - SIDOROV, V. - ŠVEC, Peter Jr.. The influence of silver content on structure and properties of Sn-Bi-Ag solder and Cu/solder/Cu joints. In Materials Science and Engineering A - Structural Materials Properties Microstructure and Processing, 2013, vol. A 571, p. 184-192. (2.108 - IF2012). (2013 - Current Contents, WOS, SCOPUS). ISSN 0921-5093.
- ADCA57 SELIVERSTOV, M.D. - COCOLIOS, T.E. - DEXTERS, W. - ANDREYEV, A.N. - ANTALIC, S. - BARZAKH, A.E. - BASTIN, B. - BUSCHER, J. - DARBY, I.G. - FEDOROV, D.V. - FEDOSEYEV, V.N. - FLANAGAN, K.T. - FRANCHOO, S. - FRITZSCHE, S. - HUBER, G. - HUYSE, M. - KEUPERS, M. - KOSTER, U. - KUDRYAVTSEV, Yu. - MARSH, B.A. - MOLKANOV, P.L. - PAGE, R.D. - SJODIN, A.M. - STEFAN, I. - VAN DE WALLE, J. - VAN DUPPEN, P. - VENHART, Martin - ZEMLYANOY, S.G. Charge radii of odd-A Po191-211 isotopes. In Physics Letters B, 2013, vol. 719, no. 4-5, p. 362-366. (4.569 - IF2012). (2013 - Current Contents, WOS, SCOPUS). ISSN 0370-2693.
- ADCA58 STAŇO, Peter - JACQUOD, Ph. Suppression of interactions in multimode random lasers in the Anderson localized regime. In Nature Photonics, 2013, vol. 7, p. 66-71. (27.254 - IF2012). (2013 - Current Contents). ISSN 1749-4885.
- ADCA59 STAŇO, Peter - KLINOVAJA, J. - YACOBY, A. - LOSS, D. Local spin susceptibilities of low-dimensional electron system. In Physical Review B, 2013, vol. 88, 045441. (3.767 - IF2012). (2013 - Current Contents, WOS, SCOPUS). ISSN 1098-0121.
- ADCA60 STAŇO, Peter - FABIAN, J. - ŽUTIĆ, I. Spin-orbit coupled particle in a spin bath. In Physical Review B, 2013, vol. 87, no. 16, 165303. (3.767 - IF2012). (2013 - Current Contents, WOS, SCOPUS). ISSN 1098-0121.
- ADCA61 STAR COLL., incl. - FILIP, Peter. Fluctuations of charge separation perpendicular to the event plane and local parity violation in SNN=200 GeV Au+Au collisions at the BNL relativistic heavy ion collider. In Physical Review C, 2013, vol. 88, 064911. (3.715 - IF2012). (2013 - Current Contents, WOS, SCOPUS). ISSN 0556-2813.
- ADCA62 STAR COLL., incl. - FILIP, Peter. Freeze-out dynamics via charged kaon femtoscopy in SNN=200 GeV central Au+Au collisions. In Physical Review C, 2013, vol. 88, no. 3, 034906. (3.715 - IF2012). (2013 - Current Contents, WOS, SCOPUS). ISSN 0556-2813.
- ADCA63 STAR COLL., incl. - FILIP, Peter. Third harmonic flow of charged particles in Au+Au collisions at SNN= 200 GeV. In Physical Review C, 2013, vol. 88, no. 1, 014904. (3.715 - IF2012). (2013 - Current Contents, WOS, SCOPUS). ISSN 0556-2813.
- ADCA64 STAR COLL., incl. - FILIP, Peter. System-size dependence of transverse momentum correlations at SNN= 62.4 and 200 GeV at the BNL relativistic heavy ion collider. In Physical Review C, 2013, vol. 87, no. 6, 064902. (3.715 - IF2012). (2013 - Current Contents, WOS, SCOPUS). ISSN 0556-2813.
- ADCA65 STAR COLL., incl. - FILIP, Peter. Elliptic flow of identified hadrons in Au+Au collisions at SNN= 7.7 - 62.4 GeV. In Physical Review C, 2013, vol. 88, 014902. (3.715 - IF2012). (2013 - Current Contents, WOS, SCOPUS). ISSN 0556-2813.
- ADCA66 STAR COLL., incl. - FILIP, Peter. Measurement of J/ψ azimuthal anisotropy in Au+Au collisions at SNN= 200 GeV. In Physical Review Letters, 2013, vol. 111, 052301. (7.943 - IF2012). (2013 - Current Contents, WOS, SCOPUS). ISSN 0031-9007.
- ADCA67 STAR COLL., incl. - FILIP, Peter. J/ψ production at high transverse momenta in p+p and Au+Au collisions at SNN= 200 GeV. In Physics Letters B, 2013, vol. 722,

- p. 55-62. (4.569 - IF2012). (2013 - Current Contents, WOS, SCOPUS). ISSN 0370-2693.
- ADCA68 STAR COLL., incl. - FILIP, Peter. Observation of an energy-dependent difference in elliptic flow between particles and antiparticles in relativistic heavy ion collisions. In Physical Review Letters, 2013, vol. 110, no. 14, 142301. (7.943 - IF2012). (2013 - Current Contents, WOS, SCOPUS). ISSN 0031-9007.
- ADCA69 VESELSKÝ, Martin - MA, Y.G. Symmetry energy and nucleon-nucleon cross sections. In Physical Review C, 2013, vol. 87, no. 3, 034615. (3.715 - IF2012). (2013 - Current Contents, WOS, SCOPUS). ISSN 0556-2813.
- ADCA70 ZEMANOVÁ DIEŠKOVÁ, M. - ŠTICH, Ivan - BOKES, P. Rigidity of the conductance of an anchored dithioazobenzene optomechanical switch. In Physical Review B, 2013, vol. 87, no. 24, 245418. (3.767 - IF2012). (2013 - Current Contents, WOS, SCOPUS). ISSN 1098-0121.
- ADCA71 ŽIVOTSKÝ, O. - TITOV, A. - JIRÁSKOVÁ, Y. - BURŠÍK, J.Y. - KALBÁČOVÁ, J. - ŠVEC, Peter. Full-scale magnetic, microstructural and physical properties of bilayered CoSiB/FeSiB ribbons. In Journal of Alloys and Compounds, 2013, vol. 581, p. 685-692. (2.390 - IF2012). (2013 - Current Contents, WOS, SCOPUS). ISSN 0925-8388.

#### **ADDA Vedecké práce v domácich karentovaných časopisoch impaktovaných**

- ADDA01 REITZNER, Daniel - NAGAJ, Daniel - BUŽEK, Vladimír. Quantum walks. In Acta Physica Slovaca, 2011, vol. 61, no. 6, p. 603-725. (3.250 - IF2010). (2011 - WOS, SCOPUS). ISSN 0323-0465.
- ADDA02 VESELSKÝ, Martin. Nuclear reactions with heavy ion beams. In Acta Physica Slovaca, 2013, vol. 63, no. 1-2, p. 1-104. (1.333 - IF2012). (2013 - Current Contents, WOS, SCOPUS). ISSN 0323-0465.

#### **ADDB Vedecké práce v domácich karentovaných časopisoch neimpaktovaných**

- ADDB01 STUPAKOV, O. - ŠVEC, Peter. Three-parameter feedback control of amorphous ribbon magnetization. In Journal of Electrical Engineering, 2013, vol. 64, no. 3, p. 166-172. (0.546 - IF2012). (2013 - INSPEC, SCOPUS). ISSN 1335-3632.

#### **ADEB Vedecké práce v zahraničných nekarentovaných časopisoch neimpaktovaných**

- ADEB01 ADAMUŠČIN, Cyril - BARTOŠ, Erik - DUBNIČKA, Stanislav - DUBNIČKOVÁ, A.Z. Advanced nucleon electromagnetic structure model and charge proton rms radius. In Nuclear Physics B - Proceedings Supplements, 2013, vol. 245, p. 69-73. (2013 - WOS, SCOPUS). ISSN 0920-5632.
- ADEB02 AFANASIEV, S.F. - BEKMIRZAEV, R.N. - BASKOV, V.A. - CRUCERU, I. - CONSTANTIN, F. - CRUCERU, M. - CIOLACU, L. - DIRNER, A. - DRYABLOV, D.K. - DUBINCHIN, B.V. - IBADOV, R.M. - IGAMKULOV, Z.A. - IVANOV, V.I. - ISUPOV, A.Yu. - JOMURODOV, D.M. - KRAVČÁKOVÁ, A. - KUZNECOV, S.N. - MALAKHOV, A.I. - MATOUŠEK, Vladislav - NIOLESCU, G. - LEBEDEV, A.I. - L'VOV, A.I. - PAVLYUCHENKO, L.N. - PLEKHANOV, E.B. - POLYANSKY, V.V. - RZHANOV, E.B. - SIDORIN, S.S. - SMIRNOV, V.A. - SOKOL, G.A. - ŠPAVOROVÁ, M. - SULTANOV, M.U. - TURZO, Ivan - VOKÁL, S. - VRLÁKOVÁ, J. New status of the project "éta-nuclei" at the nuclotron. In Nuclear Physics B - Proceedings Supplements, 2013, vol. 245, p. 173-176. (2013 - WOS, SCOPUS). ISSN 0920-5632.
- ADEB03 AHMADOV, A.I. - KURAEV, E.A. - LIPTAJ, Andrej. QCD jets production at

- proton-proton collision in peripheral kinematics. In Nuclear Physics B - Proceedings Supplements, 2013, vol. 245, p. 49-52. (2013 - WOS, SCOPUS). ISSN 0920-5632.
- ADEB04 BARTOŠ, Erik - DUBNIČKA, Stanislav - DUBNIČKOVÁ, A.Z. The advanced nucleon electromagnetic structure model prediction of hyperon electromagnetic form factors. In Nuclear Physics B - Proceedings Supplements, 2013, vol. 245, p. 78-81. (2013 - WOS, SCOPUS). ISSN 0920-5632.
- ADEB05 DUBNIČKA, Stanislav - DUBNIČKOVÁ, A.Z. - IVANOV, M.A. - LIPTAJ, Andrej. Meson decays  $B_s \rightarrow J/\psi + \eta$  and  $B \rightarrow K + 2\pi$  in the covariant quark model. In Nuclear Physics B - Proceedings Supplements, 2013, vol. 245, p. 247-250. (2013 - WOS, SCOPUS). ISSN 0920-5632.
- ADEB06 DUBNIČKA, Stanislav - DUBNIČKOVÁ, A.Z. - LIPTAJ, Andrej. Model independent  $f_0(500)$  and  $f_0(980)$  meson parameters by pion scalar form factor analysis. In Nuclear Physics B - Proceedings Supplements, 2013, vol. 245, p. 53-56. (2013 - WOS, SCOPUS). ISSN 0920-5632.
- ADEB07 DUBNIČKOVÁ, A.Z. - DUBNIČKA, Stanislav - ADAMUŠČIN, Cyril. Vector and tensor polarizations in  $e+e^- \rightarrow pp$  by advanced nucleon electromagnetic structure model. In Nuclear Physics B - Proceedings Supplements, 2013, vol. 245, p. 74-77. (2013 - WOS, SCOPUS). ISSN 0920-5632.
- ADEB08 FILIP, Peter. Magnetic polarizability of mesons. In Nuclear Physics B - Proceedings Supplements, 2013, vol. 245, p. 251-254. (2013 - WOS, SCOPUS). ISSN 0920-5632.
- ADEB09 GUPTA, P. - GANGULI, T. - SINHA, A.K. - SINGH, M.N. - ŠVEC, Peter Jr. - DEB, S.K. Ordering of FeCo nanocrystalline phase in FeCoNbB alloy: An anomalous diffraction study. In AIP Conference Proceedings, 2013, vol. 1512, p. 362-363. (2013 - WOS, SCOPUS). ISSN 0094-243X.
- ADEB10 JERGEL, Matej - ŠIFFALOVIČ, Peter - VÉGSO, Karol - BENKOVIČOVÁ, Monika - MAJKOVÁ, Eva - NYGARD, K. - KONOVALOV, O. GISAXS application to a study of the nanoparticle self-assembly at the air-water interface. In Materials Structure, 2013, vol. 20, no. 2, p. 63-65.
- ADEB11 KARTSONAKIS, I. - PAPADOPOULOS, N. - TSEROTAS, Ph. - ŠVEC, Peter. Low-temperature synthesis of maghemite nanoparticles. In Key Engineering Materials, 2013, vol. 543, p. 468-471. (2013 - WOS, SCOPUS). ISSN 1013-9826.
- ADEB12 KAVETSKYY, T. - ŠAUŠA, Ondrej - KRIŠTIAK, Jozef - PETKOVA, T. - PETKOV, P. - BOEV, V. - LYADOV, N. - STEPANOV, A. New organic-inorganic hybrid ureasil-based polymer materials studied by PALS and SEM techniques. In Materials Science Forum, 2013, vol. 733, p. 171-174. (2013 - WOS, SCOPUS). ISSN 0255-5476.
- ADEB13 KOPANI, M. - KOBAYASHI, H. - TAKAHASHI, M. - MIKULA, M. - IMAMURA, K. - VOJTEK, P. - PINČÍK, Emil. Study on optical properties of ultra-thin and very-thin silicon oxide/silicon structures prepared by chemical wet methods. In Metallurgical Analysis, 2012, vol. 32, no. 10, p. 64-67. ISSN 1000-7571.
- ADEB14 KORYTÁR, Dušan - VAGOVIČ, P. - FERRARI, C. - ŠIFFALOVIČ, Peter - JERGEL, Matej - DOBROČKA, Edmund - ZÁPRAŽNÝ, Zdenko - ÁČ, V. - MIKULÍK, P. Process- induced inhomogeneities in higher asymmetry angle x-ray monochromators. In Proceedings of SPIE, 2013, vol. 8848, 88480U. (2013 - SCOPUS).
- ADEB15 MAJERNÍK, Viktor - KRIŠTIAK, Jozef - ŠAUŠA, Ondrej - ISKROVÁ-MIKLOŠOVIČOVÁ, Martina. Motion of molecules at plateau region: case of propylene glycol. In Materials Science Forum, 2013, vol. 733, p. 80-83. (2013 - WOS, SCOPUS). ISSN 0255-5476.
- ADEB16 MAJERNÍK, Viktor - KRIŠTIAK, Jozef - ŠAUŠA, Ondrej -



- ISKROVÁ-MIKLOŠOVIČOVÁ, Martina. "In situ" observation of crystallization in propylene carbonate, salol and m-toluidine. In Materials Science Forum, 2013, vol. 733, p. 84-87. (2013 - WOS, SCOPUS). ISSN 0255-5476.
- ADEB17 MARTINOVIČ, Lubomír. New operator solution of the Schwinger model in a covariant gauge and axial anomaly. In Acta Physica Polonica B- Proceedings Supplement, 2013, vol. 6, no. 1, p. 287-293. ISSN 1899-2358.
- ADEB18 PINČÍK, Emil - KOBAYASHI, H. - TAKAHASHI, M. - BRUNNER, Róbert - JUREČKA, S. Passivation of a-Si:H-based structures in KCN and HCN solutions and its application on p-i-n solar cell. In Journal of the Chinese Advanced Materials Society, 2013, vol. 1, no. 2, p. 151-165. ISSN 2224-3682.
- ADEB19 PINČÍK, Emil - HAJOSSY, R. - BRUNNER, Róbert. Aerodynamic model of spark discharge. In Journal of the Chinese Advanced Materials Society, 2013, vol. 1, no. 2, p. 111-120. ISSN 2224-3682.
- ADEB20 RAČKO, Dušan - KRIŠTIAK, Jozef. The free volume dynamics. In Materials Science Forum, 2013, vol. 733, p. 33 - 37. (2013 - WOS, SCOPUS). ISSN 0255-5476.
- ADEB21 ŠAUŠA, Ondrej - ILLEKOVÁ, Emília - KRIŠTIAK, Jozef - BEREK, Dušan - MACOVÁ, Eva. PALS and DSC study of nanopores partially filled by hexadecane. In Journal of Physics: Conference Series, 2013, vol.443, 012059. (2013 - SCOPUS). ISSN 1742-6588.
- ADEB22 SLÁVIKOVÁ, Barbora - MIKLOŠOVIČOVÁ, Martina - ILLEKOVÁ, Emília - MAJERNÍK, Viktor - ŠAUŠA, Ondrej - KRIŠTIAK, Jozef - JESENÁK, K. Hexadecane in SiO<sub>2</sub> aerogels. In Materials Science Forum, 2013, vol. 733, p. 107-110. (2013 - WOS, SCOPUS). ISSN 0255-5476.
- ADEB23 SUROVTSEV, Yu.S. - BYDŽOVSKÝ, P. - GUTSCHE, T. - KAMIŃSKI, R. - LYUBOVITSKIY, V.E. - NAGY, Miroslav. The scalar mesons in decays of the  $\psi$  and Gama families. In Nuclear Physics B - Proceedings Supplements, 2013, vol. 245, p. 259-262. (2013 - WOS, SCOPUS). ISSN 0920-5632.
- ADEB24 SZEWCZYK, R. - ŠVEC, Peter - ŠVEC, Peter Jr. - SALACH, J. - JACKIEWICZ, D. - BIENKOWSKI, A. - HOŠKO, Jozef - KAMIŃSKI, M. - WINIARSKI, W. Thermal annealing of soft magnetic materials and measurements of its magnetoelastic properties. In Pomiary Automatyka Robotyka, 2013, no. 2, p. 513-518. ISSN 1427-9162.

#### **ADFB Vedecké práce v domácich nekarentovaných časopisoch neimpaktovaných**

- ADFB01 BUTVINOVÁ, Beata - BUTVIN, Pavol - ILLEKOVÁ, Emília - ŠVEC, Peter - VLASÁK, Gabriel - JANIČKOVIČ, Dušan - KADLEČÍKOVÁ, M. Impact of phosphorus for boron substitution on magnetic properties of magnetostrictive finemets. In Acta Electrotechnica et Informatica, 2013, vol. 13, no. 1, p. 78-81. ISSN 1335-8243.
- ADFB02 MARCIN, Jozef - CAPIK, Marek - KOVÁČ, Jozef - ŠVEC, Peter - PETRYSHYNETS, Ivan - KOVÁČ, František - ŠKORVÁNEK, Ivan. Tuning of magnetic properties and domain structure in FeCo- and FeSi-based soft magnetic alloys by thermal processing under magnetic field. In Acta electrotechnica et informatica, 2013, vol. 13, no. 1, p. 91-94. ISSN 1335-8243.
- ADFB03 ŠKORVÁNEK, Ivan - MARCIN, Jozef - CAPIK, Marek - VARGA, Marek - KOVÁČ, Jozef - JANOTOVÁ, Irena - ŠVEC, Peter - IDZIKOWSKI, B. Soft magnetic melt-spun ribbons for energy and sensor applications. In Acta Electrotechnica et Informatica, 2013, vol. 13, no. 1, p. 45-48. ISSN 1335-8243.

#### **AEC Vedecké práce v zahraničných recenzovaných vedeckých zborníkoch (aj**

## **konferenčných), monografiách**

- AEC01 ČAVOJSKÝ, Miroslav - BALOG, Martin - KRÍŽIK, Peter - ŠVANTNER, Tomáš - ŠVEC, Peter - SIMANČÍK, František. Microstructures and Properties of Rapidly Solidified AlCrFe Extruded Profiles. In EURO PM2013 : congress & exhibition. vol.3. - Shrewsbury : EPMA, 2013, s.101-106. ISBN 978-1-899072-43-9.
- AEC02 FILIP, Peter. Initial state in RHIC and ground-state properties of nuclei : . In Journal of Physics: Conference Series, 2013, vol. 446, 012033. (2013 - SCOPUS). ISSN 1742-6588.
- AEC03 LUKÁČ, F. - CIZEK, J. - PROCHÁZKA, I. - JIRÁSKOVÁ, Y. - JANIČKOVIČ, Dušan - ANWAND, W. - BRAUER, G. Vacancy-induced hardening in Fe-Al alloys. In Journal of Physics: Conference Series, 2013, vol. 443, 012025. (2013 - SCOPUS). ISSN 1742-6588.

## **AFA Publikované pozvané príspevky na zahraničných vedeckých konferenciách**

- AFA01 EUCHNER, H. - YAMADA, T. - TAMURA, R. - ISHIMASA, T. - ROLS, S. - SCHOBER, H. - OLLIVIER, J. - MIHALKOVIČ, Marek - DE BOISSIEU, M. Tetrahedron dynamics in Tsai-type quasicrystals and their approximants. In ICQ12-12th International Conference on Quasicrystals, September 1-6, 2013, Cracow, Poland : Conference Proceedings. - Krakow : AGH University, 2013, p. 1-18. ISBN 978-83-934620-6-3.
- AFA02 HENLEY, Ch.L. - CHOI, Woosong - MIHALKOVIČ, Marek. Orientational interaction and ordering transitions of tetra in the Cd<sub>6</sub>Ca approximant. In ICQ12-12th International Conference on Quasicrystals, September 1-6, 2013, Cracow, Poland : Conference Proceedings. - Krakow : AGH University, 2013, p. 1-19. ISBN 978-83-934620-6-3.
- AFA03 LUBY, Štefan - ŠIFFALOVIČ, Peter - BENKOVIČOVÁ, Monika - IVANČO, Ján - JERGEL, Matej - MAJKOVÁ, Eva - RELLA, R. - MANERA, M.G. n- and p-type response and NO<sub>2</sub> sensing properties of Langmuir-Blodgett Fe<sub>2</sub>O<sub>3</sub> and CoFe<sub>2</sub>O<sub>4</sub> nanoparticle arrays. In 19th International Vacuum Congress (IVC-19), September 9-13, 2013, Paris, France : Book of Abstracts. - Paris, 2013, p. 818-819.
- AFA04 ŠKORVÁNEK, Ivan - CAPIK, Marek - MARCIN, Jozef - JANIČKOVIČ, Dušan - ŠVEC, Peter. Soft magnetic amorphous and nanocrystalline bilayer ribbons. In ANMM 2013 : 6th International Workshop on Amorphous and Nanostructured Magnetic Materials, September 30 - October 3, 2013, Sendai, Japan, invited talk.
- AFA05 ŠKORVÁNEK, Ivan - MARCIN, Jozef - ŠVEC, Peter - LUPU, Nicoleta - CHIRIAC, Horia. Tuning of soft magnetic properties in FeCo- and FeNi-based amorphous and nanocrystalline alloys by thermal processing in external magnetic field. In THERMEC 2013 : International conference on processing and manufacturing of advanced materials. Book of abstracts. Las Vegas, USA, 2.-6.12.2013. - B.V., 2013, invited talk.
- AFA06 ŠKORVÁNEK, Ivan - MARCIN, Jozef - CAPIK, Marek - KOVÁČ, J. - JANIČKOVIČ, Dušan - ŠVEC, Peter Jr.. Magnetic processing of amorphous and nanocrystalline alloys. In NANOVED 2013 & NANO INFO DAY : 6th International Conference on Nanosciences, Nanotechnologies, Nanomaterials and NANO INFO DAY of the Nanoforce Project. - Brno : TRIBUN EU, 2013, o-13. ISBN 978-80-263-0511-8.
- AFA07 ŠVEC, Peter Jr. - JANOTOVÁ, Irena - HOŠKO, Jozef - KEPAPTSOGLU, D.M. - MAŤKO, Igor - JANIČKOVIČ, Dušan - ŠVEC, Peter. Phase mapping of iron-based rapidly quenched alloys using precession electron diffraction. In Proceedings of the 19th International Conference on Applied Physics of Condensed Matter : APCOM

2013. Eds. J.Vajda, I.Jamnický. - Bratislava : Nakladateľstvo STU Bratislava, 2013, p. 28-33. ISBN 978-80-227-3956-6.
- AFA08 ŠVEC, Peter Jr. - ZIGO, Juraj - PINČÍK, Emil - BALOG, M. - ŠVEC, Peter. Phase and orientation mapping of fine-grained structures by procession electron diffraction. In Solid State Surfaces and Interfaces (SSSI VIII), November 24-28, 2013, Smolenice.
- AFA09 SZEWCZYK, R. - ŠVEC, Peter - SALACH, J. - ŠVEC, Peter Jr. - BIENKOWSKI, A. - HOŠKO, Jozef - JACIEWICZ, D. - KAMIŃSKI, M. - WINIARSKI, W. Thermal annealing of soft magnetic materials and measurements of its magnetoelastic properties. In Automatyka 2013, March 19-22, 2013, Warsaw, Poland. - Warsaw : Nauka, 2013, p. 513-518. ISSN 1427-9162.

#### **AFBA Publikované pozvané príspevky na medzinárodných vedeckých konferenciách poriadaných v SR**

- AFBA01 HODAS, M. - ŠIFFALOVIČ, Peter - JERGEL, Matej - HALAHOVETS, Yuriy - VÉGSO, Karol - MAJKOVÁ, Eva. Ion beam deposition of advanced multilayer x-ray mirrors. In Proceedings of ADEPT : 1st International Conference on Advances in Electronic and Photonic Technologies, June 2-5, 2013, Nový Smokovec, Slovakia. Eds. D. Pudiš et al. - Žilina : University of Žilina, 2013, p. 157-160. ISBN 978-80-554-0689-3.
- AFBA02 HUDEČ, Ján - FIDRÍKOVÁ, Danica - VRETENÁR, Viliam - DIEŠKA, P. - KUBIČÁR, Ľudovít. Variations of heat and moisture transport through walls of the St. Martin Cathedral tower in Bratislava. In Thermophysics 2013 - Conference Proceedings : 18th International Meeting of Thermophysical Society, November 13-15, 2013, Podkylava, Slovak Republic. Editor Oldřich Zmeškal. - Bratislava : Institute of Physics, Slovak Academy of Science in Bratislava, 2013, p. 229-233. ISBN 978-80-214-4801-4.
- AFBA03 LUBY, Štefan - BENKOVIČOVÁ, Monika - JERGEL, Matej - ŠIFFALOVIČ, Peter - MAJKOVÁ, Eva - RELLA, R. - CAPONE, S. - MANERA, M.G. Electrical conductivity in Fe<sub>2</sub>O<sub>3</sub> and CoFe<sub>2</sub>O<sub>4</sub> nanoparticle arrays and their application in gas sensing. In Proceedings of the 19th International Conference on Applied Physics of Condensed Matter : APCOM 2013. Eds. J.Vajda, I.Jamnický. - Bratislava : Nakladateľstvo STU Bratislava, 2013, p. 11-14. ISBN 978-80-227-3956-6.
- AFBA04 NÁDAŽDY, Vojtech - KAISER, M. - IVANČO, Ján - JERGEL, Matej - VÉGSO, Karol - ŠIFFALOVIČ, Peter - CIRÁK, J. - MAJKOVÁ, Eva. Selected aspects of organic solar cell preparation. In Proceedings of the 19th International Conference on Applied Physics of Condensed Matter : APCOM 2013. Eds. J.Vajda, I.Jamnický. - Bratislava : Nakladateľstvo STU Bratislava, 2013, p. 245-248. ISBN 978-80-227-3956-6.
- AFBA05 PETRÝDESOVÁ, L. - ŠIMKOVÁ, I. - EKKERTO VÁ, P. - DURMEKOVÁ, T. - BOHÁČ, Vlastimil - FIDRÍKOVÁ, Danica - VRETENÁR, Viliam. Monitoring of temperature-moisture regime in different depth levels of rock mass, Brhlovce dwellings case study. In Thermophysics 2013 - Conference Proceedings : 18th International Meeting of Thermophysical Society, November 13-15, 2013, Podkylava, Slovak Republic. Editor Oldřich Zmeškal. - Bratislava : Institute of Physics, Slovak Academy of Science in Bratislava, 2013, p. 234-341. ISBN 978-80-214-4801-4.
- AFBA06 ŠVEC, Peter - SZEWCZYK, R. - SALACH, J. - JACKIEWICZ, D. - ŠVEC, Peter Jr. - BIENKOWSKI, A. - HOŠKO, Jozef. Magnetoelastic properties of selected amorphous systems tailored by thermomagnetic treatment. In Proceedings of the 19th International Conference on Applied Physics of Condensed Matter : APCOM

2013. Eds. J.Vajda, I.Jamnický. - Bratislava : Nakladateľstvo STU Bratislava, 2013, p. 163-165. ISBN 978-80-227-3956-6.

- AFBA07 VOJTKO, Andrej - BENKOVIČOVÁ, Monika - JERGEL, Matej - KOTLÁR, Mário - HALAHOVETS, Yuriy - ŠIFFALOVICH, Peter - NÁDAŽDY, Vojtech - MAJKOVÁ, Eva. Application of plasmonic nanoparticles in organic photovoltaic structures. In Proceedings of ADEPT : 1st International Conference on Advances in Electronic and Photonic Technologies. Eds. D. Pudiš et al. - Žilina : University of Žilina, 2013, p. 24-27. ISBN 978-80-554-0689-3.

#### **AFBB Publikované pozvané príspevky na domácich vedeckých konferenciách**

- AFBB01 GMUCOVÁ, Katarína - NÁDAŽDY, Vojtech - WEIS, Martin Jr. - JAKABOVIČ, J. - FILO, J. - PUTALA, M. Formation of water related defect states in organic semiconductors. In Proceedings of the 19th Conference of Slovak Physicists, September 3-6, 2012, Prešov. - Košice : Slovak Physical Society, 2013, p. 45-46. ISBN 978-80-970625-8-3.
- AFBB02 IVANČO, Ján. Charakterizácia elektrónovej štruktúry molekulárnych filmov a súvisiacich rozhraní s pomocou fotoemisie. In 20. konferencia slovenských fyzikov, 2.-5.september 2013, Bratislava. - Bratislava : SFS, 2013.
- AFBB03 IVANČO, Ján. Photoemission investigations using synchrotron radiation. In Winter School of Synchrotron Radiation, March 11-15, 2013, Liptovský Ján, Slovakia.

#### **AFC Publikované príspevky na zahraničných vedeckých konferenciách**

- AFC01 ADAMUŠČIN, Cyril - BARTOŠ, Erik - DUBNIČKA, Stanislav. Proton charge rms radius from all reliable nucleon EM FF's data respecting SU(3) symmetry. In Relativistic Nuclear Physics: from hundreds of MeV to TeV. Proceedings of the 11th International Workshop, June 17-23, 2012, Stará Lesná, Slovakia. - Dubna : JINR, 2013, p. 16-28. ISBN 978-5-9530-0354-4.
- AFC02 BĚTÁK, Emil - URBANEC, M. - STUHLÍK, Z. Construction of deformed neutron stars stemming from DBHF. In Proceedings of the 13th International Conference on Nuclear Reaction Mechanisms, June 11-15, 2012, Varenna (Italy) : CERN-Proceedings-2012-002. - Geneva : CERN, 2012, p. 483-487. ISBN 978-92-9083-382-6. ISSN 2078-8835.
- AFC03 BĚTÁK, Emil. Possibilities of statistical pick-up and knock-out in the pre-equilibrium (exciton model) nuclear reactions for the cluster emission. In NPAE 2012: Current Problems in Nuclear Physics and Atomic Energy (NPAE-Kyiv 2012). Proceedings of the 4th International Conference, September 3-7, 2012, Kyiv, Ukraine. Part 1. - Kyiv : Institute for Nuclear Research, 2013, p. 28-33. ISBN 978-966-02-6751-0.
- AFC04 FILIP, Peter. Ground-state properties of nuclei and initial state in relativistic heavy ion collisions. In Relativistic Nuclear Physics: from hundreds of MeV to TeV. Proceedings of the 11th International Workshop, June 17-23, 2012, Stará Lesná, Slovakia. - Dubna : JINR, 2013, p. 111-118. ISBN 978-5-9530-0354-4.
- AFC05 FILIP, Peter. Influence of deformation and vibration of nuclei on the elliptic flow. In XXI International Baldin Seminar on High Energy Physics Problems, September 10-15, 2012, Dubna, Russia : Proceedings of Science (Baldin ISHEPP XXI) 051. - Trieste : SISSA/ISAS, 2013, p. 1-7.
- AFC06 FILIP, Peter. Heavy flavor mesons in strong magnetic fields. In 8th International Workshop on Critical Point and Onset of Deconfinement (CPOD 2013), March 11-15, 2013, California, USA : Proceedings of Science (CPOD 2013) 035. - Trieste : SISSA/ISAS, 2013, p. 1-10.

- AFC07 FRIGAN, B. - MIHALKOVIČ, Marek - TREBIN, H.-R. Metadislocation core structure in the epsilon-Al-Pd-Mn phases. In ICQ12- 12th International Conference on Quasicrystals, September 1-6, 2013, Cracow, Poland : Conference Proceedings. - Krakow : AGH University, 2013, p. O-26. ISBN 978-83-934620-6-3.
- AFC08 GREENSITE, J. - OLEJNÍK, Štefan. Testing the Yang-Mills vacuum wave functional ansatz in 3+1 dimensions. In Xth Quark Confinement and the Hadron Spectrum, October 8-12, 2012, TUM Campus Garching, Munich, Germany : Proceedings of Science ( Confinement X ) 054. - Trieste : SISSA/ISAS, 2013, p. 1-8.
- AFC09 GREENSITE, J. - OLEJNÍK, Štefan. Numerical Study of the SU(2) Yang-Mills Vacuum State. Much Ado About Nothing ? In From quarks and gluons to hadronic matter: A bridge too far ? September 2-6, 2013, European Centre for Theoretical Studies in Nuclear Physics and Related Areas (ECT), Villazzano, Trento, Italy : Proceedings of Science (QCD-TNT-III) 027. - Trieste : SISSA, 2013, p. 1-12.
- AFC10 GREENSITE, J. - OLEJNÍK, Štefan. Measuring the ground-state wave functional of SU(2) Yang-Mills theory in 3+1 dimensions Abelian plane waves. In 31th International Symposium on Lattice Field Theory LATTICE 2013, July 29-August 3, 2013, Mainz, Germany : Proceedings of Science (LATTICE 2013) 467. - Trieste : SISSA, 2013, p. 1-7.
- AFC11 IVANČO, Ján - LUBY, Štefan - JERGEL, Matej - ŠIFFALOVIČ, Peter - BENKOVIČOVÁ, Monika - MAJKOVÁ, Eva - RELLA, R. - MANERA, M.G. Nitrogen dioxide and acetone sensors based on iron oxide nanoparticles. In 3rd International Conference on Materials and Applications for Sensors and Transducers (IC MAST), September 13-17, 2013, Prague, CZ. - Prague, 2013.
- AFC12 KADLEČIKOVÁ, M. - VANČO, L. - BREZA, J. - BUTVINOVÁ, Beata - MICHNIAK, P. Application of nanostructures in surface enhanced Raman spectroscopy of coloured materials. In NANOCON13, October 16-18, 2013, Brno, ČR : Zborník 5.ročník mezinárodní konference. - Brno, 2013, p. 2201.
- AFC13 MIHALKOVIČ, Marek - HENLEY, C.L. - RICHMOND-DECKER, J. - KRAJČÍ, Marián. Orientation interactions of pseudo-Mackay clusters in Al<sub>3</sub>Ir<sub>4</sub> and approximants of i-AlPdMn. In ICQ12- 12th International Conference on Quasicrystals, September 1-6, 2013, Cracow, Poland : Conference Proceedings. - Krakow : AGH University, 2013, p. O-25. ISBN 978-83-934620-6-3.
- AFC14 PINČÍK, Emil - KOBAYASHI, H. - TAKAHASHI, M. - BRUNNER, Róbert - JUREČKA, S. About application of passivation processes on more types of solar cells. In 34. Nekonenvenční zdroje elektrické energie, 2013, Blansko. - Praha : Česká elektrotechnická společnost, 2013, p. 91-103. ISBN 978-80-02-02458-3.
- AFC15 TRIZAC, E. - ŠAMAJ, Ladislav. Like-charge colloidal attraction: A simple argument. In Proceedings of the International School of Physics "Enrico Fermi": Course CLXXXIV "Physics of Complex Colloids". - Amsterdam : IOS Press, 2013, p. 61-73. ISBN 978-1-61499-278-3-61.
- AFC16 VESELSKÝ, Martin - MA, Y.G. Symmetry energy and nucleon-nucleon cross sections. In Relativistic Nuclear Physics: from hundreds of MeV to TeV. Proceedings of the 11th International Workshop, June 17-23, 2012, Stará Lesná, Slovakia. - Dubna : JINR, 2013, p. 29-42. ISBN 978-5-9530-0354-4.

#### **AFDA Publikované príspevky na medzinárodných vedeckých konferenciách poriadaných v SR**

- AFDA01 AFANASIEV, S.V. - ANISIMOV, Yu.S. - BEKMIRZAEV, R.N. - CRUCERU, I. - CONSTANTIN, F. - CRUCERU, M. - CIOLACU, L. - DRYABLOV, D.K. - IGAMKULOV, Z.A. - IVANOV, V.I. - ISUPOV, A.Yu. - KLIMAN, Ján - LEBEDEV, A.I. - L'VOV, A.I. - MALAKHOV, A.I. - MATOUŠEK, Vladislav -

- NIOLESCU, G. - PAVLYUCHENKO, L.N. - PLEKHANOV, E.B. - POLYANSKY, A.I. - SIDORIN, S.S. - SHPAVOROVA, M. - SOKOL, G.A. - TURZO, Ivan - VOKAL, S. Search for éta-mesic nuclei at the nuclotron. In Relativistic Nuclear Physics: from hundreds of MeV to TeV. Proceedings of the 11th International Workshop, June 17-23, 2012, Stará Lesná, Slovakia. - Dubna : JINR, 2013, p. 82-88. ISBN 978-5-9530-0354-4.
- AFDA02 GMUCOVÁ, Katarína - NÁDAŽDY, Vojtech - VOJTKO, Andrej - KOTLÁR, Mário - MAJKOVÁ, Eva. Investigation of ion diffusion towards plasmonic surfaces. In Proceedings of the 19th International Conference on Applied Physics of Condensed Matter : APCOM 2013. Eds. J.Vajda, I.Jamnický. - Bratislava : Nakladateľstvo STU Bratislava, 2013, p. 229-232. ISBN 978-80-227-3956-6.
- AFDA03 JANEK, M. - LADYGIN, V.P. - AZHGIREY, L.S. - UESAKA, T. - GURCHIN, Yu.V. - HATANO, M. - ITOH, K. - ISUPOV, A.Yu. - KARACHUK, J.-T. - KATO, H. - KAWABATA, T. - KRASNOV, V.A. - KHRENOV, A.N. - KISELEV, A.S. - KIZKA, V.A. - KLIMAN, Ján - KURILKIN, A.K. - KURILKIN, P.K. - LADYGINA, N.B. - LIVANOV, A.N. - MAEDA, Y. - MALAKHOV, A.I. - MATOUŠEK, Vladislav - MORHÁČ, Miroslav - NISHIKAWA, J. - PILIPENKO, Yu.K. - OHNISHI, T. - OKAMURA, H. - PIYADIN, S.M. - REZNIKOV, S.G. - SAITO, T. - SAKAGUCHI, S. - SAKAI, H. - SAKAMOTO, N. - SAKODA, S. - SASAMOTO, Y. - SATOU, Y. - SEKIGUCHI, K. - SUDA, K. - SHIKHALEV, M.A. - TAMII, A. - TRPISOVA, B. - TURZO, Ivan - UCHIGASHIMA, N. - VASILIEV, T.A. - YAKO, K. - ZOLIN, L.S. Short range correlations in experiments with deuterons at intermediate energies. In Relativistic Nuclear Physics: from hundreds of MeV to TeV. Proceedings of the 11th International Workshop, June 17-23, 2012, Stará Lesná, Slovakia. - Dubna : JINR, 2013, p. 89-95. ISBN 978-5-9530-0354-4.
- AFDA04 JUREČKA, S. - MULLEROVÁ, J. - PINČÍK, Emil. Optical methods for analysis of thin dielectric films. In Proceedings of the 19th International Conference on Applied Physics of Condensed Matter : APCOM 2013. Eds. J.Vajda, I.Jamnický. - Bratislava : Nakladateľstvo STU Bratislava, 2013, p. 233-236. ISBN 978-80-227-3956-6.
- AFDA05 KAISER, Michal - NÁDAŽDY, Vojtech - IVANČO, Ján - CIRÁK, J. Photovoltaic cells based on polymer-fullerene blend. In Renewable Energy Sources 2013: 4th International Scientific Conference OZE , May 21-23, 2013, Tatranské Matliare. - Bratislava : Slovak University of Technology, 2013, p. 409-414. ISBN 978-80-89402-64-9.
- AFDA06 MAJKOVÁ, Eva - VOJTKO, Andrej - JERGEL, Matej - NÁDAŽDY, Vojtech - BENKOVIČOVÁ, Monika - ŠIFFALOVIC, Peter - KOTLÁR, Mário. Organic photovoltaic devices- promising alternative for renewable energy resources. In Renewable Energy Sources 2013 : Proceedings of the 4th International Scientific Conference OZE 2013, May 21-23, Tatranské Matliare, Slovakia. - Bratislava : Slovak University of Technology, 2013, p. 15-17. ISBN 978-80-89402-64-9.

#### **AFDB Publikované príspevky na domácich vedeckých konferenciách**

- AFDB01 BUŽEK, Vladimír. Ichthyosaurus v ZOO (alebo rezonátorová kvantová elektrodynamika pre zvedavých). In 20. konferencia slovenských fyzikov, 2.-5.september 2013, Bratislava. - Bratislava : SFS, 2013, bC 300.
- AFDB02 GENDIAR, Andrej. Kvantová mechanika a fázové prechody v neeuklidovskej geometrii. In 20. konferencia slovenských fyzikov, 2.-5.september 2013, Bratislava. - Bratislava : SFS, 2013, bC 150.
- AFDB03 GMUCOVÁ, Katarína. Fraktálna dimenzia povrchov modifikovaných nanočasticami. In 20. konferencia slovenských fyzikov, 2.-5.september 2013,

- Bratislava. - Bratislava : SFS, 2013, 150.
- AFDB04 ŠIFFALOVÍČ, Peter - VÉGSO, Karol - BENKOVIČOVÁ, Monika - KOCSISOVÁ, Teodora - WEIS, Martin Jr. - JERGEL, Matej - MAJKOVÁ, Eva - LUBY, Štefan. Nanoparticle self-assembly at air/liquid interfaces. In Proceedings of the 19th Conference of Slovak Physicists, September 3-6, 2012, Prešov. - Košice : Slovak Physical Society, 2013, p. 31-36. ISBN 978-80-970625-8-3.
- AFDB05 ŠKORVÁNEK, Ivan - MARCIN, Jozef - KOVÁČ, Ján - CAPIK, Marek - VARGA, Marek - KOVÁČ, František - ŠVEC, Peter Jr.. Soft magnetic materials for power electronic and magnetocaloric applications. In Materiály a technológie pre energetiku 2013 : Zborník z vedeckej konferencie, 25.3.2013, Košice. Eds. Ivan Škorvánek, Pavel Diko, Jozef Marcin. - Košice : UEF SAV, 2013. ISBN 978-80-89656-00-4.
- AFDB06 ŠVEC, Peter Jr. - SZEWCZYK, R. - ŠVEC, Peter - SALACH, J. - HOŠKO, Jozef - BIENKOWSKI, A. Medium-field annealing of soft magnetic materials and measurement of their magnetoelastic properties. In Materiály a technológie pre energetiku 2013 : Zborník z vedeckej konferencie, 25.3.2013, Košice. Eds. Ivan Škorvánek, Pavel Diko, Jozef Marcin. - Košice : UEF SAV, 2013. ISBN 978-80-89656-00-4.
- AFDB07 VENHART, Martin. Úloha malých laboratórií vo výskume jadrovej štruktúry. In 20. konferencia slovenských fyzikov, 2.-5.september 2013, Bratislava. - Bratislava : SFS, 2013, bC 150.

#### AFE Abstrakty pozvaných príspevkov zo zahraničných konferencií

- AFE01 ČERNÍČKOVÁ, I. - MIHALKOVIČ, Marek - ŠVEC, Peter Jr. - JANOVEC, J. Atomic structure of quasicrystalline approximants. In Mikroskopie 2013, květen 13.-14., 2013, Lednice, Czech republik : Book of Abstracts. - Praha : Československá mikroskopická společnost, 2013.
- AFE02 KRAJČÍ, Marián - HAFNER, J. Surfaces of complex intermetallic compounds as selective hydrogenation catalysts. In NANOVED 2013 & NANO INFO DAY : 6th International Conference on Nanosciences, Nanotechnologies, Nanomaterials and NANO INFO DAY of the Nanoforce Project. - Brno : TRIBUN EU, 2013, o-17. ISBN 978-80-263-0511-8.
- AFE03 KRAJČÍ, Marián - HAFNER, J. Surfaces of intermetallic Ga-Pd compounds as selective hydrogenation catalysts: a DFT study. In C-MAC Days 2013, December 9-12, 2013, Ljubljana, Slovenia : Book of Abstracts. - Ljubljana : MONS Congress Center, 2013, p. 13.
- AFE04 LUBY, Štefan. Foresight in nanotechnologies- research and perspectives. In ASI Nanomaterials and Nanostructures, June 30-July 8, 2013, Cork, Ireland. - Cork : Advanced Study Institute, 2013.
- AFE05 LUBY, Štefan - JERGEL, Matej - MAJKOVÁ, Eva - ŠIFFALOVÍČ, Peter - IVANČO, Ján - BENKOVIČOVÁ, Monika - RELLA, R. - MANERA, M.G. Nanoparticle sensors for security, environment and health protection. In ASI Nanomaterials and Nanostructures, June 30-July 8, 2013, Cork, Ireland. - Cork : Advanced Study Institute, 2013.
- AFE06 LUBY, Štefan - JERGEL, Matej - MAJKOVÁ, Eva - ŠIFFALOVÍČ, Peter - IVANČO, Ján - BENKOVIČOVÁ, Monika - RELLA, R. - MANERA, M.G. Nanoparticle sensors of gases and vapors in the environmental protection and in nanomedicine. In Symposium of Nanostructured Materials "NANO 2013", May 21-22, 2013, Rzeszow, Poland : Book of Abstracts. - Rzeszow : CMN, 2013, p. 49.
- AFE07 PINČÍK, Emil - HAJOSSY, Rudolf - BRUNNER, Róbert. Aerodynamic model of spark discharge. In 2nd International Congress on Advanced materials (AM2013),

- AFE08 May 16-19, 2013, Zhenjiang, China : Topic Abstracts. - Jiangsu University, g4.  
PINČÍK, Emil - KOBAYASHI, H. - RUSNÁK, Jaroslav - TAKAHASHI, M. - BRUNNER, Róbert - JUREČKA, S. Passivation of Si-based structures in KCN and HCN solutions and its application on more types of solar cells. In 2nd International Congress on Advanced materials (AM2013), May 16-19, 2013, Zhenjiang, China : Topic Abstracts. - 2013, c13.

#### **AFFA Abstrakty pozvaných príspevkov z medzinárodných vedeckých konferenciách poriadaných v SR**

- AFFA01 JERSEL, Matej - ŠIFFALOVIC, Peter - VÉGSO, Karol - BENKOVIČOVÁ, Monika - MAJKOVÁ, Eva - NYGARD, K. - KONOVALOV, O. Formation of nanoparticle arrays by self- assembly. In NANOVED 2013 & NANO INFO DAY : 6th International Conference on Nanosciences, Nanotechnologies, Nanomaterials and NANO INFO DAY of the Nanoforce Project. - Brno : TRIBUN EU, 2013, p. 25. ISBN 978-80-263-0511-8.
- AFFA02 KOBAYASHI, H. - IMAMURA, K. - MATSUMOTO, T. - TAKAHASHI, M. - PINČÍK, Emil. Cheical methods to improve conversion efficiencies of crystalline Si solar cells. In Proceedings of 8th Solid State Surfaces and Interfaces (SSSI 2013), November 25-28, 2013, Smolenice : Extended Abstract Book. - Bratislava : Comenium University Bratislava, 2013, p. 77. ISBN 978-80-223-3501-0.

#### **AFG Abstrakty príspevkov zo zahraničných konferencií**

- AFG01 BENKOVIČOVÁ, Monika - VOJTKO, Andrej - ŠIFFALOVIC, Peter - NÁDAŽDY, Vojtech - IVANČO, Ján - JERSEL, Matej - MAJKOVÁ, Eva. Towards new multifunctional coatings for photovoltaics. In 10th International Conference on Nanosciences and Nanotechnologies (NN13), July 9-12, Thessaloniki, Greese : Book of Abstracts. - 2013, p. 8.
- AFG02 BRUNNER, Róbert - KOBAYASHI, H. - TAKAHASHI, M. - PINČÍK, Emil. Photoluminescence investigation of thin film a-Si:H-based structures passivated in cyanida solution. In SSP 2013: VIII International Workshop on Semiconductor Surface Passivation, September 8-12, 2013, Cracow, Poland : Book of Abstracts. - Cracow, 2013, p. 34.
- AFG03 BUTVINOVÁ, Beata - BUTVIN, Pavol - MAŤKO, Igor - ŠVEC, Peter - CHROMČÍKOVÁ, M. - SITEK, J. - DEKAN, J. Magnetic and surface properties of high-induction nanocrystalline Fe-Nb-Cu-B/P-Si. In Soft Magnetic Materials Conference (SMM21), September 1-4, 2013, Budapest, Hungary : Book of Abstracts. - Budapest : Wigner Research Center for Physics, 2013, e1-20.
- AFG04 CIRAK, J. - KAISER, Michal - BOMBOVÁ, K. - NÁDAŽDY, Vojtech - IVANČO, Ján - WEIS, M. Charge transport in polythiophene fullerene films for photovoltaic applications. In ECOF 13: 13th European Conference on Organized Films, July 8-12, 2013, Cork, Ireland. - Cork, 2013, p. 2.
- AFG05 ĎURIŠKA, L. - ČIČKA, R. - ČERNÍČKOVÁ, I. - DRIENOVSKÝ, M. - JANIČKOVIČ, Dušan - JANOVEC, J. Contribution to thermodynamic description of epsilon- family phases in Al-Pd system. In C-MAC Days 2013, December 9-12, 2013, Ljubljana, Slovenia : Book of Abstracts. - Ljubljana : MONS Congress Center, 2013, p. 37.
- AFG06 ĎURIŠKA, L. - ČIČKA, R. - ČERNÍČKOVÁ, I. - JANIČKOVIČ, Dušan - JANOVEC, J. Experimental characterization of epsilon- family in Al-Pd system. In C-MAC Days 2013, December 9-12, 2013, Ljubljana, Slovenia : Poster. - Ljubljana : MONS Congress Center, 2013, p. 44.



- AFG07 HENLEY, C.L. - MIHALKOVIČ, Marek - RICHMOND-DECKER, J. - OXBORROW, M. Tile Hamiltonian approach to decagonal ZnMgY quasicrystal. In ICQ12- 12th International Conference on Quasicrystals, September 1-6, 2013, Cracow, Poland : Conference Proceedings. - Krakow : AGH University, 2013, p. P-20. ISBN 978-83-934620-6-3.
- AFG08 HORŇÁČKOVÁ, M. - PLAVČAN, J. - ROSSI, L. - MAŤKO, Igor. Analysis of Fe-Co-B-Si amorphous thin ribbon using laser induced plasma spectroscopy. In 31st International Conference on Phenomena in Ionized Gases- ICPIG, July 14-19, 2013, Granada, Spain : ICPIG 2013. - Madrid : Universidad d Cordoba, 2013.
- AFG09 HOŠKO, Jozef - JANOTOVÁ, Irena - ŠVEC, Peter Jr. - VLASÁK, Gabriel - MAŤKO, Igor - JANIČKOVIČ, Dušan - MARCIN, Jozef - ŠKORVÁNEK, Ivan - ŠVEC, Peter. Influence of Mo and Ta substitution for Nb on preparation, thermal stability and magnetic properties of Co-Fe-B-Si-Nb pseudobulk metallic glasses. In ISMANAM 2013- The 20th International Symposium on Metastable, Amorphous and Nanostructured Materials, June 30- July 5, 2013, Torino, Italy : Book of Abstracts. - Torino : Torino Incontra Conference Centre, 2013, abstract.
- AFG10 HOŠKO, Jozef - JANOTOVÁ, Irena - ŠVEC, Peter Jr. - MAŤKO, Igor - JANIČKOVIČ, Dušan - ŠVEC, Peter. Structure of Co-Fe-B-Si-Mo/Co-Fe-B-Si-Nb bilayer ribbons prepared by modified planar flow casting. In Mikroskopie 2013, květen 13.-14., 2013, Lednice, Czech republik : Book of Abstracts. - Praha : Československá mikroskopická společnost, 2013, p. 44.
- AFG11 JANIČKOVIČ, Dušan - ZIGO, J. - ŠVEC, Peter Jr. - MAŤKO, Igor - ŠVEC, Peter. On the structure evolution in q-phase rapidly solidified Al65Fe15Si20 composite. In NANOVED 2013 & NANO INFO DAY : 6th International Conference on Nanosciences, Nanotechnologies, Nanomaterials and NANO INFO DAY of the Nanoforce Project. - Brno : TRIBUN EU, 2013, p-13. ISBN 978-80-263-0511-8.
- AFG12 JANOTOVÁ, Irena - HOŠKO, Jozef - MAŤKO, Igor - JANIČKOVIČ, Dušan - ŠVEC, Peter Jr. - ŠVEC, Peter. The structure of rapidly quenched Fe-Co-B(-Si) based systems and influence of addition of Cu and P. In ISMANAM 2013- The 20th International Symposium on Metastable, Amorphous and Nanostructured Materials, June 30- July 5, 2013, Torino, Italy : Book of Abstracts. - Torino : Torino Incontra Conference Centre, 2013, abstract.
- AFG13 JANOTOVÁ, Irena - ŠVEC, Peter - MAŤKO, Igor - JANIČKOVIČ, Dušan - ŠVEC, Peter Jr.. Structure and kinetics of metastable systems based on Fe-Ci-B-Si-(P)-(Cu). In NANOVED 2013 & NANO INFO DAY : 6th International Conference on Nanosciences, Nanotechnologies, Nanomaterials and NANO INFO DAY of the Nanoforce Project. - Brno : TRIBUN EU, 2013, p-12. ISBN 978-80-263-0511-8.
- AFG14 KOPANI, M. - MIKULA, M. - PINČÍK, Emil - KOBAYASHI, H. - TAKAHASHI, M. FTIR spectroscopy of nitric acid oxidation of Si with hafnium oxide ultrathin layer. In SSP 2013: VIII International Workshop on Semiconductor Surface Passivation, September 8-12, 2013, Cracow, Poland : Book of Abstracts. - Cracow, 2013, p. 39.
- AFG15 LIU, D. - YAMADA, T. - MIHALKOVIČ, Marek - DE BOISSIEU, M. Tetrahedron ordering in the Cd6Tb and Zn6Sc 1/1 quasicrystalline approximants: Experiment and simulation. In C-MAC Days 2013, December 9-12, 2013, Ljubljana, Slovenia : Book of Abstracts. - Ljubljana : MONS Congress Center, 2013, p. 26.
- AFG16 MAŤKO, Igor - KRÍŽIK, Peter - HARNÚŠKOVÁ, Jana - ILLEKOVÁ, Emília - ŠVEC, Peter Jr. - ŠVEC, Peter. Structural investigation of oxidized powders used for powder metallurgy. In Mikroskopie 2013, květen 13.-14., 2013, Lednice, Czech republik : Book of Abstracts. - Praha : Československá mikroskopická společnost, 2013, p. 58.
- AFG17 MAŤKO, Igor - ILLEKOVÁ, Emília - ŠVEC, Peter - ŠVEC, Peter Jr. -

- JANIČKOVIČ, Dušan - VODÁREK, V. Nanocrystalline phase elaborated by thermally activated crystallization of amorphous Fe-Sn-B ribbons. In NANOVED 2013 & NANO INFO DAY : 6th International Conference on Nanosciences, Nanotechnologies, Nanomaterials and NANO INFO DAY of the Nanoforce Project. - Brno : TRIBUN EU, 2013, p- 11. ISBN 978-80-263-0511-8.
- AFG18 MIHALKOVIČ, Marek - WIDOM, M. Structure prediction of novel stable metal-boride alloys related to quasicrystals. In ICQ12- 12th International Conference on Quasicrystals, September 1-6, 2013, Cracow, Poland : Conference Proceedings. - Krakow : AGH University, 2013, p. P-23. ISBN 978-83-934620-6-3.
- AFG19 MIHALKOVIČ, Marek - FRIGAN, B. - TREBIN, H.-R. In situ observation of "phason flip" in realistic annealing simulation of epsilon-Al-Pd-Co phases. In ICQ12- 12th International Conference on Quasicrystals, September 1-6, 2013, Cracow, Poland : Conference Proceedings. - Krakow : AGH University, 2013, p. P-24. ISBN 978-83-934620-6-3.
- AFG20 MIHALKOVIČ, Marek - HENLEY, C.L. Canonical-cell tiling and real icosahedral approximants. In ICQ12- 12th International Conference on Quasicrystals, September 1-6, 2013, Cracow, Poland : Conference Proceedings. - Krakow : AGH University, 2013, p. P-25. ISBN 978-83-934620-6-3.
- AFG21 PINČÍK, Emil - KOBAYASHI, H. - IMAMURA, K. - TAKAHASHI, M. - MIKULA, M. - KUČERA, M. - BRUNNER, Róbert. Optical properties of black silicon. In BIT's 3rd Annual World Congress of Nanoscience and Nanotechnology-2013, Xi'an, China : Book of Abstracts. - Xi'an : Euro Asia Economic Forum, 2013, p. 199.
- AFG22 PINČÍK, Emil - KOBAYASHI, H. - TAKAHASHI, M. - BRUNNER, Róbert. About application of passivation processes on more types of Si-based solar cells. In BIT's 3rd Annual World Congress of Nanoscience and Nanotechnology-2013, Xi'an, China : Book of Abstracts. - Xi'an : Euro Asia Economic Forum, 2013, p. 069.
- AFG23 PINČÍK, Emil - KOHAYASHI, H. - MATSUMOTO, T. - TAKAHASHI, M. - MIKULA, M. - BRUNNER, Róbert. And their comparison with HfO<sub>2</sub>/Si structures. In SSP 2013: VIII International Workshop on Semiconductor Surface Passivation, September 8-12, 2013, Cracow, Poland : Book of Abstracts. - Cracow, 2013, p. 23.
- AFG24 PRIPUTEN, P. - DRIENOVSKÝ, M. - KUSÝ, M. - ČERNIČKOVÁ, I. - JANIČKOVIČ, Dušan - JANOVEC, J. Contribution to Al-Co phase diagram with respect to structurally complex phases. In C-MAC Days 2013, December 9-12, 2013, Ljubljana, Slovenia : Book of Abstracts. - Ljubljana : MONS Congress Center, 2013, p. 18.
- AFG25 ŠAUŠA, Ondrej - MAJERNÍK, V. - ILLEKOVÁ, Emília - MACOVÁ, Eva - BEREK, Dušan. Thermal expansion of free-volume in hexadecane confined in the silica gel nanopores. In 41st Polish Seminar on Positron Annihilation : Lublin, Poland, September 09 - 13, 2013: book of abstracts. - Lublin, Poland : Maria Curie-Sklodowska University, 2013, p. 51.
- AFG26 ŠVEC, Peter Jr. - ŠVEC, Peter - MATKO, Igor. Precession electron diffraction of fine-grained structures. In NANOVED 2013 & NANO INFO DAY : 6th International Conference on Nanosciences, Nanotechnologies, Nanomaterials and NANO INFO DAY of the Nanoforce Project. - Brno : TRIBUN EU, 2013, o-28. ISBN 978-80-263-0511-8.
- AFG27 ŠVEC, Peter Jr. - ŠVEC, Peter - JANIČKOVIČ, Dušan. Monophase Fe<sub>23</sub>B<sub>6</sub>-type alloy formed by crystallization of rapidly quenched Fe-Ni-Nb-B system. In NANOVED 2013 & NANO INFO DAY : 6th International Conference on Nanosciences, Nanotechnologies, Nanomaterials and NANO INFO DAY of the Nanoforce Project. - Brno : TRIBUN EU, 2013, p-10. ISBN 978-80-263-0511-8.
- AFG28 TOKÁR, Kamil - TREDAK, P. - MAJEWSKI, J.A. Multi-scale molecular dynamics

simulations of propane, benzene, and graphene flakes adsorption on (0001) Si-terminated 4H-SiC surface. In 17th International Conference on Crystal Growth and Epitaxy (ICCGE-17), August 11-16, 2013, Poland : Book of Abstracts. - Warszawa : University of Warsaw, 2013, p. 511. ISBN 83-89585-36-7.

- AFG29 WASKE, A. - KRAUTZ, M. - HOŠKO, Jozef - SKOKOV, K. - ŠVEC, Peter - STOICA, M. - SCHULTZ, L. - GUTFLEISCH, O. - ECKERT, J. Melt-spun magnetocaloric bilayers. In C-MAC Days 2013, December 9-12, 2013, Ljubljana, Slovenia : Book of Abstracts. - Ljubljana : MONS Congress Center, 2013, p. 22.

#### AFHA Abstrakty príspevkov z medzinárodných vedeckých konferenciách poriadaných v SR

- AFHA01 BRUNNER, Róbert - KOBAYASHI, H. - PINČÍK, Emil - IMAMURA, K. - TAKAHASHI, M. Photoluminescence and reflectance of silicon-based structures. In Proceedings of 8th Solid State Surfaces and Interfaces (SSSI 2013), November 25-28, Smolenice : Extended Abstract Book. - Bratislava : Comenius University Bratislava, 2013, p. 28. ISBN 978-80-223-3501-0.
- AFHA02 BUTTA, M. - BUTVINOVÁ, Beata. The influence of the anisotropy on the noise of a ring core fluxgate. In Senzorika a magnetometria, vedecká konferencia s medzinárodnou účasťou, 5. decembra, 2013, Košice : Zborník abstraktov. - Košice : Letecká fakulta TU, 2013, p. 4.
- AFHA03 BUTVIN, Pavol - BUTVINOVÁ, Beata - KUZMINSKI, M. - SLAWSKA-WANIEWSKA, A. - SITEK, J. - MAŤKO, Igor - KADLEČÍKOVÁ, M. Effect of surfaces in FeNbCuBSiP ribbons. In 15th Czech and Slovak Conference on Magnetism (CSMAG'13), June 17-21, 2013, Košice : Programme Abstracts. - Košice : Pavol Šafárik Univerzity in Košice, 2013, p2-58. ISSN 978-80-8152-015-0.
- AFHA04 JANOŠEK, M. - VYHNÁNEK, J. - BUTVIN, Pavol - BUTVINOVÁ, Beata. Effects of core dimensions and manufacturing procedure on fluxgate noise. In 15th Czech and Slovak Conference on Magnetism (CSMAG'13), June 17-21, 2013, Košice : Programme Abstracts. - Košice : Pavol Šafárik Univerzity in Košice, 2013, p2-26. ISSN 978-80-8152-015-0.
- AFHA05 KOPANI, M. - MIKULA, M. - PINČÍK, Emil - KOBAYASHI, H. - TAKAHASHI, M. Infrared spectroscopy of hafnium oxide very thin layer. In Proceedings of 8th Solid State Surfaces and Interfaces, (SSSI 2013), November 25-28, 2013, Smolenice : Extended Abstract Book. - Bratislava : Comenius University Bratislava, 2013, p. 79. ISBN 978-80-223-3501-0.
- AFHA06 PINČÍK, Emil - KOBAYASHI, H. - BRUNNER, Róbert - TAKAHASHI, M. - MIKULA, M. - RUSNÁK, Jaroslav. Interaction of KCN solutions with Si-based semiconductors. In Proceedings of 8th Solid State Surfaces and Interfaces (SSSI 2013), November 25-28, 2013, Smolenice : Extended Abstract Book. - Bratislava : Comenius University Bratislava, 2013, p. 142-143. ISBN 978-80-223-3501-0.
- AFHA07 PINČÍK, Emil - KOBAYASHI, H. - IMAMURA, K. - TAKAHASHI, M. - MIKULA, M. - KUČERA, Michal - VOJTEK, P. - ZABUDLA, Z. - ŠVEC, Peter - BRUNNER, Róbert - RUSNÁK, Jaroslav. About optical properties of black silicon. In Proceedings of 8th Solid State Surfaces and Interfaces (SSSI 2013), November 25-28, 2013, Smolenice : Extended Abstract Book. - Bratislava : Comenius University Bratislava, 2013, p. 140-141. ISBN 978-80-223-3501-0.
- AFHA08 RUSNÁK, Jaroslav - PINČÍK, Emil - ŠÁLY, V. - PERNÝ, M. - RUŽINSKÝ, M. The developed measuring system for studying electrical properties of photovoltaic cells. In Proceedings of 8th Solid State Surfaces and Interfaces (SSSI 2013), November 25-28, 2013, Smolenice : Extended Abstract Book. - Bratislava : Comenius University Bratislava, 2013, p. 156-157. ISBN 978-80-223-3501-0.
- AFHA09 ŠVAJDLENKOVÁ, Helena - MAJERNÍK, V. - ISKROVÁ, Martina - ŠAUŠA,

Ondrej - KRIŠTIAK, Jozef - BARTOŠ, Josef. The mutual relationship of spin probe mobility (ESR) with free volume (PALS) in a series of glass-forming systems. In XXV International EPR Seminar : Častá - Papiernička, April 2013 : book of abstracts. p. 40. - Bratislava : Ústav fyzikálnej chémie a chemickej fyziky FCHPT STU v Bratislave, 2013. ISBN 978-80-227-3893-4.

#### DAI Dizertačné a habilitačné práce

DAI01      SENČEKOVÁ, Lucia. Mo/Mo-silicide composites prepared by liquid silicon infiltration : dizertačné doktorandské práce (PhD.,Dr.). Prof.Ing.Jozef Janovec, DrSc., Ing.Peter Švec, DrSc. Trnava : Materiálovotechnická fakulta STU, 2012. Ústav materiálov a mechaniky strojov Slovenskej akadémie vied v Bratislave.

#### FAI Redakčné a zostavovateľské práce knižného charakteru (bibliografie, encyklopédie, katalógy, slovníky, zborníky...)

FAI01      HS'13. The Proceedings of the 7th Joint International Hadron Structure'13 Conference, June 30-July 4, 2013, Tatranská Štrba, High Tatra Mountains, Slovak Republic. In Nuclear Physics B (Proc.Suppl.), vol. 245, 2013. Amsterdam : Elsevier, 2013. 302 s. ISSN 0920-5632.

FAI02      NANOVED 2013 & NANO INFO DAY : 6th International Conference on Nanosciences, Nanotechnologies, Nanomaterials and NANO INFO DAY of the Nanoforce Project : Program and Abstracts. Eds. P. Švec, I. Vávra, S. Surová. Brno : TRIBUN EU, 2013. ISBN 978-80-263-0511-8.

#### GII Rôzne publikácie a dokumenty, ktoré nemožno zaradiť do žiadnej z predchádzajúcich kategórií

GII01      PRIPUTEN, P. - DRIENOVSKÝ, M. - KUSÝ, M. - ČERNÍČKOVÁ, I. - JANIČKOVIČ, Dušan - JANOVEC, J. Phase equilibria investigation of Al-Co complex metallic alloys. In ICQ12- 12th International Conference on Quasicrystals, September 1-6, 2013, Cracow, Poland : Conference Proceedings. - Krakow : AGH University, 2013, p. P-77. ISBN 978-83-934620-6-3.

#### Ohlasy (citácie):

#### AAA Vedecké monografie vydané v zahraničných vydavateľstvách

AAA01      MARKOŠ, Peter - SOUKOULIS, Costas m. Wave Propagation : From Electrons to Photonic Crystals and Left-Handed Materials. Costas M.Soukoulis. Princeton and Oxford : Princeton University Press, 2008. 352 s. ISBN 978-0-691-13003-3.

##### Citácie:

1. [1.1] *ARRUDA, T.J. Electromagnetic energy within coated spheres. In JOURNAL OF OPTICS, 2012, vol. 14, 065101., WOS*
2. [1.1] *ASATRYAN, A.A. Transmission and Anderson localization in dispersive metamaterials. In PHYSICAL REVIEW B, 2012, vol. 85, 045122., WOS*
3. [1.1] *BECERRA, O.G. Localized modes in metamaterials-dielectric photonic crystals. In JOURNAL OF SUPERCONDUCTIVITY AND NOVEL MAGNETISM, 2012, vol. 25, pp. 2163., WOS*
4. [1.1] *CRASTER, R.V. Dangers of using the edges of the Brillouin zone. In*

- PHYSICAL REVIEW B*, 2012, vol. 86, 115130., WOS
5. [1.1] DEL BARCO, O. Localization length. In *PHYSICAL REVIEW A*, 2012, vol. 86, 023846., WOS
6. [1.1] DYAKOV, S.A. Enhancement of photoluminescence. In *APPLIED PHYSICS LETTERS*, 2012, vol. 100, no. 6, 061908., WOS
7. [1.1] DYAKOV, S.A. Resonance enhancement of Raman scattering. In *JOURNAL OF NANOELECTRONICS AND OPTOELECTRONICS*, 2012, vol. 7, pp. 591., WOS
8. [1.1] EVENOR, I. Analysis of light scattering. In *EUROPEAN PHYSICAL JOURNAL D*, 20102, vol. 66, 231., WOS
9. [1.1] FERNANDEZ-MARIN, A.A. Photonic heterostructures. In *PHYSICAL REVIEW A*, 2012, vol. 85, 035803., WOS
10. [1.1] GONZALES, L.E. Pressure, temperature and plasma frequency effects. In *PHYSICA E*, 2012, vol. 44, pp. 773., WOS
11. [1.1] GREDESKUL, S.A. Anderson localization in metamaterials. In *LOW TEMPERATURE PHYSICS*, 2012, vol. 38, pp. 570., WOS
12. [1.1] HUANG, Y. Solving metamaterials . In *COMPUTERS AND MATHEMATICS WITH APPLICATIONS*, 2012, vol. 63, pp. 1597., WOS
13. [1.1] HUANG, Y. Superconvergence analysis. In *NUMERICAL METHODS FOR PARTIAL DIFFERENTIAL EQUATIONS*, 2012, vol. 28, pp. 1794., WOS
14. [1.1] HUNG, H.-C. Enhancement of near-infrared photonic band. In *PROGRESS IN ELECTROMAGNETICS RESEARCH-PIER*, 2012, vol. 125, pp. 219., WOS
15. [1.1] IWANAGA, M. Photonic metamaterials. In *SCIENCE AND TECHNOLOGY OF ADVANCED MATERIALS*, 2012, vol. 13, 053002., WOS
16. [1.1] IZRAILEV, F.M. Anomalous localization in low-dimensional systems with correlated disorder. In *PHYSICS REPORTS*, 2012, vol. 512, pp. 125., WOS
17. [1.1] MAUREL, A. Usual Anderson localization. In *PHYSICAL REVIEW B*, 2012, vol. 85, no. 20, 205138., WOS
18. [1.1] MOLERON, M. Sound propagation in periodic urban areas. In *JOURNAL OF APPLIED PHYSICS*, 2012, vol. 111, 114906., WOS
19. [1.1] MOLINARI, D. Route to strong localization of light. In *OPTICS EXPRESS*, 2012, vol. 20, pp. 18156., WOS
20. [1.1] MOSTAFA, S.I. One-dimensional metallic-dielectric (Ag/SiO<sub>2</sub>) photonic crystals. In *RENEWABLE ENERGY*, 2012, vol. 45, pp. 245., WOS
21. [1.1] REYES-GOMEZ, E. Suppression of Anderson localization. In *PHYSICAL REVIEW B*, 2012, vol. 85, 195110., WOS
22. [1.1] RODRIQUEZ-VARGAS, I. Resonant tunneling. In *JOURNAL OF APPLIED PHYSICS*, 2012, vol. 112, 073711., WOS
23. [1.1] SARKAR, A. Left-handed Maxwellian aspects of natural pearl. In *PROCEEDINGS OF SPIE*, 2012, vol. 8423, 84230I., WOS
24. [1.1] TORRES-HERRERA, E.J. Non-conventional Anderson localization in bilayered structures. In *EPL*, 2012, vol. 98, 27003., WOS
25. [1.1] TSAKMAKIDIS, K.L. Extreme control of light in metamaterials. In *PHYSICA B*, 2012, vol. 407, pp. 4066., WOS
26. [1.1] WATTS, C.M. Metamaterial electromagnetic wave absorbers. In *ADVANCED MATERIALS*, 2012, vol. 24, pp. OP98., WOS

#### **AAB Vedecké monografie vydané v domácich vydavateľstvách**

AAB01 ŠIKULA, Milan - STANĚK, Peter - KREJČÍ, Oskar - BERČÍK, Peter - BÁRÁNY, Eduard - NIKODÝM, Dušan - PEKNÍK, Miroslav - BAXA, Josef - BENŽA,

Mojmír - BLAHA, Ľuboš - GAJDOŠÍKOVÁ, Ľudmila - HRONSKÝ, Marián - JAŠŠOVÁ, Eva - KMEŤ, Norbert - LAPŠANSKÝ, Lukáš - MAGUROVÁ, Zuzana - MARUŠIAK, Juraj - POLÁČKOVÁ, Zuzana - ŠMIHULA, Daniel - VOZÁR, Jozef - OKÁLI, Ivan - DOMONKOS, Tomáš - FRANK, Karol - GABRIELOVÁ, Herta - IŠA, Jan - LÁBAJ, Martin - MORVAY, Karol - PÁLENÍK, Viliam - PÁNIKOVÁ, Lucia - RENČKO, Juraj - ŠIKULOVÁ, Ivana - VOKOUN, Jaroslav - KLAS, Antonín - BALÁŽ, Vladimír - MAJKOVÁ, Eva - JURÍČKOVÁ, Vilma - KOŠTA, Ján - TIRPÁK, Ivan - URBÁNEK, Ján - BUČEK, Milan ... [et al.]. *Stratégia rozvoja slovenskej spoločnosti*. Bratislava : Ekonomický ústav SAV, 2010. 695 s. Projekt *Vízia a stratégia rozvoja slovenskej spoločnosti* schválený vládou SR u. č. 906 z 25. októbra 2006. ISBN 978-80-7144-179-3.

Citácie:

1. [2.1] MIKLOŠÍK, A. - HVIŽDOVÁ, E. - ŽÁK, Š. *Znalostný manažment ako podstatný determinant udržateľnosti konkurencieschopnosti podniku*. In *Ekonomický časopis*, 2012, roč. 60, č. 10, s. 1041-1058., WOS 085MR
2. [4] CIBÁKOVÁ, V. - CIBÁK, Ľ. *Úlohy vysokého školstva v Slovenskej republike a jeho financovanie v porovnaní s krajinami EÚ*. In *Verejná správa a regionálny rozvoj*, 2012, roč. VIII, č. 2, s. 9-23.
3. [4] DOVÁĽOVÁ, G. *Strieborná ekonomika v domácej a svetovej literatúre*. In *Strieborná ekonomika v slovenskom, európskom a svetovom kontexte*. Bratislava : Ekonomický ústav SAV, 2012. S. 23-82, 285. ISBN 978-80-7144-205-9 [cit. Okáli a kol. *Stratégia konvergenzie k úrovni vyspelých ekonomík*].
4. [4] HUSÁKOVÁ, M. - SIKÁ, P. *Sociálne služby vo väzbe na kvalitu života seniorov*. In *Nová ekonomika*, 2012, roč. 5, č. 4, s. 84-96.
5. [4] KAČÍRKOVÁ, M. *Disparity v regionálnom inovačnom prostredí*. In Štefan Rehák (ed.) *2. zimný seminár regionálnej vedy*. Bratislava : Ekonóm, 2012. S. 1-13. ISBN 978-80-225-3422-2. [citovaný M. Buček *Stratégia regionálneho rozvoja*, s. 570-632].
6. [4] KAČÍRKOVÁ, M. *Veda a výskum na Slovensku : základné východiská, stratégia, trendy*. In *Working papers [EÚ SAV]*, 2012, č. 38, s. 1-53.
7. [4] KOLLÁR, J. *Nezamestnanosť a trh práce v podmienkach Slovenskej republiky v nadväznosti na stratégiu Európa 2020*. In V. Hiadlovský (ed.) *Rozpočet pre EÚ na roky 2014-2020 v kontexte Stratégie Európa 2020*. Banská Bystrica : Univerzita Mateja Bela, 2012. 1 CD-ROM. ISBN 978-80-970959-1-8.
8. [4] NEMEC, J. *Modernizácia verejnej správy v Slovenskej republike ako nevyhnutná reakcia na súčasnú krízu*. In Tokárová, M. *Aktuálne trendy v manažmente verejnej správy*. Bratislava : Vysoká škola ekonómie a manažmentu verejnej správy, 2011. S. 247-253. ISBN 978-80-8137-001-4.
9. [4] PUŠKÁROVÁ, P. *Inovačná výkonnosť krajín V4*. In Machová, M. (ed.) *EDAMBA 2012 : proceedings*. Bratislava : Ekonóm, 2012. s. 972-985. ISBN 978-80-225-3549-6.
10. [4] ULIAN, J. *Je bezpečnosť spoločnosti kľúčovým cieľom?*. In *Paradigmy budúcich zmien v 21. storočí*. Bratislava : Ekonomický ústav SAV, 2012. S. 246-256. ISBN 978-80-7144-198-4.
11. [4] VALACH, E. *Tendencie v regulovaní hospodárstva*. In Jozef MEDVEĎ (ed.) *Je budúcnosť eura fiškálna a politická únia?* Banská Bystrica : BIVŠ-zahranič. vysoká škola, 2012. S. 114-121. ISBN 978-80-970422-4-0.
12. [4] VAŇOVÁ, A. - PALA, J. - BERČÍK, P. *Úloha a postavenie štátu v kontexte hospodárskej a politickej krízy*. In Jozef MEDVEĎ (ed.) *Je budúcnosť eura fiškálna a politická únia?* Banská Bystrica : BIVŠ-zahranič. vysoká škola, 2012. S. 173-181. ISBN 978-80-970422-4-0.



## ABC Kapitoly vo vedeckých monografiách vydané v zahraničných vydavateľstvách

- ABC01 BUŽEK, Vladimír. Quantum tomography from incomplete data via MaxEnt principle. In Quantum Estimations: Theory and Experiment : Lecture Notes in Physics. Vol. 649. - Berlin : Springer-Verlag, 2004, p. 189-234.  
Citácie:  
1. [1.1] *FLAMMIA, S.T. Quantum tomography via compressed sensing. In NEW JOURNAL OF OPTICS, 2012, vol. 14, 095022., WOS*  
2. [1.1] *GUTA, M. Rank-based model selection. In NEW JOURNAL OF PHYSICS, 2012, vol. 14, 105002., WOS*  
3. [1.1] *OLIVARES, S.-PARIS, M.G.A. Quantum estimation of states and operations from incomplete data. In EUROPEAN PHYSICAL JOURNAL-SPECIAL TOPICS, 2012, vol. 203, no. 1, pp. 185-192., WOS*
- ABC02 DEL DEBBIO, L. - FABER, M. - GREENSITE, J. - OLEJNÍK, Štefan. Center dominance, Casimir scaling, and confinement in lattice gauge theory. In Theory of elementary particles. - Berlin : Wiley-VCH, 1998, p. 233-240.  
Citácie:  
1. [3] *ZUBKOV, M.A. In PREPRINT DOCTORAL THESIS (ITEP, Moscow), HEP-PH/ 1207.4619, 2012.*
- ABC03 FABER, Manfred - GREENSITE, Jeff - OLEJNÍK, Štefan - YAMADA, D. Some pieces of lattice in favor of the center-vortex picture. In MITRUSHKIN, V. - SCHIERHOLZ, G. Lattice Fermions and Structure of the Vacuum. - Dordrecht : Kluwer Academic Publ., 2000, p. 327.  
Citácie:  
1. [3] *ZUBKOV, M.A. In PREPRINT DOCTORAL THESIS (ITEP, Moscow), HEP-PH/ 1207.4619, 2012.*

## ADC Vedecké práce v zahr. karent. časopisoch a recenzovaných zborníkoch

- ADC01 FABER, Manfred - GREENSITE, Jeff - OLEJNÍK, Štefan. What are the confining field configurations. In Journal of High Energy Physics, 2000, vol. 6, p. 041(0-17). ISSN 1029-8479.  
Citácie:  
1. [3] *ZUBKOV, M.A. In PREPRINT DOCTORAL THESIS (ITEP, Moscow), HEP-PH/ 1207.4619, 2012.*
- ADC02 HARTMANOVÁ, Mária - LE, M.T. - VAN DRIESCHE, I. - HOSTE, S. - KUNDRACIK, F. Phase composition and charge transport in bismuth molybdates. In Russian Journal of Electrochemistry, 2005, vol. 41, no. 5, p. 455-460.  
Citácie:  
1. [1.1] *BALDOVINO-MEDRANO, Victor G. - FARIN, Benjamin - GAIGNEAUX, Eric M. Establishing the Role of Graphite as a Shaping Agent of Vanadium-Aluminum Mixed (Hydr)oxides and Their Physicochemical Properties and Catalytic Functionalities. In ACS CATALYSIS. ISSN 2155-5435, 2012, vol. 2, no. 3, pp. 322., WOS*
- ADC03 HILLERY, M. - ZIMAN, Mário - BUŽEK, Vladimír. Implementation of quantum maps by programmable quantum processors. In Physical Review A, 2002, vol. 66, p. 042302. ISSN 1050-2947.  
Citácie:  
1. [1.1] *ZHANG, Ming - LIN, Min - SCHIRMER, S. G. - DAI, Hong-Yi - ZHOU, Zongtan - HU, Dewen. On the role of a priori knowledge in the optimization of quantum information processing. In QUANTUM INFORMATION PROCESSING. ISSN 1570-0755, 2012, vol. 11, no. 3, pp. 639., WOS*

- ADC04 HILLERY, Mark - ZIMAN, Mário - BUŽEK, Vladimír. Improving the performance of probabilistic programmable quantum processors. In Physical Review A, 2004, vol. 69, p. 042311.  
Citácie:  
1. [1.1] MIKOVA, Martina - FIKEROVA, Helena - STRAKA, Ivo - MICUDA, Michal - FIURASEK, Jaromir - JEZEK, Miroslav - DUSEK, Miloslav. Increasing efficiency of a linear-optical quantum gate using electronic feed-forward. In PHYSICAL REVIEW A. ISSN 1050-2947, 2012, vol. 85, no. 1, 012305., WOS
- ADC05 IVANČO, Ján - KOBAYASHI, H. - ALMEIDA, J. - MARGARITONDO, G. - PINČÍK, Emil. Reactivity of Au with ultrathin Si layers: A photoemission study. In Journal of Applied Physics, 2001, vol. 90, no. 1, p. 345-350. (2001 - Current Contents, SCOPUS). ISSN 0021-8979.  
Citácie:  
1. [1.1] GIANREGORIO, Maria M. - BIANCO, Giuseppe V. - CAPEZZUTO, Pio - BRUNO, Giovanni - LOSURDO, Maria - SUVOROVA, Alexandra A. - SAUNDERS, Martin. Optical Properties of Silicon Semiconductor-Supported Gold Nanoparticles Obtained by Sputtering. In JOURNAL OF NANOSCIENCE AND NANOTECHNOLOGY. ISSN 1533-4880, 2012, vol. 12, no. 11, pp. 8594-8599., WOS
- ADC06 JERSEL, Matej - MIKULIK, P. - MAJKOVÁ, Eva - SENDERÁK, Rudolf - PINČÍK, Emil - BRUNEL, M. - HUDEK, Peter - KOSTIČ, Ivan - KONEČNÍKOVÁ, Anna. Structural characterization of lamellar multilayer gratings by X-ray reflectivity and scanning electron. In Journal of Physics D, 1999, vol. 32, no. 10A, p. A220-A223. (1.114 - IF1998). (1999 - Current Contents, SCOPUS).  
Citácie:  
1. [1.1] WERNECKE, J. - SCHOLZE, F. - KRUMREY, M. Direct structural characterization of line gratings. In Review of Scientific Instruments. 2012, vol. 83, art. no. 103906., WOS  
2. [1.2] MEIER, R. et al. In situ film characterization of thermally treated microstructured conducting polymer films. In Journal of Polymer Science B. 2012, vol. 50, p. 631-641., SCOPUS
- ADC07 KONIORCZYK, M. - BUŽEK, Vladimír - JANSZKY, J. Wigner-function description of quantum teleportation in arbitrary dimensions and continuous limit. In Physical Review A, 2001, vol. 64, p. 034301. (2.684 - IF2000). ISSN 1050-2947.  
Citácie:  
1. [1.1] BENENTI, G. Wigner separability. In PHYSICAL REVIEW E, 2012, vol. 85, 051129., WOS  
2. [1.1] GHIU, I. A new method of construction of all sets. In JOURNAL OF PHYSICS CONFERENCE SERIES, 2012, vol. 338, 012008., WOS  
3. [1.1] OBADA, A.-S.F. Wigner function and phase properties. In JOURNAL OF RUSSIAN LASER RESEARCH, 2012, vol. 33, pp. 369., WOS
- ADC08 KONÔPKA, M. - BUŽEK, Vladimír. Entangling Atoms in photonic Crystals. In European Physical Journal D, 2000, vol. 10, p. 285-293. (1.448 - IF1999).  
Citácie:  
1. [1.1] PRAMANIK, T. - ADHIKARI, S. - MAJUMDAR, A. S. - HOME, D. Testing nonlocality of single photons using cavities. In PHYSICS LETTERS A. ISSN 0375-9601, 2012, vol. 376, no. 4, pp. 344., WOS
- ADC09 ZIMAN, Mário - ŠTELMACHOVIČ, Peter - BUŽEK, Vladimír - HILLERY, M. - SCARANI, V. - GISIN, N. Diluting quantum information: An analysis of information transfer in system-reservoir interactions. In Physical Review A, 2002, vol. 65, no. 4, 042105. ISSN 1050-2947.  
Citácie:



1. [1.1] GIOVANNETTI, V. - PALMA, G. M. *Master Equations for Correlated Quantum Channels. In PHYSICAL REVIEW LETTERS. ISSN 0031-9007, 2012, vol. 108, no. 4, 040401., WOS*

# ADCA Vedecké práce v zahraničných karentovaných časopisoch impaktovaných

- ADCA01 ADAMUŠČIN, Cyril - DUBNIČKA, Stanislav - DUBNIČKOVÁ, A.Z. - WEISENPACHER, P. A unitary and analytic model of nucleon EM structure, the puzzle of JLab proton polarization data and new insight into the proton charge distribution. In Progress in Particle and Nuclear Physics, 2005, vol. 55, p. 228-241.  
Citácie:  
1. [1.1] PUCKETT, A.J.R., BRASH, E.J., GAYOU, O. *Final analysis of proton form factor ratio data. In PHYSICAL REVIEW V, 2012, vol. 85, no. 4, 045203., WOS*
- ADCA02 ADAMUŠČIN, Cyril - KURAEV, E.A. - TOMASI, Gustafsson - MAAS, F.E. Testing axial and electromagnetic nucleon form factors in time-like regions in the processes. In Physical Review C, 2007, vol. 75, no. 4, 045205. ISSN 0556-2813.  
Citácie:  
1. [1.1] FERROLI, R. Baldini - PACETTI, S. - ZALLO, A. *No Sommerfeld resummation factor in  $e(+)e(-)$  &  $p(p)$  over-bar? In EUROPEAN PHYSICAL JOURNAL A. ISSN 1434-6001, 2012, vol. 48, no. 3., WOS*  
2. [1.1] LANSBERG, J. P. - PIRE, B. - SEMENOV-TIAN-SHANSKY, K. - SZYMANOWSKI, L. *Accessing baryon to meson transition distribution amplitudes in meson production in association with a high invariant mass lepton pair at GSI-FAIR with  $(P)$  over-bar ANDA. In PHYSICAL REVIEW D. ISSN 1550-7998, 2012, vol. 86, no. 11, 114033., WOS*
- ADCA03 ADAMUŠČIN, Cyril - DUBNIČKA, Stanislav - DUBNIČKOVÁ, A.Z. New value of the proton charge root mean square radius. In Progress in Particle and Nuclear Physics, 2012, vol. 67, p. 479-485. (2.614 - IF2011). (2012 - Current Contents). ISSN 0146-6410.  
Citácie:  
1. [1.1] MOHR, Peter J. - TAYLOR, Barry N. - NEWELL, David B. *CODATA Recommended Values of the Fundamental Physical Constants: 2010. In JOURNAL OF PHYSICAL AND CHEMICAL REFERENCE DATA. ISSN 0047-2689, 2012, vol. 41, no. 4, UNSP 043109., WOS*  
2. [1.1] MOHR, Peter J. - TAYLOR, Barry N. - NEWELL, David B. *CODATA recommended values of the fundamental physical constants: 2010. In REVIEWS OF MODERN PHYSICS. ISSN 0034-6861, 2012, vol. 84, no. 4, pp. 1527-1605., WOS*
- ADCA04 ANDREYEV, A.N. - ELSEVIERS, J. - HUYSE, M. - VAN DUPPEN, P. - ANTALIC, S. - BARZAKH, A. - BREE, N. - COCOLIOS, T.E. - COMAS, V.F. - DIRIKEN, J. - FEDOROV, D. - FEDOSSEEV, V. - FRANCHOO, S. - HEREDIA, J.A. - IVANOV, O. - KOSTER, U. - MARSH, B.A. - NISHIO, K. - PAGE, R.D. - PATRONIS, N. - SELIVERSTOV, M. - TSEKHANOVICH, I. - VAN DEN BERGH, P. - VAN DE WALLE, J. - VENHART, M. - VERMOTE, S. - VESELSKÝ, Martin - WAGEMANS, C. - ICHIKAWA, T. - IWAMOTO, A. - MOLLER, P. - SIERK, A.J. New type of asymmetric Fission in proton-rich nuclei. In Physical Review Letters, 2010, vol. 105, no. 25, 252502. (7.328 - IF2009). (2010 - Current Contents, WOS, SCOPUS). ISSN 0031-9007.  
Citácie:  
1. [1.1] ANDREEV, A. V. - ADAMIAN, G. G. - ANTONENKO, N. V. *Mass distributions for induced fission of different Hg isotopes. In PHYSICAL REVIEW*

- C. ISSN 0556-2813, 2012, vol. 86, no. 4, 044315., WOS
2. [1.1] CASTRO-CHAVEZ, Fernando. *The Rules of Variation Expanded, Implications for the Research on Compatible Genomics*. In *BIOSEMIOTICS*. ISSN 1875-1342, 2012, vol. 5, no. 1, pp. 121., WOS
3. [1.1] NAGAME, Y. - NAKAHARA, H. *Two-mode fission experimental verification and characterization of two fission-modes*. In *RADIOCHIMICA ACTA*. ISSN 0033-8230, 2012, vol. 100, no. 8-9, pp. 605., WOS
4. [1.1] PANEBIANCO, Stefano - SIDA, Jean-Luc - GOUTTE, Heloise - LEMAITRE, Jean-Francois - DUBRAY, Noel - HILAIRE, Stephane. *Role of deformed shell effects on the mass asymmetry in nuclear fission of mercury isotopes*. In *PHYSICAL REVIEW C*. ISSN 0556-2813, 2012, vol. 86, no. 6, 064601., WOS
5. [1.1] PFUETZNER, M. - KARNY, M. - GRIGORENKO, L. V. - RIISAGER, K. *Radioactive decays at limits of nuclear stability*. In *REVIEWS OF MODERN PHYSICS*. ISSN 0034-6861, 2012, vol. 84, no. 2, pp. 567., WOS
6. [1.1] SCHMIDT, Karl-Heinz - JURADO, Beatriz - OBERSTEDT, S. *Global view on fission observables new insights and new puzzles*. In *GAMMA-1 EMISSION OF PROMPT GAMMA-RAYS IN FISSION AND RELATED TOPICS*. ISSN 1875-3892, 2012, vol. 31, pp. 147., WOS
7. [1.1] WARDA, M. - STASZCZAK, A. - NAZAREWICZ, W. *Fission modes of mercury isotopes*. In *PHYSICAL REVIEW C*. ISSN 0556-2813, 2012, vol. 86, no. 2, 024601., WOS
- ADCA05 ANWARZAI, B. - AC, V. - LUBY, Štefan - MAJKOVÁ, Eva - SENDERÁK, Rudolf. *Pseudo spin-valve on plastic substrate as sensing elements of mechanical strain*. In *Vacuum*, 2009, vol. 84, p. 108-110. (1.114 - IF2008). (2009 - Current Contents). ISSN 0042-207X.
- Citácie:
1. [1.2] DEMYDENKO, M. - PROTSENKO, S. - SIFFALOVIC, P. *Null-ellipsometry investigations of the optical properties and diffusion processes in spin-valve structures based on Co and Cu*. In *Thin Solid Films*, 2012, 520, 17, pp. 5722-5726., SCOPUS
- ADCA06 AUGER, M.A. - VÁZQUEZ, L. - SÁNCHEZ, O. - JERGEL, Matej - CUERNO, R. - CASTRO, M. *Growth dynamics of reactive-sputtering-deposited AlN films*. In *Journal of Applied Physics*, 2005, vol. 97, no. 12, 13528. (2.255 - IF2004). (2005 - Current Contents). ISSN 0021-8979.
- Citácie:
1. [1.1] DHILLON, P.K. In *AIP CONFERENCE PROCEEDINGS*, vol. 1447, 2012, P. 757-758., WOS
2. [1.1] DHILLON, P.K. In *APPLIED SURFACE SCIENCE*, vol. 258, 2012, P. 9579-9583., WOS
3. [1.1] HOU, R. In *JOURNAL OF APPLIED PHYSICS*, vol. 111, 2012, 074510., WOS
4. [1.1] KUMADA, T. In *PHYSICA STATUS SOLIDI C: CURRENT TOPICS IN SOLID STATE PHYSICS*, vol. 9, 2012, p. 515-518., WOS
5. [1.1] PAHLOVY, S.A. In *NUCLEAR INSTRUMENTS AND METHODS B*, vol. 272, 2012, p. 206-209., WOS
- ADCA07 AUGER, M.A. - VÁZQUEZ, L. - JERGEL, Matej - SÁNCHEZ, O. - ALBELLA, J.M. *Structure and morphology evolution of AlN films grown by DC sputtering*. In *Surface and coatings technology*, 2004, vol. 180, p.140-144. ISSN 0257-8972.
- Citácie:
1. [1.1] FU, Yuechun - ZHANG, Yao - YANG, Weijia - HE, Huan - SHEN, Xiaoming. *Surface evolution of NaCl-type cubic AlN films on MgO (100)*

- substrates deposited by laser molecular beam epitaxy. In JOURNAL OF CRYSTAL GROWTH. ISSN 0022-0248, 2012, vol. 343, no. 1, pp. 28., WOS*
- ADCA08 AUGER, M.A. - VAZQUEZ, L. - CUERNO, R. - CASTRO, M. - JERGEL, Matej - SANCHEZ, O. Intrinsic anomalous surface roughening of TiN films deposited by reactive sputtering. In Physical Review B, 2006, vol. 73, no. 4, 045436. (3.185 - IF2005). (2006 - Current Contents, WOS, SCOPUS). ISSN 1098-0121.
- Citácie:
- [1.1] LIU BO - YANG JIJUN - TANG RUI - XU KEWEI. Scaling Behaviors of Surface Roughening of Cu Thin Films Deposited by Oblique Angle Deposition. In RARE METAL MATERIALS AND ENGINEERING. ISSN 1002-185X, 2012, vol. 41, Suppl. 1, pp. 93., WOS
  - [1.1] PAHLOVY, S. A. - MAHMUD, S. F. - YANAGIMOTO, K. - AIKAWA, N. - MIYAMOTO, I. Roughening and smoothing behavior of single crystal Si by low energy Ar<sup>+</sup> ion bombardment. In NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION B-BEAM INTERACTIONS WITH MATERIALS AND ATOMS. ISSN 0168-583X, 2012, vol. 272, pp. 206., WOS
- ADCA09 BALDINI, R. - DUBNIČKA, Stanislav - GAUZZI, P. - PACETTI, S. - PASQUALUCCI, E. - SRIVASTAVA, Y. Nucleon time-like form factors below the NN threshold. In European Physical Journal C, 1999, vol. 11, no. 4, p. 709-715. (3.142 - IF1998). (1999 - Current Contents, WOS, SCOPUS). ISSN 1434-6044.
- Citácie:
- [1.1] BRODSKY, Stanley J. - CAO FU-GUANG - DE TERAMOND, Guy F. AdS/QCD and Applications of Light-Front Holography. In COMMUNICATIONS IN THEORETICAL PHYSICS. ISSN 0253-6102, 2012, vol. 57, no. 4, pp. 641., WOS
  - [1.1] BRODSKY, Stanley J. - DE TERAMOND, Guy F. Light-Front Holography, Light-Front Wavefunctions, and Novel QCD Phenomena. In FEW-BODY SYSTEMS. ISSN 0177-7963, 2012, vol. 52, no. 3-4, pp. 203., WOS
  - [1.1] FERROLI, R. Baldini - PACETTI, S. - ZALLO, A. No Sommerfeld resummation factor in  $e^{+}e^{-} \rightarrow p(p)\overline{\phantom{p}}$ ? In EUROPEAN PHYSICAL JOURNAL A. ISSN 1434-6001, 2012, vol. 48, no. 3., WOS
- ADCA10 BANDŽUCH, P. - MORHÁČ, Miroslav - KRIŠTIÁK, Jozef. Study of the Van Cittert and Gold iterative methods. In Nuclear Instruments and Methods in Physics Research A, 1997, vol. 384, no. 2-3, p. 506-515. ISSN 0168-9002.
- Citácie:
- [1.1] KAVETSKYY, Taras - TSMOTS, Volodymyr - SAUSA, Ondrej - STEPANOV, Andrey L. - NAITO, H - TANABE, S. Structural modification of chalcogenide glasses by gamma-irradiation studied with DBAL technique. In PHYSICA STATUS SOLIDI C: CURRENT TOPICS IN SOLID STATE PHYSICS, VOL 9, NO 12. ISSN 1862-6351, 2012, vol. 9, no. 12, pp. 2420., WOS
- ADCA11 BARTOŠ, Erik - DUBNIČKOVÁ, Anna Zuzana - DUBNIČKA, Stanislav - KURAEV, E. A. - ZEMPLYANAYA, E. Scalar and pseudoscalar meson pole terms in the hadronic light-by-light contributions to a hadron. In Nuclear Physics A, 2002, vol. 632, no. 1-3, p. 330-342. ISSN 0375-9474.
- Citácie:
- [1.1] CZYZ, H. - IVASHYN, S. - KORCHIN, A. Two-photon form factors of the  $\pi(0)$ ,  $\eta$  and  $\eta'$  mesons in the chiral theory with resonances. In PHYSICAL REVIEW D, 2012, vol. 85, no. 9, 094010., WOS
  - [1.1] DOROKHOV, A.E. - RADZHABOV, A.E. - ZHEVLAKOV, A.S. In EUROPEAN PHYSICAL JOURNAL C, 2012, vol. 72, no. 11, 2227., WOS
  - [1.1] MILLER, J.P. Muon ( $g-2$ ): Experiment and theory. In ANNUAL REVIEW OF NUCLEAR AND PARTICLE SCIENCE, 2012, vol. 62, p. 237-264., WOS

- ADCA12 BARTOŠ, J. - URBAN, J. - MACH, P. - KRIŠTIAK, Jozef. Free volume from PALS and atomistic simulations: The OTP case. In Materials Science Forum, 2001, vol. 363, p. 294-296. (0.597 - IF2000). ISSN 0255-5476.  
Citácie:  
*1. [1.1] ULICNY, Ferdinand. The Ethnonyms: Sklavoi, Sclavi, Slovieni, Slovaks, Slovakia. In HISTORICKY CASOPIS. ISSN 0018-2575, 2012, vol. 60, no. 2, pp. 301., WOS*
- ADCA13 BARTOŠ, Josef - KRIŠTIAK, Jozef - KANAYA, T. Free volume and microscopic dynamics in amorphous polymers. In Physica B, 1997, vol. 234-236, p. 435-436.  
Citácie:  
*1. [1.1] RAULT, J. Glass: Kohlrausch exponent, fragility, anharmonicity. In EUROPEAN PHYSICAL JOURNAL E. ISSN 1292-8941, APR 2012, vol. 35, no. 4., WOS*
- ADCA14 BARTOŠ, Josef - ŠAUŠA, Ondrej - BANDŽUCH, Peter - ZRUBCOVÁ, J. - KRIŠTIAK, Jozef. Free volume factor in supercooled liquid dynamics. In Journal of Non-Crystalline Solids, 2002, vol. 307-310, p. 417-425. (1.363 - IF2001). (2002 - Current Contents, SCOPUS). ISSN 0022-3093.  
Citácie:  
*1. [1.1] ABRAHAM, S. - GHOSH, I. - NAU, W.M. - CHESTA, C. - PAS, S.J. - HILL, A.J. - WEISS, R.G. In-cage and out-of-cage combinations of benzylic radical pairs in the glassy and melted states of poly(alkyl methacrylate)s. In PHOTOCHEMICAL & PHOTOBIOLOGICAL SCIENCES. ISSN 1474-905X, 2012, vol. 11, no. 6, p. 914-924., WOS*
- ADCA15 BARTOŠ, Josef - KRIŠTIAK, Jozef. Free volume aspects of the strong-fragile classification of polymer liquids. In Journal of Non-Crystalline Solids, 1998, vol. 235, p. 293 -295. (1.017 - IF1997). (1998 - Current Contents, WOS, SCOPUS). ISSN 0022-3093.  
Citácie:  
*1. [1.1] WU, J.R. - HUANG, G.S. - WANG, X.A. - HE, X.J. - XU, B. Changes in the Viscoelastic Mechanisms of Polyisobutylene by Plasticization. In MACROMOLECULES. ISSN 0024-9297, OCT 9 2012, vol. 45, no. 19, p. 8051-8057., WOS*
- ADCA16 BARTOŠ, Josef - BANDŽUCH, Peter - ŠAUŠA, Ondrej - KRIŠTIAKOVÁ, Katarína - KRIŠTIAK, Jozef - KANAYA, T. - JENNINGER, W. Free volume microstructure and its relationship to the chain dynamics in cis-1,4-poly(butadiene) as seen by positron annihilation lifetime spectroscopy. In Macromolecules, 1997, vol. 30, no. 22, p. 6906 - 6912. (3.331 - IF1996). (1997 - Current Contents). ISSN 0024-9297.  
Citácie:  
*1. [1.1] WINBERG, P. - ELDRUP, M. - MAURER, F.H.J. Free volume dilatation in polymers by ortho-positronium. In JOURNAL OF CHEMICAL PHYSICS. ISSN 0021-9606, JUN 28 2012, vol. 136, no. 24., WOS*
- ADCA17 BARTOŠ, Josef - ŠAUŠA, Ondrej - KRIŠTIAK, Jozef - BLOCHOWICZ, T. - RÖSSLER, E. Free-volume microstructure of glycerol and its supercooled liquid-state dynamics. In Journal of Physics: Condens.Matter., 2001, vol. 13, p. 11473-11484. (1.608 - IF2000). (2001 - Current Contents, WOS, SCOPUS). ISSN 0953-8984.  
Citácie:  
*1. [1.1] WINBERG, P. - ELDRUP, M. - MAURER, F.H.J. Free volume dilatation in polymers by ortho-positronium. In JOURNAL OF CHEMICAL PHYSICS. ISSN 0021-9606, JUN 28 2012, vol. 136, no. 24., WOS*
- ADCA18 BAYINDIR, Mehmet - AYDIN, K. - OZBAY, E. - MARKOŠ, Peter -



SOUKOULIS, C.M. Transmission properties of composite metamaterials in free space. In *Applied Physics Letters*, 2002, vol. 81, no. 1, p. 120-122. ISSN 0003-6951.

Citácie:

1. [1.2] FARUQUE, M.R.I. - ISLAM, M.T. - MISRAN, N. Design analysis of new metamaterial for EM absorption reduction. In *Progress in Electromagnetics Research*, 2012, 124, pp. 119-135., SCOPUS
2. [1.2] GONG, B. - ZHAO, X. Three-dimensional isotropic metamaterial consisting of domain-structure. In *Physica B: Condensed Matter*, 2012, 407, 6, pp. 1034-1037., SCOPUS
3. [1.2] GUO, L.-Y. - YANG, H.-L. - LI, M.-H. - GAO, C.-S. - TIAN, Y. A microstrip antenna with single square ring structured left-handed metamaterial. In *Wuli Xuebao/Acta Physica Sinica*, 2012, vol. 61, no. 1, 014102., SCOPUS
4. [1.2] KUMAR, A. - MISHRA, A.K. Anomalous self-steepening, temporal pulse splitting and ring formation in a left-handed metamaterial with cubic nonlinearity. In *Journal of the Optical Society of America B: Optical Physics*, 2012, 29, 6, pp. 1330-1337., SCOPUS
5. [1.2] SHA, X.W. - ECONOMOU, E.N. - PAPACONSTANTOPOULOS, D.A. - PEDERSON, M.R. - MEHL, M.J. - KAFESAKI, M. Possible molecular bottom-up approach to optical metamaterials. In *Physical Review B Condensed Matter and Materials Physics*, 2012, vol. 86, no. 11, pp. 115404, SCOPUS
6. [1.2] WANG, H. - SHEPPARD, C.J.R. - RAVI, K. - HO, S.T. - VIENNE, G. Fighting against diffraction: Apodization and near field diffraction structures. In *Laser and Photonics Reviews*, 2012, 6, 3, pp. 354-392., SCOPUS
7. [1.2] WATTS, C.M. - LIU, X. - PADILLA, W.J. Metamaterial electromagnetic wave absorbers. In *Advanced Materials*, 2012, 24, 23, pp. OP98-OP120., SCOPUS

ADCA19 BELIČKA, M. - DUBNIČKA, Stanislav - DUBNIČKOVÁ, A.Z. - LIPTAJ, Andrej. Rigorous pion electromagnetic form factor behavior in the spacelike region. In *Physical Review C. Nuclear physics*, 2011, vol. 83, no. 2, 028201. (3.416 - IF2010). (2011 - Current Contents). ISSN 0556-2813.

Citácie:

1. [1.1] ANANTHANARAYAN, B. - CAPRINI, Irinel - IMSONG, I. Sentitemsu. Spacelike pion form factor from analytic continuation and the onset of perturbative QCD. In *PHYSICAL REVIEW D*. ISSN 1550-7998, 2012, vol. 85, no. 9, 096006., WOS
2. [1.1] BALAKIREVA, Irina - LUCHA, Wolfgang - MELIKHOV, Dmitri. Accuracy of the pion elastic form factor extracted from a local-duality sum rule. In *JOURNAL OF PHYSICS G-NUCLEAR AND PARTICLE PHYSICS*. ISSN 0954-3899, 2012, vol. 39, no. 5, 055007., WOS
3. [1.1] GENG, Chao-Qiang - LIH, Chong-Chung. Pseudoscalar transition form factors within the light-front quark model. In *PHYSICAL REVIEW C*. ISSN 0556-2813, 2012, vol. 86, no. 3, 038201., WOS
4. [1.1] LIH, Chong-Chung - GENG, Chao-Qiang.  $\pi(0) \rightarrow \gamma \gamma$  transition form factor within the light-front quark model. In *PHYSICAL REVIEW C*. ISSN 0556-2813, 2012, vol. 85, no. 1, 018201., WOS

ADCA20 BENDLER, John T. - FONTANELLA, John J. - SHLESINGER, M.F. - BARTOŠ, Josef - ŠAUŠA, Ondrej - KRIŠTIÁK, Jozef. Free-volume dynamics in glasses and supercooled liquids. In *Physical Review E*, 2005, vol. 71, no. 3, 031508. (2005 - Current Contents, SCOPUS). ISSN 1063-651-X.

Citácie:

1. [1.1] WINBERG, P. - ELDRUP, M. - MAURER, F. H. J. Free volume dilatation in polymers by ortho-positronium. In *JOURNAL OF CHEMICAL PHYSICS*. ISSN

- ADCA21 0021-9606, JUN 28 2012, vol. 136, no. 24., WOS  
 BERGOU, J.A. - BUŽEK, Vladimír - FELDMAN, E. - HERZOG, U. - HILLERY, M. Programmable quantum-state discriminators with simple programs. In Physical Review A, 2006, vol. 73, no. 6, 062334. (2006 - Current Contents, SCOPUS). ISSN 1050-2947.  
 Citácie:  
 1. [1.1] BAGAN, E. - MUNOZ-TAPIA, R. - OLIVARES-RENTERIA, G. A. - BERGOU, J. A. Optimal discrimination of quantum states with a fixed rate of inconclusive outcomes. In PHYSICAL REVIEW A. ISSN 1050-2947, 2012, vol. 86, no. 4, 040303., WOS  
 2. [1.1] CHEN LIBING - LU HONG. Nonlocal unambiguous discrimination among  $N$  nonorthogonal qudit states lying in a higher-dimensional Hilbert space. In SCIENCE CHINA-PHYSICS MECHANICS & ASTRONOMY. ISSN 1674-7348, 2012, vol. 55, no. 1, pp. 55., WOS  
 3. [1.1] COLIN, A. J. T. Programmed discrimination of multiple sets of qubits with added classical information. In EUROPEAN PHYSICAL JOURNAL D. ISSN 1434-6060, 2012, vol. 66, no. 7, 185., WOS  
 4. [1.1] LI, Lvjun. Bounds on unambiguous discrimination between quantum states. In PHYSICAL REVIEW A. ISSN 1050-2947, 2012, vol. 86, no. 3, 032320., WOS  
 5. [1.1] ZHANG, Ming - LIN, Min - SCHIRMER, S. G. - DAI, Hong-Yi - ZHOU, Zongtan - HU, Dewen. On the role of a priori knowledge in the optimization of quantum information processing. In QUANTUM INFORMATION PROCESSING. ISSN 1570-0755, 2012, vol. 11, no. 3, pp. 639., WOS  
 6. [1.1] ZHOU, Tao - CUI, Jing Xin - WU, Xiaohua - LONG, Gui Lu. MULTICOPY PROGRAMMABLE DISCRIMINATORS BETWEEN TWO UNKNOWN QUBIT STATES WITH GROUP-THEORETIC APPROACH. In QUANTUM INFORMATION & COMPUTATION. ISSN 1533-7146, 2012, vol. 12, no. 11-12, pp. 1017., WOS  
 7. [1.1] ZHOU, Tao. Unambiguous discrimination between two unknown qudit states. In QUANTUM INFORMATION PROCESSING. ISSN 1570-0755, 2012, vol. 11, no. 6, pp. 1669., WOS  
 ADCA22 BĚTÁK, Emil - CVELBAR, F. - LIKAR, A. - VIDMAR, T. Model calculations of the radiative capture process and the Brink-Axel hypothesisure process. In Nuclear Physics A, 2001, vol. 686, p. 204-216. (1.854 - IF2000). ISSN 0375-9474.  
 Citácie:  
 1. [1.1] SATHEESH, B.-MUSTHAFA, M.M.-SINGH, B.P.-PRASAD, R. Study of isomeric cross-section ration and pre-equilibrium fraction in proton. In INTERNATIONAL JOURNAL OF MODERN PHYSICS E, 2012, vol. 21, no. 6 1250059., WOS  
 ADCA23 BĚTÁK, Emil - MIKOLAJCZAK, Renata - STANISZEWSKA, Joanna - MIKOLAJEWSKI, Stefan - RURARZ, Edward. Activation cross sections for reactions induced by 14 MeV neutrons on natural tin and enriched  $^{112}\text{Sn}$  targets with reference to  $^{111}\text{In}$  production via radioisotope generator  $^{112}\text{Sn}$  ( $n, 2n$ ) $^{111}\text{Sn}$ -- $^{111}\text{In}$ . In Radiochimica Acta, 2005, vol. 93, no. 6, p. 311-326.  
 Citácie:  
 1. [1.1] LALREMRUCHA, B.-OTUKA, N.-TAMBAVE, G.J. Systematic study of ( $n, p$ ) reaction cross sections. In PHYSICAL REVIEW C, 2012, vol. 85, no. 2, 024624., WOS  
 ADCA24 BĚTÁK, Emil - DROSTE, E. - MIKOLAJEWSKI, S. - RATYNSKI, W. - RURARZ, E. - KEMPIST, Y.T. - RAMAN, S. Activation cross sections for reactions induced by 14.7-MeV neutrons on natural calcium and enriched  $\text{Ca-44}$

targets. In Nuclear Science and Engineering, 1999, vol. 132, no. 3, p. 295-307. ISSN 0029-5639.

Citácie:

1. [1.1] SAHAN, M. - TEL, E. - AYDIN, A. - YEGINGIL, Ilhami. Investigation of Some Stellar Iron Group Fusion Materials for (n, p) Reactions. In JOURNAL OF FUSION ENERGY. ISSN 0164-0313, 2012, vol. 31, no. 1, pp. 52-64., WOS

ADCA25

BĚTÁK, Emil - DOBEŠ, J. The finite depth of the nuclear potential well in the exciton model of pre-equilibrium decay. In Zeitschrift für Physik A. Hadrons and nuclei, 1976, vol. 279, p. 319-324. ISSN 0939-7922.

Citácie:

1. [1.1] JEREMIH, J.J.-SUCHIANG, D.-JYRWA, B.M. In AN. NUCL. ENG., 2012, vol. 43, pp. 208., WOS

2. [1.1] KUNIEDA, S. In PHYSICAL REVIEW C, 2012, vol. 85, 054602., WOS

3. [1.1] KUNIEDA, S.-KAWANO, T.-CHADWICK, M.B. In EPJ Web Conf, 2012, vol. 21, 09003., WOS

ADCA26

BĚTÁK, Emil - KOPECKY, J. - CVELBAR, F. Another possible manifestation of the energy-dependent width of the giant-dipole resonance. In Physical Review C. Nuclear physics, 1992, vol. 46, no. 3, p. 945-951. ISSN 0556-2813.

Citácie:

1. [1.1] BROWNE, E. - TULI, J. K. Nuclear Data Sheets for A=143. In NUCLEAR DATA SHEETS. ISSN 0090-3752, 2012, vol. 113, no. 3, pp. 715-908., WOS

2. [1.1] COOPER, N. - REICHEL, F. - WERNER, V. - BETTERMANN, L. -

ALIKHANI, B. - ASLANIDOU, S. - BAUER, C. - COQUARD, L. - FRITZSCHE,

M. - FRITZSCHE, Y. - GLORIUS, J. - GODDARD, P. M. - MOELLER, T. -

PIETRALLA, N. - REESE, M. - ROMIG, C. - SAVRAN, D. -

SCHNORRENBERGER, L. - SIEBENHUEHNER, F. - SIMON, V. V. -

SONNABEND, K. - SMITH, M. K. - WALZ, C. - YATES, S. W. - YEVETSKA, O. -

ZWEIDINGER, M. Photoresponse of Se-76 below 9 MeV. In PHYSICAL REVIEW C. ISSN 0556-2813, 2012, vol. 86, no. 3, 034313., WOS

ADCA27

BOHÁČ, Vlastimil - GUSTAVSSON, Mattias K. - KUBIČÁR, Ľudovít - GUSTAFSSON, Silas E. Parameter estimations for measurements of thermal transport properties. In Review of Scientific Instruments, 2000, vol. 71, no. 6, p. 2452-2455. (1.293 - IF1999). (2000 - Current Contents, SCOPUS). ISSN 0034-6748.

Citácie:

1. [1.1] ANTUNES, Marcelo - REALINHO, Vera - IGNACIO VELASCO, Jose -

SOLORZANO, Eusebio - RODRIGUEZ-PEREZ, Miguel-Angel - ANTONIO DE

SAJA, Jose. Thermal conductivity anisotropy in polypropylene foams prepared by supercritical CO2 dissolution. In MATERIALS CHEMISTRY AND PHYSICS. ISSN 0254-0584, 2012, vol. 136, no. 1, pp. 268., WOS

2. [1.1] KOLE, Madhusree - TRIPATHI, D. - DEY, T. K. Percolation based

enhancement in effective thermal conductivity of HDPE/LBSMO composites. In BULLETIN OF MATERIALS SCIENCE. ISSN 0250-4707, 2012, vol. 35, no. 4, pp. 601., WOS

3. [1.1] MALINARIC, Svetozar - DIESKA, Peter - KRUPA, Peter. Modified

Dynamic Plane Source Method for Measuring Thermophysical Parameters of

Solids. In INTERNATIONAL JOURNAL OF THERMOPHYSICS. ISSN

0195-928X, 2012, vol. 33, no. 3, pp. 528., WOS

4. [1.1] NANDI, A. K. - DATTA, S. - ORKUS, J. Effective properties of particle

reinforced polymeric mould material towards reducing cooling time in soft

tooling process. In JOURNAL OF APPLIED POLYMER SCIENCE. ISSN

0021-8995, 2012, vol. 124, no. 3, pp. 2567., WOS

ADCA28

BONANOME, M. - BUŽEK, Vladimír - HILLERY, M. - ZIMAN, Mário. Toward

protocols for quantum-ensured privacy and secure voting. In *Physical Review A*, 2011, vol. 84, 022331. (2.861 - IF2010). (2011 - Current Contents). ISSN 1050-2947.

Citácie:

1. [1.1] JIANG, Lang - HE, Guangqiang - NIE, Ding - XIONG, Jin - ZENG, Guihua. Quantum anonymous voting for continuous variables. In *PHYSICAL REVIEW A*. ISSN 1050-2947, 2012, vol. 85, no. 4., WOS

2. [1.1] ZHOU RUI-RUI - YANG LI. Quantum election scheme based on anonymous quantum key distribution. In *CHINESE PHYSICS B*. ISSN 1674-1056, 2012, vol. 21, no. 8, 080301., WOS

3. [1.1] ZHOU, Rui-Rui - YANG, Li - GONG, Q - GUO, GC - SHEN, YR. Quantum election based on distributed scheme. In *QUANTUM AND NONLINEAR OPTICS II*. ISSN 0277-786X, 2012, vol. 8554., WOS

ADCA29 BOUDA, J. - BUŽEK, Vladimír. Entanglement swapping between multi-qudit systems. In *Journal of Physics A: Mathematical and Theoretical*, 2001, vol. 34, p. 4301-4311. ISSN 1751-8113.

Citácie:

1. [1.1] LI, Zhao - ZHOU, Ping. PROBABILISTIC MULTIPARTY-CONTROLLED REMOTE PREPARATION OF AN ARBITRARY *m*-QUDIT STATE VIA POSITIVE OPERATOR-VALUED MEASUREMENT. In *INTERNATIONAL JOURNAL OF QUANTUM INFORMATION*. ISSN 0219-7499, 2012, vol. 10, no. 5, 1250062., WOS

ADCA30 BRAGANTI, J.P. - HELD, O. - KUHNAST, F.A. - ILLEKOVÁ, Emília. Kinetic study of isothermal crystallization in amorphous Al<sub>33</sub>Ni<sub>16</sub>Zr<sub>51</sub> produced. In *Thermochimica Acta*, 2000, vol. 362, p. 71-78. (0.880 - IF1999). (2000 - Current Contents).

Citácie:

1. [1.1] KHAYATI, Gholam Reza - JANGHORBAN, Kamal - SHARIAT, Mohamad Hosein. Isothermal kinetics of mechanochemically and thermally synthesized Ag from Ag<sub>2</sub>O. In *TRANSACTIONS OF NONFERROUS METALS SOCIETY OF CHINA*. ISSN 1003-6326, 2012, vol. 22, no. 4, pp. 935., WOS

ADCA31 BRAUNSTEIN, S.L. - BUŽEK, Vladimír - HILLERY, M. Quantum-information distributors: Quantum network for symmetric and asymmetric cloning in arbitrary dimension and continuous limit. In *Physical Review A*, 2001, vol. 63, p. 052313-1-10. (2.684 - IF2000). ISSN 1050-2947.

Citácie:

1. [1.1] CWIKLINSKI, P. Region of fidelities. In *PHYSICS LETTERS A*, 2012, vol. 376, pp. 2178., WOS

2. [1.1] GAO, G. In *SCIENCE CHINA- PHYSICS ,MECHANICS AND ASTRONOMY*, 2012, vol. 55, pp. 1422., WOS

3. [1.1] ZHANG, Y.Q. One-step implementation of a multiqubit. In *JOURNAL OF THE OPTICAL SOCIETY OF AMERICA B*, 2012, vol. 29, pp. 300., WOS

ADCA32 BRNDIAR, Ján - TURANSKÝ, Robert - DIETZEL, D. - SCHIRMEISEN, A. - ŠTICH, Ivan. Understanding frictional duality and bi-duality: Sb- nanoparticles on HOPG. In *Nanotechnology*, 2011, vol. 22, no. 8, 085704. (3.652 - IF2010). (2011 - Current Contents). ISSN 0957-4484.

Citácie:

1. [1.2] POLYAKOV, B. - VLASSOV, S. - DOROGIN, L.M. - KULIS, P. - KINK, I. - LOHMUS, R. The effect of substrate roughness on the static friction of CuO nanowires. In *Surface Science*, 2012, vol.606, no.17-18, 1393-1399., SCOPUS

ADCA33 BRNDIAR, Ján - MARKOŠ, Peter. Universality of the metal-insulator transition in three-dimensional disordered systems. In *Physical Review B*, 2006, vol. 74, nO. 15,



153103.

Citácie:

1. [1.2] CROYA, A. - CAIN, P. - SCHREIBER, M. *The role of power-law correlated disorder in the Anderson metal-insulator transition. In European Physical Journal B*, 2012, vol.85, no.5, 165., SCOPUS

ADCA34 BRNDIAR, Ján - MARKOŠ, Peter. Character of eigenstates of the three-dimensional disordered Hamiltonian. In *Physical Review B*, 2008, vol. 77, no. 11, 115131. (3.172 - IF2007). (2008 - Current Contents, WOS, SCOPUS). ISSN 1098-0121.

Citácie:

1. [1.1] SORIANO, David - ORTMANN, Frank - ROCHE, Stephan. *Three-Dimensional Models of Topological Insulators: Engineering of Dirac Cones and Robustness of the Spin Texture. In PHYSICAL REVIEW LETTERS*. ISSN 0031-9007, 2012, vol. 109, no. 26, 266805., WOS

2. [1.2] PRIOUR, D. J. *Electronic states in one-, two-, and three-dimensional highly amorphous materials: A tight-binding treatment. In PHYSICAL REVIEW B*, 2012, vol.85, no.1, 014209., WOS

ADCA35 BRUNEL, M. - ENZO, S. - JERGEL, Matej - MAJKOVÁ, Eva - VÁVRA, Ivo. Structural characterization and thermal stability of W/Si multi-layers. In *Journal of Materials Research*, 1993, vol. 8, p. 2600. ISSN 0884-2914.

Citácie:

1. [1.1] RAJPUT, P. - GUPTA, A. - RAJAGOPALAN, S. - TYAGI, A.K. In *AIP ADVANCES*. MAR 2012, vol. 2, no. 1., WOS

ADCA36 BUTLER-MOORE, K. - ARYAEINEJAD, R. - ZHANG, X.Q. - BABU, B.R.S. - HAMILTON, J.H. - RAMAYYA, A.V. - HWANG, J.K. - OBERACKER, V.E. - ZHU, S.J. - KORMICKI, J. - PEKER, L.K. - COLE, J.D. - DARDENNE, Y.X. - MA, W.C. - ASZTALOC, S.J. - CHU, S.Y. - GREGORICH, K.E. - LEE, I.Y. - MOHAR, M.F. - RASMUSSEN, J.Q. - LOUGHEED, R.W. - MOODY, K.J. - STOYER, M.A. - WILD, J.F. - PRUSSIN, S.G. - TER-AKOPIAN, G.M. - OGANESSIAN, Y.T. - DANIEL, A.V. - KLIMAN, Ján - MORHÁČ, Miroslav. High-spin states in neutron-rich even-even Pd isotopes. In *Journal of Physics G: Nuclear and particle physics*, 1999, vol. 25, no. 11, p. 2253-2269. ISSN 0954-3899.

Citácie:

1. [1.1] BHAT, A. - BHARTI, A. - KHOSA, S. K. *Projected shell model study of yrast bands in even-even Pd100-118 isotopes. In EUROPEAN PHYSICAL JOURNAL A*. ISSN 1434-6001, 2012, vol. 48, no. 3, 39., WOS

2. [1.1] HE, C. Y. - YU, B. B. - ZHU, L. H. - WU, X. G. - ZHENG, Y. - ZHANG, B. - YAO, S. H. - WANG, L. L. - LI, G. S. - HAO, X. - SHI, Y. - XU, C. - XU, F. R. - WANG, J. G. - GU, L. - ZHANG, M. *Band structures in Pd-106. In PHYSICAL REVIEW C*. ISSN 0556-2813, 2012, vol. 86, no. 4, 047302., WOS

3. [1.1] SMITH, A. G. - DURELL, J. L. - PHILLIPS, W. R. - URBAN, W. - SARRIGUREN, P. - AHMAD, I. *Lifetime measurements and nuclear deformation in the A approximate to 100 region. In PHYSICAL REVIEW C*. ISSN 0556-2813, 2012, vol. 86, no. 1, 014321., WOS

ADCA37 BUTVIN, Pavol - BUTVINOVÁ, Beata - SITEK, J. - DEGMOVÁ, Jarmila - VLASÁK, Gabriel - ŠVEC, Peter - JANIČKOVIČ, Dušan. Magnetic properties and macroscopic heterogeneity of FeCoNbB hitperms. In *Journal of Magnetism and Magnetic Materials*, 2008, vol. 320, p. 1133-1140. (1.704 - IF2007). (2008 - Current Contents, SCOPUS). ISSN 0304-8853.

Citácie:

1. [1.1] KONG, L. H. - CHEN, R. R. - SONG, T. T. - GAO, Y. L. - ZHAI, Q. J. *Magnetic characterization of dual phase FeZrB soft magnetic alloy. In JOURNAL OF MAGNETISM AND MAGNETIC MATERIALS*, 2011, vol.323, no.24,

3285-3289., WOS

2. [1.1] KONG, L. H. - GAO, Y. L. - SONG, T. T. - ZHAI, Q. J. *Structure and magnetic properties of Nb-doped FeZrB soft magnetic alloys. In JOURNAL OF MAGNETISM AND MAGNETIC MATERIALS, 2011, vol.323, no.16, 2165-2169., WOS*

- ADCA38 BUTVIN, Pavol - AL-JA'AFREH, J. - STEHLÍK, J. - HAVRÁNEK, E. Solubility, stability and dissociation constants of (2RS,4R)-2-substituted thiazolidine-4-carboxylic acids in aqueous solutions. In Chemical Papers - Chemické zvesti, 1999, vol. 53, no. 5, p. 315-322. ISSN 0366-6352.

Citácie:

1. [1.1] REISCHL, Roland J. - BICKER, Wolfgang - KELLER, Thomas - LAMPRECHT, Guenther - LINDNER, Wolfgang. *Occurrence of 2-methylthiazolidine-4-carboxylic acid, a condensation product of cysteine and acetaldehyde, in human blood as a consequence of ethanol consumption. In ANALYTICAL AND BIOANALYTICAL CHEMISTRY. ISSN 1618-2642, 2012, vol. 404, no. 6-7, pp. 1779., WOS*

- ADCA39 BUTVINOVÁ, Beata - BUTVIN, Pavol - ŠVEC, Peter - VLASÁK, Gabriel - JANIČKOVIČ, Dušan. Influence of V and Cr substitutions on magnetic properties of FeCoNbB hitperms. In Acta Physica Polonica A, 2008, vol. 113, no. 1, p. 111-114.

Citácie:

1. [1.1] SARKAR, Partha - MALLICK, A. Basu - ROY, R. K. - PANDA, A. K. - MITRA, A. *Structural and Giant Magneto-impedance properties of Cr-incorporated Co-Fe-Si-B amorphous microwires. In JOURNAL OF MAGNETISM AND MAGNETIC MATERIALS. ISSN 0304-8853, 2012, vol. 324, no. 8, pp. 1551-1556., WOS*

- ADCA40 BUŽEK, Vladimír - HILLERY, M. Optimal Manipulations with Qubits: Universal. In Physical Review A, 2000, vol. 62, 022303. (2000 - Current Contents). ISSN 1050-2947.

Citácie:

1. [1.1] DE MARTINI, Francesco - SCIARRINO, Fabio. *Colloquium: Multiparticle quantum superpositions and the quantum-to-classical transition. In REVIEWS OF MODERN PHYSICS. ISSN 0034-6861, 2012, vol. 84, no. 4, pp. 1765., WOS*

- ADCA41 BUŽEK, Vladimír - HILLERY, M. - WERNER, R. Universal NOT Gate. In Journal of Modern Optics, 2000, vol. 47, p. 211-232. (1.475 - IF1999). ISSN 0950-0340.

Citácie:

1. [1.2] BANG, J. - LEE, S.-W. - JEONG, H. - LEE, J. *Procedures for realizing an approximate universal-not gate. In Physical Review A Atomic, Molecular, and Optical Physics, 2012, 86, 6, 062317., SCOPUS*  
2. [1.2] BERTINI, C. - LEPORINI, R. *Logics from quantum computation with bounded additive operators. In International Journal of Quantum Information, 2012, 10, 3, 1250036., SCOPUS*

- ADCA42 BUŽEK, Vladimír - HILLERY, M. Quantum disentanglement and phase measurements. In Czechoslovak Journal of Physics, 1995, vol. 45, no. 9, p. 711-725. (0.330 - IF1994). (1995 - Current Contents, WOS, SCOPUS). ISSN 0011-4626.

Citácie:

1. [1.1] CARRANZA, Raul - GERRY, Christopher C. *Photon-subtracted two-mode squeezed vacuum states and applications to quantum optical interferometry. In JOURNAL OF THE OPTICAL SOCIETY OF AMERICA B-OPTICAL PHYSICS. ISSN 0740-3224, 2012, vol. 29, no. 9, pp. 2581., WOS*

- ADCA43 BUŽEK, Vladimír - DROBNÝ, Gabriel - DERKA, R. - ADAM, G. - WIEDEMANN, H. Quantum state reconstruction from incomplete data. In Chaos,

Solitons and Fractals, 1999, vol. 10, no. 6, p. 981-1074. ISSN 0960-0779.

Citácie:

1. [1.1] ALI, S. A. - CAFARO, C. - GIFFIN, A. - LUPO, C. - MANCINI, S. - GOYAL, P - GIFFIN, A - KNUTH, KH - VRSCAY, E. *On a Differential Geometric Viewpoint of Jaynes&apos; MaxEnt Method and Its Quantum Extension. In BAYESIAN INFERENCE AND MAXIMUM ENTROPY METHODS IN SCIENCE AND ENGINEERING. ISSN 0094-243X, 2012, vol. 1443, pp. 120., WOS*
2. [1.1] OLIVARES, S. - PARIS, M. G. A. *Quantum estimation of states and operations from incomplete data. In EUROPEAN PHYSICAL JOURNAL-SPECIAL TOPICS. ISSN 1951-6355, 2012, vol. 203, no. 1, pp. 185., WOS*

ADCA44 BUŽEK, Vladimír - KNIGHT, P.L. - KUDRYAVTSEV, I.K. 3-level atoms in phase-sensitive broad-band correlated reservoirs. In Physical Review A, 1991, vol. 44, no. 3, p. 1931-1947. ISSN 1050-2947.

Citácie:

1. [1.1] ZENG, Zhi-Qiang - HOU, Bang-Pin - GAO, Zeng-Hui - YANG, Ya-Ping. *Transient Response in a Three-Level System with the Squeezed Vacuum. In OPTICAL REVIEW. ISSN 1340-6000, 2012, vol. 19, no. 2, pp. 45., WOS*

ADCA45 BUŽEK, Vladimír - ADAM, G. - DROBNÝ, Gabriel. Reconstruction of Wigner functions on different observation levels. In Annals of Physics, 1996, vol. 245, no. 1, p. 37-97. ISSN 0003-4916.

Citácie:

1. [1.1] TEO, Yong Siah - STOKLASA, Bohumil - ENGLERT, Berthold-Georg - REHACEK, Jaroslav - HRADIL, Zdenek. *Incomplete quantum state estimation: A comprehensive study. In PHYSICAL REVIEW A. ISSN 1050-2947, 2012, vol. 85, no. 4, 042317., WOS*

ADCA46 BUŽEK, Vladimír - DERKA, R. - ADAM, G. - KNIGHT, P.L. Reconstruction of quantum states of spin systems: From quantum Bayesian inference to quantum tomography. In Annals of Physics, 1998, vol. 266, no. 2, p. 454-496. ISSN 0003-4916.

Citácie:

1. [1.1] BRIF, C.-CHAKRABARTI, R.-RABITZ, H. *Control of quantum phenomena. In ADVANCES IN CHEMICAL PHYSICS, 2012, vol. 148, pp. 1-76., WOS*
2. [1.1] CHAKRABARTI, R.-GHOSH, A. *Optimal state estimation. In PHYSICAL REVIEW A, 2012, vol. 85, no. 3, 032305., WOS*
3. [1.1] FLAMMIA, S.T. *Quantum tomography. In NEW JOURNAL OF PHYSICS, 2012, vol. 14, 095022., WOS*
4. [1.1] TANAKA, F. *Noninformative prior in the quantum statistical model of pure states. In PHYSICAL REVIEW A, 2012, vol. 85, no. 6, 062305., WOS*

ADCA47 BUŽEK, Vladimír.  $Su(1,1)$  squeezing of  $su(1,1)$  generalized coherent states. In Journal of Modern Optics, 1990, vol. 37, no. 3, p. 303-316. ISSN 0950-0340.

Citácie:

1. [1.1] CHEN FENG - FAN HONGYI. *A new approach to the time evolution of characteristic function of the density operator obtained by virtue of thermal entangled state representation. In SCIENCE CHINA-PHYSICS MECHANICS & ASTRONOMY. ISSN 1674-7348, 2012, vol. 55, no. 11, pp. 2076., WOS*
2. [1.1] TAN GUO-BIN - XU LI-JUAN - MA SHAN-JUN. *Nonclassicality of a two-variable Hermite polynomial state. In CHINESE PHYSICS B. ISSN 1674-1056, 2012, vol. 21, no. 4, 044210., WOS*
3. [1.1] ZHOU, Jun - FAN, Hong-yi - SONG, Jun. *Photon-Subtracted Two-Mode Squeezed Thermal State and Its Photon-Number Distribution. In*

- INTERNATIONAL JOURNAL OF THEORETICAL PHYSICS. ISSN 0020-7748, 2012, vol. 51, no. 5, pp. 1591., WOS*
4. [1.1] ZHOU, Jun - SONG, Jun - YUAN, Hao - ZHANG, Bo - XIE, Chuan-Mei - FAN, Hong-Yi. Photon-Number Distribution and Wigner Function of Generalized Squeezed Thermal State. In *INTERNATIONAL JOURNAL OF THEORETICAL PHYSICS. ISSN 0020-7748, 2012, vol. 51, no. 9, pp. 2681., WOS*
- ADCA48 BUŽEK, Vladimír. The jaynes-cummings model with a q-analog of a coherent state. In *Journal of Modern Optics*, 1992, vol. 39, no. 5, p. 949-959. ISSN 0950-0340.  
Citácie:  
1. [1.1] ALEIXO, A. N. F. - BALANTEKIN, A. B. Algebraic construction of coherent states for nonlinear quantum deformed systems. In *JOURNAL OF PHYSICS A-MATHEMATICAL AND THEORETICAL. ISSN 1751-8113, 2012, vol. 45, no. 16, 165302., WOS*
- ADCA49 BUŽEK, Vladimír - HLADKÝ, B. Macroscopic superposition states of light via 2-photon resonant interaction of atoms with cavity field. In *Journal of Modern Optics*, 1993, vol. 40, no. 7, p. 1309-1324. ISSN 0950-0340.  
Citácie:  
1. [1.1] CASTANOS, O. Dynamics of Schrodinger cat states. In *JOURNAL OF PHYSICS CONFERENCE SERIES*, 2012, vol. 380, 012017., WOS  
2. [1.1] CHATTERJEE, A. In *PHYSICS LETTERS A*, 2012, vol. 376, no. 19, pp. 1601., WOS  
3. [1.1] DONG, Y.-L. Quantum-state transmission. In *PHYSICAL REVIEW A*, 2012, vol. 85, 023833., WOS
- ADCA50 BUŽEK, Vladimír - QUANG, T. Generalized coherent state for bosonic realization of su(2) lie-algebra. In *Journal of the Optical Society of America B*, 1989, vol. 6, no. 12, p. 2447-2449. ISSN 0740-3224.  
Citácie:  
1. [1.1] CHEN, Y. F. - LIN, Y. C. - ZHUANG, W. Z. - LIANG, H. C. - SU, K. W. - HUANG, K. F. Generation of large orbital angular momentum from superposed Bessel beams corresponding to resonant geometric modes. In *PHYSICAL REVIEW A. ISSN 1050-2947, 2012, vol. 85, no. 4, 043833., WOS*
- ADCA51 BUŽEK, Vladimír - JEX, I. Dynamics of a 2-level atom in a kerr-like medium. In *Optics Communications*, 1990, vol. 78, no. 5-6, p. 425-435. ISSN 0030-4018.  
Citácie:  
1. [1.1] CORDERO, Sergio - RECAMIER, Jose. Algebraic treatment of the time-dependent Jaynes-Cummings Hamiltonian including nonlinear terms. In *JOURNAL OF PHYSICS A-MATHEMATICAL AND THEORETICAL. ISSN 1751-8113, 2012, vol. 45, no. 38, 385303., WOS*  
2. [1.1] PARVIN, Babak - MALEKFAR, Rasoul. The nonlinear effects over time evolution of a three-level atom confined in a single mode optical cavity. In *JOURNAL OF MODERN OPTICS. ISSN 0950-0340, 2012, vol. 59, no. 21, pp. 1841., WOS*  
3. [1.1] YAN, Wei-Bin - LIU, Zhong-Ju - ZHOU, Ling. Control of Two-Photon Transport in a One-Dimensional Waveguide. In *INTERNATIONAL JOURNAL OF THEORETICAL PHYSICS. ISSN 0020-7748, 2012, vol. 51, no. 7, pp. 2237., WOS*
- ADCA52 BUŽEK, Vladimír - KNIGHT, P.L. The origin of squeezing in a superposition of coherent states. In *Optics Communications*, 1991, vol. 81, no. 5, p. 331-336. ISSN 0030-4018.  
Citácie:  
1. [1.1] SANDERS, Barry C. Review of entangled coherent states. In *JOURNAL OF PHYSICS A-MATHEMATICAL AND THEORETICAL. ISSN 1751-8113, 2012,*



- ADCA53 *vol. 45, no. 24, 244002., WOS*  
BUŽEK, Vladimír. Jaynes-cummings model with intensity-dependent coupling with holstein-primakoff su (1,1) coherent state. In *Physical Review A*, 1989, vol. 39, no. 6, p. 3196-3199. ISSN 1050-2947.  
 Citácie:  
 1. [1.1] *DE LOS SANTOS-SANCHEZ, O. The f- deformed Jaynes-Cummings model. In JOURNAL OF PHYSICS B*, 2012, vol. 45, 015502., WOS  
 2. [1.1] *HONARASA, G.R. Generalized deformed Kerr states. In PHYSICA SCRIPTA*, 2012, vol. 86, no. 3, 035401., WOS  
 3. [1.1] *TAVASSOLY, M.K.- YADOLLAHI, F. Dynamics of states in the nonlinear interaction regime. In INTERNATIONAL JOURNAL OF MODERN PHYSICS B*, 2012, vol. 26, no. 5, 1250027., WOS
- ADCA54 BUŽEK, Vladimír - VIDIELLABARRANCO, A. - KNIGHT, P.L. Superpositions of coherent states- squeezing and dissipation. In *Physical Review A*, 1992, vol. 45, no. 9, p. 6570-6585. ISSN 1050-2947.  
 Citácie:  
 1. [1.1] *BUKHARI, Syed Hamad - HUSSAIN, Muhammad Iqbal - KHAN, Salman Naeem - AHMAD, Muhammad Ashfaq. Nonclassicality of two-mode nonorthogonal states. In OPTIK. ISSN 0030-4026*, 2012, vol. 123, no. 24, pp. 2288., WOS  
 2. [1.1] *LIU, X-M - LI, B. Even and odd nonlinear charge coherent states and their nonclassical properties. In JOURNAL OF PHYSICS A-MATHEMATICAL AND THEORETICAL. ISSN 1751-8113*, 2012, vol. 45, no. 41, 415307., WOS
- ADCA55 BUŽEK, Vladimír - MOYACESSA, H. - KNIGHT, P.L. - PHOENIX, S.J.D. Schrodinger-cat states in the resonant jaynes-cummings model-collapse and revival of oscillations of the photon-number distribution. In *Physical Review A*, 1992, vol. 45, no. p. 8190-8203. ISSN 1050-2947.  
 Citácie:  
 1. [1.1] *ABDALLA, M. Sebawe - KHALIL, E. M. Two coupled oscillators in the form of a frequency converter in interaction with a single atom via two-photon processes. In JOURNAL OF RUSSIAN LASER RESEARCH. ISSN 1071-2836*, 2012, vol. 33, no. 4, pp. 336., WOS  
 2. [1.1] *EIED, A. A. - HANOURA, S. A. - OBADA, A.S. F. Quantum Entropy of a Four-Level Atom with Arbitrary Nonlinearities. In INTERNATIONAL JOURNAL OF THEORETICAL PHYSICS. ISSN 0020-7748*, 2012, vol. 51, no. 9, pp. 2665., WOS  
 3. [1.1] *ESCALANTE, Jose M. - MARTINEZ, Alejandro - DURT, T - ZADKOV, VN. Theoretical study about the behavior of two-level systems inside of optomechanical cavity where mechanical oscillations are induced. In QUANTUM OPTICS II. ISSN 0277-786X*, 2012, vol. 8440, 84400R., WOS  
 4. [1.1] *KHALIL, E. M. - ABDALLA, M. Sebawe. Entropic uncertainty for two atoms interacting with a cavity field under the influence of two photons (off-resonance case). In JOURNAL OF RUSSIAN LASER RESEARCH. ISSN 1071-2836*, 2012, vol. 33, no. 2, pp. 128., WOS  
 5. [1.1] *OBADA, A.S. F. - KHALIL, E. M. - ABDEL-KHALEK, S. - ALI, S. I. New features of a single-mode nonlinear Stark shift in the presence of phase damping. In OPTICS COMMUNICATIONS. ISSN 0030-4018*, 2012, vol. 285, no. 10-11, pp. 2675., WOS  
 6. [1.1] *OPATRNY, Tomas - MOLMER, Klaus. Spin squeezing and Schrodinger-cat-state generation in atomic samples with Rydberg blockade. In PHYSICAL REVIEW A. ISSN 1050-2947*, 2012, vol. 86, no. 2, 023845., WOS  
 7. [1.1] *SEN, Surajit - NATH, Mihir Ranjan - DEY, Tushar Kanti -*

- GANGOPADHYAY, Gautam. Bloch space structure, the qutrit wavefunction and atom-field entanglement in three-level systems. In ANNALS OF PHYSICS. ISSN 0003-4916, 2012, vol. 327, no. 2, pp. 224., WOS*
- ADCA56 BUŽEK, Vladimír - KEITEL, C.H. - KNIGHT, P.L. Sampling entropies and operational phase-space measurement. 1. - General formalism. In Physical Review A, 1995, vol. 51, no. 3, p. 2575-2593. ISSN 1050-2947.
- Citácie:
- 1. [1.1] ADESSO, Gerardo - GIROLAMI, Davide - SERAFINI, Alessio. Measuring Gaussian Quantum Information and Correlations Using the Renyi Entropy of Order 2. In PHYSICAL REVIEW LETTERS. ISSN 0031-9007, 2012, vol. 109, no. 19, 190502., WOS*
- ADCA57 BUŽEK, Vladimír - HILLERY, M. Universal optimal cloning of arbitrary quantum states: From qubits to quantum registers. In Physical Review Letters, 1998, vol. 81, no. 22, p. 5003-5006. (6.140 - IF1997). (1998 - Current Contents, WOS, SCOPUS). ISSN 0031-9007.
- Citácie:
- 1. [1.1] BARTKIEWICZ, Karol - MIRANOWICZ, Adam. Optimal cloning of arbitrary mirror-symmetric distributions on the Bloch sphere: a proposal for practical photonic realization. In PHYSICA SCRIPTA. ISSN 0031-8949, 2012, vol. T147, 014003., WOS*
- 2. [1.1] DE MARTINI, Francesco - SCIARRINO, Fabio. Colloquium: Multiparticle quantum superpositions and the quantum-to-classical transition. In REVIEWS OF MODERN PHYSICS. ISSN 0034-6861, 2012, vol. 84, no. 4, pp. 1765., WOS*
- 3. [1.1] GYONGYOSI, Laszlo - IMRE, Sandor. Quasi-superactivation of classical capacity of zero-capacity quantum channels. In JOURNAL OF MODERN OPTICS. ISSN 0950-0340, 2012, vol. 59, no. 14, pp. 1243., WOS*
- 4. [1.1] JING, Li - WANG, Yi-Nan - SHI, Han-Duo - MU, Liang-Zhu - FAN, Heng. Minimal input sets determining phase-covariant and universal quantum cloning. In PHYSICAL REVIEW A. ISSN 1050-2947, 2012, vol. 86, no. 6, 062315., WOS*
- 5. [1.1] LIU ZHIHAO - CHEN HANWU - LIU WENJIE - XU JUAN - LI ZHIQIANG. Deterministic secure quantum communication without unitary operation based on high-dimensional entanglement swapping. In SCIENCE CHINA-INFORMATION SCIENCES. ISSN 1674-733X, 2012, vol. 55, no. 2, pp. 360., WOS*
- 6. [1.1] ZHANG WEN-HAI - YU LONG-BAO - CAO ZHUO-LIANG - YE LIU. Optimal Phase-Covariant Cloning in 3 Dimensions. In COMMUNICATIONS IN THEORETICAL PHYSICS. ISSN 0253-6102, 2012, vol. 57, no. 6, pp. 991., WOS*
- 7. [1.1] ZHANG, Wen-Hai - YU, Long-Bao - CAO, Zhuo-Liang - YE, Liu. Optimal cloning of two known nonorthogonal quantum states. In PHYSICAL REVIEW A. ISSN 1050-2947, 2012, vol. 86, no. 2, 022322., WOS*
- ADCA58 BUŽEK, Vladimír - DERKA, R. - MASSAR, S. Optimal quantum clocks. In Physical Review Letters, 1999, vol. 82, no. 10, p. 2207-2210. (6.017 - IF1998). (1999 - Current Contents, WOS, SCOPUS). ISSN 0031-9007.
- Citácie:
- 1. [1.1] BOIXO, Sergio - HEUNEN, Chris. Entangled and Sequential Quantum Protocols with Dephasing. In PHYSICAL REVIEW LETTERS. ISSN 0031-9007, 2012, vol. 108, no. 12, 120402., WOS*
- 2. [1.1] CHIRIBELLA, Giulio - GIOVANNETTI, Vittorio - MACCONE, Lorenzo - PERINOTTI, Paolo. Teleportation transfers only speakable quantum information. In PHYSICAL REVIEW A. ISSN 1050-2947, 2012, vol. 86, 010304., WOS*

3. [1.1] CHIRIBELLA, Giulio. *Optimal networks for quantum metrology: semidefinite programs and product rules*. In *NEW JOURNAL OF PHYSICS*. ISSN 1367-2630, 2012, vol. 14, 125008., WOS
  4. [1.1] DORNER, U. *Quantum frequency estimation with trapped ions and atoms*. In *NEW JOURNAL OF PHYSICS*. ISSN 1367-2630, 2012, vol. 14, 043011., WOS
  5. [1.1] MULLAN, Michael - KNILL, Emanuel. *IMPROVING QUANTUM CLOCKS VIA SEMIDEFINITE PROGRAMMING*. In *QUANTUM INFORMATION & COMPUTATION*. ISSN 1533-7146, 2012, vol. 12, no. 7-8, pp. 553., WOS
  6. [1.1] REN, Changliang - HOFMANN, Holger F. *Clock synchronization using maximal multipartite entanglement*. In *PHYSICAL REVIEW A*. ISSN 1050-2947, 2012, vol. 86, no. 1, 014301., WOS
- ADCA59 BUŽEK, Vladimír - ORSZAG, M. - ROŠKO, M. *Instability and entanglement of the ground state of the Dicke model*. In *Physical Review Letters*, 2005, vol. 94, no. 16, 163601. (7.218 - IF2004). (2005 - Current Contents, WOS, SCOPUS). ISSN 0031-9007.
- Citácie:
1. [1.1] VUKICS, Andras - DOMOKOS, Peter. *Adequacy of the Dicke model in cavity QED: A counter-no-go statement*. In *PHYSICAL REVIEW A*. ISSN 1050-2947, 2012, vol. 86, no. 5, 053807., WOS
- ADCA60 BUŽEK, Vladimír - ADAM, G. - DROBNÝ, Gabriel. *Quantum state reconstruction and detection of quantum coherences on different observation levels*. In *Physical Review A*, 1996, vol. 54, no. 1, p. 804-820. ISSN 1050-2947.
- Citácie:
1. [1.1] EICHLER, C. - BOZYIGIT, D. - WALLRAFF, A. *Characterizing quantum microwave radiation and its entanglement with superconducting qubits using linear detectors*. In *PHYSICAL REVIEW A*. ISSN 1050-2947, 2012, vol. 86, no. 3, 032106., WOS
  2. [1.1] FILIPPOV, S. N. - MAN'KO, V. I. *Evolution of Microwave Quantum States in Terms of Measurable Ordered Moments of Creation and Annihilation Operators*. In *OPTICS AND SPECTROSCOPY*. ISSN 0030-400X, 2012, vol. 112, no. 3, pp. 365., WOS
  3. [1.1] SHEN, Li-Tuo - YANG, Zhen-Biao - WU, Huai-Zhi - CHEN, Xin-Yu - ZHENG, Shi-Biao. *Control of two-atom entanglement with two thermal fields in coupled cavities*. In *JOURNAL OF THE OPTICAL SOCIETY OF AMERICA B-OPTICAL PHYSICS*. ISSN 0740-3224, 2012, vol. 29, no. 9, pp. 2379., WOS
- ADCA61 BUŽEK, Vladimír - VEDRAL, V. - PLENIO, M.B. - KNIGHT, P.L. - HILLERY, M. *Broadcasting of entanglement via local copying*. In *Physical Review A*, 1997, vol. 55, no. 5, p. 3327-3332. ISSN 1050-2947.
- Citácie:
1. [1.1] GYONGYOSI, Laszlo - IMRE, Sandor. *Quasi-superactivation of classical capacity of zero-capacity quantum channels*. In *JOURNAL OF MODERN OPTICS*. ISSN 0950-0340, 2012, vol. 59, no. 14, pp. 1243., WOS
- ADCA62 BUŽEK, Vladimír - DROBNÝ, Gabriel - KIM, M.S. - ADAM, G. - KNIGHT, P.L. *Cavity QED with cold trapped ions*. In *Physical Review A*, 1997, vol. 56, no. 3, p. 2352-2360. ISSN 1050-2947.
- Citácie:
1. [1.1] SHI, Z.C. *One-step preparation*. In *EUROPEAN PHYSICAL JOURNAL D*, 2012, vol. 66, 127., WOS
- ADCA63 BUŽEK, Vladimír - BRAUNSTEIN, S.L. - HILLERY, M. - BRUSS, D. *Quantum copying: A network*. In *Physical Review A*, 1997, vol. 56, no. 5, p. 3446-3452. ISSN

1050-2947.

Citácie:

1. [1.1] DE MARTINI, Francesco - SCIARRINO, Fabio. Colloquium: Multiparticle quantum superpositions and the quantum-to-classical transition. In *REVIEWS OF MODERN PHYSICS*. ISSN 0034-6861, 2012, vol. 84, no. 4, pp. 1765., WOS
2. [1.1] XIANG, Shao-Hua - LU, De-Hua - SONG, Ke-Hui. Realization of Optimal Universal Quantum Cloner for Electron-Spin Qubits via Nearest-Neighbor Quantum Controlled Gates. In *INTERNATIONAL JOURNAL OF THEORETICAL PHYSICS*. ISSN 0020-7748, 2012, vol. 51, no. 12, pp. 4006., WOS
3. [1.1] ZHOU, Yan-Hui - WANG, Lei. Scheme for implementing  $1 \otimes M$  symmetric economical phase-covariant telecloning based on quantum logic network. In *JOURNAL OF MODERN OPTICS*. ISSN 0950-0340, 2012, vol. 59, no. 7, pp. 658., WOS

ADCA64 BUŽEK, Vladimír - KONÔPKA, M. Dynamics of open systems governed by the Milburn equation. In *Physical Review A*, 1998, vol. 58, no. 3, p. 1735-1739. ISSN 1050-2947.

Citácie:

1. [1.1] HOU, Xi-Wen - WAN, Ming-Fang - MA, Zhong-Qi. Tripartite entanglement dynamics for mixed states in the Tavis-Cummings model with intrinsic decoherence. In *EUROPEAN PHYSICAL JOURNAL D*. ISSN 1434-6060, 2012, vol. 66, no. 6, 152., WOS

ADCA65 BUŽEK, Vladimír - DROBNÝ, Gabriel - KIM, E.G. - HAVUKAINEN, M. - KNIGHT, P.L. Numerical simulations of atomic decay in cavities and material media. In *Physical Review A*, 1999, vol., 60, p. 582-592. ISSN 1050-2947.

Citácie:

1. [1.1] REZUS, Y. L. A. - WALT, S. G. - LETTOW, R. - RENN, A. - ZUMOFEN, G. - GOETZINGER, S. - SANDOGHDAR, V. Single-Photon Spectroscopy of a Single Molecule. In *PHYSICAL REVIEW LETTERS*. ISSN 0031-9007, 2012, vol. 108, no. 9, 093601., WOS

ADCA66 BUŽEK, Vladimír - HILLERY, M. - WERNER, R.F. Optimal manipulations with qubits: Universal- NOT gate. In *Physical Review A*, 1999, vol. 60, no. 4, r2626-R2629. ISSN 1050-2947.

Citácie:

1. [1.1] DE MARTINI, Francesco - SCIARRINO, Fabio. Colloquium: Multiparticle quantum superpositions and the quantum-to-classical transition. In *REVIEWS OF MODERN PHYSICS*. ISSN 0034-6861, 2012, vol. 84, no. 4, pp. 1765., WOS
2. [1.1] GENKINA, Dina - CHIRIBELLA, Giulio - HARDY, Lucien. Optimal probabilistic simulation of quantum channels from the future to the past. In *PHYSICAL REVIEW A*. ISSN 1050-2947, 2012, vol. 85, no. 2, 022330., WOS
3. [1.1] LEUCHS, G. - SONDERMANN, M. Time-reversal symmetry in optics. In *PHYSICA SCRIPTA*. ISSN 0031-8949, 2012, vol. 85, no. 5, 058101., WOS
4. [1.1] YE, Liu - SONG, Xue-Ke - YANG, Jie - YANG, Qun - MA, Yang-Cheng. OPTICAL IMPLEMENTATION OF THE OPTIMAL UNIVERSAL AND PHASE-COVARIANT QUANTUM CLONING MACHINES. In *MODERN PHYSICS LETTERS B*. ISSN 0217-9849, 2012, vol. 26, no. 16, 1250102., WOS

ADCA67 BUŽEK, Vladimír - HILLERY, M. Quantum cloning. In *Physics World*, 2001, vol. 14, no. 11, p. 25-29. ISSN 0953-8585.

Citácie:

1. [1.1] AVILA, A.M. Optimal estimate of a pure qubit state. In *BRAZILIAN*



- JOURNAL OF PHYSICS*, 2012, vol. 42, pp. 1-5., WOS
- ADCA68 BUŽEK, Vladimír - JEX, I. Collapse revival phenomenon in the Jaynes-Cummings model interacting with the multiphoton Holstein-Primakoff SU(2) coherent state. In *Journal of Modern Optics*, 1989, vol. 36, no. 11, p. 1427-1434. ISSN 0950-0340.
- Citácie:
1. [1.1] EIED, A. A. - HANOURA, S. A. - OBADA, A.S. F. *Quantum Entropy of a Four-Level Atom with Arbitrary Nonlinearities*. In *INTERNATIONAL JOURNAL OF THEORETICAL PHYSICS*. ISSN 0020-7748, 2012, vol. 51, no. 9, pp. 2665., WOS
  2. [1.1] ZIEGLER, K. *Photonic spectral density of coupled optical cavities*. In *LASER PHYSICS*. ISSN 1054-660X, 2012, vol. 22, no. 1, pp. 331., WOS
- ADCA69 BUŽEK, Vladimír - JEX, I. Amplitude Kappa-th-power squeezing of k-photon coherent states. In *Physical Review A*, 1990, vol. 41, no. 7, p. 4079-4082. ISSN 1050-2947.
- Citácie:
1. [1.1] PRAKAASH, R.-YADAV, A.K. *A proposal for experimental detection*. In *OPTICS COMMUNICATIONS*, 2012, vol. 285, no. 9, pp. 2387-2391., WOS
- ADCA70 BUŽEK, Vladimír. N-level atom interacting with single-mode radiation field: An exactly solvable model with multiphoton transitions and intensity-dependent coupling. In *Journal of Modern Optics*, 1990, vol. 37, no. 6, p. 1033-1053. ISSN 0950-0340.
- Citácie:
1. [1.1] DODONOV, A. V. - DODONOV, V. V. *Dynamical Casimir effect in a cavity in the presence of a three-level atom*. In *PHYSICAL REVIEW A*. ISSN 1050-2947, 2012, vol. 85, no. 6, 063804., WOS
- ADCA71 BUŽEK, Vladimír - HILLERY, M. Quantum copying: Beyond the no-cloning theorem. In *Physical Review A*, 1996, vol. 54, no. 3, p. 1844-1852. ISSN 1050-2947.
- Citácie:
1. [1.1] AARONSON, S. *Quantum money*. In *COMMUNICATION OF THE ACM*, 2012, vol. 55, pp. 84., WOS
  2. [1.1] ARANEDA, G. - CISTERNAS, N. - JIMENEZ, O. - DELGADO, A. *Nonlocal optimal probabilistic cloning of qubit states via twin photons*. In *PHYSICAL REVIEW A*. ISSN 1050-2947, 2012, vol. 86, no. 5, 052332., WOS
  3. [1.1] BARTKIEWICZ, Karol - MIRANOWICZ, Adam. *Optimal cloning of arbitrary mirror-symmetric distributions on the Bloch sphere: a proposal for practical photonic realization*. In *PHYSICA SCRIPTA*. ISSN 0031-8949, 2012, vol. T147, 014003., WOS
  4. [1.1] CHEN, Zi-hong - PEI, Pei - ZHANG, Feng-yang - SONG, He-shan. *One-step preparation of three-particle Greenberger-Horne-Zeilinger states in cavity quantum electrodynamics*. In *JOURNAL OF THE OPTICAL SOCIETY OF AMERICA B-OPTICAL PHYSICS*. ISSN 0740-3224, 2012, vol. 29, no. 7, pp. 1744., WOS
  5. [1.1] CWIKLINSKI, Piotr - HORODECKI, Michal - STUDZINSKI, Michal. *Region of fidelities for a 1 &gt; N universal qubit quantum cloner*. In *PHYSICS LETTERS A*. ISSN 0375-9601, 2012, vol. 376, no. 32, pp. 2178., WOS
  6. [1.1] DE MARTINI, Francesco - SCIARRINO, Fabio. *Colloquium: Multiparticle quantum superpositions and the quantum-to-classical transition*. In *REVIEWS OF MODERN PHYSICS*. ISSN 0034-6861, 2012, vol. 84, no. 4, pp. 1765., WOS
  7. [1.1] DUNJKO, V. *Truly noiseless*. In *PHYSICAL REVIEW A*, 2012, vol. 86, 042322., WOS
  8. [1.1] FANG, B.-L. *Realization of an economical phase*. In *QUANTUM*

- INFORMATION AND COMPUTATION*, 2012, vol. 12, pp. 334., WOS
9. [1.1] FERENCZI, Agnes - LUETKENHAUS, Norbert. *Symmetries in quantum key distribution and the connection between optimal attacks and optimal cloning*. In *PHYSICAL REVIEW A*. ISSN 1050-2947, 2012, vol. 85, no. 5, 052310., WOS
10. [1.1] GHIU, Iulia. *NON-OPTIMAL CLONING OF QUBITS AT A DISTANCE*. In *PROCEEDINGS OF THE ROMANIAN ACADEMY SERIES A-MATHEMATICS PHYSICS TECHNICAL SCIENCES INFORMATION SCIENCE*. ISSN 1454-9069, 2012, vol. 13, no. 1, pp. 42., WOS
11. [1.1] GYONGYOSI, L.-IMRE, S. *Quasi-superactivation of classical capacity*. In *JOURNAL OF MODERN OPTICS*, 2012, vol. 59, pp. 1243., WOS
12. [1.1] JI, Yan-Qiang - YU, Tao - ZHU, Ai-Dong - WANG, Hong-Fu - ZHANG, Shou - YEON, Kyu-Hwang - YU, Seong-Cho. *Realization of optimal symmetric universal and phase-covariant quantum cloning with quantum dot spins in cavity QED*. In *JOURNAL OF MODERN OPTICS*. ISSN 0950-0340, 2012, vol. 59, no. 14, pp. 1272., WOS
13. [1.1] JING, Li - WANG, Yi-Nan - SHI, Han-Duo - MU, Liang-Zhu - FAN, Heng. *Minimal input sets determining phase-covariant and universal quantum cloning*. In *PHYSICAL REVIEW A*. ISSN 1050-2947, 2012, vol. 86, no. 6, 062315., WOS
14. [1.1] KENT, A. *Quantum tasks in Minkowski space*. In *CLASSICAL AND QUANTUM GRAVITY*, 2012, vol. 29, 224013., WOS
15. [1.1] LEMR, Karel - BARTKIEWICZ, Karol - CERNOCH, Antonin - SOUBUSTA, Jan - MIRANOWICZ, Adam. *Experimental linear-optical implementation of a multifunctional optimal qubit cloner*. In *PHYSICAL REVIEW A*. ISSN 1050-2947, 2012, vol. 85, no. 5, 050307., WOS
16. [1.1] PRUDENCIO, T. *No-cloning theorem in thermofield dynamics*. In *INTERNATIONAL JOURNAL OF QUANTUM INFORMATION*, 2012, vol. 10, 1230001., WOS
17. [1.1] RAEISI, Sadegh - TITTEL, Wolfgang - SIMON, Christoph. *Proposal for Inverting the Quantum Cloning of Photons*. In *PHYSICAL REVIEW LETTERS*. ISSN 0031-9007, 2012, vol. 108, no. 12, 120404., WOS
18. [1.1] SABERI, Hamed - MARDOUKHI, Yousof. *Sequential quantum cloning under real-life conditions*. In *PHYSICAL REVIEW A*. ISSN 1050-2947, 2012, vol. 85, no. 5, 052323., WOS
19. [1.1] SAGLAM YUREK, E. *Conditional detection*. In *PHYSICAL REVIEW LETTERS*, 2012, vol. 108, 083602., WOS
20. [1.1] SHEN, L.T. *Distributed phase-covariant*. In *EUROPEAN PHYSICAL JOURNAL*, 2012, vol. 66, 123., WOS
21. [1.1] TEH, N.J. *On classical cloning*. In *STUDIES IN HISTORY AND PHILOSOPHY OF MODERN PHYSICS*, 2012, vol. 43, pp. 47., WOS
22. [1.1] VALENTE, D. *Universal optimal broadband photon cloning*. In *PHYSICAL REVIEW A*, 2012, vol. 86, 022333., WOS
23. [1.1] WANG, C.-R. *Implementing W states*. In *INTERNATIONAL JOURNAL OF THEORETICAL PHYSICS*, 2012, vol. 51, pp. 221., WOS
24. [1.1] WANG, Yi-Nan - SHI, Han-Duo - JING, Li - XIONG, Zhao-Xi - LEI, Jin - MU, Liang-Zhu - FAN, Heng. *Non-compression of quantum phase information*. In *JOURNAL OF PHYSICS A-MATHEMATICAL AND THEORETICAL*. ISSN 1751-8113, 2012, vol. 45, no. 2, 025304., WOS
25. [1.1] WU, Tao - FANG, Bao-Long - YE, Liu. *Implementation of a quantum cloning machine via an ion-trap system*. In *JOURNAL OF THE OPTICAL SOCIETY OF AMERICA B-OPTICAL PHYSICS*. ISSN 0740-3224, 2012, vol. 29, no. 10, pp. 2749., WOS

26. [1.1] XIONG, W. Tunable optimal quantum cloning machines. In *JOURNAL OF THE OPTICAL SOCIETY OF AMERICA B*, 2012, vol. 29, pp. 901., WOS
  27. [1.1] YANG XIAO-LIN - ZHOU XIAO-QING - ZHAO HAN - WANG PENG-PENG. Data link layer of selective repeat protocol based on quantum teleportation. In *ACTA PHYSICA SINICA*. ISSN 1000-3290, 2012, vol. 61, no. 2, 020303., WOS
  28. [1.1] YU TAO - ZHU AI-DONG - ZHANG SHOU. Non local quantum cloning via quantum dots trapped in distant cavities. In *CHINESE PHYSICS B*. ISSN 1674-1056, 2012, vol. 21, no. 5, 050304., WOS
  29. [1.1] ZHAN, Y.-B. Deterministic joint assisted cloning. In *INTERNATIONAL JOURNAL OF THEORETICAL PHYSICS*, 2012, vol. 51, pp. 1655., WOS
  30. [1.1] ZHANG WEN-HAI - YU LONG-BAO - CAO ZHUO-LIANG - YE LIU. Optimal Phase-Covariant Cloning in 3 Dimensions. In *COMMUNICATIONS IN THEORETICAL PHYSICS*. ISSN 0253-6102, 2012, vol. 57, no. 6, pp. 991., WOS
  31. [1.1] ZHANG, W.-H. Optimal cloning . In *PHYSICAL REVIEW A*, 2012, vol. 86, 022322., WOS
  32. [1.1] ZHANG, Zhaoyang - TANG, Shiqing - XIE, Lijun - WANG, Xinwen. Effect of a Nonideal Initial-State of the Ancillary System on Optimal Universal Quantum Cloning. In *INTERNATIONAL JOURNAL OF THEORETICAL PHYSICS*. ISSN 0020-7748, 2012, vol. 51, no. 3, pp. 805., WOS
  33. [1.1] ZHOU, Y.-H. Scheme for implementing. In *JOURNAL OF MODERN OPTICS*, 2012, vol. 59, pp. 658., WOS
- ADCA72    BUŽEK, Vladimír - KIM, M.S. - KIM, M.G. Description of the influence of a reservoir via coarse-graining in phase-space. In *Journal of the Korean Physical Society*, 1995, vol. 28, no. 2, p. 123-127. ISSN 0374-4884.  
Citácie:  
1. [1.1] LIM, Youngrong - PATERNOSTRO, Mauro - KANG, Minsu - LEE, Jinhyoung - JEONG, Hyunseok. Using macroscopic entanglement to close the detection loophole in Bell-inequality tests. In *PHYSICAL REVIEW A*. ISSN 1050-2947, 2012, vol. 85, no. 6, 062112., WOS
- ADCA73    BYAKOV, V.M. - KRIŠTIÁK, Jozef. On the relationship between o-Ps lifetime in liquids and their surface tension. In *Journal of Radioanalytical and Nuclear Chemistry-Articles*, 1996, vol. 211, no. 1, p. 11-14. (0.368 - IF1995). (1996 - Current Contents). ISSN 0236-5731.  
Citácie:  
1. [1.1] ZGARDZINSKA, Bożena - GOWOREK, Tomasz. Positronium bubble in liquid alkanes and alcohols. In *CHEMICAL PHYSICS*. ISSN 0301-0104, 2012, vol. 405, pp. 32., WOS
- ADCA74    BYDZOVSKY, J. - KRAUS, L. - ŠVEC, Peter. Strain sensors based on stress-annealed Co<sub>69</sub>Fe<sub>2</sub>Cr<sub>7</sub>Si<sub>8</sub>B<sub>14</sub> amorphous ribbons. In *Sensors and Actuators A*, 2004, vol. 110, p. 82-86.  
Citácie:  
1. [1.1] LI, Mingsheng - TU, Jinwei - ZHANG, Shujuan - ZHONG, JL. Effects of Annealing on Electrochemical Corrosion of Fe<sub>73.5</sub>Si<sub>13.5</sub>B<sub>9</sub>Nb<sub>3</sub>Cu<sub>1</sub> Alloys. In *SMART MATERIALS AND NANOTECHNOLOGY IN ENGINEERING*. ISSN 1022-6680, 2012, vol. 345, pp. 83-86., WOS  
2. [1.1] MARICIC, A. - SPASOJEVIC, M. - KALEZIC-GLISOVIC, A. - RIBIC-ZELENOVIC, L. - DJUKIC, S. - MITROVIC, N. The stress effect on electrical resistivity sensitivity of FeBSiC amorphous ribbon. In *SENSORS AND ACTUATORS A-PHYSICAL*. ISSN 0924-4247, 2012, vol. 174, pp. 103-106., WOS
- ADCA75    CHADWICK, M.B. - OBLOŽINSKÝ, Pavol - HODGSON, P.E. - REFFO, G. Pauli-blocking in the quasideuteron model of photoabsorption. In *Physical review C*,

1991, vol. 44, no. 2, p. 814-823. ISSN 0556-2813.

Citácie:

1. [1.1] ADAMCZYK, A. M. - NORMAN, R. B. - SRIPRISAN, S. I. - TOWNSEND, L. W. - NORBURY, J. W. - BLATTNIG, S. R. - SLABA, T. C. *NUCFRG3: Light ion improvements to the nuclear fragmentation model. In NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION A-ACCELERATORS SPECTROMETERS DETECTORS AND ASSOCIATED EQUIPMENT. ISSN 0168-9002, 2012, vol. 678, p. 21., WOS*
2. [1.1] GROSSE, E. - JUNGHANS, A. R. - MASSARCZYK, R. - SCHWENGNER, R. - SCHRAMM, G. - KRTICKA, M - BECVAR, F - KROLL, J. *Description of dipole strength in heavy nuclei in conformity with their quadrupole degrees of freedom. In CNR\*11 THIRD INTERNATIONAL WORKSHOP ON COMPOUND NUCLEAR REACTIONS AND RELATED TOPICS. ISSN 2100-014X, 2012, vol. 21, 04003., WOS*
3. [1.1] KONING, A. J. - ROCHMAN, D. *Modern Nuclear Data Evaluation with the TALYS Code System. In NUCLEAR DATA SHEETS. ISSN 0090-3752, 2012, vol. 113, no. 12, pp. 2841., WOS*
4. [1.1] VARLAMOV, V.V. *New approach to analyzing. In PHYSICS OF ATOMIC NUCLEI, 2012, vol. 75. PP. 1339., WOS*

ADCA76 CHADWICK, M.B. - OBLOŽINSKÝ, Pavol. Linear momentum in the exciton model- a consistent way to obtain angular-distributions. In Physical review C : nuclear physics, 1991, vol. 44, no. 5, r1740-R1744. ISSN 0556-2813.

Citácie:

1. [1.1] BETAK, Emil - KRTICKA, M - BECVAR, F - KROLL, J. *Iwamoto-Harada model of pre-equilibrium cluster emission: Should we care about angular momentum? In CNR\*11 THIRD INTERNATIONAL WORKSHOP ON COMPOUND NUCLEAR REACTIONS AND RELATED TOPICS. ISSN 2100-014X, 2012, vol. 21, 09004., WOS*
2. [1.1] HAN, Yinlu - XU, Yongli - LIANG, Haiying - GUO, Hairui - CAI, Chonghai - SHEN, Qingbiao. *The analysis of n+Np-237 reactions for energies up to 200 MeV. In ANNALS OF NUCLEAR ENERGY. ISSN 0306-4549, 2012, vol. 46, pp. 179., WOS*
3. [1.1] HAN, Yinlu - XU, Yongli - ZHANG, Zhengjun - SHEN, Qingbiao. *The cross sections and energy spectra of the particle emission in proton induced reactions on Bi-209. In NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION B-BEAM INTERACTIONS WITH MATERIALS AND ATOMS. ISSN 0168-583X, 2012, vol. 289, no., pp. 106., WOS*
4. [1.1] Han, Y. *Theoretical calculations and analysis. In NUCLEAR SCIENCE AND ENGINEERING, 2012, vol. 172, pp. 102., WOS*

ADCA77 CHADWICK, M.B. - OBLOŽINSKÝ, Pavol. Particle-hole state densities with linear momentum. In Physical review C : nuclear physics, 1992, vol. 46, no. 5, p. 2028-2041. ISSN 0556-2813.

Citácie:

1. [1.1] BETAK, Emil - KRTICKA, M - BECVAR, F - KROLL, J. *Iwamoto-Harada model of pre-equilibrium cluster emission: Should we care about angular momentum? In CNR\*11 THIRD INTERNATIONAL WORKSHOP ON COMPOUND NUCLEAR REACTIONS AND RELATED TOPICS. ISSN 2100-014X, 2012, vol. 21, 09004., WOS*
2. [1.1] CARLSON, B. V. - MEGA, D. F. - KRTICKA, M - BECVAR, F - KROLL, J. *The density of available states of the DDHMS pre-equilibrium model. In CNR\*11 THIRD INTERNATIONAL WORKSHOP ON COMPOUND NUCLEAR REACTIONS AND RELATED TOPICS. ISSN 2100-014X, 2012, vol. 21, 09001.,*



WOS

- ADCA78 CHAKRABARTI, D. - HARINDRANATH, A. - MARTINOVIČ, Lubomír - VARY, J.P. Kinks in discrete light cone quantization. In Physics Letters B, 2004, vol. 582, no. 3-4, p. 196-202.  
Citácie:  
1. [1.1] KULSHRESHTHA, Usha. LIGHT-FRONT HAMILTONIAN AND PATH INTEGRAL QUANTIZATION OF VECTOR SCHWINGER MODEL WITH A PHOTON MASS TERM. In MODERN PHYSICS LETTERS A. ISSN 0217-7323, 2012, vol. 27, no. 27, 1250157., WOS
- ADCA79 CHAKRABARTI, D. - HARINDRANATH, A. - MARTINOVIČ, Lubomír - PIVOVAROV, G.B. - VARY, J.P. Ab initio results for the broken phase of scalar light front field theory. In Physics Letters B, 2005, vol. 617, no. 1-2, p. 92-98. (4.619 - IF2004). (2005 - Current Contents, WOS, SCOPUS). ISSN 0370-2693.  
Citácie:  
1. [1.1] KULSHRESHTHA, Usha. LIGHT-FRONT HAMILTONIAN AND PATH INTEGRAL QUANTIZATION OF VECTOR SCHWINGER MODEL WITH A PHOTON MASS TERM. In MODERN PHYSICS LETTERS A. ISSN 0217-7323, 2012, vol. 27, no. 27, 1250175., WOS
- ADCA80 CHIANG, C.F. - NAGAJ, Daniel - WOCJAN, P. Efficient circuits for quantum walks. In Quantum Information and Computation, 2010, vol. 10, no. 5-6, p. 420-434. (2.980 - IF2009). (2010 - Current Contents). ISSN 1533-7146.  
Citácie:  
1. [1.1] CHAKRABARTI, Amlan - LIN, ChiaChun - JHA, Niraj K. Design of Quantum Circuits for Random Walk Algorithms. In 2012 IEEE COMPUTER SOCIETY ANNUAL SYMPOSIUM ON VLSI (ISVLSI), 2012, pp. 135., WOS  
2. [1.1] ELIAS VENEGAS-ANDRACA, Salvador. Quantum walks: a comprehensive review. In QUANTUM INFORMATION PROCESSING. ISSN 1570-0755, 2012, vol. 11, no. 5, pp. 1015., WOS  
3. [1.1] LOKE, T. - WANG, J. B. Efficient circuit implementation of quantum walks on non-degree-regular graphs. In PHYSICAL REVIEW A. ISSN 1050-2947, 2012, vol. 86, no. 4, 042338., WOS
- ADCA81 CHITU, L. - JERGEL, Matej - MAJKOVÁ, Eva - LUBY, Štefan - CAPEK, Ignác - SATKA, A. - IVAN, Jozef - KOVÁČ, Jozef - TIMKO, Milan. Structure and magnetic properties of CoFe<sub>2</sub>O<sub>4</sub> and Fe<sub>3</sub>O<sub>4</sub> nanoparticles. In Materials Science and Engineering C - Biomimetic and Supramolecular Systems, 2007, vol. 27, no. 5-8, p. 1415-1417. (1.325 - IF2006). (2007 - Current Contents, WOS, SCOPUS). ISSN 0928-4931.  
Citácie:  
1. [1.1] BARRETO, A.C.H. - MAIA, F.J.N. - SANTIAGO, V.R. - RIBEIRO, V.G.P. - DENARDIN, J.C. - MELE, G. - CARBONE, L. - LOMONACO, D. - MAZZETTO, S.E. - FECHINE, P.B.A. Novel ferrofluids coated with a renewable material obtained from cashew nut shell liquid. In MICROFLUIDICS AND NANOFUIDICS, 2012, vol. 12, no. 5, p. 677-686., WOS  
2. [1.1] CHATTOPADHYAY, S. - JANA, S. - GIRI, S. - MAJUMDAR, S. An agglomeration induced glassy magnetic state in a carbon nanotube/NiO nanocomposite system. In JOURNAL OF PHYSICS-CONDENSED MATTER. ISSN 0953-8984, OCT 31 2012, vol. 24, no. 43., WOS  
3. [1.1] MASEK, K. - BLUMENTRIT, P. - BERAN, J. - SKALA, T. - PIS, I. - POLASEK, J. - MATOLIN, V. Structural and electronic studies of supported Pt and Au epitaxial clusters on tungsten oxide surface. In VACUUM, 2012, vol. 86, no. 6, SI, p. 586-593., WOS  
4. [1.1] VLAZAN, P. - STEFANESCU, M. - BARVINSCHI, P. - STOIA, M. Study

*on the formation of  $\text{CoFe}_3\text{-xO}_4$  system using two low temperature synthesis methods. In MATERIALS RESEARCH BULLETIN. ISSN 0025-5408, DEC 2012, vol. 47, no. 12, p. 4119-4125., WOS*

- ADCA82 CHITU, Livia - ŠIFFALOVIČ, Peter - MAJKOVÁ, Eva - JERGEL, Matej - VÉGSO, Karol - LUBY, Štefan - CAPEK, Ignác - SATKA, A. - PERLICH, J. - TIMMANN, A. - ROTH, S.V. - KECKES, J. - MAIER, G.A. Modified Langmuir-Blodgett deposition of nanoparticles-measurement of 2D to 3D ordered arrays. In Measurement Science Review, 2010, vol. 10, no. 5, p. 162-165. (2010 - WOS, SCOPUS, Copernicus International). ISSN 1335-8871.

Citácie:

1. [1.1] LI, Min - ZHANG, Wei - WANG, Chaosheng - WANG, Huaping. In situ formation of 2D conductive porous material with ultra low percolation threshold. In MATERIALS LETTERS. ISSN 0167-577X, 2012, vol. 82, pp. 109., WOS
2. [1.1] SMILGIES, Detlef-M. - HEITSCH, Andrew T. - KORGEL, Brian A. Stacking of Hexagonal Nanocrystal Layers during Langmuir-Blodgett Deposition. In JOURNAL OF PHYSICAL CHEMISTRY B. ISSN 1520-6106, 2012, vol. 116, no. 20, pp. 6017., WOS

- ADCA83 CHITU, Livia - CHUSHKIN, Jurij - LUBY, Štefan - MAJKOVÁ, Eva - ŠATKA, A. - IVAN, Jozef - SMRČOK, Ľubomír - BUCHAL, Antonín - GIERSIG, Michael - HILGENDORFF, M. Structure and self-assembling of Co nanoparticles. In Materials Science and Engineering C - Biomimetic and Supramolecular Systems, 2007, vol. 27, no. 1, p. 23-28. (1.325 - IF2006). (2007 - Current Contents, WOS, SCOPUS). ISSN 0928-4931.

Citácie:

1. [1.1] BELLIDO, Elena - DOMINGO, Neus - OJEA-JIMENEZ, Isaac - RUIZ-MOLINA, Daniel. Structuration and Integration of Magnetic Nanoparticles on Surfaces and Devices. In SMALL. ISSN 1613-6810, 2012, vol. 8, no. 10, pp. 1465., WOS
2. [1.1] MENG, Haining - ZHAO, Fangxia - ZHANG, Zhenzhong. Preparation of cobalt nanoparticles by direct current arc plasma evaporation method. In INTERNATIONAL JOURNAL OF REFRACTORY METALS & HARD MATERIALS. ISSN 0263-4368, 2012, vol. 31, no., pp. 224., WOS
3. [1.1] WON, H. I. - NERSISYAN, H. H. - WON, C. W. Cobalt powders and porous cobalt particles prepared by co-reduction of hydrazine and sodium phosphate and its formation mechanism. In MATERIALS CHEMISTRY AND PHYSICS. ISSN 0254-0584, 2012, vol. 133, no. 1, pp. 225., WOS
4. [1.2] ZHANG, L. - JIAO, W.-L. Self-assembly of superstructure  $\text{Ni}_{0.5}\text{Zn}_{0.5}\text{Fe}_2\text{O}_4/\text{PAA}$  composite nanowire induced by alternating magnetic field. In Rengong Jingti Xuebao/Journal of Synthetic Crystals, 2012, 41, 2, pp. 523-527., SCOPUS

- ADCA84 CHITU, Livia - CHUSHKIN, Y. - LUBY, Štefan - MAJKOVÁ, Eva - LEO, G. - ŠATKA, A. - GIERSIG, M. - HILGENDORFF, M. Effect of magnetic field on self-assembling of colloidal Co magnetic nanoparticles. In Applied Surface Science, 2006, vol. 252, no. 15, p. 5559-5562. (2006 - Current Contents). ISSN 0169-4332.

Citácie:

1. [1.1] ZHANG, L. - JIAO, W.-L. Self-assembly of superstructure. In JOURNAL OF SYNTHETIC CRYSTALS, 2012, vol. 41, p. 523-527., WOS

- ADCA85 CHITU, Livia - LUBY, Štefan - MAJKOVÁ, Eva - HRKÚT, Pavol - MATAY, Ladislav - KOSTIČ, Ivan - SATKA, A. Assembling of nanoparticle arrays using microelectromagnetic matrix. In Superlattices and Microstructures, 2008, vol. 44, iss. 4-5, p. 528-532. (1.340 - IF2007). ISSN 0749-6036.

Citácie:

1. [1.2] GOONERATNE, C.P. - GIOUROUDI, I. - KOSEL, J. A planar

- conducting micro-loop structure for transportation of magnetic beads: An approach towards rapid sensing and quantification of biological entities. In Sensor Letters. 2012, vol. 10, no. 3-4, p. 770-774., SCOPUS*
- ADCA86 CHUSHKIN, Jurij - CHITU, Livia - HALAHOVETS, Y. - LUBY, Štefan - MAJKOVÁ, Eva - SATKA, E. - LEO, G. - GIER SIG, M. - HILGENDORFF, M. - HOLÝ, V. - KONOVALOV, O. GISAXS studies of self-assembling of colloidal Co nanoparticles. In Materials Science and Engineering C - Biomimetic and Supramolecular Systems, 2006, vol. 26, no. 5-7, p. 1136-1140. (2006 - Current Contents, SCOPUS). ISSN 0928-4931.
- Citácie:
1. [1.1] PERLICH, Jan - MEMESA, Mine - DIETHERT, Alexander - METWALLI, Ezzeldin - WANG, Weinan - ROTH, Stephan V. - GUTMANN, Jochen S. - MUELLER-BUSCHBAUM, Peter. Layer-by-layer fabrication of an anatase titania multilayer with gradual sponge-like morphology. In COLLOID AND POLYMER SCIENCE. ISSN 0303-402X, 2012, vol. 290, no. 2, pp. 119., WOS
- ADCA87 CHUSHKIN, Y. - ULMEANU, M. - LUBY, Štefan - MAJKOVÁ, Eva - KOSTIČ, Ivan - KLANG, P. - HOLY, V. - BOCHNÍČEK, Z. - GIER SIG, Michael - HILGENDORFF, M. - METZGER, T.H. Structural study of self-assembled Co nanopatricsles. In Journal of Applied Physics, 2003, vol. 94, no. 12, p. 7743-7748.
- Citácie:
1. [1.1] LEITE, E.R.-RIBEIRO, C. Oriented attachment and mesocrystals. In CRYSTALLIZATION AND GROWTH OF COLLOIDAL NANOCRYSTALS, 2012, p. 45-68., WOS
- ADCA88 COCOLIOS, T.E. - DEXTERS, W. - SELIVERSTOV, M.D. - ANDREYEV, A.N. - ANTALIC, S. - BARZAKH, A.E. - BASTIN, B. - BUESCHER, J. - DARBY, I.G. - FEDOROV, D.V. - FEDOSSEYEV, V.N. - FLANAGAN, K.T. - FRANCHOO, S. - FRITZSCHE, S. - HUBER, G. - HUYSE, M. - KEUPERS, M. - KOESTER, U. - KUDRYAVTSEV, Yu. - MANE, E. - MARSH, B.A. - MOLKANOV, P.L. - PAGE, R.D. - SJOEDIN, A.M. - STEFAN, I. - VAN DE WALLE, J. - VAN DUPPEN, P. - VENHART, Martin - ZEMLYANOY, S.G. - BENDER, M. - HEENEN, P.-H. Early onset of ground state deformation in neutron deficient polonium isotopes. In Physical Review Letters, 2011, vol. 106, no. 5, 052503. (7.622 - IF2010). (2011 - Current Contents, WOS, SCOPUS). ISSN 0031-9007.
- Citácie:
1. [1.1] BAGLIN, Coral M. Nuclear Data Sheets for A=192. In NUCLEAR DATA SHEETS. ISSN 0090-3752, 2012, vol. 113, no. 8-9, pp. 1871., WOS
2. [1.1] JAKOBSSON, U. - UUSITALO, J. - JUUTINEN, S. - LEINO, M. - ENQVIST, T. - GREENLEES, P. T. - HAUSCHILD, K. - JONES, P. - JULIN, R. - KETELHUT, S. - KUUSINIEMI, P. - NYMAN, M. - PEURA, P. - RAHKILA, P. - RUOTSALAINEN, P. - SAREN, J. - SCHOLEY, C. - SORRI, J. Recoil-decay tagging study of Fr-205. In PHYSICAL REVIEW C. ISSN 0556-2813, 2012, vol. 85, no. 1, 014309., WOS
3. [1.1] KUKLIN, S. N. - SHNEIDMAN, T. M. - ADAMIAN, G. G. - ANTONENKO, N. V. Alpha-decay fine structures of U isotopes and systematics for isotopic chains of Po and Rn. In EUROPEAN PHYSICAL JOURNAL A. ISSN 1434-6001, 2012, vol. 48, no. 8, 112., WOS
- ADCA89 COLOMBI, P. - AGNIHOTRI, D.K. - ASADCHIKOV, V.E. - BONTEMPI, E. - BOWEN, D.K. - CHANG, C.H. - DEPERO, L.E. - FARNWORTH, M. - FUJIMOTO, T. - GIBAUD, A. - JER GEL, Matej - KRUMREY, M. - LAFFORD, T.A. - LAMPERTI, A. - MATYI, R.J. - MEDUNA, M. - MILITA, S. - SAKURAI, K. - SHABELNIKOV, L. - ULYANENKOV, A. - LEE VAN DER, A. - WIENER, C. Reproducibility in x-ray reflectometry: from the first world-wide Round Robin

experiment. In *Journal of Applied Crystallography*, 2008, vol. 41, no. 1, p. 143-152. ISSN 0021-8898.

Citácie:

1. [1.1] BORGESSE, L. In *TALANTA*, VOL. 89, 2012, p. 99-104., WOS
2. [1.1] GOZU, S.-I. In *NANOSCALE RESEARCH LETTERS*, vol. 7, 2012, 620., WOS
3. [1.1] LEE, S.W. In *PHYSICS PROCEEDIA*, vol. 37, 2012, p. 765-772., WOS
4. [1.1] WERNECKE, J.-SCHOLZE, F.-KRUMREY, M. In *REVIEW OF SCIENTIFIC INSTRUMENTS*, vol. 83, 2012, 103906., WOS

ADCA90 CONDE, C.F. - CONDE, A. - ŠVEC, Peter - OCHIN, P. Influence of the addition of Mn and Cu on the nanocrystallization process of Hitperm FeCoNbB. In *Mat. Sci. Eng. A*, 2004, vol. 375-377, p. 718-721.

Citácie:

1. [1.1] LEARY, A.M.-OHODNICKI, P.R.-McHENRY, M.E. Soft magnetic materials in high-frequency. In *JOM*, 2012, vol. 64, no. 7, pp. 772-781., WOS

ADCA91 CONDE, C.F. - BORREGO, J.M. - BLAZQUEZ, J.S. - CONDE, A. - ŠVEC, Peter - JANIČKOVIČ, Dušan. Magnetic and structural characterization of Mo-Hitperm alloys with different Fe/Co ratio. In *Journal of Alloys and Compounds*, 2011, vol. 509, no. 5, p. 1994-2000. (2.138 - IF2010). (2011 - Current Contents). ISSN 0925-8388.

Citácie:

1. [1.1] COJOCARU, Vasile Danut. Ball milling synthesis and stability under pressure in nanostructured HITPERM alloys. In *JOURNAL OF MAGNETISM AND MAGNETIC MATERIALS*. ISSN 0304-8853, 2012, vol. 324, no. 9, pp. 1664., WOS
2. [1.1] HASIAK, Mariusz - MIGLIERINI, Marcel - LUKIEWSKI, Mirosław - KALETA, Jerzy. Microstructure, Magnetic Properties, and Applications of Co-Rich HITPERM-Type Amorphous Alloys. In *IEEE TRANSACTIONS ON MAGNETICS*. ISSN 0018-9464, 2012, vol. 48, no. 4, pp. 1665., WOS
3. [1.1] LEARY, Alex M. - OHODNICKI, Paul R. - MCHENRY, Michael E. Soft Magnetic Materials in High-Frequency, High-Power Conversion Applications. In *JOM*. ISSN 1047-4838, 2012, vol. 64, no. 7, pp. 772., WOS

ADCA92 CUCCHIERI, A. - MAAS, Axel - MENDES, T. Three-point vertices in Landau-gauge Yang-Mills theory. In *Physical Review D*, 2008, vol. 77, 094510. ISSN 1550-7998.

Citácie:

1. [1.1] AGUILAR, A. C. - BINOSI, D. - PAPAVALASSILIOU, J. Unquenching the gluon propagator with Schwinger-Dyson equations. In *PHYSICAL REVIEW D*. ISSN 1550-7998, 2012, vol. 86, no. 1, 014032., WOS
2. [1.1] AGUILAR, A. C. - IBANEZ, D. - MATHIEU, V. - PAPAVALASSILIOU, J. Massless bound-state excitations and the Schwinger mechanism in QCD. In *PHYSICAL REVIEW D*. ISSN 1550-7998, 2012, vol. 85, no. 1, 014018., WOS
3. [1.1] BINOSI, D. - IBANEZ, D. - PAPAVALASSILIOU, J. All-order equation of the effective gluon mass. In *PHYSICAL REVIEW D*. ISSN 1550-7998, 2012, vol. 86, no. 8, 085033., WOS
4. [1.1] BOUCAUD, Ph. - LEROY, J. P. - LE YAOUANC, A. - MICHELI, J. - PENE, O. - RODRIGUEZ-QUINTERO, J. The Infrared Behaviour of the Pure Yang-Mills Green Functions. In *FEW-BODY SYSTEMS*. ISSN 0177-7963, 2012, vol. 53, no. 3-4, pp. 387., WOS
5. [1.1] CAMPAGNARI, Davide R. - REINHARDT, Hugo. The ghost-gluon vertex in Hamiltonian Yang-Mills theory in Coulomb gauge. In *PHYSICS LETTERS B*. ISSN 0370-2693, 2012, vol. 707, no. 1, pp. 216., WOS



6. [1.1] CAMPAGNARI, Davide R. - REINHARDT, Hugo. *Variational approach to Yang-Mills theory with non-Gaussian wave functionals*. In *PROGRESS IN PARTICLE AND NUCLEAR PHYSICS*. ISSN 0146-6410, 2012, vol. 67, no. 2, pp. 180., WOS
  7. [1.1] GRACEY, J. A. *Power corrections to symmetric point vertices in Gribov-Zwanziger theory*. In *PHYSICAL REVIEW D*. ISSN 1550-7998, 2012, vol. 86, no. 10, 105029., WOS
  8. [1.1] HUBER, Markus Q. - MITTER, Mario. *CrazyDSE: A framework for solving Dyson-Schwinger equations*. In *COMPUTER PHYSICS COMMUNICATIONS*. ISSN 0010-4655, 2012, vol. 183, no. 11, pp. 2441., WOS
  9. [1.1] REINHARDT, Hugo - CAMPAGNARI, Davide R. - HEFFNER, Jan - PAK, Markus. *Hamilton approach to QCD in Coulomb gauge*. In *PROGRESS IN PARTICLE AND NUCLEAR PHYSICS*. ISSN 0146-6410, 2012, vol. 67, no. 2, pp. 173., WOS
  10. [1.1] STRAUSS, Stefan - FISCHER, Christian S. - KELLERMANN, Christian. *Analytic Structure of the Landau-Gauge Gluon Propagator*. In *PHYSICAL REVIEW LETTERS*. ISSN 0031-9007, 2012, vol. 109, no. 25, 252001., WOS
  11. [1.1] STRAUSS, Stefan - FISCHER, Christian S. - KELLERMANN, Christian. *Analytic structure of Landau gauge ghost and gluon propagators*. In *PROGRESS IN PARTICLE AND NUCLEAR PHYSICS*. ISSN 0146-6410, 2012, vol. 67, no. 2, pp. 239., WOS
  12. [3] SANCHIS-ALEPUZ, H. *Bayron properties and glueball from Poincare-covariant bound-state equations*. In *PREPRINT HEP-PH/ 1206.5190*, 2012
- ADCA93 CUCCHIERI, Attilio - MAAS, Axel - MENDES, Tereza. Linear covariant gauges on the lattice. In *Computer Physics Communications*, 2009, vol. 180, p. 215-225. (2.120 - IF2008). ISSN 0010-4655.
- Citácie:
1. [1.1] LLANES-ESTRADA, Felipe J. - WILLIAMS, Richard. *Two infrared Yang-Mills solutions in stochastic quantization and in an effective action formalism*. In *PHYSICAL REVIEW D*. ISSN 1550-7998, 2012, vol. 86, no. 6, 065034., WOS
- ADCA94 CVELBAR, F. - BĚTÁK, Emil - MERHAR, J. Pre-equilibrium-equilibrium-model calculations of nucleon radiative-capture excitation-functions. In *Journal of Physics G: Nuclear and particle physics*, 1991, vol. 17, no. 2, p. 113-124. ISSN 0954-3899.
- Citácie:
1. [1.2] BROWNE, E. - TULI, J.K. *Nuclear Data Sheets for A = 143*. In *Nuclear Data Sheets*, 2012, 113, 3, pp. 715-908., SCOPUS
- ADCA95 CVELBAR, F. - BĚTÁK, Emil - LIKAR, A. Pre-equilibrium and direct-semi-direct model-calculations of nucleon radiative-capture excitation-functions on heavy-nuclei. In *Journal of Physics G: Nuclear and particle physics*, 1995, vol. 21, no. 3, p. 377-384. ISSN 0954-3899.
- Citácie:
1. [1.2] BROWNE, E. - TULI, J.K. *Nuclear Data Sheets for A = 143*. In *Nuclear Data Sheets*, 2012, 113, 3, pp. 715-908., SCOPUS
- ADCA96 D' ANNA, E. - LEGGIERI, G. - LUCHES, A. - LÁNYI, Štefan - ZEMEK, J. Pulsed laser synthesis of titanium silicides using a Q-switched ND- glass-laser. In *Applied Physics A: Materials Science & Processing*, 1989, vol. 48, no. 6, p. 503-507. ISSN 0947-8396.
- Citácie:
1. [1.1] MAKAROV, Vladimir I. - KHMELINSKII, Igor - KOCHUBEI, Sergey A. *Spin-polarized state transport from ferromagnetic to conductive material: Signal*

- amplification by ferromagnetic layer. In JOURNAL OF APPLIED PHYSICS. ISSN 0021-8979, 2012, vol. 112, no. 8, 084310., WOS*
- ADCA97 D' ARIANO, G.M. - PERINOTTI, P. - SEDLÁK, Michal. Extremal quantum protocols. In Journal of Mathematical Physics, 2011, vol. 52, 082202. (1.291 - IF2010). (2011 - Current Contents). ISSN 0022-2488.  
Citácie:  
1. [1.1] JENCOVA, Anna. Extremality conditions for generalized channels. In JOURNAL OF MATHEMATICAL PHYSICS. ISSN 0022-2488, 2012, vol. 53, no. 12, 122203., WOS  
2. [1.1] MODI, Kavan - BRODUTCH, Aharon - CABLE, Hugo - PATEREK, Tomasz - VEDRAL, Vlatko. The classical-quantum boundary for correlations: Discord and related measures. In REVIEWS OF MODERN PHYSICS. ISSN 0034-6861, 2012, vol. 84, no. 4, pp. 1655., WOS
- ADCA98 DACHRAOUI, H. - MICHELWIRTH, M. - ŠIFFALOVÍČ, Peter - BARTZ, P. - SCHAEFER, C. - SCHNATWINKEL, B. - MATTAY, J. - PHEIFFER, W. - DRESCHER, M. - HEINZMANN, U. Photoinduced reconfiguration cycle in a molecular adsorbate layer studied by femtosecond inner-shell photoelectron spectroscopy. In Physical Review Letters, 2011, vol. 106, no. 10, 107401. (7.622 - IF2010). (2011 - Current Contents, WOS, SCOPUS). ISSN 0031-9007.  
Citácie:  
1. [1.1] BOVENSIEPEN, Uwe - KIRCHMANN, Patrick S. Elementary relaxation processes investigated by femtosecond photoelectron spectroscopy of two-dimensional materials. In LASER & PHOTONICS REVIEWS. ISSN 1863-8880, 2012, vol. 6, no. 5, pp. 589., WOS
- ADCA99 DANIEL, A.V. - TER-AKOPIAN, G.M. - HAMILTON, J.H. - RAMAZZA, A.V. - KORMICKI, J. - POPEKO, G.S. - FOMICHEV, A.S. - RODIN, A.M. - OGANESSION, Y.T. - COLE, J.D. - HWANG, J.K. - LUO, Y.X. - FONG, D. - GORE, P. - JANDEL, Marián - KLIMAN, Ján - KRUPA, Ľuboš - RASMUSSEN, J.O. - WU, S.C. - LEE, I.Y. - STOYER, M.A. - DONANGELO, R. - GREINER, W. Ternary fission of Cf-252: 3368keV gamma radiation from Be-10 fragments. In Physical review C : nuclear physics, 2004, vol. 69, no. 4, 041305. (2.708 - IF2003). (2004 - Current Contents, SCOPUS). ISSN 0556-2813.  
Citácie:  
1. [1.1] RONEN, Y. In PHYSICA SCRIPTA, vol. 85, 2012, no. 6, 065203., WOS
- ADCA100 DANZER, J. - GATTRINGER, Ch. - LIPTÁK, Ľudovít - MARINKOVIC, M. A study of the sign problem for lattice QCD with chemical potential. In Physics Letters B, 2009, vol. 682, p. 240-245. (4.034 - IF2008). (2009 - Current Contents, WOS, SCOPUS). ISSN 0370-2693.  
Citácie:  
1. [1.1] ARMONI, A.-PATELLA, A. In PHYSICAL REVIEW D, 2012, vol. 85, 125021., WOS
- ADCA101 DE BOISSIEU, M. - FRANCOUAL, S. - MIHALKOVIČ, Marek - SHIBATA, K. - BARON, A.Q.R. - SIDIS, Y. - ISHIMASA, T. - WU, D. - LOGRASSO, T. - REGNAULT, L.-P. - GAHLER, F. - TSUTSUI, S. - HENNION, B. - BASTIE, P. - SATO, T.J. - TAKAKURA, H. - CURRAT, R. - TSAI, A.P. Lattice dynamics of the Zn-Mg-Sc icosahedral quasicrystal and its Zn-Sc periodic 1/1 approximant. In Nature Materials, 2007, vol. 6, no. 12, p. 977-984. (2007 - Current Contents). ISSN 1476-1122.  
Citácie:  
1. [1.1] JANSSEN, T. Fifty years of aperiodic crystals. In ACTA CRYSTALLOGRAPHICA SECTION A. ISSN 0108-7673, 2012, vol. 68, pp. 667., WOS

- ADCA102 DE MARTINI, F. - BUŽEK, Vladimír - SCIARRINO, F. Experimental realization of the quantum universal NOT gate. In *Nature*, 2002, vol. 419, no. 6909, p. 815-818. (2002 - Current Contents). ISSN 0028-0836.
- Citácie:
1. [1.1] BANG, Jeongho - LEE, Seung-Woo - JEONG, Hyunseok - LEE, Jinhyoung. Procedures for realizing an approximate universal-NOT gate. In *PHYSICAL REVIEW A*. ISSN 1050-2947, 2012, vol. 86, no. 6., WOS
  2. [1.1] BERTINI, Cesarino - LEPORINI, Roberto. LOGICS FROM QUANTUM COMPUTATION WITH BOUNDED ADDITIVE OPERATORS. In *INTERNATIONAL JOURNAL OF QUANTUM INFORMATION*. ISSN 0219-7499, 2012, vol. 10, no. 3, 1250036., WOS
  3. [1.1] MISHRA, Devendra Kumar. Unambiguous discrimination of two squeezed states using probabilistic quantum cloning. In *OPTICS COMMUNICATIONS*. ISSN 0030-4018, 2012, vol. 285, no. 6, pp. 1560., WOS
  4. [1.1] SABERI, Hamed - MARDOUKHI, Yousof. Sequential quantum cloning under real-life conditions. In *PHYSICAL REVIEW A*. ISSN 1050-2947, 2012, vol. 85, no. 5, 052323., WOS
- ADCA103 DE OLIVEIRA, F.A.M. - KIM, M.S. - KNIGHT, P.L. - BUŽEK, Vladimír. Properties of displaced number states. In *Physical Review A*, 1990, vol. 41, no. 5, p. 2645-2652. ISSN 1050-2947.
- Citácie:
1. [1.1] BUECKER, Robert - HOHENESTER, Ulrich - BERRADA, Tarik - VAN FRANK, Sandrine - PERRIN, Aurelien - MANZ, Stephanie - BETZ, Thomas - GROND, Julian - SCHUMM, Thorsten - SCHMIEDMAYER, Jorg. Dynamics of parametric matter-wave amplification. In *PHYSICAL REVIEW A*. ISSN 1050-2947, 2012, vol. 86, no. 1, 013638., WOS
  2. [1.1] GIORDA, Paolo - ALLEGRA, Michele - PARIS, Matteo G. A. Quantum discord for Gaussian states with non-Gaussian measurements. In *PHYSICAL REVIEW A*. ISSN 1050-2947, 2012, vol. 86, no. 5, 052328., WOS
  3. [1.1] LAIHO, Kaisa - AVENHAUS, Malte - SILBERHORN, Christine. Characteristics of displaced single photons attained via higher order factorial moments. In *NEW JOURNAL OF PHYSICS*. ISSN 1367-2630, 2012, vol. 14, 105011., WOS
  4. [1.1] LIAO, Jie-Qiao - CHEUNG, H. K. - LAW, C. K. Spectrum of single-photon emission and scattering in cavity optomechanics. In *PHYSICAL REVIEW A*. ISSN 1050-2947, 2012, vol. 85, no. 2, 025803., WOS
  5. [1.1] MATSUMOTO, Masao. SU(2) COHERENT STATE PATH INTEGRALS LABELED BY A FULL SET OF EULER ANGLES: BASIC FORMULATION. In *INTERNATIONAL JOURNAL OF MODERN PHYSICS B*. ISSN 0217-9792, 2012, vol. 26, no. 29, 1250143., WOS
  6. [1.1] MOYA-CESSA, Hector - SOTO-EGUIBAR, Francisco - VARGAS-MARTINEZ, Jose M. - JUAREZ-AMARO, Raul - ZUNIGA-SEGUNDO, Arturo. Ion-laser interactions: The most complete solution. In *PHYSICS REPORTS-REVIEW SECTION OF PHYSICS LETTERS*. ISSN 0370-1573, 2012, vol. 513, no. 5, pp. 229., WOS
  7. [1.1] YANG, L. P. - LI, Y. - SUN, C. P. Franck-Condon effect in central spin system. In *EUROPEAN PHYSICAL JOURNAL D*. ISSN 1434-6060, 2012, vol. 66, no. 11, 300., WOS
- ADCA104 DEL DEBBIO, L. - FABER, M. - OLEJNÍK, Štefan. Casimir scaling versus Abelian dominance in QCD string formation. In *Physical Review D*, 1996, vol. 53, no. 10, p. 5891-5897. ISSN 1550-7998.
- Citácie:

1. [1.1] CARDOSO, N. - CARDOSO, M. - BICUDO, P. Colour field flux tubes and Casimir scaling for various  $SU(3)$  representations. In *PHYSICS LETTERS B*. ISSN 0370-2693, 2012, vol. 710, no. 2, pp. 343-348., WOS
  2. [1.1] MYKKANEN, Anne - PANERO, Marco - RUMMUKAINEN, Kari. Casimir scaling and renormalization of Polyakov loops in large- $N$  gauge theories. In *JOURNAL OF HIGH ENERGY PHYSICS*. ISSN 1029-8479, 2012, no. 5, 069., WOS
- ADCA105 DEL DEBBIO, L. - FABER, M. - GREENSITE, J. - OLEJNÍK, Štefan. Center dominance and  $Z(2)$  vortices in  $SU(2)$  lattice gauge theory. In *Physical Review D*, 1997, vol. 55, no. 4, p. 2298-2306. ISSN 1550-7998.
- Citácie:
1. [1.1] DE LEMOS, A. L. L. - OXMAN, L. E. - TEIXEIRA, B. F. I. Derivation of an Abelian effective model for instanton chains in 3D Yang-Mills theory. In *PHYSICAL REVIEW D*. ISSN 1550-7998, 2012, vol. 85, no. 12, 125014., WOS
  2. [1.1] GONGYO, Shinya - IRITANI, Takumi - SUGANUMA, Hideo. Gauge-invariant formalism with a Dirac-mode expansion for confinement and chiral symmetry breaking. In *PHYSICAL REVIEW D*. ISSN 1550-7998, 2012, vol. 86, no. 3, 034510., WOS
  3. [1.1] IRITANI, T.-SUGANUMA, H. Lattice QCD analysis for Faddeev-Popov eigenmodes. In *PHYSICAL REVIEW D*, 2012, vol. 86, 074034., WOS
  4. [1.1] OSTRANDER, A. - SANTOPINTO, E. - SZCZEPANIAK, A. P. - VASSALLO, A. Gluon chain formation in presence of static charges. In *PHYSICAL REVIEW D*. ISSN 1550-7998, 2012, vol. 86, no. 11, 114015., WOS
  5. [1.1] O'MALLEY, E.-A.  $SU(3)$  centre vortices. In *PHYSICAL REVIEW D*, 2012, vol. 86, 054503., WOS
  6. [1.1] ZIMMERMANN, F.-FORKEL, H.-MULLER-PREUSSKER, M. Vacuum structure and string tension in Yang-Mills dimeron ensembles. In *PHYSICAL REVIEW D*, 2012, vol. 86, 094005., WOS
  7. [3] CHERNODUB, M.N. In *PREPRINT HEP-PH/ 1212.3168*, 2012.
  8. [3] ZUBKOV, M.A. In *PREPRINT DOCTORAL THESIS (ITEP, Moscow), HEP-PH/ 1207.4619*, 2012.
- ADCA106 DEL DEBBIO, L. - FABER, M. - GIEDT, J. - GREENSITE, J. - OLEJNÍK, Štefan. Detection of center vortices in the lattice Yang-Mills vacuum. In *Physical Review D*, 1998, vol. 58, no. 9, 094501. ISSN 1550-7998.
- Citácie:
1. [1.1] LANGFELD, Kurt - WIPF, Andreas. Fermi-Einstein condensation in dense QCD-like theories. In *ANNALS OF PHYSICS*. ISSN 0003-4916, 2012, vol. 327, no. 4, pp. 994., WOS
  2. [1.1] O'MALLEY, E.-A.  $SU(3)$  center vortices underpoin confinement. In *PHYSICAL REVIEW D*, 2012, vol. 86, no. 5, 054503., WOS
  3. [1.1] ZIMMERMANN, Falk - FORKEL, Hilmar - MUELLER-PREUSSKER, Michael. Vacuum structure and string tension in Yang-Mills dimeron ensembles. In *PHYSICAL REVIEW D*. ISSN 1550-7998, 2012, vol. 86, no. 9, 094005., WOS
  4. [3] CHERNODUB, M.N. In *PREPRINT HEP-PH/ 1212.3168*, 2012.
  5. [3] ZUBKOV, M.A. In *PREPRINT DOCTORAL THESIS (ITEP, Moscow), HEP-PH/ 1207.4619*, 2012.
- ADCA107 DEL DEBBIO, L. - FABER, M. - GREENSITE, J. - OLEJNÍK, Štefan. Center vortices and the asymptotic string tension. In *Nuclear Physics B - Proceedings Supplements*, 1998, vol. 63, p. 552-554. ISSN 0920-5632.
- Citácie:
1. [3] ZUBKOV, M.A. In *PREPRINT DOCTORAL THESIS (ITEP, Moscow), HEP-PH/ 1207.4619*, 2012.



- ADCA108 DENIOZOU, Th. - ADDOU, R. - SHUKLA, A.K. - HEGGEN, M. - FEUERBACHER, M. - KRAJČÍ, Marián - HAFNER, J. - WIDMER, R. - GRONING, O. - FOURNÉE, V. - DUBOIS, J.-M. - LEDIEU, J. Structure of the (010) surface of the orthorhombic complex metallic alloy T-Al<sub>3</sub>(Mn, Pd). In *Physical Review B*, 2010, vol. 81, 125418. (3.475 - IF2009). (2010 - Current Contents, WOS, SCOPUS). ISSN 1098-0121.
- Citácie:
1. [1.1] DUGUET, T. *Chemical contrast in STM. In PROGRESS IN SURFACE SCIENCE*, vol. 87, 2012, p. 47., WOS
- ADCA109 DERKA, R. - BUŽEK, Vladimír - EKERT, A.K. Universal algorithm for optimal estimation of quantum states from finite ensembles via realizable generalized measurement. In *Physical Review Letters*, 1998, vol. 80, no. 8, p. 1571-1575. (6.140 - IF1997). (1998 - Current Contents, WOS, SCOPUS). ISSN 0031-9007.
- Citácie:
1. [1.1] AVILA AOKI, Manuel. *Optimal Estimate of a Pure Qubit State from Uhlmann-Josza Fidelity. In BRAZILIAN JOURNAL OF PHYSICS*. ISSN 0103-9733, 2012, vol. 42, no. 1-2, pp. 1., WOS
2. [1.1] CHIRIBELLA, Giulio. *Optimal networks for quantum metrology: semidefinite programs and product rules. In NEW JOURNAL OF PHYSICS*. ISSN 1367-2630, 2012, vol. 14, 125008., WOS
3. [1.1] DE MARTINI, Francesco - SCIARRINO, Fabio. *Colloquium: Multiparticle quantum superpositions and the quantum-to-classical transition. In REVIEWS OF MODERN PHYSICS*. ISSN 0034-6861, 2012, vol. 84, no. 4, pp. 1765., WOS
4. [1.1] GENDRA, B. *Beating noise with abstention in state estimation. In NEW JOURNAL OF PHYSICS*, 2012, vol. 14, 105015., WOS
5. [1.1] HAO, Sheng-Bin - YU, Bo. *Multiparty Quantum Secret Information Sharing in Enterprise Management Based on Single Qubit with Random Rotation Angle. In INTERNATIONAL JOURNAL OF THEORETICAL PHYSICS*. ISSN 0020-7748, 2012, vol. 51, no. 6, pp. 1674., WOS
6. [1.1] MULLAN, Michael - KNILL, Emanuel. *IMPROVING QUANTUM CLOCKS VIA SEMIDEFINITE PROGRAMMING. In QUANTUM INFORMATION & COMPUTATION*. ISSN 1533-7146, 2012, vol. 12, no. 7-8, pp. 553., WOS
7. [1.1] SENTIS, G. - CALSAMIGLIA, J. - MUNOZ-TAPIA, R. - BAGAN, E. *Quantum learning without quantum memory. In SCIENTIFIC REPORTS*. ISSN 2045-2322, 2012, vol. 2, 708., WOS
8. [1.1] SEYFARTH, U. - NIKOLOPOULOS, G. M. - ALBER, G. *Symmetries and security of a quantum-public-key encryption based on single-qubit rotations. In PHYSICAL REVIEW A*. ISSN 1050-2947, 2012, vol. 85, no. 2, 022342., WOS
9. [1.1] TANAKA, Fuyuhiko. *Noninformative prior in the quantum statistical model of pure states. In PHYSICAL REVIEW A*. ISSN 1050-2947, 2012, vol. 85, no. 6, 062305., WOS
- ADCA110 DI GIACOMO, A. - MAGGIORE, M. - OLEJNÍK, Štefan. Confinement and chromoelectric flux tubes in lattice qcd. In *Nuclear Physics B*, 1990, vol. 347, no. 1-2, p. 441-460. ISSN 0550-3213.
- Citácie:
1. [1.1] CARDOSO, N. - CARDOSO, M. - BICUDO, P. *Colour field flux tubes and Casimir scaling for various SU(3) representations. In PHYSICS LETTERS B*. ISSN 0370-2693, 2012, vol. 710, no. 2, pp. 343., WOS
2. [1.1] CEA, Paolo - COSMAI, Leonardo - PAPA, Alessandro. *Chromoelectric flux tubes and coherence length in QCD. In PHYSICAL REVIEW D*. ISSN

- 1550-7998, 2012, vol. 86, no. 5, 054501., WOS
3. [1.1] ZIMMERMANN, Falk - FORKEL, Hilmar - MUELLER-PREUSSKER, Michael. Vacuum structure and string tension in Yang-Mills dimeron ensembles. In PHYSICAL REVIEW D. ISSN 1550-7998, 2012, vol. 86, no. 9, 094005., WOS
4. [3] SHIBATA, A. - KONDO, K.I.- SEIKOU KATO. Gluon propagators in the deep IR region. In LATTICE 2012 (PROCEEDINGS OF SCIENCE- LATTICE 2012), p. 215.
- ADCA111 DI GIACOMO, A. - MAGGIORE, M. - OLEJNÍK, Štefan. Evidence for flux tubes from cooled QCD configurations. In Physics Letters B, 1990, vol. 236, no. 2, p. 199-202. ISSN 0370-2693.
- Citácie:
1. [1.1] CARDOSO, N. - CARDOSO, M. - BICUDO, P. Colour field flux tubes and Casimir scaling for various SU(3) representations. In PHYSICS LETTERS B. ISSN 0370-2693, 2012, vol. 710, no. 2, pp. 343., WOS
2. [1.1] CEA, Paolo - COSMAI, Leonardo - PAPA, Alessandro. Chromoelectric flux tubes and coherence length in QCD. In PHYSICAL REVIEW D. ISSN 1550-7998, 2012, vol. 86, no. 5, 054501., WOS
3. [3] Akihiro Shibata- Kei-Ichi Kondo- Seikou Kato. Gluon propagators in the IR region. In LATTICE 2012 (PROCEEDINGS OF SCIENCE-SISSA 2012), p. 215.
- ADCA112 DIESKA, Peter - ŠTICH, Ivan. Nanoengineering with dynamic atomic force microscopy: Lateral interchange of adatoms on a Ge(111)-c(2x8) surface. In Physical Review B, 2009, vol. 79, no. 12, 125431. ISSN 1098-0121.
- Citácie:
1. [1.1] RIBAS-ARINO, Jordi - MARX, Dominik. Covalent Mechanochemistry: Theoretical Concepts and Computational Tools with Applications to Molecular Nanomechanics. In CHEMICAL REVIEWS. ISSN 0009-2665, 2012, vol. 112, no. 10, pp. 5412., WOS
- ADCA113 DOBEŠ, J. - BĚTÁK, Emil. Two-component exciton model. In Zeitschrift für Physik A. Hadrons and nuclei, 1983, vol. 310, p. 329-338. ISSN 0939-7922.
- Citácie:
1. [1.2] JOSEPH JEREMIAH, J. - SUCHIANG, D. - JYRWA, B.M. Excitation functions and isotopic effects in (n,p) reactions for stable iron isotopes from reaction threshold to 20 MeV. In Annals of Nuclear Energy, 2012, 43, pp. 208-212., SCOPUS
2. [1.2] KONING, A.J. - ROCHMAN, D. Modern Nuclear Data Evaluation with the TALYS Code System. In Nuclear Data Sheets, 2012, 113, 12, pp. 2927-2934., SCOPUS
3. [1.2] VOGT, R. - RANDRUP, J. - BROWN, D.A. - DESCALLE, M.A. - ORMAND, W.E. Event-by-event evaluation of the prompt fission neutron spectrum from  $^{239}\text{Pu}(n,f)$ . In Physical Review C Nuclear Physics, 2012, 85, 2, 024608., SCOPUS
- ADCA114 DOBEŠ, J. - BĚTÁK, Emil. A statistical derivation of the density of final states for the exciton model. In Nuclear Physics A, 1976, vol. 272, p. 353-364. ISSN 0375-9474.
- Citácie:
1. [1.1] TEL, E.- KARA, A. In JOURNAL FUS. ENERGY, 2012, vol. 31, p. 257., WOS
2. [1.1] VARLAMOV, V.V.-ISHKHANOV, B.S.-ORLIN, V.N. In PHYSICS OF ATOMIC NUCLEI, 2012, vol. 75, p. 1339., WOS
- ADCA115 DÓZSA, L. - LÁNYI, Štefan - RAINERI, V. - GIANNAZZO, F. - GALKIN, N.G. Microscopic study of electrical properties of CrSi<sub>2</sub> nanocrystals in silicon. In Nanoscale Research Letters, 2011, vol. 6, no. 1, 209. ISSN 1556-276X.

Citácie:

1. [1.1] GALKIN, N. G. - CHUSOVITIN, E. A. - GALKIN, K. N. - GOROSHKO, D. L. - SHAMIRSAEV, T. S. - LENG, J - BARCOHEN, Y - LEE - LU, J. Approach to a creation of silicon silicide smart materials for silicon based thermoelectronics and photonics. In *THIRD INTERNATIONAL CONFERENCE ON SMART MATERIALS AND NANOTECHNOLOGY IN ENGINEERING*. ISSN 0277-786X, 2012, vol. 8409, no. 84091W., WOS

- ADCA116 DROBNÝ, Gabriel - HAVUKAINEN, M. - BUŽEK, Vladimír. Stimulated Emission via quantum Interference: Scattering of one-photon. In *Journal of Modern Optics*, 2000, vol. 47, p. 851-860. (1.475 - IF1999). ISSN 0950-0340.

Citácie:

1. [1.1] BARAGIOLA, Ben Q. - COOK, Robert L. - BRANCZYK, Agata M. - COMBES, Joshua. N-photon wave packets interacting with an arbitrary quantum system. In *PHYSICAL REVIEW A*. ISSN 1050-2947, 2012, vol. 86, no. 1, 013811., WOS

2. [1.1] ELYUTIN, P. V. Interaction of a single-photon wave packet with an excited atom. In *PHYSICAL REVIEW A*. ISSN 1050-2947, 2012, vol. 85, no. 3, 033816., WOS

- ADCA117 DROBNÝ, Gabriel - JEX, I. - BUŽEK, Vladimír. Mode entanglement in nondegenerate down-conversion with quantized pump. In *Physical Review A*, 1993, vol. 48, no. 1, p. 569-579. ISSN 1050-2947.

Citácie:

1. [1.1] SEN, Biswajit - MANDAL, Swapan - PERINA, Jan. Squeezing and photon antibunching in second harmonic generation: an analytical approach. In *JOURNAL OF MODERN OPTICS*. ISSN 0950-0340, 2012, vol. 59, no. 6, pp. 555., WOS

- ADCA118 DROBNÝ, Gabriel - BUŽEK, Vladimír. Fundamental limit on energy- transfer in kappa-photon down-conversion. In *Physical Review A*, 1994, vol. 50, no. 4, p. 3492-3499. ISSN 1050-2947.

Citácie:

1. [1.1] SEN, Biswajit - MANDAL, Swapan - PERINA, Jan. Squeezing and photon antibunching in second harmonic generation: an analytical approach. In *JOURNAL OF MODERN OPTICS*. ISSN 0950-0340, 2012, vol. 59, no. 6, pp. 555., WOS

- ADCA119 DROBNÝ, Gabriel - HLADKY, B. - BUŽEK, Vladimír. Quantum-state synthesis of multimode bosonic fields: Preparation of arbitrary states of two-dimensional vibrational motion of trapped ions. In *Physical Review A*, 1998, vol. 58, no. 3, p. 2481-2487. ISSN 1050-2947.

Citácie:

1. [1.1] STRAUCH, Frederick W. - ONYANGO, Douglas - JACOBS, Kurt - SIMMONDS, Raymond W. Entangled-state synthesis for superconducting resonators. In *PHYSICAL REVIEW A*. ISSN 1050-2947, 2012, vol. 85, no. 2, 022335., WOS

- ADCA120 DUBECKÝ, Matúš - DERIAN, René - MITAS, L. - ŠTICH, Ivan. Ground and excited electronic states of azobenzene: A quantum Monte Carlo study. In *Journal of Chemical Physics*, 2010, vol. 133, no. 24, 244301. (3.093 - IF2009). (2010 - Current Contents). ISSN 0021-9606.

Citácie:

1. [1.1] AUSTIN, Brian M. - ZUBAREV, Dmitry Yu. - LESTER, William A. Quantum Monte Carlo and Related Approaches. In *CHEMICAL REVIEWS*, 2012, vol. 112, no.1, p. 263-288., WOS

2. [1.1] FRACCHIA, F. - AMOVILLI, C. On the accuracy of pseudopotentials

- designed for QMC calculations on molecules of the first row atoms. In CHEMICAL PHYSICS LETTERS, 2012, vol.521,p. 20-25., WOS*
3. [1.1] ZUBAREV, Dmitry Yu. - AUSTIN, Brian M. - LESTER, William A. Quantum Monte Carlo for the x-ray absorption spectrum of pyrrole at the nitrogen K-edge. In JOURNAL OF CHEMICAL PHYSICS, 2012, vol.136, no.14, 144301., WOS
- ADCA121 DUBNIČKA, Stanislav - DUBNIČKOVÁ, A.Z. - IVANOV, M.A. - KORNER, J.G. - SANTORELLI, P. - SAIDULLAEVA, G.G. One-photon decay of the tetraquark state  $X(3872) \rightarrow \gamma + J/\psi$  in a relativistic constituent quark model with infrared confinement. In Physical Review D, 2011, vol. 84, nO. 1, 014006. (4.964 - IF2010). (2011 - Current Contents). ISSN 1550-7998.  
Citácie:  
*1. [1.1] ACETI, F.  $X(3872) \rightarrow J/\psi$  gamma decay. In PHYSICAL REVIEW D, 2012, vol. 86, 113007., WOS*
- ADCA122 DUBNIČKA, Stanislav. Analysis of nucleon form-factor data reveals the  $e^+e^- \rightarrow \pi^0 \pi^0$  cross- section to be remarkably larger than the  $e^+e^- \rightarrow \rho^0 \rho^0$  one. In Nuovo Cimento A, 1988, vol. 100, no. 1, p. 1-24. ISSN 0369-3546.  
Citácie:  
*1. [1.1] FERROLI R.BALDINI-PACETTI, S.-ZALLO, A. : No sommerfeld resummation factor. In EUROPEAN PHYSICAL JOURNAL, 2012, vol. 48, no. 3, 33. A, WOS*  
*2. [1.1] KISWANDHI, A.-YANG SHIN NAN: Analysis of the near-threshold peak structure in differential cross section of phi-meson photoproduction. In PHYSICAL REVIEW C, 2012, VOL. 86, 015203., WOS*
- ADCA123 DUBNIČKOVÁ, A.Z. - DUBNIČKA, Stanislav - REKALO, M.P. Investigation of the baryon electromagnetic structure by polarization effect in  $e^+e^- \rightarrow B(B)$  over-bar processes. In Nuovo Cimento della Societa Italiana di Fisica A, 1996, vol. 109, no. 3, p. 241-156. ISSN 0369-3546.  
Citácie:  
*1. [1.1] FERROLI, R. Baldini - PACETTI, S. - ZALLO, A. No Sommerfeld resummation factor in  $e^+e^- \rightarrow p(p)$  over-bar? In EUROPEAN PHYSICAL JOURNAL A. ISSN 1434-6001, 2012, vol. 48, no. 3., WOS*
- ADCA124 DUBNIČKOVÁ, A.Z. - DUBNIČKA, Stanislav - REKALO, M.P. Investigation of nucleon electromagnetic form factors in the unphysical region by means of the  $(N)$  over-bar- $N \rightarrow \pi^1(+)(-)$  reactions. In Zeitschrift fur Physik C, 1996, vol. 70, no. 3, p. 473-481. ISSN 1431-5858.  
Citácie:  
*1. [1.1] GAKH, G.I. General analysis and numerical estimations. In PHYSICAL REVIEW C, 2012, vol. 86, no. 2, 025204., WOS*  
*2. [1.1] KURAEV, E.A. Annihilation of  $(p)$  over-bar + p. In JOURNAL OF EXPERIMENTAL AND THEORETICAL PHYSICS, 2012, vol. 115, p. 93-104., WOS*
- ADCA125 DUCRET, J.-E. - LEGOU, P. - LUKASIK, J. - BOUDARD, A. - COMBET, M. - CZECH, B. - DURAND, R. - GORBINET, T. - LE BOURLOUT, P. - LERAY, M. - MATOUŠEK, Vladislav - NIZERY, F. - PAWLOWSKI, P. - SALSAC, M.-D. - YORDANOV, O. Heavy-ion test of detectors with conventional and resistive Micromegas used in TPC configuration. In Nuclear Instruments and Methods in Physics Research A, 2011, vol. 628, no. 1, p. 166-171. (1.142 - IF2010). (2011 - Current Contents). ISSN 0168-9002.  
Citácie:  
*1. [1.1] ALEXOPOULOS, T. - CERUTTI, F. - CHARITONIDIS, N. - GAZIS, E. - KOKKORIS, M. - SKORDIS, E. - TSINGANIS, A. - TSIPOLITIS, G. - VLASTOU,*



- R. Experimental study and FLUKA simulations of a prototype micromegas chamber in a mixed neutron and photon radiation field. In NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION A-ACCELERATORS SPECTROMETERS DETECTORS AND ASSOCIATED EQUIPMENT. ISSN 0168-9002, 2012, vol. 677, pp. 52-60., WOS*
- ADCA126 DUHAJ, Pavol - ŠVEC, Peter - MAJKOVÁ, Eva - BOHÁČ, Vlastimil - MAŤKO, Igor. The study of phase-transitions in amorphous bilayers prepared by rapid quenching. In Materials Science and Engineering A - Structural Materials Properties Microstructure and Processing, 1991, vol. 133, p. 662-666. (1991 - Current Contents, SCOPUS). ISSN 0921-5093.
- Citácie:  
 1. [1.1] *IMAMURA, Daisuke - TODAKA, Takashi - ENOKIZONO, Masato - MAMALIS, AG - KLADAS, A - ENOKIZONO, M. Fe-Mn-Si/6.5wt%Si-Fe Bilayer Ribbons produced by using Melt Spinning Technique. In APPLIED ELECTROMAGNETIC ENGINEERING FOR MAGNETIC, SUPERCONDUCTING AND NANO MATERIALS. ISSN 0255-5476, 2012, vol. 721, pp. 53-58., WOS*
- ADCA127 DURNÝ, R. - PINČÍK, Emil - NÁDAŽDY, Vojtech - JERGEL, Matej - SHIMIZU, J. - KUMEDA, M - SHIMIZU, T. Very thin insulating layer formed by low-energy Ar-beam bombardment. In Applied Physics Letters, 2000, vol. 77, no. 12, p. 1783-1785. (4.184 - IF1999). (2000 - Current Contents, SCOPUS). ISSN 0003-6951.
- Citácie:  
 1. [1.1] *DEMAUREX, Benedicte - DE WOLF, Stefaan - DESCOEUDRES, Antoine - HOLMAN, Zachary Charles - BALLIF, Christophe. Damage at hydrogenated amorphous/crystalline silicon interfaces by indium tin oxide overlayer sputtering. In APPLIED PHYSICS LETTERS. ISSN 0003-6951, 2012, vol. 101, no. 17, 171604., WOS*
- ADCA128 DUŠEK, M. - BUŽEK, Vladimír. Quantum-controlled measurement device for quantum-state discrimination. In Physical Review A, 2002, vol. 66, no. 2, 022112. ISSN 1050-2947.
- Citácie:  
 1. [1.1] *SENTIS, G. - CALSAMIGLIA, J. - MUNOZ-TAPIA, R. - BAGAN, E. Quantum learning without quantum memory. In SCIENTIFIC REPORTS. ISSN 2045-2322, 2012, vol. 2, 708., WOS*  
 2. [1.1] *ZHOU, Tao - CUI, Jing Xin - WU, Xiaohua - LONG, Gui Lu. MULTICOPY PROGRAMMABLE DISCRIMINATORS BETWEEN TWO UNKNOWN QUBIT STATES WITH GROUP-THEORETIC APPROACH. In QUANTUM INFORMATION & COMPUTATION. ISSN 1533-7146, 2012, vol. 12, no. 11-12, pp. 1017., WOS*  
 3. [1.1] *ZHOU, Tao. Unambiguous discrimination between two unknown qudit states. In QUANTUM INFORMATION PROCESSING. ISSN 1570-0755, 2012, vol. 11, no. 6, pp. 1669., WOS*
- ADCA129 D'ANNA, E. - LUBY, Štefan - LUCHES, A. - MAJKOVÁ, Eva - MARTINO, M. Processing of w/si and si/w bilayers and multilayers with single and multiple excimer-laser pulses. In Applied Physics A: Materials Science & Processing, 1993, vol. 56, no. 5, p. 429-436. ISSN 0947-8396.
- Citácie:  
 1. [1.1] *BAO LING-DONG - HAN JING-HUA - DUAN TAO - SUN NIAN-CHUN - GAO XIANG - FENG GUO-YING - YANG LI-MING - NIU RUI-HUA - LIU QUAN-XI. Investigation of thermodynamic progress of silicon ablated by nanosecond uv repetitive pulse laser. In ACTA PHYSICA SINICA. ISSN 1000-3290, 2012, vol. 61, no. 19, 197901., WOS*

2. [1.1] *LIU, G. L. - HUANG, Z. R. - WU, J. H. - LIU, X. J. Surface morphology evolution and properties of silicon coating on silicon carbide ceramics by advanced plasma source ion plating. In SURFACE & COATINGS TECHNOLOGY. ISSN 0257-8972, 2012, vol. 207, pp. 204-210., WOS*
- ADCA130 ELSEVIERS, J. - ANDREYEV, A.N. - ANTALIC, S. - BARZAKH, A. - BREE, N. - COCOLIOS, T.E. - COMAS, V.F. - DIRIKEN, J. - FEDOROV, D. - FEDOSSEYEV, V.N. - FRANCHOO, S. - HEREDIA, J.A. - HUYSE, M. - IVANOV, O. - KOSTER, U. - MARSH, B.A. - PAGE, R.D. - PATRONIS, N. - SELIVERSTOV, M. - TSEKHANOVICH, I. - VAN DEN BERGH, P. - VAN DEWALLE, J. - VAN DUPPEN, P. - VENHART, Martin - VERMOTE, S. - VESELSKÝ, Martin - WAGEMANS, C. Shape coexistence in 180Hg studied through the decay of 180Tl. In Physical Review C, 2011, vol. 84, 034307. (3.416 - IF2010). (2011 - Current Contents). ISSN 0556-2813.
- Citácie:
1. [1.1] *BHAAT, G.H. Traxial projected shell model study. In PHYSICAL REVIEW C, 2012, vol. 86, 047307., WOS*
2. [1.1] *QIAN, Y.-REN, Z. Shape probe of Hg. In JOURNAL OF PHYSICS G, 2012, vol. 39, no. 11, 115106., WOS*
- ADCA131 FABER, M. - GREENSITE, J. - OLEJNÍK, Štefan. Casimir scaling from center vortices: Towards and understanding of the adjoint string tension. In Physical Review D, 1998, vol. 57, no. 4, p. 2603-2609. ISSN 1550-7998.
- Citácie:
1. [1.1] *DELDAR, S. Confinement in G(2) gauge theories. In PHYSICAL REVIEW D, 2012, vol. 85, no. 5, 054501., WOS*
2. [1.1] *MYKKANEN, A. Casimir scaling and renormalization of Polyakov loops. In JOURNAL OF HIGH ENERGY PHYSICS, 2012, no. 5, 069., WOS*
3. [1.1] *ZIMMERMANN, F. Vacuum structure and string tension in Yang-Mills dimeron ensembles. In PHYSICAL REVIEW D, 2012, vol. 86, no. 9, 094005., WOS*
- ADCA132 FABER, M. - GREENSITE, J. - OLEJNÍK, Štefan. Center projection with and without gauge fixing. In Journal of High Energy Physics, 1999, no. 01, 008. ISSN 1126-6708.
- Citácie:
1. [3] *ZUBKOV, M.A. In PREPRINT DOCTORAL THESIS (ITEP, Moscow), HEP-PH/ 1207.4619, 2012.*
- ADCA133 FABER, M. - MARKUM, H. - OLEJNÍK, Štefan - SAKULER, W. Topological charge-density around static color sources in lattice QCD with dynamical quarks. In Nuclear Physics B - Proceedings Supplements, 1995, vol. 42, p. 487-489. ISSN 0920-5632.
- Citácie:
1. [1.1] *REINHARDT, H. - WEIGEL, H. Vacuum nature of the QCD condensates. In PHYSICAL REVIEW D. ISSN 1550-7998, 2012, vol. 85, no. 7, 074029., WOS*
2. [1.1] *ZIMMERMANN, F.-FORKEL, H.- MULLER-PREUSSKER, M. Vacuum structure and string tension in Yang-Mills dimeron ensembles. In PHYSICAL REVIEW D, 2012, vol. 86, 094005., WOS*
- ADCA134 FARHI, E. - GOSSET, D. - HASSIDIM, A. - LUTOMIRSKI, A. - NAGAJ, Daniel - SHOR, P. Quantum state restoration and single-copy tomography for ground states of Hamiltonians. In Physical Review Letters, 2010, vol. 105, no. 19, 190503. (7.328 - IF2009). (2010 - Current Contents, WOS, SCOPUS). ISSN 0031-9007.
- Citácie:
1. [1.1] *PASTAWSKI, Fernando - YAO, Norman Y. - JIANG, Liang - LUKIN, Mikhail D. - CIRAC, J. Ignacio. Unforgeable noise-tolerant quantum tokens. In*

*PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA. ISSN 0027-8424, 2012, vol. 109, no. 40, pp. 16079., WOS*

- ADCA135 FELDMAN, E. - HILLERY, M. - LEE, H.-W. - REITZNER, Daniel - ZHENG, H. - BUŽEK, Vladimír. Finding structural anomalies in graphs by means of quantum walks. In *Physical Review A*, 2010, vol. 82, no. 4, 040301 R. (2.866 - IF2009). (2010 - Current Contents). ISSN 1050-2947.
- Citácie:
1. [1.1] *ANISHCHENKO, Anastasiia - BLUMEN, Alexander - MUELKEN, Oliver. Enhancing the spreading of quantum walks on star graphs by additional bonds. In QUANTUM INFORMATION PROCESSING. ISSN 1570-0755, 2012, vol. 11, no. 5, pp. 1273., WOS*
  2. [1.1] *ELIAS VENEGAS-ANDRACA, Salvador. Quantum walks: a comprehensive review. In QUANTUM INFORMATION PROCESSING. ISSN 1570-0755, 2012, vol. 11, no. 5, pp. 1015., WOS*
  3. [1.1] *IONICIOIU, Radu - SPILLER, Tim P. Encoding graphs into quantum states: An axiomatic approach. In PHYSICAL REVIEW A. ISSN 1050-2947, 2012, vol. 85, no. 6, 062313., WOS*
- ADCA136 FERNANDEZ, J.F. - WIDOM, M. - CUEVAS, F. - ARES, J.R. - BODEGA, J. - LEARDINI, F. - MIHALKOVIČ, Marek - SANCHEZ, C. First-principles phase stability calculations and estimation of finite temperature effects on pseudo-binary Mg(6)Pd(x)Ni(1-x). In *Intermetallics*, 2011, vol. 19, no. 4, p. 502-510. (2.335 - IF2010). (2011 - Current Contents, WOS, SCOPUS). ISSN 0966-9795.
- Citácie:
1. [1.1] *DING, H. Effect of nonmetal element. In INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, vol. 37, 2012, no. 8, p. 6700-6713., WOS*
- ADCA137 FEUERBACHER, M. - THOMAS, C. - MAKONGO, J.P.A. - HOFFMANN, S. - CARRILLO-CABRERA, W. - CARDOSO, R. - GRIN, Y. - KREINER, G. - JOUBERT, J.M. - SCHENK, T. - GASTALDI, J. - NGUYEN-THI, H. - MANGELINCK-NOEL, N. - BILLIA, B. - DONNADIEU, P. - CZYRSKA-FILEMONOWICZ, A. - ZIELINSKA-LIPIEC, A. - DUBIEL, B. - WEBER, T. - SCHAUB, P. - KRAUSS, G. - GRAMLICH, V. - CHRISTENSEN, J. - LLIDIN, S. - FREDERICKSON, D. - MIHALKOVIČ, Marek - SIKORA, W. - MALINOWSKI, J. - BRUHNE, S. - PROFFEN, T. - ASSMUS, W. - DE BOISSIEU, M. - BLEY, F. The samson phase, beta-Mg<sub>2</sub>Al<sub>3</sub>, revisited. In *Zeitschrift für Kristallographie*, 2007, vol. 222, no. 6, p. 259-288. ISSN 0044-2968.
- Citácie:
1. [1.1] *BAUER, E. - ROGL, P. - BAUER, E - SIGRIST, M. Non-centrosymmetric Superconductors: Strong vs. Weak Electronic Correlations. In NON-CENTROSYMMETRIC SUPERCONDUCTORS: INTRODUCTION AND OVERVIEW. ISSN 0075-8450, 2012, vol. 847, pp. 3-33., WOS*
  2. [1.1] *BERNSTEIN, Noam - GOSWAMI, Ramasis - HOLTZ, Ronald L. Surface and Interface Energies of Complex Crystal Structure Aluminum Magnesium Alloys. In METALLURGICAL AND MATERIALS TRANSACTIONS A-PHYSICAL METALLURGY AND MATERIALS SCIENCE. ISSN 1073-5623, 2012, vol. 43A, no. 6, pp. 2166., WOS*
  3. [1.1] *BLATOV, V. A. - ILYUSHIN, G. D. New icosahedral nanoclusters in crystal structures of intermetallic compounds: Topological types of 50-atom deltahedra D50 in samson phases beta-Mg<sub>2</sub>Al<sub>3</sub> and epsilon-Mg<sub>23</sub>Al<sub>30</sub>. In CRYSTALLOGRAPHY REPORTS. ISSN 1063-7745, 2012, vol. 57, no. 7, pp. 885., WOS*
  4. [1.1] *BLATOV, V. A. Nanocluster analysis of intermetallic structures with the*

- program package TOPOS. In STRUCTURAL CHEMISTRY. ISSN 1040-0400, 2012, vol. 23, no. 4, pp. 955., WOS*
5. [1.1] DUBOIS, Jean-Marie. *Properties- and applications of quasicrystals and complex metallic alloys. In CHEMICAL SOCIETY REVIEWS. ISSN 0306-0012, 2012, vol. 41, no. 20, pp. 6760., WOS*
6. [1.1] ILYUSHIN, G. D. *Theory of cluster self-organization of crystal-forming systems: geometrical-topological modeling of nanocluster precursors with a hierarchical structure. In STRUCTURAL CHEMISTRY. ISSN 1040-0400, 2012, vol. 23, no. 4, pp. 997., WOS*
7. [1.1] LOA, I. - NELMES, R. J. - LUNDEGAARD, L. F. - MCMAHON, M. I. *Extraordinarily complex crystal structure with mesoscopic patterning in barium at high pressure. In NATURE MATERIALS. ISSN 1476-1122, 2012, vol. 11, no. 7, pp. 627., WOS*
8. [1.1] MIZUTANI, U. - INUKAI, M. - SATO, H. - ZIJLSTRA, E. S. *Hume-Rothery stabilization mechanism and e/a determination for RT- and MI-type 1/1-1/1-1/1 approximants studied by FLAPW-Fourier analyses. In CHEMICAL SOCIETY REVIEWS. ISSN 0306-0012, 2012, vol. 41, no. 20, pp. 6799., WOS*
9. [1.1] PANTELI, A. - ROBSON, J. D. - BROUGH, I. - PRANGNELL, P. B. *The effect of high strain rate deformation on intermetallic reaction during ultrasonic welding aluminium to magnesium. In MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES MICROSTRUCTURE AND PROCESSING. ISSN 0921-5093, 2012, vol. 556, pp. 31-42., WOS*
10. [1.1] SHIN, Dongwon - WOLVERTON, Christopher. *The effect of native point defect thermodynamics on off-stoichiometry in beta-Mg<sub>17</sub>Al<sub>12</sub>. In ACTA MATERIALIA. ISSN 1359-6454, 2012, vol. 60, no. 13-14, pp. 5135., WOS*
- ADCA138 FILIP, Peter - LEDNICKY, R. - MASUI, H. - XU, N. *Initial eccentricity in deformed 197 Au+197 Au and 238 U +238 U collisions at odnocišna SNN=200 GeV at the BNL relativistic heavy ion collider. In Physical Review C, 2009, vol. 80, no. 5, 054903. (3.124 - IF2008). (2009 - Current Contents, SCOPUS). ISSN 0556-2813.*  
*Citácie:*  
 1. [1.1] HAQUE, R.-LIN, Z.-W.- MOHANTY B. *In PHYSICAL REVIEW C, 2012, vol. 85, 021902., WOS*  
 2. [1.1] XU, J.-MARTINOT, Z.- LI, B.-A. *In PHYSICAL REVIEW C, 2012, vol. 86. 044623., WOS*
- ADCA139 FILIPPOV, S.N. - RYBÁR, Tomáš - ZIMAN, Mário. *Local two-qubit entanglement-annihilating channels. In Physical Review A, 2012, vol. 85, no. 1, 012303. (2.878 - IF2011). (2012 - Current Contents). ISSN 1050-2947.*  
*Citácie:*  
 1. [1.1] DE PASQUALE, A. - GIOVANNETTI, V. *Quantifying the noise of a quantum channel by noise addition. In PHYSICAL REVIEW A. ISSN 1050-2947, 2012, vol. 86, no. 5, 052302., WOS*
- ADCA140 FLINT, S.D. - HARTMANOVÁ, Mária - JONES, J.S. - SLADE, R.C.T. *Microstructure of Ca-doped barium cerate electrolytes BaCe<sub>1-x</sub>CaO<sub>3</sub>-alpha (x=0, 0.02, 0.05, 0.15). In Solid State Ionics : Diffusion and Reactions, 1996, vol. 86-8, p. 679-683. (1996 - Current Contents). ISSN 0167-2738.*  
*Citácie:*  
 1. [1.1] JIMENEZ-MELENDO, M. *In FUEL PROCESSING TECHNOLOGY, 2012, vol. 103, p. 146-150., WOS*
- ADCA141 FRANCO, V. - CONDE, C.F. - BLAZQUEZ, J.S. - CONDE, A. - ŠVEC, Peter -



JANIČKOVIČ, Dušan - KISS, L.F. A constant magnetocaloric response in FeMoCuB amorphous alloys with different Fe/B ratios. In Journal of Applied Physics, 2007, vol. 101, no. 9, 093903. (2.316 - IF2006). (2007 - Current Contents, SCOPUS). ISSN 0021-8979.

Citácie:

1. [1.1] LUO, Qiang - SCHWARZ, Bjoern - MATTERN, Norbert - SHEN, Jun - ECKERT, Juergen. Mechanism of the giant irreversible positive magnetic entropy change in a Tb-based bulk metallic glass. In APPLIED PHYSICS LETTERS. ISSN 0003-6951, 2012, vol. 101, no. 6, 062411., WOS
2. [1.1] PEKALA, M. - PEKALA, K. - DROZD, V. - STASZKIEWICZ, K. - FAGNARD, J.F. - VANDERBEMDEN, P. Magnetocaloric and transport study of poly- and nanocrystalline composite manganites La<sub>0.7</sub>Ca<sub>0.3</sub>MnO<sub>3</sub>/La<sub>0.8</sub>Sr<sub>0.2</sub>MnO<sub>3</sub>. In JOURNAL OF APPLIED PHYSICS. ISSN 0021-8979, 2012, vol. 112, no. 2, 023906., WOS
3. [1.1] REGAIEG, Y. - KOUBAA, M. - KOUBAA, W. Cheikhrouhou - CHEIKHROUHO, A. - SICARD, L. - AMMAR-MERAH, S. - HERBST, F. Structure and magnetocaloric properties of La<sub>0.8</sub>Ag<sub>0.2-x</sub>K<sub>x</sub>MnO<sub>3</sub> perovskite manganites. In MATERIALS CHEMISTRY AND PHYSICS. ISSN 0254-0584, 2012, vol. 132, no. 2-3, pp. 839., WOS
4. [1.1] SMITH, Anders - BAH, Christian R. H. - BJORK, Rasmus - ENGELBRECHT, Kurt - NIELSEN, Kaspar K. - PRYDS, Nini. Materials Challenges for High Performance Magnetocaloric Refrigeration Devices. In ADVANCED ENERGY MATERIALS. ISSN 1614-6832, 2012, vol. 2, no. 11, pp. 1288., WOS

ADCA142 FRÖHLICH, Karol - ŠOUC, Ján - MACHAJDÍK, Daniel - JERGEL, Matej - SNAUWAERT, J. - HELLEMANS, L. Surface quality of epitaxial CeO<sub>2</sub> thin films grown on sapphire by aerosol metal organic chemical vapour deposition. In Chemical Vapour Deposition, 1998, vol. 4, p. 216-220. (1.360 - IF1997). (1998 - Current Contents).

Citácie:

1. [1.1] VARGAS-GARCIA, J.R. - TU, R. - GOTO, T. In THIN SOLID FILMS. JAN 1 2012, vol. 520, no. 6, p. 1851-1855., WOS

ADCA143 GAKH, G.I. - TOMASI-GUSTAFSSON, E. - ADAMUŠČIN, Cyril - DUBNIČKA, Stanislav - DUBNIČKOVÁ, A.Z. Polarization effects in e<sup>+</sup> + e<sup>-</sup> d<sup>+</sup> + d<sup>-</sup> + d and determination of time-like deuteron form factors. In Physical Review C, 2007, vol. 75, no. 2, 065202. (3.327 - IF2006). (2007 - Current Contents, WOS, SCOPUS). ISSN 0556-2813.

Citácie:

1. [1.1] de MELO, J.P.B.C., FREDERICO, T. Light-front projection of spin-1 electromagnetic current and zero-modes. In PHYSICS LETTERS B, 2012, vol. 708, no. 1-2, pp. 87-92., WOS

ADCA144 GAO, M.C. - UNLU, N. - MIHALKOVIČ, Marek - WIDOM, M. - SHIFLET, G.J. Glass formation, phase equilibria and thermodynamic assessment of the Al-Ce-Co system assisted by first-principles energy calculations. In Metallurgical and Materials Transactions A, 2007. Vol. 38A, no. 10, p. 2540-2551.

Citácie:

1. [1.1] TAILLEART, N. R. - HUANG, R. - ABURADA, T. - HORTON, D. J. - SCULLY, J. R. Effect of thermally induced relaxation on passivity and corrosion of an amorphous Al-Co-Ce alloy. In CORROSION SCIENCE. ISSN 0010-938X, 2012, vol. 59, pp. 238., WOS

ADCA145 GAO, M.C. - UNLU, N. - SHIFLET, G.J. - MIHALKOVIČ, Marek. Reassessment of Al-Ce and Al-Nd binary systems supported by critical experiments and

first-principles energy calculations. In Metallurgical and Materials Transactions A, 2005, vol. 36, p. 3269-3279. ISSN 1073-5623.

Citácie:

1. [1.1] RAGHAVAN, V. *Al-Nd-Si (Aluminium-Neodymium-Silicon)*. In *JOURNAL OF PHASE EQUILIBRIA AND DIFFUSION*, vol. 33, 2012, pp. 66-67., WOS

ADCA146 GENDIAR, Andrej - DANIŠKA, M. - LEE, Y. - NISHINO, T. Suppression of finite-size effects in one-dimensional correlated systems. In Physical Review A, 2011, vol. 83, no. 5, 052118. (2.861 - IF2010). (2011 - Current Contents). ISSN 1050-2947.

Citácie:

1. [1.1] CHEN, A.H. - GAO, X.L. In *PHYSICAL REVIEW B*. APR 10 2012, vol. 85, no. 13., WOS

2. [1.1] HOTTA, C. - SHIBATA, N. In *PHYSICAL REVIEW B*. JUL 24 2012, vol. 86, no. 4., WOS

3. [1.1] KATSURA, H. In *JOURNAL OF PHYSICS A-MATHEMATICAL AND THEORETICAL*. MAR 23 2012, vol. 45, no. 11., WOS

ADCA147 GMUCA, Štefan. Superheavy nuclei in the RMF framework. In Acta Physica Hungarica. New series. Heavy ion physics, 2004, vol. 19, no. 1-2, p. 155-160. ISSN 1219-7580.

Citácie:

1. [1.1] AGRAWAL, B. K. - SULAKSONO, A. - REINHARD, P.G. Optimization of relativistic mean field model for finite nuclei to neutron star matter. In *NUCLEAR PHYSICS A*. ISSN 0375-9474, 2012, vol. 882, pp. 1-20., WOS

ADCA148 GMUCA, Štefan - KOTULIČ BUNTA, Juraj. Nuclear symmetry energy constraints for RMF calculations of superheavy nuclei. In Nuclear Physics A, 2004, vol. 734, p. 172-175. (1.761 - IF2003). (2004 - Current Contents, WOS, SCOPUS). ISSN 0375-9474.

Citácie:

1. [1.1] AGRAWAL, B. K. - SULAKSONO, A. - REINHARD, P.G. Optimization of relativistic mean field model for finite nuclei to neutron star matter. In *NUCLEAR PHYSICS A*. ISSN 0375-9474, 2012, vol. 882, pp. 1-20., WOS

ADCA149 GMUCOVÁ, Katarína - WEIS, Martin Jr. - BENKOVIČOVÁ, Monika - ŠATKA, A. - MAJKOVÁ, Eva. Microstructured nanoparticle membrane sensor based on non-Cottrellian diffusion. In Journal of Electroanalytical Chemistry, 2011, vol. 659, p. 58-62. ISSN 0022-0728.

Citácie:

1. [3] Kelvii Wei Guo: Chapter 18: An overview of green nanotechnology. In *BIO-NANOTECHNOLOGY: A REVOLUTION IN FOOD, BIOMEDICAL AND HEALTH SCIENCES*. Editors Debasis Bagchi, Monashi Bagchi, Hirovoshi Morivama and Fereidoon Shahidi. ISBN 978-1-1184-5193-9. Wiley-Blackwell: 2012, pp. 311-354.

2. [3] Nanoparticles: Chapter 94. In *ADVANCES IN NANOTECHNOLOGY RESEARCH AND APPLICATION*. Editor Q. Ashton Acton. Atlanta: ScholarlyEditions, 2012. 14170 p.

ADCA150 GMUCOVÁ, Katarína - WEIS, Martin - NÁDAŽDY, Vojtech - MAJKOVÁ, Eva. Orientation ordering of nanoparticle Ag/Co cores controlled by electric and magnetic fields. In ChemPhysChem, 2008, vol. 9, p. 1036-1039. ISSN 1439-4235.

Citácie:

1. [1.1] PARANG, Z. - KESHAVARZ, A. - FARAHI, S. - ELAHI, S. M. - GHORANNEVISS, M. - NASSERI, A. PREPARATION AND INVESTIGATION OF OPTICAL, THERMAL, AND ELECTROCHEMICAL PROPERTIES OF Ag/Co NANOPARTICLES. In *NANO*. ISSN 1793-2920, 2012, vol. 7, no. 2, 1250006.,

WOS

- ADCA151 GREENSITE, J. - OLEJNÍK, Štefan. Coulomb energy , vortices and confinement. In Physical Review D, 2003, vol. 67, p. 094503.

Citácie:

1. [1.1] BOUCAUD, P. The infrared behaviour of the pure Yang-Mills green functions. In FEW-BODY SYSTEMS, 2012, vol. 53, no. 3-4, p. 387-436., WOS
2. [1.1] BURGIO, G. - QUANDT, M. - REINHARDT, H. Ghost propagator and the Coulomb form factor from the lattice. In PHYSICAL REVIEW D. ISSN 1550-7998, 2012, vol. 86, no. 4, 045029., WOS
3. [1.1] IRITANI, Takumi - SUGANUMA, Hideo. Lattice QCD analysis for Faddeev-Popov eigenmodes in terms of gluonic momentum components in the Coulomb gauge. In PHYSICAL REVIEW D. ISSN 1550-7998, 2012, vol. 86, no. 7, 074034., WOS
4. [1.1] OSTRANDER, A. - SANTOPINTO, E. - SZCZEPANIAK, A. P. - VASSALLO, A. Gluon chain formation in presence of static charges. In PHYSICAL REVIEW D. ISSN 1550-7998, 2012, vol. 86, no. 11, 114015., WOS
5. [1.1] SAULI, V. Bethe-Salpeter study of radially excited vector quarkonia. In PHYSICAL REVIEW D. ISSN 1550-7998, 2012, vol. 86, no. 9, 096004., WOS
6. [3] GONZALES, P.-VENTO, V.-MATHIEU, V. Non perturbative one gluon exchange potential from Dyson-Schwinger equations. In PREPRINT/ HEP-PH 1207.4314, 2012.
7. [3] SAULI, V. Intriguing solutions of Bethe-Salpeter equation for radially excited pseudoscalar charmonia In PREPRINT/ HEP-PH 1207.2621, 2012.
8. [3] TURSUNOV, E.M. The spectrum of the excited N and baryons in a relativistic chiral quark model. In PREPRINT/ HEP-PH 1204.0412, 2012.

- ADCA152 GREENSITE, J. - OLEJNÍK, Štefan - POLIKARPOV, M.I. - SYRITSYN, S.N. - ZAKHAROV, V.I. Localized eigenmodes of covariant Laplacians in the Yang-Mills vacuum. In Physical Review D, 2005, vol. 71, p. 114507.

Citácie:

1. [1.1] IRITANI, Takumi - SUGANUMA, Hideo. Lattice QCD analysis for Faddeev-Popov eigenmodes in terms of gluonic momentum components in the Coulomb gauge. In PHYSICAL REVIEW D. ISSN 1550-7998, 2012, vol. 86, no. 7, 074034., WOS
2. [1.1] LAVELLE, Martin - MCMULLAN, David - SHARMA, Poonam. Factorization of glue and mass terms in SU(N) gauge theories. In PHYSICAL REVIEW D. ISSN 1550-7998, 2012, vol. 85, no. 4, 045013., WOS

- ADCA153 GREENSITE, J. - OLEJNÍK, Štefan. Constituent gluon content of the static quark-antiquark state in Coulomb gauge. In Physical Review D, 2009, vol. 79, 114501. ISSN 1550-7998.

Citácie:

1. [1.1] BOUCAUD, Ph. - LEROY, J. P. - LE YAOUANC, A. - MICHELI, J. - PENE, O. - RODRIGUEZ-QUINTERO, J. The Infrared Behaviour of the Pure Yang-Mills Green Functions. In FEW-BODY SYSTEMS. ISSN 0177-7963, 2012, vol. 53, no. 3-4, pp. 387., WOS
2. [1.1] IRITANI, Takumi - SUGANUMA, Hideo. Lattice QCD analysis for Faddeev-Popov eigenmodes in terms of gluonic momentum components in the Coulomb gauge. In PHYSICAL REVIEW D. ISSN 1550-7998, 2012, vol. 86, no. 7, 074034., WOS
3. [1.1] OSTRANDER, A. - SANTOPINTO, E. - SZCZEPANIAK, A. P. - VASSALLO, A. Gluon chain formation in presence of static charges. In PHYSICAL REVIEW D. ISSN 1550-7998, 2012, vol. 86, no. 11, 114015., WOS

- ADCA154 GREENSITE, J. - OLEJNÍK, Štefan. Vortices, symmetry breaking and temporary

confinement in SU (2) gauge-Higgs theory. In Physical Review D, 2006, vol. 74, 014502. ISSN 1550-7998.

Citácie:

1. [1.1] FERRARI, Ruggero. ON THE PHASE DIAGRAM OF MASSIVE YANG-MILLS. In ACTA PHYSICA POLONICA B. ISSN 0587-4254, 2012, vol. 43, no. 10, pp. 1965-1979., WOS

ADCA155 GREENSITE, J. - KOVALENKO, A.V. - OLEJNÍK, Štefan - POLIKARPOV, M.I. - SYRITSYN, S.N. - ZAKHAROV, V.I. Peculiarities in the spectrum of the adjoint scalar kinetic operator in Yang-Mills theory. In Physical Review D, 2006, vol. 74, 094507.

Citácie:

1. [1.1] LAVELLE, Martin - MCMULLAN, David - SHARMA, Poonam. Factorization of glue and mass terms in SU(N) gauge theories. In PHYSICAL REVIEW D. ISSN 1550-7998, 2012, vol. 85, no. 4, 045013., WOS

ADCA156 GREENSITE, J. - LANGFELD, K. - OLEJNÍK, Štefan - REINHARDT, H. - TOK, T. Color screening, Casimir scaling and domain structure in G(2) and SU(N) gauge theories. In Physical Review D, 2007, vol. 75, no. 3, 034501. ISSN 1550-7998.

Citácie:

1. [1.1] BONATI, Claudio - COSSU, Guido - D'ELIA, Massimo - DI GIACOMO, Adriano. Disorder parameter of dual superconductivity in QCD revisited. In PHYSICAL REVIEW D. ISSN 1550-7998, 2012, vol. 85, no. 6, 065001., WOS

2. [1.1] DELDAR, S. - LOOKZADEH, H. - NEJAD, S. M. Hosseini. Confinement in G(2) gauge theories using the thick center vortex model and domain structures. In PHYSICAL REVIEW D. ISSN 1550-7998, 2012, vol. 85, no. 5, 054501., WOS

3. [1.1] DUMITRU, Adrian - GUO, Yun - HIDAKA, Yoshimasa - ALTES, Chris P. Korthals - PISARSKI, Robert D. Effective matrix model for deconfinement in pure gauge theories. In PHYSICAL REVIEW D. ISSN 1550-7998, 2012, vol. 86, no. 10, 105017., WOS

4. [1.1] ILGENFRITZ, Ernst-Michael - MAAS, Axel. Topological aspects of G(2) Yang-Mills theory. In PHYSICAL REVIEW D. ISSN 1550-7998, 2012, vol. 86, no. 11, 114508., WOS

5. [1.1] MAAS, Axel - VON SMEKAL, Lorenz - WELLEGEHAUSEN, Bjoern - WIPF, Andreas. Phase diagram of a gauge theory with fermionic baryons. In PHYSICAL REVIEW D. ISSN 1550-7998, 2012, vol. 86, no. 11, 111901., WOS

6. [1.1] MYKKANEN, Anne - PANERO, Marco - RUMMUKAINEN, Kari. Casimir scaling and renormalization of Polyakov loops in large-N gauge theories. In JOURNAL OF HIGH ENERGY PHYSICS. ISSN 1029-8479, 2012, no. 5, 069., WOS

7. [1.1] MYKKANEN, Anne. The static quark potential from a multilevel algorithm for the improved gauge action. In JOURNAL OF HIGH ENERGY PHYSICS. ISSN 1029-8479, 2012, no. 12, 069., WOS

8. [3] MAAS, A. - WELLEGEHAUSEN, B.H. G2 gauge theories. In LATTICE 2012 (PROCEEDINGS OF SCIENCE-LATTICE 2012, SISSA), p. 080.

ADCA157 GREENSITE, J. - OLEJNÍK, Štefan. Dimensional reduction and the Yang-Mills vacuum state in 2+1 dimensions. In Physical Review D, 2008, vol. 77, 065003.

Citácie:

1. [1.1] BURGIO, G. - QUANDT, M. - REINHARDT, H. Ghost propagator and the Coulomb form factor from the lattice. In PHYSICAL REVIEW D. ISSN 1550-7998, 2012, vol. 86, no. 4, 045029., WOS

ADCA158 GREENSITE, J. - OLEJNÍK, Štefan. Coulomb confinement from the Yang-Mills vacuum state in 2+1 dimensions. In Physical Review D, 2010, vol. 81, no. 7,



074504. (4.922 - IF2009). (2010 - Current Contents). ISSN 1550-7998.

Citácie:

1. [1.1] REINHARDT, Hugo - CAMPAGNARI, Davide R. - HEFFNER, Jan - PAK, Markus. *Hamilton approach to QCD in Coulomb gauge. In PROGRESS IN PARTICLE AND NUCLEAR PHYSICS. ISSN 0146-6410, 2012, vol. 67, no. 2, pp. 173., WOS*

ADCA159 GREENSITE, Jeff - OLEJNÍK, Štefan - ZWANZIGER, Daniel. Center vortices and the Gribov horizon. In *Journal of High Energy Physics*, 2005, vol. 05, no. 070, p. 0-38.

Citácie:

1. [1.1] DE LEMOS, A. L. L. - OXMAN, L. E. - TEIXEIRA, B. F. I. *Derivation of an Abelian effective model for instanton chains in 3D Yang-Mills theory. In PHYSICAL REVIEW D. ISSN 1550-7998, 2012, vol. 85, no. 12, 125014., WOS*  
 2. [1.1] IRITANI, Takumi - SUGANUMA, Hideo. *Lattice QCD analysis for Faddeev-Popov eigenmodes in terms of gluonic momentum components in the Coulomb gauge. In PHYSICAL REVIEW D. ISSN 1550-7998, 2012, vol. 86, no. 7, 074034., WOS*  
 3. [1.1] KOJO, Toru - HIDAKA, Yoshimasa - FUKUSHIMA, Kenji - MCLERRAN, Larry D. - PISARSKI, Robert D. *Interweaving chiral spirals. In NUCLEAR PHYSICS A. ISSN 0375-9474, 2012, vol. 875, pp. 94-138., WOS*  
 4. [1.2] BOUCAUD, P. - LEROY, J.P. - LE YAOUANC, A. - MICHELI, J. - PÈNE, O. - RODRÍGUEZ-QUINTERO, J. *The Infrared Behaviour of the Pure Yang-Mills Green Functions. In Few-Body Systems, 2012, 53, 3-4, pp. 387-436., SCOPUS*  
 5. [1.2] CAPRI, M.A.L. at all. *A study of the zero modes of the Faddeev-Popov operator. In EUROPEAN PHYSICAL JOURNAL C, 2012, vol. 72, pp. 1939., SCOPUS*

ADCA160 GREENSITE, Jeff - OLEJNÍK, Štefan - ZWANZIGER, Daniel. Coulomb energy, remnant symmetry, and the phases of non-Abelian gauge theories. In *Physical Review D*, 2004, vol. 69, 074506. ISSN 1550-7998.

Citácie:

1. [1.1] GOLTERMAN, Maarten - GREENSITE, Jeff - PERIS, Santiago - SZCZEPANIAK, Adam P. *Gribov horizon and the one-loop color-Coulomb potential. In PHYSICAL REVIEW D. ISSN 1550-7998, 2012, vol. 85, no. 8, 085016., WOS*  
 2. [1.1] IRITANI, Takumi - SUGANUMA, Hideo. *Lattice QCD analysis for Faddeev-Popov eigenmodes in terms of gluonic momentum components in the Coulomb gauge. In PHYSICAL REVIEW D. ISSN 1550-7998, 2012, vol. 86, no. 7, 074034., WOS*  
 3. [1.1] KOJO, Toru - HIDAKA, Yoshimasa - FUKUSHIMA, Kenji - MCLERRAN, Larry D. - PISARSKI, Robert D. *Interweaving chiral spirals. In NUCLEAR PHYSICS A. ISSN 0375-9474, 2012, vol. 875, pp. 94-138., WOS*  
 4. [1.1] PAK, M. - REINHARDT, H. *Chiral symmetry breaking in Hamiltonian QCD in Coulomb gauge. In PHYSICS LETTERS B. ISSN 0370-2693, 2012, vol. 707, no. 5, pp. 566., WOS*  
 5. [1.1] YEPEZ-MARTINEZ, Tochtli - SZCZEPANIAK, Adam P. - REINHARDT, Hugo. *Coulomb gauge Yang-Mills theory at finite temperatures: Glueballs versus quasi-gluons. In PHYSICAL REVIEW D. ISSN 1550-7998, 2012, vol. 86, no. 7, 076010., WOS*  
 6. [3] CAPRI, M.A.L. at all. *Semiclassical analysis of the phases of 4dSU(2) Higgs gauge systems with cutoff at the Gribov horizon. In PREPRINT HEP-TH/1212.1003, 2012.*

- ADCA161 GRGAC, P. - MORAVCIK, R. - KUSY, M. - TOTH, I. - MIGLIERINI, M. - ILLEKOVÁ, Emília. Thermal stability of metastable austenite in rapidly solidified chromium-molybdenum-vanadium tool steel powder. In Materials Science and Engineering A - Structural Materials Properties Microstructure and Processing, 2004, vol. 375, p. 581-584. (1.363 - IF2003). (2004 - Current Contents, WOS, SCOPUS). ISSN 0921-5093.
- Citácie:
1. [1.1] AISMAN, D. - JIRKOVA, H. - MASEK, B. *The influence of deformation and cooling parameters after transition through semi-solid state on structure development of ledeburite steel. In JOURNAL OF ALLOYS AND COMPOUNDS. ISSN 0925-8388, 2012, vol. 536, pp. S204., WOS*
  2. [1.1] ROETTGER, A. - WEBER, S. L. - THEISEN, W. *Influence of post-treatment on the microstructural evolution of thermally sprayed Fe-base MMC containing TiC and Cr<sub>3</sub>C<sub>2</sub>. In SURFACE & COATINGS TECHNOLOGY. ISSN 0257-8972, 2012, vol. 209, pp. 151., WOS*
- ADCA162 HADES COLL., incl. - HLAVÁČ, Stanislav - TURZO, Ivan. The high-acceptance dielectron spectrometer HADES. In European Physical Journal A, 2009, vol. 41, no. 2, p. 243-277.
- Citácie:
1. [1.1] BLEICHER, M. - NAHRGANG, M. - STEINHEIMER, J. - BICUDO, P. *PHYSICS PROSPECTS AT FAIR. In ACTA PHYSICA POLONICA B. ISSN 0587-4254, 2012, vol. 43, no. 4, pp. 731-738., WOS*
  2. [1.1] HABERZETTL, H. - NAKAYAMA, K. *Gauge-invariant formulation of NN<math>\rightarrow</math> NN gamma. In PHYSICAL REVIEW C. ISSN 0556-2813, 2012, vol. 85, no. 6, 064001., WOS*
  3. [1.1] STEINHEIMER, J. - XU, Z. - GUDIMA, K. - BOTVINA, A. - MISHUSTIN, I. - BLEICHER, M. - STOECKER, H. *Anti- and Hypermatter Research at the Facility for Antiproton and Ion Research FAIR. In 28TH WINTER WORKSHOP ON NUCLEAR DYNAMICS 2012. ISSN 1742-6588, 2012, vol. 389, 012022., WOS*
- ADCA163 HADES COLLABORATION, incl. - HLAVÁČ, Stanislav. Dielectron production in C-12+C-12 collisions at 2A GeV with the HADES spectrometer. In Physical Review Letters, 2007, vol. 98, no. 5, 052302.
- Citácie:
1. [1.1] ANDRIANOV, A. A. - ANDRIANOV, V. A. - ESPRIU, D. - PLANELLS, X. *Abnormal enhancement of dilepton yield in central heavy-ion collisions from local parity breaking. In THEORETICAL AND MATHEMATICAL PHYSICS. ISSN 0040-5779, 2012, vol. 170, no. 1, pp. 17., WOS*
  2. [1.1] BRATKOVSKAYA, E. L. - LINNYK, O. - KONCHAKOVSKI, V. P. - CASSING, W. - OZVENCHUK, V. - MANNINEN, J. - KO, C. M. *Dilepton production from SIS to LHC energies. In 28TH WINTER WORKSHOP ON NUCLEAR DYNAMICS 2012. ISSN 1742-6588, 2012, vol. 389, 012016., WOS*
  3. [1.1] GALATYUK, Tetyana - LORENZ, Manuel. *Investigating the microscopic properties of strongly interacting matter with HADES. In CENTRAL EUROPEAN JOURNAL OF PHYSICS. ISSN 1895-1082, 2012, vol. 10, no. 6, pp. 1295., WOS*
  4. [1.1] HABERZETTL, H. - NAKAYAMA, K. *Gauge-invariant formulation of NN<math>\rightarrow</math> NN gamma. In PHYSICAL REVIEW C. ISSN 0556-2813, 2012, vol. 85, no. 6, 064001., WOS*
  5. [1.1] RAMALHO, G. - PENA, M. T. *Timelike gamma\* N<math>\rightarrow</math> Delta form factors and Delta Dalitz decay. In PHYSICAL REVIEW D. ISSN 1550-7998, 2012, vol. 85, no. 11, 113014., WOS*
- ADCA164 HAFNER, J. - KRAJČÍ, Marián. Propagating and confined vibrational excitations in

quasi-crystals. In Journal of Physics-Condensed Matter, 1993, vol. 5, no. 16, p. 2489-2510. ISSN 0953-8984.

Citácie:

1. [1.1] DE BOISSIEU, Marc. Study of the structure and physical properties of quasicrystals using large scale facilities. In *COMPTES RENDUS PHYSIQUE*. ISSN 1631-0705, 2012, vol. 13, no. 3, pp. 207., WOS
2. [1.1] EUCHNER, H. - PAILHES, S. - NGUYEN, L. T. K. - ASSMUS, W. - RITTER, F. - HAGHIGHIRAD, A. - GRIN, Y. - PASCHEN, S. - DE BOISSIEU, M. Phononic filter effect of rattling phonons in the thermoelectric clathrate  $Ba_8Ge_{40+x}Ni_{6-x}$ . In *PHYSICAL REVIEW B*. ISSN 1098-0121, 2012, vol. 86, no. 22, 224303., WOS

ADCA165 HAFNER, J. - KRAJČÍ, Marián. Propagating and localized vibrational-modes in ni-zr glasses. In Journal of Physics: Condensed Matter, 1994, vol. 6, no. 25, p. 4631-4654. (1.654 - IF1993). (1994 - Current Contents). ISSN 0953-8984.

Citácie:

1. [1.1] JAKSE, N. - NASSOUR, A. - PASTUREL, A. Structural and dynamic origin of the boson peak in a Cu-Zr metallic glass. In *PHYSICAL REVIEW B*. ISSN 1098-0121, 2012, vol. 85, no. 17, 174201., WOS
2. [1.1] SHENG, H. W. - MA, E. - KRAMER, M. J. Relating Dynamic Properties to Atomic Structure in Metallic Glasses. In *JOM*. ISSN 1047-4838, 2012, vol. 64, no. 7, pp. 856., WOS

ADCA166 HAFNER, J. - KRAJČÍ, Marián. Formation of magnetic moments in crystalline, quasicrystalline and liquid Al-Mn alloys. In Physical Review B : condensed matter and materials physics, 1998, vol. 57, no. 5, p. 2849-2860. (2.880 - IF1997). (1998 - Current Contents). ISSN 1098-0121.

Citácie:

1. [1.1] DUGUET, T. - THIEL, P. A. Chemical contrast in STM imaging of transition metal aluminides. In *PROGRESS IN SURFACE SCIENCE*. ISSN 0079-6816, 2012, vol. 87, no. 5-8, pp. 47., WOS

ADCA167 HAFNER, J. - KRAJČÍ, Marián. Electronic-structure and stability of quasi-crystals-quasi-periodic dispersion- relations and pseudogaps. In Physical Review Letters, 1992, vol. 68, no. 15, p. 2321-2324. ISSN 0031-9007.

Citácie:

1. [1.1] NAYAK, J. - MANIRAJ, M. - RAI, Abhishek - SINGH, Sanjay - RAJPUT, Parasmani - GLOSKOVSKII, A. - ZEGENHAGEN, J. - SCHLAGEL, D. L. - LOGRASSO, T. A. - HORN, K. - BARMAN, S. R. Bulk Electronic Structure of Quasicrystals. In *PHYSICAL REVIEW LETTERS*. ISSN 0031-9007, 2012, vol. 109, no. 21, 216403., WOS

ADCA168 HAFNER, J. - KRAJČÍ, Marián. Electronic-structure of quasi-crystalline Al-Zn-Mg alloys and related crystalline, amorphous and liquid- phases. In Physical Review B, 1993, vol. 47, no., p. 11795-11809. (3.259 - IF1992). (1993 - Current Contents). ISSN 1098-0121.

Citácie:

1. [1.1] MIZUTANI, U. In *CHEMICAL SOCIETY REVIEWS*, vol. 41, 2012, p. 6799., WOS
2. [1.1] ZABOLOTNYY, V.B. In *PHYSICAL REVIEW B*, vol. 85, 2012, 064507., WOS

ADCA169 HAFNER, J. - KRAJČÍ, Marián - MIHALKOVIČ, Marek. Propagating and localized elementary excitations in decagonal quasicrystals. In Physical Review Letters, 1996, vol. 76, no. 15, p. 2738-2741. (6.297 - IF1995). ISSN 0031-9007.

Citácie:

1. [1.1] RABSON, D. A. Toward theories of friction and adhesion on

- quasicrystals. In PROGRESS IN SURFACE SCIENCE. ISSN 0079-6816, 2012, vol. 87, no. 9-12, pp. 253., WOS*
- ADCA170 HAFNER, J. - KRAJČÍ, Marián. Computer-simulation of Frank-Kasper-type icosahedral quasi-crystals. In Europhysics Letters, 1990, vol. 13, no. 4, p. 335-340. ISSN 0295-5075.  
Citácie:  
*1. [1.1] PETKOV, Valeri - LEE, Youngmin - SUN, Shouheng - REN, Yang. Noncrystallographic Atomic Arrangement Driven Enhancement of the Catalytic Activity of Au Nanoparticles. In JOURNAL OF PHYSICAL CHEMISTRY C. ISSN 1932-7447, 2012, vol. 116, no. 50, pp. 26668., WOS*
- ADCA171 HAMILTON, J.H. - TER-AKOPIAN, G.M. - KORMICKI, J. - OGANESSIAN, Yu.Ts. - KORMICKI, J. - ZHU, S.J. - WANG, M.G. - LU, Q. - BUTLER-MOORE, K. - RAMAYYA, A.V. - MA, W.C. - BABU, B.R.S. - SHI, D. - DENG, J.K. - POPEKO, G.S. - DANIEL, A.V. - GREINER, W. - SANDULESCU, A. - COLE, J.D. - ARYAEINEJAD, R. - KLIMAN, Ján - POLHORSKÝ, V. - MORHÁČ, Miroslav - JOHNSON, N.R. - LEE, I.Y. - MCGOWAN, F.K. - PEKER, L.K. Structure of neutron-rich nuclei and neutron multiplicities in spontaneous fission. In Physics Reports, 1995, vol. 264, no. 1-5, p. 215-231.  
Citácie:  
*1. [1.1] BROWNE, E. - TULLI, J. K. Nuclear Data Sheets for A=143. In NUCLEAR DATA SHEETS. ISSN 0090-3752, 2012, vol. 113, no. 3, pp. 715., WOS*  
*2. [1.1] MUKHOPADHYAY, S. Prompt gamma spectroscopic studies. In PHYSICAL REVIEW C, vol. 85, 2012, 064321., WOS*
- ADCA172 HAMILTON, J.H. - LUO, Y.X. - KLIMAN, Ján - RASMUSSEN, J.O. Octupole Correlations and Deformation in Ba, La and Pr. In Acta Physica Polonica B, 2001, vol. 32, p. 957-969. (0.479 - IF2000). (2001 - Current Contents). ISSN 0587-4254.  
Citácie:  
*1. [1.1] MALKIEWICZ, T. In PHYSICAL REVIEW C, vol. 85, 2012, 044314., WOS*
- ADCA173 HARTMANOVÁ, Mária - GMUCOVÁ, Katarína - THURZO, Ilja. Dielectric properties of ceria and yttria-stabilized zirconia thin films. In Solid State Ionics : diffusion and reactions, 2000, vol. 130, no. 1-2, p. 105-110. (2000 - Current Contents). ISSN 0167-2738.  
Citácie:  
*1. [1.1] LE TREQUESSER, Quentin - MESGUICH, David - YOU, Eunyoung - AYMONTIER, Cyril - WATKINS, James J. Supercritical fluid deposition of compositionally uniform yttria stabilized zirconia films. In JOURNAL OF SUPERCRITICAL FLUIDS. ISSN 0896-8446, 2012, vol. 66, pp. 328., WOS*
- ADCA174 HARTMANOVÁ, Mária - LE, M.T. - JERSEL, Matej - ŠMATKO, Vasilij - KUNDRACIK, F. Structure and electrical conductivity of multicomponent metal oxides having scheelite structure. In Russian Journal of Electrochemistry, 2009, vol. 45, no. 6, p. 621-629. (0.431 - IF2008). (2009 - Current Contents). ISSN 1023-1935.  
Citácie:  
*1. [1.1] KONTIC, R. - PATZKE, G.R. Synthetic trends for BiVO4 photocatalysts: Molybdenum substitution vs. TiO2 and SnO2 heterojunctions. In JOURNAL OF SOLID STATE CHEMISTRY, 2012, vol. 189, p. 38-48., WOS*  
*2. [1.1] TIEN THE NGUYEN - THANG MINH LE - DUC DUC TRUONG - FEHRMANN, Rasmus - RIISAGER, Anders - VAN DRIESCHE, Isabel. Synergy effects in mixed Bi2O3, MoO3 and V2O5 catalysts for selective oxidation of propylene. In RESEARCH ON CHEMICAL INTERMEDIATES. ISSN 0922-6168, 2012, vol. 38, no. 3-5, pp. 829., WOS*
- ADCA175 HARTMANOVÁ, Mária - LOMONOVA, E.E. - KUBEL, F. - SCHNEIDER, J. -



BURŠÍKOVÁ, V. - JERSEL, Matej - NAVRÁTIL, V. - KUNDRACIK, F.  
Relationship between effective ionic radii, structure and electro-mechanical properties of zirconia stabilized with rare earth oxides M2O3 (M=Yb, Y, Sm). In Journal of Material Science, 2009. Vol. 44, p. 234-243.

Citácie:

1. [1.1] MARROCCELLI, D. In *ADVANCED FUNCTIONAL MATERIALS*, 2012, vol. 22, no. 9, p. 1958., WOS

ADCA176 HARTMANOVÁ, Mária - THURZO, Ilja - JERSEL, Matej - BARTOŠ, J. - KADLEC, K. - ŽELEZNÝ, V. - TUNEGA, Daniel - KUNDRACIK, F. - CHROMIK, Štefan - BRUNEL, M. Characterization of yttria-stabilized zirconia thin films deposited by electron beam evaporation on silicon substrates. In Journal of Materials Science, 1998, vol. 33, p. 969-975. (0.670 - IF1997).

Citácie:

1. [1.1] JADHAV, L.D. - JAMALE, A.P. - BHARADWAJ, S.R. - VARMA, S. - BHOSALE, C.H. In *APPLIED SURFACE SCIENCE*. OCT 1 2012, vol. 258, no. 24, p. 9501-9504., WOS

2. [1.1] KREISEL, J. - WEBER, M.C. - DIX, N. - SANCHEZ, F. - THOMAS, P.A. - FONTCUBERTA, J. In *ADVANCED FUNCTIONAL MATERIALS*. DEC 5 2012, vol. 22, no. 23, p. 5044-5049., WOS

ADCA177 HARTMANOVÁ, Mária - KUBEL, F. - BURŠÍKOVÁ, V. - LOMONOVA, E.E. - HOLGADO, J.P. - NAVRÁTIL, V. - NAVRÁTIL, K. - KUNDRACIK, F. Phase composition-dependent physical and mechanical properties of YbxZr1-xO2 solid solutions. In Journal of Physics and Chemistry of Solids, 2008, vol. 69, p. 805-814. ISSN 0022-3697.

Citácie:

1. [1.1] FENG, J. In *SCRIPTA MATERIALIA*, 2012, vol. 66, no. 1, p. 41., WOS

2. [1.1] FENG, J. - REN, X. - WANG, X. - ZHOU, R. - PAN, W. Thermal conductivity of yttria-stabilized zirconia. In *SCRIPTA MATERIALIA*, 2010, vol. 66, p. 41-44., WOS

3. [1.1] LOGANATHA, A. In *SCRIPTA MATERIALIA*, 2012, vol. 67, no. 3, p. 285., WOS

ADCA178 HARTMANOVÁ, Mária - POULSEN, F.W. - HANIC, F. - PUTYERA, K. - TUNEGA, Daniel - URUSOVSKAYA, A.A. - ORESHNIKOVA, T.V. Influence of copper-doping and iron-doping on cubic yttria-stabilized zirconia. In Journal of Materials Science, 1994, vol. 29, no. 8, p. 2152-2158. (0.765 - IF1993). (1994 - Current Contents, SCOPUS). ISSN 0022-2461.

Citácie:

1. [1.1] COKER, Eric N. - RODRIGUEZ, Mark A. - AMBROSINI, Andrea - MILLER, James E. - STECHEL, Ellen B. Using in-situ techniques to probe high-temperature reactions: thermochemical cycles for the production of synthetic fuels from CO2 and water. In *POWDER DIFFRACTION*. ISSN 0885-7156, 2012, vol. 27, no. 2, pp. 117., WOS

2. [1.1] GUO, Fangwei - XIAO, Ping. Effect of Fe2O3 doping on sintering of yttria-stabilized zirconia. In *JOURNAL OF THE EUROPEAN CERAMIC SOCIETY*. ISSN 0955-2219, 2012, vol. 32, no. 16, pp. 4157., WOS

ADCA179 HEINOSAARI, T. - JIVULESCU, M.A. - REITZNER, Daniel - ZIMAN, Mário. Approximating incompatible von Neumann measurements simultaneously. In Physical Review A, 2010, vol. 82, no. 3, 032328. (2.866 - IF2009). (2010 - Current Contents). ISSN 1050-2947.

Citácie:

1. [1.1] HEGERFELDT, G. C. - MAYATO, R. Sala. Discriminating between the von Neumann and Luders reduction rule. In *PHYSICAL REVIEW A*. ISSN

- 1050-2947, 2012, vol. 85, no. 3, 032116., WOS*
- ADCA180 HENLEY, C.L. - MIHALKOVIČ, Marek - WIDOM, M. Total-energy-based structure prediction for d(AlNiCo). In Journal of Alloys and Compounds, 2002, vol. 342, p. 221- 227. (0.953 - IF2001). (2002 - Current Contents, WOS, SCOPUS).  
Citácie:  
*1. [1.1] ABE, Eiji. Electron microscopy of quasicrystals where are the atoms? In CHEMICAL SOCIETY REVIEWS. ISSN 0306-0012, 2012, vol. 41, no. 20, pp. 6787., WOS*
- ADCA181 HILLERY, M. - BUŽEK, Vladimír. Quantum machines. Vladimír Bužek. In Contemporary Physics, 2009, vol. 50, no. 5, p. 575-586. ISSN 0010-7514.  
Citácie:  
*1. [1.1] MISHRA, D.K. Unambiguous discrimination of two squeezed states. In OPTICS COMMUNICATIONS, 2012, vol. 285, no. 6, pp. 1560-1565., WOS*
- ADCA182 HILLERY, M. - ZIMAN, Mário - BUŽEK, Vladimír. Approximate programmable quantum processors. In Physical Review A, 2006, vol. 73, no. 2, 022345. (2006 - Current Contents, SCOPUS). ISSN 1050-2947.  
Citácie:  
*1. [1.1] KIM, Jeong San - GOUR, Gilad - SANDERS, Barry C. Limitations to sharing entanglement. In CONTEMPORARY PHYSICS. ISSN 0010-7514, 2012, vol. 53, no. 5, pp. 417., WOS*  
*2. [1.1] KIM, Jeong San. General polygamy inequality of multiparty quantum entanglement. In PHYSICAL REVIEW A. ISSN 1050-2947, 2012, vol. 85, no. 6, 062302., WOS*  
*3. [1.1] MIKOVA, Martina - FIKEROVA, Helena - STRAKA, Ivo - MICUDA, Michal - FIURASEK, Jaromir - JEZEK, Miroslav - DUSEK, Miloslav. Increasing efficiency of a linear-optical quantum gate using electronic feed-forward. In PHYSICAL REVIEW A. ISSN 1050-2947, 2012, vol. 85, no. 1, 012305., WOS*
- ADCA183 HILLERY, M. - ZIMAN, Mário - BUŽEK, Vladimír - BŮŽEK, Václav. Towards quantum-based privacy and voting. In Physics Letters A, 2006, vol. 349, no. 1-4, p. 75-81. ISSN 0375-9601.  
Citácie:  
*1. [1.1] JIANG, Lang - HE, Guangqiang - NIE, Ding - XIONG, Jin - ZENG, Guihua. Quantum anonymous voting for continuous variables. In PHYSICAL REVIEW A. ISSN 1050-2947, 2012, vol. 85, no. 4, 042309., WOS*  
*2. [1.1] LI, Yuan - ZENG, Guihua. Anonymous quantum network voting scheme. In OPTICAL REVIEW. ISSN 1340-6000, 2012, vol. 19, no. 3, pp. 121., WOS*  
*3. [1.1] ZHOU RUI-RUI - YANG LI. Quantum election scheme based on anonymous quantum key distribution. In CHINESE PHYSICS B. ISSN 1674-1056, 2012, vol. 21, no. 8, 080301., WOS*
- ADCA184 HILLERY, M. - BUŽEK, Vladimír. Quantum copying: Fundamental inequalities. In Physical Review A, 1997, vol. 56, no. 2, p. 1212-1216. ISSN 1050-2947.  
Citácie:  
*1. [1.1] GENKINA, Dina - CHIRIBELLA, Giulio - HARDY, Lucien. Optimal probabilistic simulation of quantum channels from the future to the past. In PHYSICAL REVIEW A. ISSN 1050-2947, 2012, vol. 85, no. 2, 022330., WOS*  
*2. [1.1] ZHAN, You-Bang. Deterministic Joint Assisted Cloning of Unknown Two-Qubit Entangled States. In INTERNATIONAL JOURNAL OF THEORETICAL PHYSICS. ISSN 0020-7748, 2012, vol. 51, no. 6, pp. 1655., WOS*
- ADCA185 HILLERY, M. - BUŽEK, Vladimír - ZIMAN, Mário. Probabilistic implementation of universal quantum processors. In Physical Review A, 2002, vol. 65, no. 2, p. 022301. ISSN 1050-2947.  
Citácie:

1. [1.1] MIKOVA, Martina - FIKEROVA, Helena - STRAKA, Ivo - MICUDA, Michal - FIURASEK, Jaromir - JEZEK, Miroslav - DUSEK, Miloslav. Increasing efficiency of a linear-optical quantum gate using electronic feed-forward. In *PHYSICAL REVIEW A*. ISSN 1050-2947, 2012, vol. 85, no. 1, 012305., WOS
2. [1.1] ZHOU, T. In *QUANTUM INFORMATION AND COMPUTATION*, 2012, vol. 12, pp. 1017., WOS

ADCA186 HILLERY, M. - REITZNER, Daniel - BUŽEK, Vladimír. Searching via walking: How to find a marked clique of a complete graph using quantum walks. In *Physical Review A*, 2010, vol. 81, no. 6, 062324. (2.866 - IF2009). (2010 - Current Contents). ISSN 1050-2947.

Citácie:

1. [1.1] ANDRADE, F. M. - DA LUZ, M. G. E. Superdiffusivity of quantum walks: A Feynman sum-over-paths description. In *PHYSICAL REVIEW A*. ISSN 1050-2947, 2012, vol. 86, no. 4, 042309., WOS
2. [1.1] ELIAS VENEGAS-ANDRACA, Salvador. Quantum walks: a comprehensive review. In *QUANTUM INFORMATION PROCESSING*. ISSN 1570-0755, 2012, vol. 11, no. 5, pp. 1015., WOS
3. [1.1] SCHREIBER, Andreas - GABRIS, Aurel - ROHDE, Peter P. - LAIHO, Kaisa - STEFANAK, Martin - POTOCEK, Vaclav - HAMILTON, Craig - JEX, Igor - SILBERHORN, Christine. A 2D Quantum Walk Simulation of Two-Particle Dynamics. In *SCIENCE*. ISSN 0036-8075, 2012, vol. 336, no. 6077, pp. 55., WOS
4. [1.1] SOLNTSEV, Alexander S. - SUKHORUKOV, Andrey A. - NESHEV, Dragomir N. - KIVSHAR, Yuri S. Spontaneous Parametric Down-Conversion and Quantum Walks in Arrays of Quadratic Nonlinear Waveguides. In *PHYSICAL REVIEW LETTERS*. ISSN 0031-9007, 2012, vol. 108, no. 2, 023601., WOS

ADCA187 HILLERY, M. - BUŽEK, Vladimír - BERTHIAUME, A. Quantum secret sharing. In *Physical Review A*, 1999, vol. 59, no. 3, p. 1829-1834. ISSN 1050-2947.

Citácie:

1. [1.1] AOLITA, L. Fully nonlocal, monogamous and random genuinely multipartite quantum correlations. In *PHYSICAL REVIEW LETTERS*, 2012, vol. 108, 100401., WOS
2. [1.1] BAI, M.-Q. Quantum three-qubit w-state. In *MODERN PHYSICS LETTERS B*, 2012, vol. 26, 1250208., WOS
3. [1.1] BANERJEE, Anindita - PATHAK, Anirban. Maximally efficient protocols for direct secure quantum communication. In *PHYSICS LETTERS A*. ISSN 0375-9601, 2012, vol. 376, no. 45, pp. 2944., WOS
4. [1.1] BASTOS, W. P. - CARDOSO, W. B. - AVELAR, A. T. - DE ALMEIDA, N. G. - BASEIA, B. Controlled teleportation via photonic Faraday rotations in low-Q cavities. In *QUANTUM INFORMATION PROCESSING*. ISSN 1570-0755, 2012, vol. 11, no. 6, pp. 1867., WOS
5. [1.1] BRUNNER, Nicolas - SHARAM, James - VERTESI, Tamas. Testing the Structure of Multipartite Entanglement with Bell Inequalities. In *PHYSICAL REVIEW LETTERS*. ISSN 0031-9007, 2012, vol. 108, no. 11, 110501., WOS
6. [1.1] CHEN ZI-HONG - ZHANG FENG-YANG - SHI YING - SONG HE-SHAN. Transferring Three-Dimensional Quantum States and Implementing a Quantum Phase Gate Based on Resonant Interaction between Distant Atoms. In *CHINESE PHYSICS LETTERS*. ISSN 0256-307X, 2012, vol. 29, no. 9, 090304., WOS
7. [1.1] CHEN, Mei-Feng - WANG, Ping - MA, Song-She. One-step generation of four-dimensional entanglement via adiabatic passage in cavity quantum electrodynamics. In *OPTICS COMMUNICATIONS*. ISSN 0030-4018, 2012, vol. 285, no. 21-22, pp. 4612., WOS

8. [1.1] CHEN, Xiu-Bo - YANG, Shuai - SU, Yuan - YANG, Yi-Xian. Cryptanalysis on the improved multiparty quantum secret sharing protocol based on the GHZ state. In *PHYSICA SCRIPTA*. ISSN 0031-8949, 2012, vol. 86, no. 5, 055002., WOS
9. [1.1] CHEN, Zi-hong - PEI, Pei - ZHANG, Feng-yang - SONG, He-shan. One-step preparation of three-particle Greenberger-Horne-Zeilinger states in cavity quantum electrodynamics. In *JOURNAL OF THE OPTICAL SOCIETY OF AMERICA B-OPTICAL PHYSICS*. ISSN 0740-3224, 2012, vol. 29, no. 7, pp. 1744., WOS
10. [1.1] CHIURI, A. - GREGANTI, C. - PATERNOSTRO, M. - VALLONE, G. - MATALONI, P. Experimental Quantum Networking Protocols via Four-Qubit Hyperentangled Dicke States. In *PHYSICAL REVIEW LETTERS*. ISSN 0031-9007, 2012, vol. 109, no. 17, 173604., WOS
11. [1.1] CHOU, Y-H - CHEN, C-Y - FAN, R-K - CHAO, H-C - LIN, F-J. Enhanced multiparty quantum secret sharing of classical messages by using entanglement swapping. In *IET INFORMATION SECURITY*. ISSN 1751-8709, 2012, vol. 6, no. 2, pp. 84., WOS
12. [1.1] COECKE, Bob - DUNCAN, Ross - KISSINGER, Aleks - WANG, Quanlong. Strong Complementarity and Non-locality in Categorical Quantum Mechanics. In *2012 27TH ANNUAL ACM/IEEE SYMPOSIUM ON LOGIC IN COMPUTER SCIENCE (LICS)*. ISSN 1043-6871, 2012, pp. 245., WOS
13. [1.1] CONG, Cao - CHUAN, Wang - RU, Zhang. Entanglement concentration for an arbitrary hybrid less-entangled state and W state using quantum dots and a microcavity coupled system. In *CHINESE PHYSICS B*. ISSN 1674-1056, 2012, vol. 21, no. 11, 110305., WOS
14. [1.1] DAI, Li - KWEK, L. C. Realizing the Multiparticle Hanbury Brown-Twiss Interferometer Using Nitrogen-Vacancy Centers in Diamond Crystals. In *PHYSICAL REVIEW LETTERS*. ISSN 0031-9007, 2012, vol. 108, no. 6, 066803., WOS
15. [1.1] DU, Fang-Fang - LI, Tao - REN, Bao-Cang - WEI, Hai-Rui - DENG, Fu-Guo. Single-photon-assisted entanglement concentration of a multiphoton system in a partially entangled W state with weak cross-Kerr nonlinearity. In *JOURNAL OF THE OPTICAL SOCIETY OF AMERICA B-OPTICAL PHYSICS*. ISSN 0740-3224, 2012, vol. 29, no. 6, pp. 1399., WOS
16. [1.1] DU, Ruigang - SUN, Zhiwei - WANG, Banghai - LONG, Dongyang. Quantum Secret Sharing of Secure Direct Communication Using One-Time Pad. In *INTERNATIONAL JOURNAL OF THEORETICAL PHYSICS*. ISSN 0020-7748, 2012, vol. 51, no. 9, pp. 2727., WOS
17. [1.1] FANG, Bao-Long - YE, Liu. Scheme for implementing W state, Greenberger-Horne-Zeilinger state, and cluster state via cavity-assisted interaction. In *JOURNAL OF THE OPTICAL SOCIETY OF AMERICA B-OPTICAL PHYSICS*. ISSN 0740-3224, 2012, vol. 29, no. 4, pp. 841., WOS
18. [1.1] FORTESCUE, Ben - GOUR, Gilad. Reducing the Quantum Communication Cost of Quantum Secret Sharing. In *IEEE TRANSACTIONS ON INFORMATION THEORY*. ISSN 0018-9448, 2012, vol. 58, no. 10, pp. 6659., WOS
19. [1.1] FROEWIS, F. - DUER, W. Stability of encoded macroscopic quantum superpositions. In *PHYSICAL REVIEW A*. ISSN 1050-2947, 2012, vol. 85, no. 5, 0520329., WOS
20. [1.1] GAO GAN - FANG MING - CHENG MU-TIAN. Cryptanalysis and Improvement of a Quantum Network System of QSS-QDC Using chi-Type Entangled States. In *CHINESE PHYSICS LETTERS*. ISSN 0256-307X, 2012, vol.



- 29, no. 11, 110305., WOS
21. [1.1] GAO, Fei - QIN, Su-Juan - WEN, Qiao-Yan - ZHU, Fu-Chen. CRYPTANALYSIS OF THE QSDC PROTOCOL WITHOUT USING PERFECT QUANTUM CHANNEL. In INTERNATIONAL JOURNAL OF QUANTUM INFORMATION. ISSN 0219-7499, 2012, vol. 10, no. 4, 1250054., WOS
22. [1.1] GAO, Gan. A note on Wang et al's attack on Zhang et al's multiparty quantum secret sharing. In PHYSICA SCRIPTA. ISSN 0031-8949, 2012, vol. 86, no. 2, 025004., WOS
23. [1.1] GHEORGHIU, Vlad. Generalized semiquantum secret-sharing schemes. In PHYSICAL REVIEW A. ISSN 1050-2947, 2012, vol. 85, no. 5, 052309., WOS
24. [1.1] GHIU, Iulia. GENERALIZED TELEBROADCASTING OF ENTANGLEMENT. In ROMANIAN JOURNAL OF PHYSICS. ISSN 1221-146X, 2012, vol. 57, no. 7-8, pp. 1046., WOS
25. [1.1] GU, Bin - QUAN, Dong-hui - XIAO, Shao-rong. Multi-photon Entanglement Concentration Protocol for Partially Entangled W States with Projection Measurement. In INTERNATIONAL JOURNAL OF THEORETICAL PHYSICS. ISSN 0020-7748, 2012, vol. 51, no. 9, pp. 2966., WOS
26. [1.1] GU, Bin - XU, Fei - DING, Liuguan - ZHANG, Yanan. High-Capacity Three-Party Quantum Secret Sharing With Hyperentanglement. In INTERNATIONAL JOURNAL OF THEORETICAL PHYSICS. ISSN 0020-7748, 2012, vol. 51, no. 11, pp. 3559., WOS
27. [1.1] GU, Bin. Single-photon-assisted entanglement concentration of partially entangled multiphoton W states with linear optics. In JOURNAL OF THE OPTICAL SOCIETY OF AMERICA B-OPTICAL PHYSICS. ISSN 0740-3224, 2012, vol. 29, no. 7, pp. 1685., WOS
28. [1.1] HAO, Sheng-Bin - YU, Bo. Multiparty Quantum Secret Information Sharing in Enterprise Management Based on Single Qubit with Random Rotation Angle. In INTERNATIONAL JOURNAL OF THEORETICAL PHYSICS. ISSN 0020-7748, 2012, vol. 51, no. 6, pp. 1674., WOS
29. [1.1] HONG, Chang Ho - HEO, Jin O. - LIM, Jong In - YANG, Hyung Jin. A Quantum Network System of QSS-QDC Using chi-Type Entangled States. In CHINESE PHYSICS LETTERS. ISSN 0256-307X, 2012, vol. 29, no. 5, 050303., WOS
30. [1.1] HONG, Chang Ho - HEO, Jin O. - LIM, Jong In - YANG, Hyung Jin. Multi-user quantum network system and quantum communication using chi-type entangled states. In JOURNAL OF THE KOREAN PHYSICAL SOCIETY. ISSN 0374-4884, 2012, vol. 61, no. 1, pp. 1., WOS
31. [1.1] JIA, Heng-Yue - WEN, Qiao-Yan - GAO, Fei - QIN, Su-Juan - GUO, Fen-Zhuo. Dynamic quantum secret sharing. In PHYSICS LETTERS A. ISSN 0375-9601, 2012, vol. 376, no. 10-11, pp. 1035., WOS
32. [1.1] JIA, Heng-Yue - WEN, Qiao-Yan - LI, Yan-Bing - GAO, Fei. Quantum Private Comparison Using Genuine Four-Particle Entangled States. In INTERNATIONAL JOURNAL OF THEORETICAL PHYSICS. ISSN 0020-7748, 2012, vol. 51, no. 4, pp. 1187., WOS
33. [1.1] JIANG MIN - HUANG XU - ZHOU LIULEI - ZHOU YIMING - ZENG JIA. An efficient scheme for multi-party quantum state sharing via non-maximally entangled states. In CHINESE SCIENCE BULLETIN. ISSN 1001-6538, 2012, vol. 57, no. 10, pp. 1089., WOS
34. [1.1] JIANG, Min - DONG, Daoyi - WU, Rebing. Multiple independent quantum states sharing under collaboration of agents in quantum networks. In QUANTUM INFORMATION PROCESSING. ISSN 1570-0755, 2012, vol. 11, no. 6, pp. 1829., WOS

35. [1.1] JIMENEZ, Omar - MUNOZ, Carlos - KLIMOV, Andrei B. - DELGADO, Aldo. SHARING OF D-DIMENSIONAL QUANTUM STATES. In *INTERNATIONAL JOURNAL OF QUANTUM INFORMATION*. ISSN 0219-7499, 2012, vol. 10, no. 2, 1250003., WOS
36. [1.1] JUN, Jin Woo. Three-particle entanglement swapping in an imperfect channel. In *JOURNAL OF THE KOREAN PHYSICAL SOCIETY*. ISSN 0374-4884, 2012, vol. 61, no. 3, pp. 499., WOS
37. [1.1] KARIMIPOUR, Vahid - MARVIAN, Milad. SECURE QUANTUM CARRIERS FOR QUANTUM STATE SHARING. In *INTERNATIONAL JOURNAL OF QUANTUM INFORMATION*. ISSN 0219-7499, 2012, vol. 10, no. 2, 1250018., WOS
38. [1.1] LI JIAN - JIN HAIFEI - JING BO. Improved eavesdropping detection strategy based on four-particle cluster state in quantum direct communication protocol. In *CHINESE SCIENCE BULLETIN*. ISSN 1001-6538, 2012, vol. 57, no. 34, pp. 4434., WOS
39. [1.1] LI JIAN - SONG DAN-JIE - GUO XIAO-JING - JING BO. A quantum secure direct communication protocol based on a five-particle cluster state and classical XOR operation. In *CHINESE PHYSICS C*. ISSN 1674-1137, 2012, vol. 36, no. 1, pp. 31., WOS
40. [1.1] LI JIAN - YE XINXIN - LI RUIFAN - ZOU YONGZHONG - LU XIAOFENG. Improved Eavesdropping Detection Strategy Based on Extended Three-particle Greenberger-Horne-Zeilinger State in Two-step Quantum Direct Communication Protocol. In *CHINESE JOURNAL OF ELECTRONICS*. ISSN 1022-4653, 2012, vol. 21, no. 4, pp. 736., WOS
41. [1.1] LI KAI - LIU YUANYUAN - HE KEHAI - HUANG XIAO-YING - CHEN, J - YU, F - CHEN, W - LU, Y - LONG, H. A Quantum Secret Sharing scheme with High Efficiency Based on Bell States. In *2012 INTERNATIONAL SYMPOSIUM ON INFORMATION SCIENCE AND ENGINEERING (ISISE)*. ISSN 2160-1283, 2012, pp. 418., WOS
42. [1.1] LI WEI - FAN MING-YU - WANG GUANG-WEI. An arbitrated quantum signature scheme based on entanglement swapping with signer anonymity. In *CHINESE PHYSICS B*. ISSN 1674-1056, 2012, vol. 21, no. 12, 120305., WOS
43. [1.1] LI YUAN-HUA - NIE YI-YOU. Quantum Information Splitting of an Arbitrary Three-Atom State by Using W-class States in Cavity QED. In *COMMUNICATIONS IN THEORETICAL PHYSICS*. ISSN 0253-6102, 2012, vol. 57, no. 6, pp. 995., WOS
44. [1.1] LI, Bo - KWEK, Leong Chuan - FAN, Heng. Detecting genuine multipartite correlations in terms of the rank of coefficient matrix. In *JOURNAL OF PHYSICS A-MATHEMATICAL AND THEORETICAL*. ISSN 1751-8113, 2012, vol. 45, no. 50, 505301., WOS
45. [1.1] LI, Jian - JIN, Hai-Fei - JING, Bo. Improved Eavesdropping Detection Strategy in Quantum Direct Communication Protocol Based on Five-Particle Cluster State. In *INTERNATIONAL JOURNAL OF THEORETICAL PHYSICS*. ISSN 0020-7748, 2012, vol. 51, no. 9, pp. 2759., WOS
46. [1.1] LI, Jian - NIE, Jin-Rui - LI, Rui-Fan - JING, Bo. Improved Security Detection Strategy in Quantum Secure Direct Communication Protocol Based on Four-Particle Green-Horne-Zeilinger State. In *ZEITSCHRIFT FÜR NATURFORSCHUNG SECTION A-A JOURNAL OF PHYSICAL SCIENCES*. ISSN 0932-0784, 2012, vol. 67, no. 6-7, pp. 369., WOS
47. [1.1] LI, Jian - SONG, Dan-Jie - GUO, Xiao-Jing - JING, Bo. Improved Quantum "Ping-Pong" Protocol Based on Five-Qubit GHZ State and Classical CNOT Operation. In *INTERNATIONAL JOURNAL OF THEORETICAL*

- PHYSICS. ISSN 0020-7748, 2012, vol. 51, no. 1, pp. 292., WOS
48. [1.1] LI, Lvzhou - QIU, Daowen - HUANG, D - GAN, Y - PREMARATNE, P - HAN, K. Quantum Information Splitting Using GHZ-Type and W-Type States. In *BIO-INSPIRED COMPUTING AND APPLICATIONS*. ISSN 0302-9743, 2012, vol. 6840, pp. 231., WOS
49. [1.1] LI, Wen-An - WEI, Lian-Fu. Controllable entanglement preparations between atoms in spatially-separated cavities via quantum Zeno dynamics. In *OPTICS EXPRESS*. ISSN 1094-4087, 2012, vol. 20, no. 12, pp. 13440., WOS
50. [1.1] LI, Y. B. - WEN, Q. Y. - GAO, F. - JIA, H. Y. - SUN, Y. Information leak in Liu et al.'s quantum private comparison and a new protocol. In *EUROPEAN PHYSICAL JOURNAL D*. ISSN 1434-6060, 2012, vol. 66, no. 4, 110., WOS
51. [1.1] LI, Yuan-hua - NIE, Yi-you. Quantum Information Splitting of an Arbitrary Two-Atom State by Using a Genuinely Entangled Five-Atom State in Cavity QED. In *INTERNATIONAL JOURNAL OF THEORETICAL PHYSICS*. ISSN 0020-7748, 2012, vol. 51, no. 6, pp. 1806., WOS
52. [1.1] LI, Yuan-hua - WANG, Xian-ping - SANG, Ming-huang - NIE, Yi-you. Quantum State Sharing of an Arbitrary Two-Atom State with a Genuine Six-Atom Entangled State in Cavity QED. In *INTERNATIONAL JOURNAL OF THEORETICAL PHYSICS*. ISSN 0020-7748, 2012, vol. 51, no. 12, pp. 3757., WOS
53. [1.1] LIU, Bin - GAO, Fei - WEN, Qiao-Yan. Eavesdropping and Improvement to Multiparty Quantum Secret Sharing with Collective Eavesdropping-Check. In *INTERNATIONAL JOURNAL OF THEORETICAL PHYSICS*. ISSN 0020-7748, 2012, vol. 51, no. 4, pp. 1211., WOS
54. [1.1] LIU, Dan - CONG, Yan - MA, Wei. Single-qubit-assisted entanglement concentration of partially entangled multi-electron spin W states. In *PHYSICA SCRIPTA*. ISSN 0031-8949, 2012, vol. 86, no. 4, 045006., WOS
55. [1.1] LIU, Lin-Lin - TSAI, Chia-Wei - HWANG, Tzonelih. Quantum Secret Sharing Using Symmetric W State. In *INTERNATIONAL JOURNAL OF THEORETICAL PHYSICS*. ISSN 0020-7748, 2012, vol. 51, no. 7, pp. 2291., WOS
56. [1.1] LIU, Zhi-Hao - CHEN, Han-Wu - XU, Juan - LIU, Wen-Jie - LI, Zhi-Qiang. High-dimensional deterministic multiparty quantum secret sharing without unitary operations. In *QUANTUM INFORMATION PROCESSING*. ISSN 1570-0755, 2012, vol. 11, no. 6, pp. 1785., WOS
57. [1.1] LONG, Liu-Rong - ZHOU, Ping - LI, Zhao - YIN, Cai-Liu. Multiparty Joint Remote Preparation of an Arbitrary GHZ-Class State via Positive Operator-Valued Measurement. In *INTERNATIONAL JOURNAL OF THEORETICAL PHYSICS*. ISSN 0020-7748, 2012, vol. 51, no. 8, pp. 2438., WOS
58. [1.1] LONG, Yinxiang - QIU, Daowen - LONG, Dongyang. Quantum secret sharing of multi-bits by an entangled six-qubit state. In *JOURNAL OF PHYSICS A-MATHEMATICAL AND THEORETICAL*. ISSN 1751-8113, 2012, vol. 45, no. 19, 195303., WOS
59. [1.1] LULLI, A. - BINA, M. - GENONI, M. G. Robustness of tripartite entanglement transfer from bosonic modes to localized qubits. In *EUROPEAN PHYSICAL JOURNAL-SPECIAL TOPICS*. ISSN 1951-6355, 2012, vol. 203, no. 1, pp. 25., WOS
60. [1.1] MAN, Zhong-Xiao - XIA, Yun-Jie - FEI, Shao-Ming. Equation of motion for multiqubit entanglement in multiple independent noisy channels. In *JOURNAL OF PHYSICS A-MATHEMATICAL AND THEORETICAL*. ISSN 1751-8113, 2012, vol. 45, no. 19, 195306., WOS
61. [1.1] MASSOUD, Hadian Dehkordi - ELHAM, Fattahi. A novel and efficient

- multiparty quantum secret sharing scheme using entangled states. In SCIENCE CHINA-PHYSICS MECHANICS & ASTRONOMY. ISSN 1674-7348, 2012, vol. 55, no. 10, pp. 1828., WOS*
62. [1.1] MEGIDISH, E. - SHACHAM, T. - HALEVY, A. - DOVRAT, L. - EISENBERG, H. S. Resource Efficient Source of Multiphoton Polarization Entanglement. In PHYSICAL REVIEW LETTERS. ISSN 0031-9007, 2012, vol. 108, no. 8, 080504., WOS
63. [1.1] MENDONCA, Fabio Alencar - DE BRITO, Daniel Barbosa - RAMOS, Rubens Viana. AN OPTICAL SCHEME FOR QUANTUM MULTI-SERVICE NETWORK. In QUANTUM INFORMATION & COMPUTATION. ISSN 1533-7146, 2012, vol. 12, no. 7-8, pp. 620., WOS
64. [1.1] NIE, Yi-you - LI, Yuan-hua - LIU, Jun-chang - SANG, Ming-huang. Quantum information splitting of an arbitrary three-qubit state by using a genuinely entangled five-qubit state and a Bell-state. In QUANTUM INFORMATION PROCESSING. ISSN 1570-0755, 2012, vol. 11, no. 2, pp. 563., WOS
65. [1.1] NIU, Hui-Chong - REN, Bao-Cang - WANG, Tie-Jun - HUA, Ming - DENG, Fu-Guo. Faithful Entanglement Sharing for Quantum Communication Against Collective Noise. In INTERNATIONAL JOURNAL OF THEORETICAL PHYSICS. ISSN 0020-7748, 2012, vol. 51, no. 8, pp. 2346., WOS
66. [1.1] PATRA, Manas K. - VAN DER MEYDEN, Ron. Consistent assignment of quantum probabilities. In JOURNAL OF PHYSICS A-MATHEMATICAL AND THEORETICAL. ISSN 1751-8113, 2012, vol. 45, no. 7, 075304., WOS
67. [1.1] PRASATH, E. Sriram - MURALIDHARAN, Sreraman - MITRA, Chiranjib - PANIGRAHI, Prasanta K. Multipartite entangled magnon states as quantum communication channels. In QUANTUM INFORMATION PROCESSING. ISSN 1570-0755, 2012, vol. 11, no. 2, pp. 397., WOS
68. [1.1] SAHA, Debashis - PANIGRAHI, Prasanta K. N-qubit quantum teleportation, information splitting and superdense coding through the composite GHZ-Bell channel. In QUANTUM INFORMATION PROCESSING. ISSN 1570-0755, 2012, vol. 11, no. 2, pp. 615., WOS
69. [1.1] SARVEPALLI, Pradeep. Nonthreshold quantum secret-sharing schemes in the graph-state formalism. In PHYSICAL REVIEW A. ISSN 1050-2947, 2012, vol. 86, no. 4, 042303., WOS
70. [1.1] SHEN, Li-Tuo - CHEN, Xin-Yu - YANG, Zhen-Biao - WU, Huai-Zhi - ZHENG, Shi-Biao. Distributed entanglement induced by dissipative bosonic media. In EPL. ISSN 0295-5075, 2012, vol. 99, no. 2, 20003., WOS
71. [1.1] SHENG YU-BO - ZHOU LAN - CHENG WEI-WEN - GONG LONG-YAN - ZHAO SHENG-MEI - ZHENG BAO-YU. Efficient entanglement purification in quantum repeaters. In CHINESE PHYSICS B. ISSN 1674-1056, 2012, vol. 21, no. 3, 030307., WOS
72. [1.1] SHENG, Yu-Bo - LONG, Gui Lu - DENG, Fu-Guo. One-step deterministic multipartite entanglement purification with linear optics. In PHYSICS LETTERS A. ISSN 0375-9601, 2012, vol. 376, no. 4, pp. 314., WOS
73. [1.1] SHENG, Yu-Bo - ZHOU, Lan - ZHAO, Sheng-Mei. Efficient two-step entanglement concentration for arbitrary W states. In PHYSICAL REVIEW A. ISSN 1050-2947, 2012, vol. 85, no. 4, 042302., WOS
74. [1.1] SHI, Z. C. - XIA, Y. - SONG, J. - SONG, H. S. Effective scheme for generation of two-dimensional cluster states via quantum Zeno dynamics. In EUROPEAN PHYSICAL JOURNAL D. ISSN 1434-6060, 2012, vol. 66, no. 1., WOS
75. [1.1] SHI, Z. C. - XIA, Y. - WU, H. Z. - SONG, J. One-step preparation of



- three-particle Greenberger-Horne-Zeilinger state via quantum Zeno dynamics. In EUROPEAN PHYSICAL JOURNAL D. ISSN 1434-6060, 2012, vol. 66, no. 5, 127., WOS*
76. [1.1] SHUKLA, Chitra - PATHAK, Anirban - SRIKANTH, R. BEYOND THE GOLDENBERG-VAIDMAN PROTOCOL: SECURE AND EFFICIENT QUANTUM COMMUNICATION USING ARBITRARY, ORTHOGONAL, MULTI-PARTICLE QUANTUM STATES. In INTERNATIONAL JOURNAL OF QUANTUM INFORMATION. ISSN 0219-7499, 2012, vol. 10, no. 8, 1241009., WOS
77. [1.1] SONG SIYU - WANG CHUAN. Recent development in quantum communication. In CHINESE SCIENCE BULLETIN. ISSN 1001-6538, 2012, vol. 57, no. 36, pp. 4694., WOS
78. [1.1] SUN, Ying - GAO, Fei - YUAN, Zheng - LI, Yan-Bing - WEN, Qiao-Yan. Splitting a quantum secret without the assistance of entanglements. In QUANTUM INFORMATION PROCESSING. ISSN 1570-0755, 2012, vol. 11, no. 6, pp. 1741., WOS
79. [1.1] SVOZILIK, Jiri - HENDRYCH, Martin - TORRES, Juan P. Bragg reflection waveguide as a source of wavelength-multiplexed polarization-entangled photon pairs. In OPTICS EXPRESS. ISSN 1094-4087, 2012, vol. 20, no. 14, pp. 15015., WOS
80. [1.1] TAN, Aihong - XIE, Changde - PENG, Kunchi. Bright three-color entangled state produced by cascaded optical parametric oscillators. In PHYSICAL REVIEW A. ISSN 1050-2947, 2012, vol. 85, no. 1, 013819., WOS
81. [1.1] THILAGAM, A. Multipartite entanglement in the Fenna-Matthews-Olson (FMO) pigment-protein complex. In JOURNAL OF CHEMICAL PHYSICS. ISSN 0021-9606, 2012, vol. 136, no. 17, 175104., WOS
82. [1.1] TSAI CHIAWEI - HWANG TZONELIH. Multi-party quantum secret sharing based on two special entangled states. In SCIENCE CHINA-PHYSICS MECHANICS & ASTRONOMY. ISSN 1674-7348, 2012, vol. 55, no. 3, pp. 460., WOS
83. [1.1] TSENG, Hsin-Yi - LIN, Jason - HWANG, Tzonelih. New quantum private comparison protocol using EPR pairs. In QUANTUM INFORMATION PROCESSING. ISSN 1570-0755, 2012, vol. 11, no. 2, pp. 373., WOS
84. [1.1] TSENG, Hsin-Yi - TSAI, Chia-Wei - HWANG, Tzonelih - LI, Chuan-Ming. Quantum Secret Sharing Based on Quantum Search Algorithm. In INTERNATIONAL JOURNAL OF THEORETICAL PHYSICS. ISSN 0020-7748, 2012, vol. 51, no. 10, pp. 3101., WOS
85. [1.1] TSENG, Hsin-Yi - TSAI, Chia-Wei - HWANG, Tzonelih. Controlled Deterministic Secure Quantum Communication Based on Quantum Search Algorithm. In INTERNATIONAL JOURNAL OF THEORETICAL PHYSICS. ISSN 0020-7748, 2012, vol. 51, no. 8, pp. 2447., WOS
86. [1.1] WANG, Jian - ZHANG, Sheng - ZHANG, Quan - TANG, Chao-Jing. SEMIQUANTUM SECRET SHARING USING TWO-PARTICLE ENTANGLED STATE. In INTERNATIONAL JOURNAL OF QUANTUM INFORMATION. ISSN 0219-7499, 2012, vol. 10, no. 5, 1250050., WOS
87. [1.1] WANG, Ming-Ming - CHEN, Xiu-Bo - LUO, Shou-Shan - YANG, Yi-Xian. Efficient entanglement channel construction schemes for a theoretical quantum network model with d-level system. In QUANTUM INFORMATION PROCESSING. ISSN 1570-0755, 2012, vol. 11, no. 6, pp. 1715., WOS
88. [1.1] WANG, Ping - CHEN, Mei-Feng. Preparation of four-dimensional entangled states in separate cavities via adiabatic passage. In PHYSICA SCRIPTA. ISSN 0031-8949, 2012, vol. 86, no. 6, 065002., WOS

89. [1.1] WANG, Tian-Yin - CAI, Xiao-Qiu. AN EFFICIENT QUANTUM SECRET SHARING SCHEME WITH DECOY STATES. In *INTERNATIONAL JOURNAL OF MODERN PHYSICS B*. ISSN 0217-9792, 2012, vol. 26, no. 20, 1250122., WOS
90. [1.1] WANG, Tie-Jun - SONG, Si-Yu - LONG, Gui Lu. Quantum repeater based on spatial entanglement of photons and quantum-dot spins in optical microcavities. In *PHYSICAL REVIEW A*. ISSN 1050-2947, 2012, vol. 85, no. 6, 062311., WOS
91. [1.1] WASEDA, Atsushi - SOSHI, Masakazu. Consideration for multi-threshold multi-secret sharing schemes. In *2012 INTERNATIONAL SYMPOSIUM ON INFORMATION THEORY AND ITS APPLICATIONS (ISITA 2012)*, 2012, pp. 265., WOS
92. [1.1] XIAO HE-LING - GUO WANG-MEI - WANG XIAO. Quantum Information Theoretical Analysis of Quantum Secret Sharing. In *CHINESE PHYSICS LETTERS*. ISSN 0256-307X, 2012, vol. 29, no. 11, 110301., WOS
93. [1.1] XU JUAN - CHEN HANWU - LIU ZHIHAO. A SIMPLE AND SECURE QUANTUM SECRET SHARING SCHEME BASED ON PRODUCT STATES. In *INTERNATIONAL JOURNAL OF QUANTUM INFORMATION*. ISSN 0219-7499, 2012, vol. 10, no. 3, 1250031., WOS
94. [1.1] XU, Juan - CHEN, Hanwu - LIU, Zhihao - RUAN, Yue - ZHU, Wanning. Quantum Secret Sharing without Exclusive OR of Qubits's Measuring Results. In *2012 IEEE CONGRESS ON EVOLUTIONARY COMPUTATION (CEC)*, 2012., WOS
95. [1.1] XU, Peng - YE, Liu. THE CONCENTRATION PROTOCOL OF A TWO-PARTICLE NON-MAXIMALLY ENTANGLED STATE AMONG THREE CAVITIES. In *MODERN PHYSICS LETTERS B*. ISSN 0217-9849, 2012, vol. 26, no. 24, 1250158., WOS
96. [1.1] XU, Qing - HU, Xiangming. Separated atomic ensembles: Multimode squeezed states and multipartite entangled states. In *PHYSICAL REVIEW A*. ISSN 1050-2947, 2012, vol. 86, no. 3, 032337., WOS
97. [1.1] YANG SHUAI - CHEN XIU-BO - YANG YI-XIAN. Attack on the Enhanced Multiparty Quantum Secret Sharing. In *COMMUNICATIONS IN THEORETICAL PHYSICS*. ISSN 0253-6102, 2012, vol. 58, no. 1, pp. 51., WOS
98. [1.1] YANG YUGUANG - XIA JUAN - JIA XIN - ZHANG HUA. Undeniable quantum state sharing with a five-atom cluster state in cavity QED. In *SCIENCE CHINA-PHYSICS MECHANICS & ASTRONOMY*. ISSN 1674-7348, 2012, vol. 55, no. 12, pp. 2439., WOS
99. [1.1] YANG, Chui-Ping - SU, Qi-Ping - HAN, Siyuan. Generation of Greenberger-Horne-Zeilinger entangled states of photons in multiple cavities via a superconducting qutrit or an atom through resonant interaction. In *PHYSICAL REVIEW A*. ISSN 1050-2947, 2012, vol. 86, no. 2, 022329., WOS
100. [1.1] YANG, Yu-Guang - JIA, Xin - WANG, Hong-Yang - ZHANG, Hua. Verifiable quantum (k, n)-threshold secret sharing. In *QUANTUM INFORMATION PROCESSING*. ISSN 1570-0755, 2012, vol. 11, no. 6, pp. 1619., WOS
101. [1.1] YANG, Yu-Guang - JIA, Xin - XIA, Juan - SHI, Lei - ZHANG, Hua. Comment on "Quantum Secure Direct Communication with Authentication Expansion Using Single Photons" In *INTERNATIONAL JOURNAL OF THEORETICAL PHYSICS*. ISSN 0020-7748, 2012, vol. 51, no. 12, pp. 3681., WOS
102. [1.1] YU, Tao - JI, Yan-Qiang - ZHU, Ai-Dong - WANG, Hong-Fu - ZHANG, Shou. Robust teleportation and multipartite entanglement analyzers via

- quantum-dot spins in weak-coupling cavity quantum electrodynamics regime. In JOURNAL OF THE OPTICAL SOCIETY OF AMERICA B-OPTICAL PHYSICS. ISSN 0740-3224, 2012, vol. 29, no. 8, pp. 2029., WOS*
103. [1.1] YUAN, Hao - ZHOU, Jun - ZHANG, Gang - YANG, Huan - XING, Ling-ling. *Efficient Multiparty Quantum Secret Sharing of Secure Direct Communication Based on Bell States and Continuous Variable Operations. In INTERNATIONAL JOURNAL OF THEORETICAL PHYSICS. ISSN 0020-7748, 2012, vol. 51, no. 11, pp. 3443., WOS*
104. [1.1] ZHAN, You-Bang. *Deterministic Joint Assisted Cloning of Unknown Two-Qubit Entangled States. In INTERNATIONAL JOURNAL OF THEORETICAL PHYSICS. ISSN 0020-7748, 2012, vol. 51, no. 6, pp. 1655., WOS*
105. [1.1] ZHANG CHUAN-LIN - WANG CHUAN - CAO CONG - ZHANG RU. *Multi-particle Entanglement Generation Using Quantum-Dot Spin and Optical Microcavity System. In CHINESE PHYSICS LETTERS. ISSN 0256-307X, 2012, vol. 29, no. 7, 070305., WOS*
106. [1.1] ZHANG, Qun-Yong - ZHAN, You-Bang. *Quantum Information Splitting by Using Asymmetric Multi-particle State. In INTERNATIONAL JOURNAL OF THEORETICAL PHYSICS. ISSN 0020-7748, 2012, vol. 51, no. 10, pp. 3037., WOS*
107. [1.1] ZHANG, Wen - ZUO, Xue-qin - ZHANG, Zi-yun. *Sharing a Qudit State by Using Bell States Channel. In INTERNATIONAL JOURNAL OF THEORETICAL PHYSICS. ISSN 0020-7748, 2012, vol. 51, no. 11, pp. 3551., WOS*
108. [1.1] ZHENG, Nai-Qing. *Generation of Distributed W-Type Entanglement for Three Atoms Trapped in Separated Cavities. In INTERNATIONAL JOURNAL OF THEORETICAL PHYSICS. ISSN 0020-7748, 2012, vol. 51, no. 12, pp. 3876., WOS*
109. [1.1] ZHONG, Li-Ye - GUO, Qi - CHENG, Liu-Yong - SU, Shi-Lei - ZHU, Long - WANG, Hong-Fu - ZHANG, Shou. *Quantum information splitting of an arbitrary three-qubit state via the cavity input-output process. In OPTICS COMMUNICATIONS. ISSN 0030-4018, 2012, vol. 285, no. 21-22, pp. 4616., WOS*
110. [1.1] ZHONG, Zhi-Rong - LIN, Xiu - ZHANG, Bin - YANG, Zhen-Biao. *Deterministic multi-atom GHZ states generation in a coupled cavity system with the assistance of strong classical fields. In PHYSICA SCRIPTA. ISSN 0031-8949, 2012, vol. 86, no. 5, 055009., WOS*
111. [1.1] ZHOU, Ping. *Joint remote preparation of an arbitrary m-qudit state with a pure entangled quantum channel via positive operator-valued measurement. In JOURNAL OF PHYSICS A-MATHEMATICAL AND THEORETICAL. ISSN 1751-8113, 2012, vol. 45, no. 21, 215305., WOS*
112. [1.1] ZHU ZHEN-CHAO - ZHANG YU-QING - FU AN-MIN. *Cryptanalysis and improvement of a quantum secret sharing scheme based on chi-type entangled states. In CHINESE PHYSICS B. ISSN 1674-1056, 2012, vol. 21, no. 1, 010307., WOS*

ADCA188 HODGSON, P.E. - BĚTÁK, Emil. *Cluster emission, transfer and capture in nuclear reactions. In Physics Reports, 2003, vol. 374, no. 1, p. 1-89. ISSN 0370-1573.*

Citácie:

1. [1.1] BETAN, R.-NAZAREWICZ, W. *Alpha decay in the complex-energy shell model. In PHYSICAL REVIEW C, 2012, vol. 86, 034338., WOS*
2. [1.1] COBAN, A. - BAYRAK, O. - SOYLU, A. - BOZTOSUN, I. *Effect of nuclear deformation on alpha-decay half-lives. In PHYSICAL REVIEW C. ISSN 0556-2813, 2012, vol. 85, no. 4, 044324., WOS*

3. [1.1] ISMAIL, M. - ADEL, A. Correlation between alpha-particle preformation probability and the energy levels of parent nuclei. In *PHYSICAL REVIEW C*. ISSN 0556-2813, 2012, vol. 86, no. 1, 014616., WOS
  4. [1.1] ISMAIL, M. - ELLITHI, A. Y. - BOTROS, M. M. - ABDURRAHMAN, A. Penetration factor in deformed potentials: Application to alpha decay with deformed nuclei. In *PHYSICAL REVIEW C*. ISSN 0556-2813, 2012, vol. 86, no. 4, 044317., WOS
  5. [1.1] JAVADIMANESH, E. - HASSANABADI, H. - RAJABI, A. A. - RAHIMOV, H. - ZARRINKAMAR, S. Alpha Decay Half-Lives of Some Nuclei from Ground State to Ground State with Yukawa Proximity Potential. In *COMMUNICATIONS IN THEORETICAL PHYSICS*. ISSN 0253-6102, 2012, vol. 58, no. 1, pp. 146., WOS
  6. [1.1] NI DONGDONG - REN ZHONGZHOU. Systematic Calculations of alpha-Decay Half-Lives Using Microscopic Deformed Potentials. In *PLASMA SCIENCE & TECHNOLOGY*. ISSN 1009-0630, 2012, vol. 14, no. 7, pp. 588., WOS
  7. [1.1] NI, Dongdong - REN, Zhongzhou - FREEMAN, S - ANDREYEV, A - BRUCE, A - DEACON, A - JENKINS, D - JOSS, D - MACGREGOR, D - REGAN, P - SIMPSON, J - TUNGATE, G - WADSWORTH, R - WATTS, D. Systematic calculation of fine structure in the alpha decay of deformed nuclei. In *RUTHERFORD CENTENNIAL CONFERENCE ON NUCLEAR PHYSICS, 2011*. ISSN 1742-6588, 2012, vol. 381, 012055., WOS
  8. [1.1] NI, Dongdong - REN, Zhongzhou. Alpha-Decay Studies of Rf, Sg, and Hs Isotopes within the Multi-Channel Cluster Model. In *PROGRESS OF THEORETICAL PHYSICS SUPPLEMENT*. ISSN 0375-9687, 2012, vol., no. 196, pp. 445., WOS
  9. [1.1] NI, Dongdong - REN, Zhongzhou. Binding energies, alpha-decay energies, and alpha-decay half-lives for heavy and superheavy nuclei. In *NUCLEAR PHYSICS A*. ISSN 0375-9474, 2012, vol. 893, no., pp. 13., WOS
  10. [1.1] NI, Dongdong - REN, Zhongzhou. Systematic calculation of fine structure in the alpha decay of heavy odd-mass nuclei. In *PHYSICAL REVIEW C*. ISSN 0556-2813, 2012, vol. 86, no. 5, 054608., WOS
  11. [1.1] QIAN, Y.-REN, Z. Shape probe of Hg and Pt isotopes by alpha decay. In *JOURNAL OF PHYSICS G*, 2012, vol. 39, no. 11, 115106., WOS
  12. [1.1] QIAN, Yibin - REN, Zhongzhou. Unfavored alpha decay from ground state to ground state in the range  $53 \leq Z \leq 91$ . In *PHYSICAL REVIEW C*. ISSN 0556-2813, 2012, vol. 85, no. 2, 027306., WOS
  13. [1.1] REN, Yuejiao - REN, Zhongzhou. New Geiger-Nuttall law for a decay of heavy nuclei. In *PHYSICAL REVIEW C*. ISSN 0556-2813, 2012, vol. 85, no. 4, 044608., WOS
  14. [1.1] SANTHOSH, K. P. - JOSEPH, Jayesh George. Systematic studies on alpha-decay fine structure of odd-odd nuclei in the region  $83 \leq Z \leq 101$ . In *PHYSICAL REVIEW C*. ISSN 0556-2813, 2012, vol. 86, no. 2, 024613., WOS
  15. [1.1] SOYLU, A. - SERT, Y. - BAYRAK, O. - BOZTOSUN, I. Role of the cluster deformations in explaining the exotic decay half-lives. In *EUROPEAN PHYSICAL JOURNAL A*. ISSN 1434-6001, 2012, vol. 48, no. 9, 128., WOS
- ADCA189 HOLLWIESER, R. - FABER, M. - GREENSITE, J. - HELLER, U.M. - OLEJNÍK, Štefan. Center vortices and the Dirac spectrum. In *Physical Review D*, 2008, vol. 78, 054508. ISSN 1550-7998.

Citácie:

1. [1.1] DOFF, A. - MACHADO, F. A. - NATALE, A. A. Chiral symmetry breaking in QCD-like gauge theories with a confining propagator and dynamical



- gauge boson mass generation. In ANNALS OF PHYSICS. ISSN 0003-4916, 2012, vol. 327, no. 4, pp. 1030-1049., WOS*
2. [1.1] GONGYO, Shinya - IRITANI, Takumi - SUGANUMA, Hideo. *Gauge-invariant formalism with a Dirac-mode expansion for confinement and chiral symmetry breaking. In PHYSICAL REVIEW D. ISSN 1550-7998, 2012, vol. 86, no. 3, 034510., WOS*
- ADCA190 HOLZMANN, R. - SCHUBERT, A. - HLAVÁČ, Stanislav - KULESSA, R. - NIEBUR, W. - SIMON, R.S. - LAUTRIDOU, P. - LEFEVRE, F. - MARQUES, M. - MATULEWICZ, T. - MITTIG, W. - OSTENDORF, R.W. - ROUSSELCHOMAZ, P. - SCHUTZ, Y. - BALLESTER, F. - DIAZ, J. - MARIN, A. - MARTINEZ, G. - METAG, V. - NOVOTNY, R. - WAGNER, V. - QUEBERT, J. Pion reabsorption in heavy-ion collisions interpreted in terms of the Delta capture process. In Physics Letters B, 1996, vol. 366, no. 1-4, p. 63-68. (3.272 - IF1995). (1996 - Current Contents, SCOPUS). ISSN 0370-2693.
- Citácie:
1. [1.1] FENG, Zhao-Qing. *Transverse emission of isospin ratios as a probe of high-density symmetry energy in isotopic nuclear reactions. In PHYSICS LETTERS B. ISSN 0370-2693, 2012, vol. 707, no. 1, pp. 83., WOS*
- ADCA191 HOLZMANN, R. - SCHUBERT, A. - HLAVÁČ, Stanislav - KULESSA, R. - NIEBUR, W. - SIMON, R.S. - LAUTRIDOU, P. - LEFEVRE, R. - MARQUES, M. - MATULEWICZ, T. - MITTIG, W. - OSTENDORF, R.W. - ROUSSELCHOMAZ, P. - SCHUTZ, Y. - LOHNER, H. - VANPOL, J.H.G. - SIEMSEN, R.H. - WILSCHUT, H.W. - BALLESTER, F. - DIAZ, J. - MARIN, A. - MARTINEZ, G. - METAG, V. - NOVOTNY, R. - WAGNER, V. - QUEBERT, J. Pion reabsorption in heavy-ion collisions interpreted in terms of the Delta capture process (vol 366, pg 63, 1996). In Physics Letters B, 1996, vol. 375, no. 1-4, p. 359-359. (3.272 - IF1995). (1996 - Current Contents, SCOPUS). ISSN 0370-2693.
- Citácie:
1. [1.1] FENG, Zhao-Qing. *Nuclear in-medium effects and collective flows in heavy-ion collisions at intermediate energies. In PHYSICAL REVIEW C. ISSN 0556-2813, 2012, vol. 85, no. 1, 014604., WOS*
2. [1.1] FENG, Zhao-Qing. *Transverse emission of isospin ratios as a probe of high-density symmetry energy in isotopic nuclear reactions. In PHYSICS LETTERS B. ISSN 0370-2693, 2012, vol. 707, no. 1, pp. 83., WOS*
- ADCA192 HORVÁTHOVÁ, Lucia - DUBECKÝ, Matúš - MITÁŠ, L. - ŠTICH, Ivan. Spin multiplicity and symmetry breaking in vanadium-benzene complexes. In Physical Review Letters, 2012, vol. 109, no. 5, 053001. (7.370 - IF2011). (2012 - Current Contents, WOS, SCOPUS). ISSN 0031-9007.
- Citácie:
1. [1.1] MASUBUCHI, Tsugunosuke - OHI, Katsuya - IWASA, Takeshi - NAKAJIMA, Atsushi. *Experimental and theoretical studies on the electronic properties of vanadium-benzene sandwich cluster anions, V(n)Bz(n+1)(-)(n=1-5). In JOURNAL OF CHEMICAL PHYSICS. ISSN 0021-9606, 2012, vol. 137, no. 22, 224305., WOS*
- ADCA193 HRASKA, V. - KRAJČÍ, Marián - HAUN, C. - NTALAKOURA, K. - RAZEK, V. - LACOUR-GAYET, F. - WEIL, J. - REICHENSPURNER, H. Ross and Ross-Konno procedure in children and adolescents. In European Journal of Cardio-Thoracic Surgery, 2004, vol. 25, no. 5, p. 742-747. ISSN 1010-7940.
- Citácie:
1. [1.1] ALSOUFI, Bahaaldin - FADEL, Bahaa - BULBUL, Ziad - AL-AHMADI, Mamdouh - AL-FAYYADH, Majid - KALLOGHLIAN, Avedis - SIBLINI, Ghassan - AL-HALEES, Zohair. *Cardiac reoperations following the Ross procedure in*

- children: spectrum of surgery and reoperation results. In EUROPEAN JOURNAL OF CARDIO-THORACIC SURGERY. ISSN 1010-7940, 2012, vol. 42, no. 1, pp. 25., WOS*
2. [1.1] MAEDA, Katsuhide - RIZAL, Rachel E. - LAVRSEN, Michael - MALHOTRA, Sunil P. - AKRAM, Sami A. - DAVIES, Ryan - SULEMAN, Sam - REINHARTZ, Olaf - MURPHY, Daniel J. - HANLEY, Frank L. - REDDY, V. Mohan. Midterm Results of the Modified Ross/Konno Procedure in Neonates and Infants. In ANNALS OF THORACIC SURGERY. ISSN 0003-4975, 2012, vol. 94, no. 1, pp. 156., WOS
3. [1.1] MITROPOULOS, Fotios A. - KANAKIS, Meletios A. - APOSTOLOPOULOU, Sotiria C. - RAMMOS, Spyridon - ANAGNOSTOPOULOS, Constantine E. The Ross-Konno Procedure as Reoperative Treatment in a Young Adult with Congenital Aortic Stenosis. In HEART SURGERY FORUM. ISSN 1098-3511, 2012, vol. 15, no. 4, pp. E182., WOS
4. [1.1] PATEL, Jyoti Kandlikar - IYER, V. Ramesh. Managing Arrhythmias before and after Aortic Valve Surgery in Children. In AMERICAN JOURNAL OF CARDIOVASCULAR DRUGS. ISSN 1175-3277, 2012, vol. 12, no. 1, pp. 23., WOS
5. [1.1] PAULIKS, Linda B. - BRIAN CLARK, J. - ROGERSON, Ashley - DIPIETRO, Amy - MYERS, John L. - CYRAN, Stephen E. Exercise Stress Echocardiography After Childhood Ross Surgery: Functional Outcome in 26 Patients From a Single Institution. In PEDIATRIC CARDIOLOGY. ISSN 0172-0643, 2012, vol. 33, no. 5, pp. 797., WOS
6. [1.1] WOODS, Ronald K. - PASQUALI, Sara K. - JACOBS, Marshall L. - AUSTIN, Erle H. - JACOBS, Jeffrey P. - KROLIKOWSKI, Mary - MITCHELL, Michael E. - PIZARRO, Christian - TWEDDELL, James S. Aortic valve replacement in neonates and infants: An analysis of the Society of Thoracic Surgeons Congenital Heart Surgery Database. In JOURNAL OF THORACIC AND CARDIOVASCULAR SURGERY. ISSN 0022-5223, 2012, vol. 144, no. 5, pp. 1084., WOS
- ADCA194 IGA, H. - MIHALKOVIČ, Marek - ISHIMASA, T. Approximant of dodecagonal quasicrystal formed in Mn-Si-V alloy. In Philosophical Magazine, 2011, vol. 91, no. 19-21, p. 2624-2633. (1.302 - IF2010). (2011 - Current Contents). ISSN 1478-6435.  
Citácie:  
1. [1.1] DOTERA, Tomonari. Toward the discovery of new soft quasicrystals: From a numerical study viewpoint. In JOURNAL OF POLYMER SCIENCE PART B-POLYMER PHYSICS. ISSN 0887-6266, 2012, vol. 50, no. 3, pp. 155., WOS
- ADCA195 ILLEKOVÁ, Emília - CSOMOROVÁ, Katarína. Kinetics of oxidation in various forms of carbon. In Journal of Thermal Analysis and Calorimetry, 2005, vol. 80, no. 1, p. 103-108. ISSN 1418-2874.  
Citácie:  
1. [1.1] FALLAH, A. - NAKAYAMA, Y. Effect of gas phase oxidation on the structure and intertube adhesion force of a brush-like assembly of carbon nanotubes. In CARBON. ISSN 0008-6223, APR 2012, vol. 50, no. 5, p. 1879-1887., WOS
2. [1.1] GROMOV, A.V. - GRAY, N. - SZILAGYI, P.A. - CAMPBELL, E.E.B. Direct grafting of carbon nanotubes with ethylenediamine. In JOURNAL OF MATERIALS CHEMISTRY. ISSN 0959-9428, 2012, vol. 22, no. 39, p. 21242-21248., WOS
3. [1.1] KAMALI, A.R. - DIVITINI, G. - SCHWANDT, C. - FRAY, D.J. Correlation between microstructure and thermokinetic characteristics of

- electrolytic carbon nanomaterials. In CORROSION SCIENCE. ISSN 0010-938X, NOV 2012, vol. 64, p. 90-97., WOS*
4. [1.1] KIM, T. - KANG, T.J. - LI, K. - JANG, E.Y. - LEE, J.S. - SEO, D.K. - IM, H. - KIM, Y.H. *Suspended SWNT electrode with nanosize gaps. In SENSORS AND ACTUATORS B-CHEMICAL. ISSN 0925-4005, OCT 2012, vol. 173, p. 517-522., WOS*
5. [1.1] LUO, M. - LI, Y.W. - JIN, S.L. - SANG, S.B. - ZHAO, L. *Microstructural Evolution and Oxidation Resistance of Multi-walled Carbon Nanotubes in the Presence of Silicon Powder at High Temperatures. In JOURNAL OF MATERIALS SCIENCE & TECHNOLOGY. ISSN 1005-0302, JUL 2012, vol. 28, no. 7, p. 599-605., WOS*
6. [1.1] SARKAR, S. - DAS, P.K. *Non-isothermal oxidation kinetics of single- and multi-walled carbon nanotubes up to 1273 K in ambient. In JOURNAL OF THERMAL ANALYSIS AND CALORIMETRY. ISSN 1388-6150, MAR 2012, vol. 107, no. 3, p. 1093-1103., WOS*
- ADCA196 ILLEKOVÁ, Emília - MALIZIA, F. - RONCONI, F. *The complex DSC analysis of the first crystallization peak of Fe<sub>80</sub>Si<sub>10</sub>B<sub>10</sub> metallic glass. In Thermochimica Acta, 1996, vol. 283, p. 91-100. ISSN 0040-6031.*  
Citácie:  
1. [1.1] POCHEC, E. *The maps of Fe-Al phases formation. In THERMOCHIMICA ACTA, vol. 545. 2012, p. 14-19., WOS*  
2. [1.1] SHPAK, A. P. - IL&APOS;INSKYI, O. G. - SLUKHOVSKYI, O. I. . - LEPEEVA, Yu. V. - ZELINSKA, G. M. - KABAN, I. G. *The Structure of Fe-Si-B-System Alloys in Liquid, Amorphous and Nanocrystalline States. In METALLOFIZIKA I NOVEISHIE TEKHNologii. ISSN 1024-1809, 2012, vol. 34, no. 6, pp. 751., WOS*
- ADCA197 ILLEKOVÁ, Emília - DUHAJ, Pavol - MRAFKO, Peter - ŠVEC, Peter. *Influence of Pd on crystallization of Al-Ni-Sm-based ribbons. In Journal of Alloys and Compounds, 2009, vol. 483, p. 20-23. ISSN 0925-8388.*  
Citácie:  
1. [1.1] LAY, M. D. H. - HILL, A. J. - SAKSIDA, P. G. - GIBSON, M. A. - BASTOW, T. J. *Al-27 NMR measurement of fcc Al configurations in as-quenched Al<sub>85</sub>Ni<sub>11</sub>Y<sub>4</sub> metallic glass and crystallization kinetics of Al nanocrystals. In ACTA MATERIALIA. ISSN 1359-6454, 2012, vol. 60, no. 1, pp. 79., WOS*
- ADCA198 ILLEKOVÁ, Emília - ŠVEC, Peter - MIGLIERINI, M. *Thermokinetic analysis of the multistep crystallization of a NANOPERM-type ribbon. In Journal of Non-Crystalline Solids, 2007, vol. 353, no. 32-40, p. 3342-3347. (1.362 - IF2006). (2007 - Current Contents, SCOPUS). ISSN 0022-3093.*  
Citácie:  
1. [1.1] GAO, H.-Z. *Exploring antibiotic resistant mechanism. In JOURNAL OF THERMAL ANALYSIS AND CALORIMETRY, vol. 107, 2012, p. 321-324., WOS*  
2. [1.1] YU, W.Q. *The effect of Nb addition. In OPTOELECTRONICS AND ADVANCED MATERIALS, vol. 6, 2012, p. 145-148., WOS*
- ADCA199 ILLEKOVÁ, Emília. *FINEMET-type nanocrystallization kinetics. In Thermochimica Acta, 2002, vol. 387, no. 1, p. 47-56. ISSN 0040-6031.*  
Citácie:  
1. [1.1] BLAZQUEZ, J. S. - CONDE, C. F. - CONDE, A. *Analysis of nanocrystallization kinetics and crystal size distribution under limited growth approach. In JOURNAL OF ALLOYS AND COMPOUNDS. ISSN 0925-8388, 2012, vol. 536, suppl.1, pp. S550., WOS*  
2. [1.1] ZHOU, Xiao - ZHOU, Haitao - ZHAO, Zhongkai - LIU, Ruirui - ZHOU, Yong. *A study of non-isothermal primary crystallization kinetics and soft magnetic*

- property of Co<sub>65</sub>Fe<sub>4</sub>Ni<sub>2</sub>Si<sub>15</sub>B<sub>14</sub> amorphous alloy. In JOURNAL OF ALLOYS AND COMPOUNDS. ISSN 0925-8388, 2012, vol. 539, pp. 210-214., WOS*
- ADCA200 ILLEKOVÁ, Emília - AMBROVIČ, Peter - CSOMOROVÁ, Katarína. Investigation of structural relaxation of Fe<sub>85</sub>B<sub>15</sub> amorphous metallic alloy by thermomagnetization. In Journal of Thermal Analysis and Calorimetry, 1987, vol. 32, no. 1, p. 9-16. ISSN 1418-2874.
- Citácie:  
*1. [1.1] HOLBA, Pavel - SESTAK, Jaroslav. CZECHOSLOVAK FOOTPRINTS IN THE DEVELOPMENT OF METHODS OF THERMOMETRY, CALORIMETRY AND THERMAL ANALYSIS. In CERAMICS-SILIKATY. ISSN 0862-5468, 2012, vol. 56, no. 2, pp. 159., WOS*
- ADCA201 ILLEKOVÁ, Emília. The crystallization kinetics of Fe<sub>80</sub>Si<sub>4</sub>B<sub>16</sub> metallic glass. In Thermochimica Acta, 1996, vol. 280/281, p. 289-301. ISSN 0040-6031.
- Citácie:  
*1. [1.1] SHPAK, A. P. - IL'INSKYI, O. G. - SLUKHOVSKYI, O. I. - LEPEEVA, Yu. V. - ZELINSKA, G. M. - KABAN, I. G. The Structure of Fe-Si-B-System Alloys in Liquid, Amorphous and Nanocrystalline States. In METALLOFIZIKA I NOVEISHIE TEKHOLOGII. ISSN 1024-1809, 2012, vol. 34, no. 6, pp. 751., WOS*
- ADCA202 ILLEKOVÁ, Emília - GACHON, J.C. - ROGACHEV, A. - GRIGORYAN, H. - SCHUSTER, J.C. - NOSYREV, A. - TSYGANKOV, P. Kinetics of intermetallic phase formation in the Ti/Al multilayers. In Thermochimica Acta, 2008, vol. 469, no. 1-2, p. 77-85. (1.562 - IF2007). (2008 - Current Contents). ISSN 0040-6031.
- Citácie:  
*1. [1.1] PERUSKO, D. - PETROVIC, S. - KOVAC, J. - STOJANOVIC, Z. - PANJAN, M. - OBRADOVIC, M. - MILOSAVLJEVIC, M. Laser-induced formation of intermetallics in multilayered Al/Ti nano-structures. In JOURNAL OF MATERIALS SCIENCE. ISSN 0022-2461, 2012, vol. 47, no. 10, pp. 4488., WOS*
- ADCA203 ILLEKOVÁ, Emília. Review of structural relaxation models with the mutual correlation of their activation enthalpies. In International Journal of Rapid Solidification, 1994, vol. 8, no. 3, p. 195-224. (0.839 - IF1993). ISSN 0265-0916.
- Citácie:  
*1. [1.1] KOZMIDIS-PETROVIC, Ana - SESTAK, Jaroslav. Forty years of the Hruby glass-forming coefficient via DTA when comparing other criteria in relation to the glass stability and vitrification ability. In JOURNAL OF THERMAL ANALYSIS AND CALORIMETRY. ISSN 1388-6150, 2012, vol. 110, no. 2, pp. 997., WOS*
- ADCA204 ILLEKOVÁ, Emília - CUNAT, C. An extended review of structural relaxation models with the mutual correlation of their parameters. In Journal of Non-Crystalline Solids, 1994, vol. 172, p. 597-600. (0.970 - IF1993). (1994 - Current Contents). ISSN 0022-3093.
- Citácie:  
*1. [1.1] KOZMIDIS-PETROVIC, Ana - SESTAK, Jaroslav. Forty years of the Hruby glass-forming coefficient via DTA when comparing other criteria in relation to the glass stability and vitrification ability. In JOURNAL OF THERMAL ANALYSIS AND CALORIMETRY. ISSN 1388-6150, 2012, vol. 110, no. 2, pp. 997., WOS*
- ADCA205 ILLEKOVÁ, Emília - CLAVAGUERAMORA, M.T. - BARO, M.D. - SURINACH, S. Differential scanning calorimetry study of structural relaxation of GE-doped SE<sub>85</sub>TE<sub>15</sub> glasses. In Materials Science and Engineering C - Biomimetic and Supramolecular Systems, 1994, vol. 22, no. 2-3, p. 181-190. ISSN 0928-4931.



Citácie:

1. [1.1] KOZMIDIS-PETROVIC, Ana - SESTAK, Jaroslav. Forty years of the Hruby glass-forming coefficient via DTA when comparing other criteria in relation to the glass stability and vitrification ability. In JOURNAL OF THERMAL ANALYSIS AND CALORIMETRY. ISSN 1388-6150, 2012, vol. 110, no. 2, pp. 997., WOS

- ADCA206 ILLEKOVÁ, Emília - CUNAT, C. - KUHNAST, F.A. - AHAROUNE, A. - FLORIANI, J.M. Complex behavior of specific-heat during structural relaxation of Fe<sub>73</sub>Co<sub>12</sub>B<sub>15</sub> metallic-glass. In Thermochemica Acta, 1992, vol. 203, p. 445-455. (0.620 - IF1991). (1992 - Current Contents). ISSN 0040-6031.

Citácie:

1. [1.1] KOZMIDIS-PETROVIC, Ana - SESTAK, Jaroslav. Forty years of the Hruby glass-forming coefficient via DTA when comparing other criteria in relation to the glass stability and vitrification ability. In JOURNAL OF THERMAL ANALYSIS AND CALORIMETRY. ISSN 1388-6150, 2012, vol. 110, no. 2, pp. 997-1004., WOS

- ADCA207 ITKIS, M.G. - BOGACHEV, A.A. - ITKIS, I.M. - KLIMAN, Ján - KNYAZHEVA, G.N. - KONDRATIEV, N.A. - KOZULIN, G.N. - KRUPA, Ľuboš - OGANEŠSIAN, Y.T. - POKROVSKY, I.V. - PROKHOROVA, E.V. - RUSANOV, A.Y. The processes of fusion-fission and quasi-fission of superheavy nuclei. In Nuclear Physics A, 2007. Vol. 787, p. 150C-159C. ISSN 0375-9474.

Citácie:

1. [1.1] HINDE, D. J. - DU RIETZ, R. - SIMENEL, C. - DASGUPTA, M. - WAKHLE, A. - EVERS, M. - LUONG, D. H. - ALARCON, R - AYALA, E - GRANJA, C - MEDINA, N. Effects of Nuclear Structure in Heavy Element Formation Dynamics. In IX LATIN AMERICAN SYMPOSIUM ON NUCLEAR PHYSICS AND APPLICATIONS. ISSN 0094-243X, 2012, vol. 1423., WOS  
2. [1.1] ITKIS, I. M. - ITKIS, M. G. - KNYAZHEVA, G. N. - KOZULIN, E. M. - NIKSIC, T - MILIN, M - VRETENAR, D - SZILNER, S. Fusion-Fission And Quasifission In The Reactions With Heavy Ions Leading To The Formation Of Hs. In NUCLEAR STRUCTURE AND DYNAMICS &apos;12. ISSN 0094-243X, 2012, vol. 1491, pp. 350., WOS

- ADCA208 IVANČO, Ján - ZAHN, D.R.T. Critical evaluation of band bending determination in organic films from photoemission measurements. In Journal of Vacuum Science and Technology A, 2009, vol. 27, no. 5, p. 1178-1182. ISSN 0374-2101.

Citácie:

1. [1.1] KIM, Kisoo - HONG, Kihyon - KIM, Sungjun - LEE, Jong-Lam. Doping Mechanism and Electronic Structure of Alkali Metal Doped Tris(8-hydroxyquinoline) Aluminum. In JOURNAL OF PHYSICAL CHEMISTRY C. ISSN 1932-7447, 2012, vol. 116, no. 16, pp. 9158-9165., WOS

- ADCA209 IVANČO, Ján - DUBECKÝ, František - DARMO, Juraj - KREMPASKÝ, Marián - BEŠŠE, Igor - SENDERÁK, Rudolf. Semi-insulating GaAs-based Schottky contacts in the role of detectors of ionising radiation: An effect of the interface treatment. In Nuclear Instruments and Methods in Physics Research A, 1999, vol. 434, p. 158-163. (0.896 - IF1998). (1999 - Current Contents).

Citácie:

1. [3] Avenel-Le Guerroue, M.L.: PhD Thesis. Grenoble: CEA - LETI - Direction de la Recherche Technologique 2012.

- ADCA210 JAHNATEK, M. - HAFNER, J. - KRAJČÍ, Marián. Shear deformation, ideal strength, and stacking fault formation of fcc metals: A density-functional study of Al and Cu. In Physical Review B, 2009, vol. 79, no. 22, 224103. (3.322 - IF2008). (2009 - Current Contents, WOS, SCOPUS). ISSN 1098-0121.

Citácie:

1. [1.1] GRIMVALL, G. In *REVIEW OF MODERN PHYSICS*, vol. 84, 2012, p. 945., WOS
2. [1.1] LIU YUE-LIN - GUI LI-JIANG - JIN SHUO. *Ab initio investigation of the mechanical properties of copper*. In *CHINESE PHYSICS B*. ISSN 1674-1056, 2012, vol. 21, no. 9, 096102., WOS
3. [1.1] NAGASAKO, Naoyuki - ASAH, Ryoji - HAFNER, Juergen. *Ideal tensile and shear strength of a gum metal approximant: Ab initio density functional calculations*. In *PHYSICAL REVIEW B*. ISSN 1098-0121, 2012, vol. 85, no. 2, 024122., WOS
4. [1.1] PANG, Xueyong - AHMED, Naveed - JANISCH, Rebecca - HARTMAIER, Alexander. *The mechanical shear behavior of Al single crystals and grain boundaries*. In *JOURNAL OF APPLIED PHYSICS*. ISSN 0021-8979, 2012, vol. 112, no. 2, 023503., WOS
5. [1.1] SCHOPF, Carola - SCHAMEL, Matthias - STRUNK, Horst P. - RICHTER, Gunther. *Cyclic Cantilever Bending of Copper Nanowhiskers*. In *ADVANCED ENGINEERING MATERIALS*. ISSN 1438-1656, 2012, vol. 14, no. 11, pp. 975., WOS
6. [1.1] SHANG, S. L. - WANG, W. Y. - WANG, Y. - DU, Y. - ZHANG, J. X. - PATEL, A. D. - LIU, Z. K. *Temperature-dependent ideal strength and stacking fault energy of fcc Ni: a first-principles study of shear deformation*. In *JOURNAL OF PHYSICS-CONDENSED MATTER*. ISSN 0953-8984, 2012, vol. 24, no. 15, 155402., WOS
7. [1.1] SHANG, S. L. - ZACHERL, C. L. - FANG, H. Z. - WANG, Y. - DU, Y. - LIU, Z. K. *Effects of alloying element and temperature on the stacking fault energies of dilute Ni-base superalloys*. In *JOURNAL OF PHYSICS-CONDENSED MATTER*. ISSN 0953-8984, 2012, vol. 24, no. 50, 505403., WOS
8. [1.1] WANG, Jie - QI, Jian-Ying - ZHOU, Xian. *Ideal strength and deformation-induced phase transformation of hcp metals Re, Ru, and Os: A first-principles study*. In *MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES MICROSTRUCTURE AND PROCESSING*. ISSN 0921-5093, 2012, vol. 534, no., pp. 353., WOS
9. [1.1] YADAV, S. K. - RAMPRASAD, R. - MISRA, A. - LIU, X.Y. *First-principles study of shear behavior of Al, TiN, and coherent Al/TiN interfaces*. In *JOURNAL OF APPLIED PHYSICS*. ISSN 0021-8979, 2012, vol. 111, no. 8, 083505., WOS
10. [1.1] YADAV, S. K. - WANG, J. - RAMPRASAD, R. - MISRA, A. - LIU, X.Y. *Structural rotation of Al under uniaxial compression: A first-principles prediction*. In *JOURNAL OF APPLIED PHYSICS*. ISSN 0021-8979, 2012, vol. 112, no. 4, 043513., WOS
11. [1.1] ZHOU, Wei - ZHANG, Yi - SUN, Hong - CHEN, Changfeng. *Ideal strength and structural instability of aluminum at finite temperatures*. In *PHYSICAL REVIEW B*. ISSN 1098-0121, 2012, vol. 86, no. 5, 054118., WOS

ADCA211 JAHNÁTEK, Michal - KRAJČÍ, Marián - HAFNER, J. *Response of trialuminides to (110) uniaxial loading: An ab initio study for Al<sub>3</sub>(Sc,Ti,V)*. In *Physical Review B*, 2007, vol. 76, no. 1, 014110. (3.107 - IF2006). (2007 - Current Contents, WOS, SCOPUS). ISSN 1098-0121.

Citácie:

1. [1.1] WANG, J. In *MATERIALS SCIENCE AND ENGINEERING A*, vol. 534, 2012, p. 353-364., WOS

ADCA212 JAHNÁTEK, Michal - KRAJČÍ, Marián - HAFNER, Jürgen. *Interatomic bonding, elastic properties and ideal strength of transition metal aluminides: A case study for Al<sub>3</sub>(V, Ti)*. In *Physical Review B*, 2005, vol. 71, no. 2, 024101. (3.075 - IF2004).

(2005 - Current Contents). ISSN 1098-0121.

Citácie:

1. [1.1] CHEN, S. In *INTERNATIONAL JOURNAL OF HYDROGEN ENERGY*, vol. 37, 2012, no. 3, p. 2676., WOS
2. [1.1] FU, L. In *ADVANCED MATERIALS RESEARCH*, vol. 476-8, 2012, p. 2523., WOS
3. [1.1] HARVEY, J.P. In *PHYSICAL REVIEW B*, vol. 86, 2012, 224202., WOS
4. [1.1] LI, J. In *COMPUTATIONAL MATERIALS SCIENCE*, vol. 62, 2012, p. 136., WOS
5. [1.1] NIU, H. In *SCIENTIFIC REPORTS*, vol. 2, 2012, 718., WOS
6. [1.1] PITT, M.P. In *JOURNAL OF ALLOYS AND COMPOUNDS*, vol. 527, 2012, p. 16., WOS
7. [1.1] TANG, P.Y. In *SOLID STATE COMMUNICATIONS*, vol. 152, 2012, no. 21, p. 1939., WOS

ADCA213 JANCOVICI, B. - ŠAMAJ, Ladislav. Casimir force between two ideal-conductor walls revisited. In *Europhysics Letters*, 2005, vol. 72, no. 1, p. 35-41. (2.120 - IF2004). (2005 - Current Contents). ISSN 0295-5075.

Citácie:

1. [1.1] LAMBRECHT, Astrid - REYNAUD, Serge. CASIMIR EFFECT: THEORY AND EXPERIMENTS. In *INTERNATIONAL JOURNAL OF MODERN PHYSICS A*. ISSN 0217-751X, 2012, vol. 27, no. 15, 1260013., WOS
2. [1.1] MARACHEVSKY, Valery N. The Casimir effect: medium and geometry. In *JOURNAL OF PHYSICS A-MATHEMATICAL AND THEORETICAL*. ISSN 1751-8113, 2012, vol. 45, no. 37, 374021., WOS
3. [1.1] MILTON, K. A. - BREVIK, Iver - ELLINGSEN, Simen A. Thermal issues in Casimir forces between conductors and semiconductors. In *PHYSICA SCRIPTA*. ISSN 0031-8949, 2012, vol. T151., WOS

ADCA214 JANCOVICI, Bernard - ŠAMAJ, Ladislav. Guest charge and potential fluctuations in two-dimensional classical Coulomb systems. In *Journal of Statistical Physics*, 2008. Vol. 131, p. 613-629. ISSN 0022-4715.

Citácie:

1. [1.1] TELLEZ, Gabriel - FORRESTER, Peter J. Expanded Vandermonde Powers and Sum Rules for the Two-Dimensional One-Component Plasma. In *JOURNAL OF STATISTICAL PHYSICS*. ISSN 0022-4715, 2012, vol. 148, no. 5, pp. 824., WOS

ADCA215 JANDEL, Marián - KLIMAN, Ján - KRUPA, Ľuboš - MORHÁČ, Miroslav - HAMILTON, J.H. - KORMICKI, J. - RAMAYYA, A. - HWANG, J.K. - LUO, Y.X. - FONG, D. - GORE, P. - TER-AKOPIAN, G.M. - OGANESIAN, Y.T. Angular momenta of fission fragments in the a-accompanied fission of Cf-252. In *European Physical Journal A*, 2005, vol. 24, no. 3, p. 373-378. ISSN 1434-6001.

Citácie:

1. [1.1] GRANJA, C. In *EPJ WEB OF CONFERENCES*, vol. 21, 2012, 10004., WOS

ADCA216 JERDEL, Matej - CHESHKO, I. - HALAHOVETS, Y. - ŠIFFALOVÍČ, Peter - MAŤKO, Igor - SENDERÁK, Rudolf - PROTSSENKO, S. - MAJKOVÁ, Eva - LUBY, Štefan. Annealing behaviour of structural and magnetic properties of evaporated Co thin films. In *Journal of Physics D: Applied Physics*, 2009, vol. 42, no. 13, 135406. (2.104 - IF2008). (2009 - Current Contents, SCOPUS). ISSN 0022-3727.

Citácie:

1. [1.1] WANG, Yun-Peng - HAN, Xiu-Feng - WU, Yu-Ning - CHENG, Hai-Ping. Adsorption of tris(8-hydroxyquinoline)aluminum molecules on cobalt surfaces. In

- ADCA217 *PHYSICAL REVIEW B. ISSN 1098-0121, 2012, vol. 85, no. 14, 144430., WOS*  
JERGEL, Matej - HOLÝ, V. - MAJKOVÁ, Eva - LUBY, Štefan - SENDERÁK, Rudolf. Interface evolution in a W/Si multilayer after rapid thermal annealing studied by X-ray reflectivity and diffuse scattering. In Journal of Applied Crystallography, 1997, vol. 30, no. 2, p. 642-646. (2.480 - IF1996). (1997 - Current Contents). ISSN 0021-8898.  
 Citácie:  
 1. [1.1] *RAJPUT, Parasmani - GUPTA, Ajay - RAJAGOPALAN, S. - TYAGI, A. K. Fe diffusion in amorphous Si studied using x-ray standing wave technique. In AIP ADVANCES. ISSN 2158-3226, 2012, vol. 2, no. 1, 012159., WOS*  
 2. [3] *HEINZMANN, U. In VACUUM CONFERENCE 14, June, 2012, Dubrovnik. Book of Abstracts- Eds. N.Radic and S.Milosevic. ISBN 978-953-98154-1.*
- ADCA218 JERGEL, Matej - HOLY, V. - MAJKOVÁ, Eva - LUBY, Štefan - SENDERÁK, Rudolf. Interface study on W-Si/Si and obliquely deposited W/Si multilayers. In Journal of Physics D: Applied Physics, 1995, vol. 28, p. A241-A245. (0.880 - IF1994). (1995 - Current Contents, SCOPUS). ISSN 0022-3727.  
 Citácie:  
 1. [3] *HEINZMANN, U. Angle-, spin-, phase- and attosecond time resolved photoemission experiments. In VACUUM CONFERENCE 14, June, 2012, Dubrovnik. BOOK OF ABSTRACTS. Ed. N.Radic and S.Milosevic. ISBN 978-953-98154-1.*
- ADCA219 JERGEL, Matej - BOCHNICEK, Z. - MAJKOVÁ, Eva - SENDERÁK, Rudolf - LUBY, Štefan. Thermally activated interface shift in the tungsten/silicon multilayers. In Applied Physics Letters, 1996, vol. 69, p. 919. (1996 - Current Contents, SCOPUS). ISSN 0003-6951.  
 Citácie:  
 1. [3] *HEINZMANN, U. Angle-, spin-, phase- and attosecond time resolved photoemission experiments. In VACUUM CONFERENCE 14, June, 2012, Dubrovnik. Book of Abstracts. Eds. N.Radic and S.Milosevic. ISBN-978-953-98154-1.*
- ADCA220 KALINAY, Pavol - PERCUS, J.K. Projection of two-dimensional diffusional in a narrow channel onto the longitudinal dimension. In Journal of Chemical Physics, 2005, vol. 122, no. 20, 204701. (3.105 - IF2004). (2005 - Current Contents, WOS, SCOPUS). ISSN 0021-9606.  
 Citácie:  
 1. [1.1] *BERNATE, J.A.-DRAZER, G. Stochastic and deterministic vector chromatography of suspended particle in one-dimensional periodic potentials. In PHYSICAL REVIEW LETTERS, vol. 108, 2012, 214501., WOS*  
 2. [1.1] *DAGDUG, L.- PINEDA, I. Projection of two-dimensional diffusion in a curved midline and narrow varying width channel onto-the longitudinal dimension. In JOURNAL OF CHEMICAL PHYSICS, vol. 137, 2012, 024107., WOS*  
 3. [1.1] *DAS, M.-MONDAL, D.-RAY, D.S. Logic gates for entropic transport. In PHYSICAL REVIEW E, vol. 86, 2012, 041112., WOS*  
 4. [1.1] *DAS, M.-MONDAL, D.-RAY, D.S. Shape fluctuation-induced dynamic hysteresis. In JOURNAL OF CHEMICAL PHYSICS, vol. 136, 2012, 114104., WOS*  
 5. [1.1] *PINEDA, I.-ALVAREZ-RAMIREZ, J.-DAGDUG, L. Diffusion in two-dimensional conical varying width channels comparison of analytical and numerical results. In JOURNAL OF CHEMICAL PHYSICS, vol.137, 2012, 10.1063/1.4761826., WOS*
- ADCA221 KALINAY, Pavol - PERCUS, J.K. Extended Fick-Jacobs equation: Variational



approach. In *Physical Review E*, 2005, vol. 72, no. 6, 061203. (2.352 - IF2004). (2005 - Current Contents, WOS, SCOPUS). ISSN 1539-3755.

Citácie:

1. [1.1] AI, Bao-quan - SHAO, Zhi-gang - ZHONG, Wei-rong. Rectified Brownian transport in corrugated channels: Fractional Brownian motion and Levy flights. In *JOURNAL OF CHEMICAL PHYSICS*. ISSN 0021-9606, 2012, vol. 137, no. 17, 174101., WOS

2. [1.1] DAS, Moupriya - MONDAL, Debasish - RAY, Deb Shankar. Shape fluctuation-induced dynamic hysteresis. In *JOURNAL OF CHEMICAL PHYSICS*. ISSN 0021-9606, 2012, vol. 136, no. 11, 114104., WOS

3. [1.1] LONG, Fei - MEI, Dong-Cheng. Particles of different sizes diffusing over an entropic barrier. In *JOURNAL OF STATISTICAL MECHANICS-THEORY AND EXPERIMENT*. ISSN 1742-5468, 2012, 08008., WOS

ADCA222 KALINAY, Pavol - MARKOŠ, Peter - ŠAMAJ, Ladislav - TRAVĚNEC, Igor. The Sixth-Moment Sum Rule for the Pair Correlations. In *Journal of Statistical Physics*, 2000, vol. 98, no. 3/4, p. 639-666. (1.192 - IF1999). ISSN 0022-4715/00.

Citácie:

1. [1.1] TELLEZ, Gabriel - FORRESTER, Peter J. Expanded Vandermonde Powers and Sum Rules for the Two-Dimensional One-Component Plasma. In *JOURNAL OF STATISTICAL PHYSICS*. ISSN 0022-4715, 2012, vol. 148, no. 5, pp. 824-855., WOS

ADCA223 KALINAY, Pavol. Effective one-dimensional description of confined diffusion biased by a transverse gravitational force. In *Physical Review E. Statistical Physics, Plasmas, Fluids and Related Interdisciplinary Topics*, 2011, vol. 84, 011118. (2.352 - IF2010). (2011 - Current Contents, SCOPUS). ISSN 1063-651-X.

Citácie:

1. [1.1] AI, Bao-quan - SHAO, Zhi-gang - ZHONG, Wei-rong. Rectified Brownian transport in corrugated channels: Fractional Brownian motion and Levy flights. In *JOURNAL OF CHEMICAL PHYSICS*. ISSN 0021-9606, 2012, vol. 137, no. 17, 174101., WOS

ADCA224 KALINAY, Pavol - PERCUS, J.K. Approximations of the generalized Fick-Jacobs equation. In *Physical Review E*, 2008, vol. 78, no. 2, 021103. (2.483 - IF2007). (2008 - Current Contents, WOS, SCOPUS). ISSN 1539-3755.

Citácie:

1. [1.1] MALGARETTI, Paolo - PAGONABARRAGA, Ignacio - MIGUEL RUBI, J. Cooperative rectification in confined Brownian ratchets. In *PHYSICAL REVIEW E*. ISSN 1539-3755, 2012, vol. 85, no. 1, 010105., WOS

ADCA225 KALINAY, Pavol. Calculation of the mean first passage time tested on simple two-dimensional models. In *Journal of Chemical Physics*, 2007, vol. 126, nO. 19, 194708.

Citácie:

1. [1.1] BOSI, Leone - GHOSH, Pulak K. - MARCHESONI, Fabio. Analytical estimates of free Brownian diffusion times in corrugated narrow channels. In *JOURNAL OF CHEMICAL PHYSICS*. ISSN 0021-9606, 2012, vol. 137, no. 17, 174110., WOS

2. [1.1] DAS, Moupriya - MONDAL, Debasish - RAY, Deb Shankar. Logic gates for entropic transport. In *PHYSICAL REVIEW E*. ISSN 1539-3755, 2012, vol. 86, no. 4, 041112., WOS

3. [1.1] DAS, Moupriya - MONDAL, Debasish - RAY, Deb Shankar. Shape fluctuation-induced dynamic hysteresis. In *JOURNAL OF CHEMICAL PHYSICS*. ISSN 0021-9606, 2012, vol. 136, no. 11, 114104., WOS

ADCA226 KALINAY, Pavol - PERCUS, J.K. Corrections to the Fick-Jacobs equation. In

Physical Review E, 2006, vol. 74, 041203.

Citácie:

1. [1.1] AI, Bao-quan - SHAO, Zhi-gang - ZHONG, Wei-rong. Rectified Brownian transport in corrugated channels: Fractional Brownian motion and Levy flights. In JOURNAL OF CHEMICAL PHYSICS. ISSN 0021-9606, 2012, vol. 137, no. 17, 174101., WOS
2. [1.1] BOSI, Leone - GHOSH, Pulak K. - MARCHESONI, Fabio. Analytical estimates of free Brownian diffusion times in corrugated narrow channels. In JOURNAL OF CHEMICAL PHYSICS. ISSN 0021-9606, 2012, vol. 137, no. 17, 174110., WOS
3. [1.1] DAGDUG, Leonardo - PINEDA, Inti. Projection of two-dimensional diffusion in a curved midline and narrow varying width channel onto the longitudinal dimension. In JOURNAL OF CHEMICAL PHYSICS. ISSN 0021-9606, 2012, vol. 137, no. 2, 024107., WOS
4. [1.1] DAGDUG, Leonardo - VAZQUEZ, Marco-Vinicio - BEREZHKOVSKII, Alexander M. - ZITSERMAN, Vladimir Yu. - BEZRUKOV, Sergey M. Diffusion in the presence of cylindrical obstacles arranged in a square lattice analyzed with generalized Fick-Jacobs equation. In JOURNAL OF CHEMICAL PHYSICS. ISSN 0021-9606, 2012, vol. 136, no. 20, 204106., WOS
5. [1.1] DAS, Moupriya - MONDAL, Debasish - RAY, Deb Shankar. Shape fluctuation-induced dynamic hysteresis. In JOURNAL OF CHEMICAL PHYSICS. ISSN 0021-9606, 2012, vol. 136, no. 11, 114104., WOS
6. [1.1] GHOSH, P. K. - HAENGGI, P. - MARCHESONI, F. - MARTENS, S. - NORI, F. - SCHIMANSKY-GEIER, L. - SCHMID, G. Driven Brownian transport through arrays of symmetric obstacles. In PHYSICAL REVIEW E. ISSN 1539-3755, 2012, vol. 85, no. 1, 011101., WOS
7. [1.1] GHOSH, P. K. - HAENGGI, P. - MARCHESONI, F. - NORI, F. - SCHMID, G. Brownian transport in corrugated channels with inertia. In PHYSICAL REVIEW E. ISSN 1539-3755, 2012, vol. 86, no. 2, 021112., WOS
8. [1.1] GHOSH, Pulak K. - MARCHESONI, Fabio. Note: Particle transport through deformable pore geometries. In JOURNAL OF CHEMICAL PHYSICS. ISSN 0021-9606, 2012, vol. 136, no. 11, 116101., WOS
9. [1.1] GHOSH, Pulak Kumar - HAENGGI, Peter - MARCHESONI, Fabio - NORI, Franco - SCHMID, Gerhard. Detectable inertial effects on Brownian transport through narrow pores. In EPL. ISSN 0295-5075, 2012, vol. 98, no. 5, 50002., WOS
10. [1.1] LONG, Fei - MEI, Dong-Cheng. Particles of different sizes diffusing over an entropic barrier. In JOURNAL OF STATISTICAL MECHANICS-THEORY AND EXPERIMENT. ISSN 1742-5468, 2012, P08008., WOS
11. [1.1] MARTENS, S. - SOKOLOV, I. M. - SCHIMANSKY-GEIER, L. Communication: Impact of inertia on biased Brownian transport in confined geometries. In JOURNAL OF CHEMICAL PHYSICS. ISSN 0021-9606, 2012, vol. 136, no. 11, 111102., WOS
12. [1.1] PINEDA, Inti - ALVAREZ-RAMIREZ, Jose - DAGDUG, Leonardo. Diffusion in two-dimensional conical varying width channels: Comparison of analytical and numerical results. In JOURNAL OF CHEMICAL PHYSICS. ISSN 0021-9606, 2012, vol. 137, no. 17., WOS

ADCA227

KALINAY, Pavol - PERCUS, Jerome K. Exact dimensional reduction of linear dynamics: application to confined diffusion. In Journal of Statistical Physics, 2006, vol. 123, no. 5, p. 1059-1069. ISSN 0022-4715/00.

Citácie:

1. [1.1] DAS, Moupriya - MONDAL, Debasish - RAY, Deb Shankar. *Logic gates for entropic transport. In PHYSICAL REVIEW E. ISSN 1539-3755, 2012, vol. 86, no. 4, 041112., WOS*
  2. [1.1] DAS, Moupriya - MONDAL, Debasish - RAY, Deb Shankar. *Shape fluctuation-induced dynamic hysteresis. In JOURNAL OF CHEMICAL PHYSICS. ISSN 0021-9606, 2012, vol. 136, no. 11, 114104., WOS*
- ADCA228 KALINAY, Pavol - PERCUS, J.K. Stretched Markov nature of single-file self-dynamics. In *Physical Review E*, 2007, vol. 76, no. 4, 041111. (2.438 - IF2006). (2007 - Current Contents). ISSN 1539-3755.
- Citácie:
1. [1.1] NARASIMHAN, S. L. - BAUMGAERTNER, A. *Dynamics of a stochastically driven Brownian particle in one dimension. In PHYSICA A-STATISTICAL MECHANICS AND ITS APPLICATIONS. ISSN 0378-4371, 2012, vol. 391, no. 3, pp. 593., WOS*
- ADCA229 KALINAY, Pavol. Response to "Comment on 'Calculation of the mean first passage time tested on simple two-dimensional models'" [J. Chem. Phys. 128, 197102(2008)]. In *Journal of Chemical Physics*, 2008, vol. 128, no. 19, 197103. (3.044 - IF2007). (2008 - Current Contents). ISSN 0021-9606.
- Citácie:
1. [1.1] DAS, Moupriya - MONDAL, Debasish - RAY, Deb Shankar. *Logic gates for entropic transport. In PHYSICAL REVIEW E. ISSN 1539-3755, 2012, vol. 86, no. 4, 041112., WOS*
- ADCA230 KALINAY, Pavol - PERCUS, J.K. Mapping of diffusion in a channel with soft walls. In *Physical Review E*, 2011, vol. 83, 031109. (2.352 - IF2010). (2011 - Current Contents, SCOPUS). ISSN 1063-651-X.
- Citácie:
1. [1.1] MONDAL, Debasish - DAS, Moupriya - RAY, Deb Shankar. *Entropic dynamical hysteresis in a driven system. In PHYSICAL REVIEW E. ISSN 1539-3755, 2012, vol. 85, no. 3, 031128., WOS*
  2. [1.1] PALMIERI, Benoit - SAFRAN, Samuel A. *Diffusion in a soft confining environment: Dynamic effects of thermal fluctuations. In PHYSICAL REVIEW E. ISSN 1539-3755, 2012, vol. 86, no. 3, 031111., WOS*
- ADCA231 KALINAY, Pavol - PERCUS, J.K. Mapping of diffusion in a channel with abrupt change of diameter. In *Physical Review E*, 2010, vol. 82, no. 3, 031143. (2.400 - IF2009). (2010 - Current Contents, WOS, SCOPUS). ISSN 1539-3755.
- Citácie:
1. [1.1] AI, Bao-quan - SHAO, Zhi-gang - ZHONG, Wei-rong. *Rectified Brownian transport in corrugated channels: Fractional Brownian motion and Levy flights. In JOURNAL OF CHEMICAL PHYSICS. ISSN 0021-9606, 2012, vol. 137, no. 17, 174101., WOS*
  2. [1.1] BOSI, Leone - GHOSH, Pulak K. - MARCHESONI, Fabio. *Analytical estimates of free Brownian diffusion times in corrugated narrow channels. In JOURNAL OF CHEMICAL PHYSICS. ISSN 0021-9606, 2012, vol. 137, no. 17, 174110., WOS*
  3. [1.1] MARTENS, S. - SOKOLOV, I. M. - SCHIMANSKY-GEIER, L. *Communication: Impact of inertia on biased Brownian transport in confined geometries. In JOURNAL OF CHEMICAL PHYSICS. ISSN 0021-9606, 2012, vol. 136, no. 11, 111102., WOS*
  4. [1.1] MONDAL, Debasish - DAS, Moupriya - RAY, Deb Shankar. *Entropic dynamical hysteresis in a driven system. In PHYSICAL REVIEW E. ISSN 1539-3755, 2012, vol. 85, no. 3, 031128., WOS*
- ADCA232 KALINAY, Pavol - PERCUS, Jerome K. Phase space reduction of the

one-dimensional Fokker-Planck (Kramers) equation. In *Journal of Statistical Physics*, 2012, vol. 148, p. 1135-1155. (1.397 - IF2011). (2012 - Current Contents, WOS, SCOPUS). ISSN 0022-4715.

Citácie:

1. [3] GHOSH, P.K. *et al.* In *PHYSICAL REVIEW E*, 2012, vol. 86, 021112.

2. [3] GHOSH, P.K. *et al.* In *EPL*, 2012, vol. 98, 50002.

- ADCA233 KAMINSKII, V.V. - LÁNYI, Štefan. Semiconductor-metal phase transition under a strain induced by a spherical indenter. In *Physica status solidi B. Basic solid state physics*, 1998, vol. 43, no. 3, p. 314-317. (0.826 - IF1997). (1998 - Current Contents, WOS, SCOPUS). ISSN 0370-1972.

Citácie:

1. [1.1] APLESNIN, Sergey - ROMANOVA, Oxana - HAR&APOS;KOV, Anton - BALAEV, Dmitrii - GOREV, Michail - VOROTINOV, Alexander - SOKOLOV, Vladimir - PICHUGIN, Andrey. Metal-semiconductor transition in  $\text{SmxMn1-xS}$  solid solutions. In *PHYSICA STATUS SOLIDI B-BASIC SOLID STATE PHYSICS*. ISSN 0370-1972, 2012, vol. 249, no. 4, pp. 812., WOS

- ADCA234 KEKSIS, A.L. - MAY, L.W. - SOULIOTIS, G.A. - VESELSKÝ, Martin - GALANOPOULOS, S. - KOHLEY, Z. - SHETTY, D.V. - SOISSON, S.N. - STEIN, B.C. - TRIPATHI, R. - WUENSCHER, S. - YENNELLO, S.J. - LI, B.A. Experimental studies of N/Z equilibration in peripheral collisions using fragment yield ratios. In *Physical Review C. Nuclear physics*, 2010, vol. 81, no. 5, 054602. (3.477 - IF2009). (2010 - Current Contents, SCOPUS). ISSN 0556-2813.

Citácie:

1. [1.1] LOMBARDO, I. - ACOSTA, L. - AGODI, C. - AMORINI, F. - ANZALONE, A. - AUDITORE, L. - BERCEANU, I. - CARDELLA, G. - CHATTERJEE, M. B. - CAVALLARO, S. - DE FILIPPO, E. - GERACI, E. - GIULIANI, G. - GRASSI, L. - HAN, J. - LA GUIDARA, E. - LANZALONE, G. - LORIA, D. - MAIOLINO, C. - PAGANO, A. - PAPA, M. - PIRRONE, S. - POLITI, G. - PORTO, F. - RIZZO, F. - RUSSOTTO, P. - TRIFIRO, A. - TRIMARCHI, M. - VERDE, G. - VIGILANTE, M. The N/Z key role on the dynamics of medium mass nuclear systems near fragmentation threshold. In *PHYSICA SCRIPTA*. ISSN 0031-8949, 2012, vol. T150, 014023., WOS

2. [1.1] LOMBARDO, I. N/Z effects on nuclear reactions near the multi-fragmentation threshold. In *EUROPEAN PHYSICAL JOURNAL PLUS*. ISSN 2190-5444, 2012, vol. 127, no. 8, 88., WOS

- ADCA235 KHINCHI, S.S. - MODAK, S.S. - KRAUS, L. - ŠVEC, Peter - MAZALEYRAT, F. - KANE, S.N. Influence of Co content and thermal annealing on structural, magnetic and magneto elastic properties of nanocrystalline Fe-Co-Nb-B alloys. In *Physica B*, 2010, vol. 405, p. 2803-2806. (1.056 - IF2009). (2010 - Current Contents). ISSN 0921-4526.

Citácie:

1. [1.1] HASIAK, Mariusz - MIGLIERINI, Marcel - LUKIEWSKI, Miroslaw - KALETA, Jerzy. Microstructure, Magnetic Properties, and Applications of Co-Rich HITPERM-Type Amorphous Alloys. In *IEEE TRANSACTIONS ON MAGNETICS*. ISSN 0018-9464, 2012, vol. 48, no. 4, pp. 1665., WOS

2. [1.1] YANG, W. M. - LIU, H. S. - DUN, C. C. - ZHAO, Y. C. - DOU, L. M. Determine optimal annealing temperature of Fe based nanocrystalline alloys from their melting point. In *MATERIALS SCIENCE AND TECHNOLOGY*. ISSN 0267-0836, 2012, vol. 28, no. 12, pp. 1465., WOS

3. [1.1] YU, Youxing - YANG, Youran - SHAN, Yijiao - BI, Xiaofang. Abnormal substrate temperature dependent out-of-plane anisotropy in FeCoNbB amorphous films. In *APPLIED PHYSICS LETTERS*. ISSN 0003-6951, 2012, vol. 101, no. 23,



- 232408., WOS
- ADCA236 KIEFEROVÁ, M. - NAGAJ, Daniel. Quantum walks on necklaces and mixing. In International Journal of Quantum Information, 2012, vol. 10, no. 2, 1250025. (0.670 - IF2011). (2012 - Current Contents). ISSN 0219-7499.
- Citácie:
1. [1.1] *ELIAS VENEGAS-ANDRACA, Salvador. Quantum walks: a comprehensive review. In QUANTUM INFORMATION PROCESSING. ISSN 1570-0755, 2012, vol. 11, no. 5, pp. 1015., WOS*
- ADCA237 KIM, M.S. - BUŽEK, Vladimír. Schrodinger-cat states at finite temperature-influence of a finite-temperature heat bath on quantum interferences. In Physical Review A, 1992, vol. 46, no. 7, p. 4239-4251. ISSN 1050-2947.
- Citácie:
1. [1.1] *BANDYOPADHYAY, Malay. Role of environment and confinement in quantum dissipative dynamics: A pedestrian approach. In PHYSICA A-STATISTICAL MECHANICS AND ITS APPLICATIONS. ISSN 0378-4371, 2012, vol. 391, no. 12, pp. 3399., WOS*
2. [1.1] *MENG, Xiang-guo - WANG, Zhen - FAN, Hong-yi - WANG, Ji-suo. Squeezed number state and squeezed thermal state: decoherence analysis and nonclassical properties in the laser process. In JOURNAL OF THE OPTICAL SOCIETY OF AMERICA B-OPTICAL PHYSICS. ISSN 0740-3224, 2012, vol. 29, no. 7, pp. 1835., WOS*
3. [1.1] *PARK, Kimin - LEE, Seung-Woo - JEONG, Hyunseok. Quantum teleportation between particlelike and fieldlike qubits using hybrid entanglement under decoherence effects. In PHYSICAL REVIEW A. ISSN 1050-2947, 2012, vol. 86, no. 6, 062301., WOS*
4. [1.1] *REN, Gang - DU, Jian-ming. A Theoretical Solution for a Nonlinear Master Equation. In INTERNATIONAL JOURNAL OF THEORETICAL PHYSICS. ISSN 0020-7748, 2012, vol. 51, no. 8, pp. 2594., WOS*
- ADCA238 KIM, M.S. - BUŽEK, Vladimír. Photon statistics of superposition states in phase-sensitive reservoirs. In Physical Review A, 1993, vol. 47, no. 1, p. 610-619. ISSN 1050-2947.
- Citácie:
1. [1.1] *MENG, Xiang-guo - WANG, Zhen - FAN, Hong-yi - WANG, Ji-suo. Squeezed number state and squeezed thermal state: decoherence analysis and nonclassical properties in the laser process. In JOURNAL OF THE OPTICAL SOCIETY OF AMERICA B-OPTICAL PHYSICS. ISSN 0740-3224, 2012, vol. 29, no. 7, pp. 1835., WOS*
- ADCA239 KIM, M.S. - SON, W. - BUŽEK, Vladimír - KNIGHT, P.L. Entanglement by a beam splitter: Nonclassicality as a prerequisite for entanglement. In Physical Review A, 2002, vol. 65, no. 3, 032323. ISSN 1050-2947.
- Citácie:
1. [1.1] *ABDEL-KHALEK, S. - BERRADA, K. - OOI, C. H. Raymond. Beam splitter entangler for nonlinear bosonic fields. In LASER PHYSICS. ISSN 1054-660X, 2012, vol. 22, no. 9, pp. 1449., WOS*
2. [1.1] *DAOUD, M. - CHOUBABI, E. B. BIPARTITE ENTANGLEMENT OF MULTIPARTITE COHERENT STATES USING QUANTUM NETWORK OF BEAM SPLITTERS. In INTERNATIONAL JOURNAL OF QUANTUM INFORMATION. ISSN 0219-7499, 2012, vol. 10, no. 1, 1250009., WOS*
3. [1.1] *GEHRKE, C. - SPERLING, J. - VOGEL, W. Quantification of nonclassicality. In PHYSICAL REVIEW A. ISSN 1050-2947, 2012, vol. 86, no. 5, 052118., WOS*
4. [1.1] *KANG, Minsu - KIM, M. S. - JEONG, Hyunseok. Production of*

- entanglement with highly mixed states. In PHYSICAL REVIEW A. ISSN 1050-2947, 2012, vol. 85, no. 4, 044301., WOS*
5. [1.1] MENZEL, E. P. - DI CANDIA, R. - DEPPE, F. - EDER, P. - ZHONG, L. - IHMIG, M. - HAEBERLEIN, M. - BAUST, A. - HOFFMANN, E. - BALLESTER, D. - INOMATA, K. - YAMAMOTO, T. - NAKAMURA, Y. - SOLANO, E. - MARX, A. - GROSS, R. *Path Entanglement of Continuous-Variable Quantum Microwaves. In PHYSICAL REVIEW LETTERS. ISSN 0031-9007, 2012, vol. 109, no. 25, 250502., WOS*
6. [1.1] MISHRA, Devendra Kumar. *Unambiguous discrimination of two squeezed states using probabilistic quantum cloning. In OPTICS COMMUNICATIONS. ISSN 0030-4018, 2012, vol. 285, no. 6, pp. 1560., WOS*
7. [1.1] NAMIKI, Ryo. *Photonic families of non-Gaussian entangled states and entanglement criteria for continuous-variable systems. In PHYSICAL REVIEW A. ISSN 1050-2947, 2012, vol. 85, no. 6, 062307., WOS*
8. [1.1] NIEDENZU, Wolfgang - SANDNER, Raimar M. - GENES, Claudiu - RITSCH, Helmut. *Quantum-correlated motion and heralded entanglement of distant optomechanically coupled objects. In JOURNAL OF PHYSICS B-ATOMIC MOLECULAR AND OPTICAL PHYSICS. ISSN 0953-4075, 2012, vol. 45, no. 24, 245501., WOS*
9. [1.1] OLIVARES, Stefano. *INTERFERENCE OF MULTI-MODE GAUSSIAN STATES AND "NON APPEARANCE" OF QUANTUM CORRELATIONS. In INTERNATIONAL JOURNAL OF QUANTUM INFORMATION. ISSN 0219-7499, 2012, vol. 10, no. 8, 1241004., WOS*
10. [1.1] SUDHIR, Vivishek - GENONI, Marco G. - LEE, Jinhyoung - KIM, M. S. *Critical behavior in ultrastrong-coupled oscillators. In PHYSICAL REVIEW A. ISSN 1050-2947, 2012, vol. 86, no. 1, 012316., WOS*
11. [1.1] TANAKA, Yoshiharu - ASANO, Masanari - OHYA, Masanori. *QUANTUM TELEPORTATION FOR NONMAXIMAL ENTANGLED STATES IN THE GENERALIZED BELL MEASUREMENT WITH LATIN SQUARE. In REPORTS ON MATHEMATICAL PHYSICS. ISSN 0034-4877, 2012, vol. 69, no. 1, pp. 57., WOS*
12. [1.1] WANG, Shuai - FAN, Hong-yi. *Statistical properties of the squeezing-enhanced thermal state. In JOURNAL OF THE OPTICAL SOCIETY OF AMERICA B-OPTICAL PHYSICS. ISSN 0740-3224, 2012, vol. 29, no. 1, pp. 15., WOS*
13. [1.1] WANG, Taofen - LI, Shaoxin - ZHU, Kaicheng - ZHENG, Xiaojuan - TANG, Huiqin. *Engineering Two-Mode Non-Gaussian States with Vortex Structures Using a Beam Splitter. In INTERNATIONAL JOURNAL OF THEORETICAL PHYSICS. ISSN 0020-7748, 2012, vol. 51, no. 12, pp. 3861., WOS*
14. [1.1] XIANG, S. H. - LU, D. H. - SONG, K. H. *Three-step approach to Fokker-Planck equation for an interacting open waveguide system and localizable entanglement dynamics. In EUROPEAN PHYSICAL JOURNAL D. ISSN 1434-6060, 2012, vol. 66, no. 12, 311., WOS*

ADCA240 KIM, S. - OLEJNÍK, Štefan. *Bias and precision of measures of association for a fixed-effect multivariate analysis of variance model. In Multivariate Behavioral Research, 2005, vol. 40, no. 4, pp. 401-421. ISSN 0027-3171.*

Citácie:

1. [1.1] GRISSOM, RJ - KIM, JJ. *Effect Sizes for Research: Univariate and Multivariate Applications, 2nd Edition. In EFFECT SIZES FOR RESEARCH: UNIVARIATE AND MULTIVARIATE APPLICATIONS, 2ND EDITION, 2012, pp. 1-434., WOS*

- ADCA241 KOASHI, M. - BUŽEK, Vladimír - IMOTO, N. Entangled webs: Tight Bound for symmetric Sharing of Entanglement. In Physical Review A, 2000, vol. 62, no. 5, 050302. (2000 - Current Contents). ISSN 1050-2947.  
Citácie:  
1. [1.1] SUDHA - DEVI, A. R. Usha - RAJAGOPAL, A. K. Monogamy of quantum correlations in three-qubit pure states. In PHYSICAL REVIEW A. ISSN 1050-2947, 2012, vol. 85, no. 1, 012103., WOS
- ADCA242 KOBUSHKIN, A.P. - KRIVENKO-EMETOV, Y.D. - DUBNIČKA, Stanislav - DUBNIČKOVA, A.Z. Two-photon exchange and elastic scattering of longitudinally polarized electrons on polarized deuterons. In Physical Review C, 2011, vol. 84, no. 5, 054007. (3.416 - IF2010). (2011 - Current Contents). ISSN 0556-2813.  
Citácie:  
1. [1.1] GAKH, G. I. - KONCHATNIJ, M. I. - MERENKOV, N. P. Radiative corrections to polarization observables in elastic electron-deuteron scattering in leptonic variables. In JOURNAL OF EXPERIMENTAL AND THEORETICAL PHYSICS. ISSN 1063-7761, 2012, vol. 115, no. 2, pp. 212., WOS
- ADCA243 KOLANO-BURIAN, A. - KULIK, T. - VLASÁK, Gabriel - FERENC, J. - VARGA, L.K. Effect of Co addition on nanocrystallization and soft magnetic properties of (Fe<sub>1-x</sub>Cox)<sub>73.5</sub>Cu<sub>1</sub>Nb<sub>3</sub>Si<sub>13.5</sub>B<sub>9</sub> alloys. In Journal of Magnetism and Magnetic Materials, 2004, vol. 272, p. 1447-1448. (0.910 - IF2003). (2004 - Current Contents, WOS, SCOPUS). ISSN 0304-8853.  
Citácie:  
1. [1.1] LIU, Z.W. Improved soft magnetic properties. In MATERIALS SCIENCE AND TECHNOLOGY, 2012, vol. 28, no. 8, pp. 987-990., WOS  
2. [1.1] SZEWCZYK, R. Application of extended Jiles-Atherton model. In IEEE TRANSACTIONS ON MAGNETICS, 2012, VOL. 48, no. 4, pp. 1389-1392., WOS
- ADCA244 KOLEŠÍK, Miroslav - ŠAMAJ, Ladislav. Solvable cases of the general spin-one ising-model on the honeycomb lattice. In International Journal of Modern Physics B, 1992, vol. 6, no. 9, p. 1529-1538. ISSN 0217-9792.  
Citácie:  
1. [1.1] ROJAS, O. - DE SOUZA, S. M. Equivalence between non-bilinear spin-S Ising model and Wajnflasz model. In EUROPEAN PHYSICAL JOURNAL B. ISSN 1434-6028, 2012, vol. 85, no. 5, 170., WOS
- ADCA245 KOLEŠÍK, Miroslav - MOLONEY, J.V. - WRIGHT, E.M. Polarization dynamics of femtosecond pulses propagating in air. In Physical Review E, 2001, vol. 64, no. 4, p. 046607. (2.142 - IF2000). (2001 - Current Contents). ISSN 1539-3755.  
Citácie:  
1. [1.1] ANDREEVA, V. A. - PANOV, N. A. - KOSAREVA, O. G. - CHIN, S. L. - LEVAN, PD - SOOD, AK - WIJEWARNASURIYA, PS - DSOUZA, AI. Single-cycle pulse generation in the course of four-wave mixing in the filament. In INFRARED SENSORS, DEVICES, AND APPLICATIONS II. ISSN 0277-786X, 2012, vol. 8512, no. 85120Z., WOS  
2. [1.1] SHEINFUX, A. H. - SCHLEIFER, E. - PAPEER, J. - FIBICH, G. - ILAN, B. - ZIGLER, A. Measuring the stability of polarization orientation in high intensity laser filaments in air. In APPLIED PHYSICS LETTERS. ISSN 0003-6951, 2012, vol. 101, no. 20, 201105., WOS
- ADCA246 KONÔPKA, M. - TURANSKÝ, Robert - DUBECKÝ, Matúš - MARX, D. - ŠTICH, Ivan. Molecular mechanochemistry understood at the nanoscale: Thiolate interfaces and junctions with copper surfaces and clusters. In Journal of Physical Chemistry C, 2009, vol. 113, no. 20, p. 8878-8887. (3.396 - IF2008). (2009 - Current Contents, WOS, SCOPUS). ISSN 1932-7447.  
Citácie:

1. [1.1] AMORIM, E. P. M. - DA SILVA, E. Z. *Effect of light impurities on the electronic structure of copper nanowires.* In *PHYSICAL REVIEW B*. ISSN 1098-0121, 2012, vol. 85, no. 15, 155407., WOS
2. [1.1] ARIGA, Katsuhiko - MORI, Taizo - HILL, Jonathan P. *Mechanical Control of Nanomaterials and Nanosystems.* In *ADVANCED MATERIALS*. ISSN 0935-9648, 2012, vol. 24, no. 2, pp. 158., WOS
3. [1.1] BAILEY, Adrian - MOSEY, Nicholas J. *Prediction of reaction barriers and force-induced instabilities under mechanochemical conditions with an approximate model: A case study of the ring opening of 1,3-cyclohexadiene.* In *JOURNAL OF CHEMICAL PHYSICS*. ISSN 0021-9606, 2012, vol. 136, no. 4, 044102., WOS

ADCA247 KONÔPKA, Martin - TURANSKÝ, Robert - REICHERT, Joachim - FUCHS, Harald - MARX, Dominik - ŠTICH, Ivan. *Mechanochemistry and thermochemistry are different: stress-induced strengthening of chemical bonds.* In *Physical Review Letters*, 2008, vol. 100, no. 11, 115503. (6.944 - IF2007). (2008 - Current Contents, WOS, SCOPUS). ISSN 0031-9007.

Citácie:

1. [1.1] BAILEY, Adrian - MOSEY, Nicholas J. *Prediction of reaction barriers and force-induced instabilities under mechanochemical conditions with an approximate model: A case study of the ring opening of 1,3-cyclohexadiene.* In *JOURNAL OF CHEMICAL PHYSICS*. ISSN 0021-9606, 2012, vol. 136, no. 4, 044102., WOS
2. [1.1] DELOGU, Francesco. *Ag Nanoparticles from the Mechanochemical Decomposition of Ag Oxalate.* In *LANGMUIR*. ISSN 0743-7463, 2012, vol. 28, no. 29, pp. 10898., WOS
3. [1.1] HONG, Wenjing - MANRIQUE, David Zsolt - MORENO-GARCIA, Pavel - GULCUR, Murat - MISHCHENKO, Artem - LAMBERT, Colin J. - BRYCE, Martin R. - WANDLOWSKI, Thomas. *Single Molecular Conductance of Tolanes: Experimental and Theoretical Study on the Junction Evolution Dependent on the Anchoring Group.* In *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*. ISSN 0002-7863, 2012, vol. 134, no. 4, pp. 2292., WOS
4. [1.1] MELONI, Paola - CARCANGIU, Gianfranco - DELOGU, Francesco. *Specific surface area and chemical reactivity of quartz powders during mechanical processing.* In *MATERIALS RESEARCH BULLETIN*. ISSN 0025-5408, 2012, vol. 47, no. 1, pp. 146., WOS
5. [1.1] STOFFERS, Andreas - OBERDORFER, Christian - SCHMITZ, Guido. *Controlled Field Evaporation of Fluorinated Self-Assembled Monolayers.* In *LANGMUIR*. ISSN 0743-7463, 2012, vol. 28, no. 1, pp. 56., WOS
6. [1.1] TAKACS, L. *Mechanochemistry and the Other Branches of Chemistry: Similarities and Differences.* In *ACTA PHYSICA POLONICA A*. ISSN 0587-4246, 2012, vol. 121, no. 3, pp. 711., WOS

ADCA248 KORENKO, Michal - KUCHARÍK, Marián - OBOŇA, Jozef Vincenc - JANIČKOVIČ, Dušan - CORDOBA, R. - DE TERESA, J.M. - KUBÍKOVÁ, Blanka. *Nanotubes made from deeply undercooled cryolite/alumina melts.* In *Helvetica Chimica Acta*, 2008, vol. 91, pp. 1389-1399. (1.515 - IF2007).

Citácie:

1. [1.1] HUANG, G. - LUO, Z.C. - HU, Y.D. - GUO, Y.A. - JIANG, Y.X. - WEI, S.J. In *CHEMICAL ENGINEERING JOURNAL*. JUL 1 2012, vol. 195, p. 165-172., WOS

ADCA249 KOSCHNY, T. - MARKOŠ, Peter - SMITH, D.R. - SOUKOULIS, C.M. *Resonant and antiresonant frequency dependence of the effective parameters of metamaterials.* In *Physical Review E*, 2003, vol. 68, no. 6, 065602. (2.397 - IF2002). (2003 -



Current Contents, SCOPUS). ISSN 1539-3755.

Citácie:

1. [1.1] ALAEIAN, Hadiseh - DIONNE, Jennifer A. Plasmon nanoparticle superlattices as optical-frequency magnetic metamaterials. In *OPTICS EXPRESS*. ISSN 1094-4087, 2012, vol. 20, no. 14, pp. 15781., WOS
2. [1.1] ANDRYIEUSKI, Andrei - HA, Sangwoo - SUKHORUKOV, Andrey A. - KIVSHAR, Yuri S. - LAVRINENKO, Andrei V. Bloch-mode analysis for retrieving effective parameters of metamaterials. In *PHYSICAL REVIEW B*. ISSN 1098-0121, 2012, vol. 86, no. 3, 035127., WOS
3. [1.1] ASLAM, Muhammad I. - GUNEY, Durdu Oe. Dual-band, double-negative, polarization-independent metamaterial for the visible spectrum. In *JOURNAL OF THE OPTICAL SOCIETY OF AMERICA B-OPTICAL PHYSICS*. ISSN 0740-3224, 2012, vol. 29, no. 10, pp. 2839., WOS
4. [1.1] CHAKRABARTI, S. Magnetic response of split-ring resonator metamaterials. In *PRAMANA*, 2012, vol. 78, pp. 483., WOS
5. [1.1] CHEN, W.C. - TOTACHAWATTANA, A. - FAN, K. - PONSETTO, J. L. - STRIKWERDA, A. C. - ZHANG, X. - AVERITT, R. D. - PADILLA, W. J. Single-layer terahertz metamaterials with bulk optical constants. In *PHYSICAL REVIEW B*. ISSN 1098-0121, 2012, vol. 85, no. 3, 035112., WOS
6. [1.1] DU, Guohong - LIU, Changjun. Multiband metamaterial structure: Butterfly-pattern resonator. In *MICROWAVE AND OPTICAL TECHNOLOGY LETTERS*. ISSN 0895-2477, 2012, vol. 54, no. 9, pp. 2179., WOS
7. [1.1] DUBROVINA, Natalia - LE CUNFF, Loic O. - BUROKUR, N. - GHASEMI, R. - DEGIRON, A. - DE LUSTRAC, A. - VIAL, A. - LERONDEL, G. - LUPU, A. Single metafilm effective medium behavior in optical domain: Maxwell-Garnett approximation and beyond. In *APPLIED PHYSICS A-MATERIALS SCIENCE & PROCESSING*. ISSN 0947-8396, 2012, vol. 109, no. 4, pp. 901., WOS
8. [1.1] HSIEH, Feng-Ju - WANG, Wei-Chih - VARADAN, VK. Determination of effective boundaries and material properties of SRR-rod and fishnet metamaterials. In *NANOSENSORS, BIOSENSORS, AND INFO-TECH SENSORS AND SYSTEMS 2012*. ISSN 0277-786X, 2012, vol. 8344, 83441D., WOS
9. [1.1] HSIEH, Feng-Ju - WANG, Wei-Chih. Full extraction methods to retrieve effective refractive index and parameters of a bianisotropic metamaterial based on material dispersion models. In *JOURNAL OF APPLIED PHYSICS*. ISSN 0021-8979, 2012, vol. 112, no. 6, 064907., WOS
10. [1.1] IWANAGA, Masanobu. Photonic metamaterials: a new class of materials for manipulating light waves. In *SCIENCE AND TECHNOLOGY OF ADVANCED MATERIALS*. ISSN 1468-6996, 2012, vol. 13, no. 5, 053002., WOS
11. [1.1] KIM, Jungho - KIM, Kyoung-Youm - KIM, Sungchul. Universal Expression of the Optical Power Dissipation in Multilayer Structures with Complex Permittivity and Permeability. In *JAPANESE JOURNAL OF APPLIED PHYSICS*. ISSN 0021-4922, 2012, vol. 51, no. 2, 022001., WOS
12. [1.1] LI JUN-CHENG - GUO LI-XIN - LIU SONG-HUA. Design and simulation of a single-sided left-handed material in THz regime. In *ACTA PHYSICA SINICA*. ISSN 1000-3290, 2012, vol. 61, no. 12, 124102., WOS
13. [1.1] LI, Zhaofeng - AYDIN, Koray - OZBAY, Ekmel. Retrieval of effective parameters for bianisotropic metamaterials with omega shaped metallic inclusions. In *PHOTONICS AND NANOSTRUCTURES-FUNDAMENTALS AND APPLICATIONS*. ISSN 1569-4410, 2012, vol. 10, no. 3, pp. 329., WOS
14. [1.1] MYOGA, Seiji - AMEMIYA, Tomohiro - ISHIKAWA, Atsushi - NISHIYAMA, Nobuhiko - TANAKA, Takuo - ARAI, Shigehisa.

*Carrier-concentration-dependent resonance frequency shift in a metamaterial loaded semiconductor. In JOURNAL OF THE OPTICAL SOCIETY OF AMERICA B-OPTICAL PHYSICS. ISSN 0740-3224, 2012, vol. 29, no. 8, pp. 2110., WOS*

15. [1.1] PARISI, G. - GAROLI, D. - NATALI, M. - ROMANATO, F. *Design and Parametrical Analysis of Metamaterial Stacks in the Visible Spectral Range. In JOURNAL OF COMPUTATIONAL AND THEORETICAL NANOSCIENCE. ISSN 1546-1955, 2012, vol. 9, no. 3, pp. 448., WOS*

16. [1.1] PITAEVSKII, L. P. *On analytical properties of the diamagnetic permeability in the presence of the spatial dispersion. In INTERNATIONAL JOURNAL OF QUANTUM CHEMISTRY. ISSN 0020-7608, 2012, vol. 112, no. 18, pp. 2998., WOS*

17. [1.1] QASRAWI, A. F. - ELAYYAT, S. M. S. - GASANLY, N. M. *Dynamical and passive characteristics of the Ag/TlGaSeS/Ag RF resonators. In CRYSTAL RESEARCH AND TECHNOLOGY. ISSN 0232-1300, 2012, vol. 47, no. 6, pp. 615., WOS*

18. [1.1] SABAH, C. *Microwave response of octagon-shaped parallel plates: Low-loss metamaterial. In OPTICS COMMUNICATIONS. ISSN 0030-4018, 2012, vol. 285, no. 21-22, pp. 4549., WOS*

19. [1.1] SABAH, Cumali. *Electric and magnetic excitations in anisotropic broadside-coupled triangular-split-ring resonators. In APPLIED PHYSICS A-MATERIALS SCIENCE & PROCESSING. ISSN 0947-8396, 2012, vol. 108, no. 2, pp. 457., WOS*

20. [1.1] TANG, Ming-Chun - XIAO, Shaoqiu - BAI, Yan-Ying - DENG, Tianwei - LIU, Changrong - SHANG, Yuping - WEI, Chaolei - WANG, Bing-Zhong. *Design of Hybrid Patch/Slot Antenna Operating in Induced "TM<sub>120</sub> Mode"*; In IEEE TRANSACTIONS ON ANTENNAS AND PROPAGATION. ISSN 0018-926X, 2012, vol. 60, no. 5, pp. 2157., WOS

21. [1.1] URZHUMOV, Yaroslav - LEE, Jae Seung - TYLER, Talmage - DHAR, Sulochana - VINH NGUYEN - JOKERST, Nan M. - SCHMALENBERG, Paul - SMITH, David R. *Electronically reconfigurable metal-on-silicon metamaterial. In PHYSICAL REVIEW B. ISSN 1098-0121, 2012, vol. 86, no. 7, 075112., WOS*

22. [1.1] WANG, Y. K. - DONG, Z. G. - ZHAI, Y. *Artificial Permeability and Antibonding Magnetic Resonance in a Copper-Structured Metamaterial with Symmetry-Broken Ring-Plate Resonators. In JOURNAL OF NANOSCIENCE AND NANOTECHNOLOGY. ISSN 1533-4880, 2012, vol. 12, no. 8, pp. 6521., WOS*

23. [1.1] XIONG, Jiang - LIN, Xianqi - YU, Yufeng - TANG, Mingchun - XIAO, Shaoqiu - WANG, Bingzhong. *Novel Flexible Dual-Frequency Broadside Radiating Rectangular Patch Antennas Based on Complementary Planar ENZ or MNZ Metamaterials. In IEEE TRANSACTIONS ON ANTENNAS AND PROPAGATION. ISSN 0018-926X, 2012, vol. 60, no. 8, pp. 3958., WOS*

ADCA250 KOSCHNY, T. - MARKOŠ, Peter - SMITH, D.R. - SOUKOULIS, C.M. *Reply to comments on "resonant and antiresonant frequency dependence of the effective parameters of metamaterials". In Physical Review E, 2004, vol. 70, no. 4, 048603. (2.202 - IF2003). (2004 - Current Contents, SCOPUS). ISSN 1539-3755.*

*Citácie:*

1. [1.1] ANDRYIEUSKI, Andrei - HA, Sangwoo - SUKHORUKOV, Andrey A. - KIVSHAR, Yuri S. - LAVRINENKO, Andrei V. *Bloch-mode analysis for retrieving effective parameters of metamaterials. In PHYSICAL REVIEW B. ISSN 1098-0121, 2012, vol. 86, no. 3, 035127., WOS*

2. [1.1] IWANAGA, Masanobu. *Photonic metamaterials: a new class of materials*

- for manipulating light waves. In SCIENCE AND TECHNOLOGY OF ADVANCED MATERIALS. ISSN 1468-6996, 2012, vol. 13, no. 5, 053002., WOS*
3. [1.1] SYMS, R. R. A. - SOLYMAR, L. *Effective permeability of a metamaterial: Against conventional wisdom. In APPLIED PHYSICS LETTERS. ISSN 0003-6951, 2012, vol. 100, no. 12, 124103., WOS*
4. [1.1] WANG, Y. *Artificial permeability. In JOURNAL OF NANOSCIENCE AND NANOTECHNOLOGY, 2012, vol. 12, pp. 6521., WOS*
- ADCA251 KOSCHNY, Th. - MARKOŠ, Peter - ECONOMOU, E.N. - SMITH, D.R. - VIER, D.C. - SOUKOULIS, C.M. *Impact of inherent periodic structure on effective medium description of left-handed and related metamaterials. In Physical Review B, 2005, vol. 71, no. 24, 245105. (3.075 - IF2004). (2005 - Current Contents). ISSN 1098-0121.*
- Citácie:*
1. [1.1] ASLAM, Muhammad I. - GUNEY, Durdu Oe. *Dual-band, double-negative, polarization-independent metamaterial for the visible spectrum. In JOURNAL OF THE OPTICAL SOCIETY OF AMERICA B-OPTICAL PHYSICS. ISSN 0740-3224, 2012, vol. 29, no. 10, pp. 2839., WOS*
2. [1.1] CHENG, Dengmu - XIE, Jianliang - ZHANG, Huibing - WANG, Chundong - ZHANG, Nan - DENG, Longjiang. *Pantoscopic and polarization-insensitive perfect absorbers in the middle infrared spectrum. In JOURNAL OF THE OPTICAL SOCIETY OF AMERICA B-OPTICAL PHYSICS. ISSN 0740-3224, 2012, vol. 29, no. 6, pp. 1503., WOS*
3. [1.1] CHUANG, Yi-Chen - DUDLEY, Richard - FIDDY, Michael A. - ADIBI, A - LIN, SY - SCHERER, A. *Optimal arrangement of meta-atoms composing metamaterials. In PHOTONIC AND PHONONIC PROPERTIES OF ENGINEERED NANOSTRUCTURES II. ISSN 0277-786X, 2012, vol. 8269, 8269D., WOS*
4. [1.1] DHOUIBI, Abdallah - BUROKUR, Shah Nawaz - DE LUSTRAC, Andre - PRIOU, Alain. *Comparison of compact electric-LC resonators for negative permittivity metamaterials. In MICROWAVE AND OPTICAL TECHNOLOGY LETTERS. ISSN 0895-2477, 2012, vol. 54, no. 10, pp. 2287., WOS*
5. [1.1] DHOUIBI, Abdallah - BUROKUR, Shah Nawaz - DE LUSTRAC, Andre - PRIOU, Alain. *Z-shaped meta-atom for negative permittivity metamaterials. In APPLIED PHYSICS A-MATERIALS SCIENCE & PROCESSING. ISSN 0947-8396, 2012, vol. 106, no. 1, pp. 47., WOS*
6. [1.1] GINIS, Vincent - TASSIN, Philippe - DANCKAERT, Jan - SOUKOULIS, Costas M. - VERETENNICOFF, Irina - DOBISZ, EA - ELDADA, LA. *Design of nanophotonic elements with transformation optics. In NANOENGINEERING: FABRICATION, PROPERTIES, OPTICS, AND DEVICES IX. ISSN 0277-786X, 2012, vol. 8463, 846314., WOS*
7. [1.1] GUTH, N. - GALLAS, B. - RIVORY, J. - GRAND, J. - OURIR, A. - GUIDA, G. - ABDEDDAIM, R. - JOUVAUD, C. - DE ROSNY, J. *Optical properties of metamaterials: Influence of electric multipoles, magnetoelectric coupling, and spatial dispersion. In PHYSICAL REVIEW B. ISSN 1098-0121, 2012, vol. 85, no. 11, 115138., WOS*
8. [1.1] HSIEH, Feng-Ju - WANG, Wei-Chih. *Full extraction methods to retrieve effective refractive index and parameters of a bianisotropic metamaterial based on material dispersion models. In JOURNAL OF APPLIED PHYSICS. ISSN 0021-8979, 2012, vol. 112, no. 6, 064907., WOS*
9. [1.1] LI JUN-CHENG - GUO LI-XIN - LIU SONG-HUA. *Design and simulation of a single-sided left-handed material in THz regime. In ACTA PHYSICA SINICA. ISSN 1000-3290, 2012, vol. 61, no. 12, 124102., WOS*

10. [1.1] LI, Zhaofeng - AYDIN, Koray - OZBAY, Ekmel. Retrieval of effective parameters for bianisotropic metamaterials with omega shaped metallic inclusions. In *PHOTONICS AND NANOSTRUCTURES-FUNDAMENTALS AND APPLICATIONS*. ISSN 1569-4410, 2012, vol. 10, no. 3, pp. 329., WOS
11. [1.1] LIU, Zheng - LI, Wei - JIANG, Xunya. The effective permittivity and hyperbolic quality of a one-dimensional metamaterial. In *EPL*. ISSN 0295-5075, 2012, vol. 99, no. 4, 48006., WOS
12. [1.1] SABAH, C. Microwave response of octagon-shaped parallel plates: Low-loss metamaterial. In *OPTICS COMMUNICATIONS*. ISSN 0030-4018, 2012, vol. 285, no. 21-22, pp. 4549., WOS
13. [1.1] XU HE-XIU - WANG GUANG-MING - WANG JIA-FU - YANG ZI-MU. Dual-band left-handed metamaterials fabricated by using tree-shaped fractal. In *CHINESE PHYSICS B*. ISSN 1674-1056, 2012, vol. 21, no. 12, 124101., WOS
14. [1.1] XU, He-Xiu - WANG, Guang-Ming - LIU, Qiang - WANG, Jia-Fu - GONG, Jian-Qiang. A metamaterial with multi-band left handed characteristic. In *APPLIED PHYSICS A-MATERIALS SCIENCE & PROCESSING*. ISSN 0947-8396, 2012, vol. 107, no. 2, pp. 261., WOS
15. [1.1] ZHANG, Fuli - KANG, Lei - ZHAO, Qian - ZHOU, Ji - LIPPENS, Didier. Magnetic and electric coupling effects of dielectric metamaterial. In *NEW JOURNAL OF PHYSICS*. ISSN 1367-2630, 2012, vol. 14, 033031., WOS
16. [1.1] ZHANG, Yuan - CHUANG, Yi-Chen - SCHENK, John O. - FIDDY, Michael A. Study of scattering patterns and subwavelength scale imaging based on finite-sized metamaterials. In *APPLIED PHYSICS A-MATERIALS SCIENCE & PROCESSING*. ISSN 0947-8396, 2012, vol. 107, no. 1, pp. 61., WOS
- ADCA252 KOŠÍK, J. - BUŽEK, Vladimír. Scattering model for quantum random walks on a hypercube. In *Physical Review A*, 2005, vol. 71, no. 1, 012306. ISSN 1050-2947.  
Citácie:  
1. [1.1] ELIAS VENEGAS-ANDRACA, Salvador. Quantum walks: a comprehensive review. In *QUANTUM INFORMATION PROCESSING*. ISSN 1570-0755, 2012, vol. 11, no. 5, pp. 1015., WOS
- ADCA253 KOŠÍK, Jozef - BUŽEK, Vladimír - HILLERY, M. Quantum walks with random phase shifts. In *Physical Review A*, 2006, vol. 74, 022310. (2006 - Current Contents, SCOPUS). ISSN 1050-2947.  
Citácie:  
1. [1.1] AMPADU, Clement. Brun-Type Formalism for Decoherence in Two-Dimensional Quantum Walks. In *COMMUNICATIONS IN THEORETICAL PHYSICS*. ISSN 0253-6102, 2012, vol. 57, no. 1, pp. 41., WOS  
2. [1.1] AMPADU, Clement. Limit theorems for decoherent two dimensional quantum walks. In *QUANTUM INFORMATION PROCESSING*. ISSN 1570-0755, 2012, vol. 11, no. 6, pp. 1921., WOS  
3. [1.1] ANDRADE, F. M. - DA LUZ, M. G. E. Superdiffusivity of quantum walks: A Feynman sum-over-paths description. In *PHYSICAL REVIEW A*. ISSN 1050-2947, 2012, vol. 86, no. 4, 042309., WOS  
4. [1.1] ELIAS VENEGAS-ANDRACA, Salvador. Quantum walks: a comprehensive review. In *QUANTUM INFORMATION PROCESSING*. ISSN 1570-0755, 2012, vol. 11, no. 5, pp. 1015., WOS  
5. [1.1] SVOZILIK, J. - LEON-MONTIEL, R. de J. - TORRES, J. P. Implementation of a spatial two-dimensional quantum random walk with tunable decoherence. In *PHYSICAL REVIEW A*. ISSN 1050-2947, 2012, vol. 86, no. 5, 052327., WOS
- ADCA254 KOTULIČ BUNTA, Juraj - GMUCA, Štefan. Asymmetric nuclear matter in the relativistic meanfield approach with vector cross interaction. In *Physical Review C*.



Nuclear physics, 2003, vol. 68, no. 5, 054318. (2.848 - IF2002). (2003 - Current Contents, WOS, SCOPUS). ISSN 0556-2813.

Citácie:

1. [1.1] CAI, B.-J. Lorentz covariant nucleon self-energy decomposition. In *PHYSICS LETTERS B*, 2012, vol. 711, p. 104-108., WOS

2. [1.1] URBANEC, M.-BETAK, E.-STUCHLIK, Z. Macroscopic properties of neutron stars. In *JOURNAL OF PHYSICS CONFERENCE SERIES*, 2012, vol. 337, UNSP 01221., WOS

ADCA255 KOZMA, P. - KLIMAN, Ján. Spallation of nickel by 9 GeV/C protons and deuterons. In *Journal of Physics G: Nuclear and particle physics*, 1990, vol. 16, no. 1, p. 45-53. ISSN 0954-3899.

Citácie:

1. [1.1] HOVHANNISYAN, G. H. - DANAGULYAN, A. S. - BALABEKYAN, A. R. - ADAM, J. - KALINNIKOV, V. G. - PRONSKIKH, V. S. - SOLNYSHKIN, A. A. - TSOUPKO-SITNIKOV, V. M. - VLADIMIROVA, N. M. Interaction of C-12 Ions with Nuclei of Enriched Tin Isotopes at an Energy of 2.2 GeV per Nucleon. In *PHYSICS OF ATOMIC NUCLEI*. ISSN 1063-7788, 2012, vol. 75, no. 2, pp. 125., WOS

ADCA256 KOZULIN, E.M. - KNYAZHEVA, G.N. - ITKIS, I.M. - ITKIS, M.G. - BOGACHEV, A.A. - KRUPA, Ľuboš - LOKTEV, T.A. - SMIRNOV, S.V. - ZAGREBAEV, V.I. - AYSTO, J. - TRZASKA, W.H. - RUBCHENYA, V.A. - VARDACI, E. - STEFANINI, A.M. - CINAUSERO, M. - CORRADI, L. - FIORETTO, E. - MASON, P. - PRETE, G.F. - SILVESTRI, R. - BEGNINI, S. - MONTAGNOLI, G. - SCARLASSARA, F. - HANAPPE, F. - KHLEBNIKOV, S.V. - KLIMAN, Ján - BRONDI, A. - DI NITTO, A. - MORO, R. - GELLI, N. - SZILNER, S. Investigation of the reaction (64)Ni+(238)U being an option of synthesizing element 120. In *Physics Letters B*, 2010, vol. 686, no. 4-5, p. 227-232. (5.083 - IF2009). (2010 - Current Contents, WOS, SCOPUS). ISSN 0370-2693.

Citácie:

1. [1.1] FREGEAU, M.O. at all. In *PHYSICAL REVIEW LETTERS*, vol. 108, 2012, 122701., WOS

2. [1.1] SAGAIDAK, R.N. In *EPJ WEB OF CONFERENCE*, vol. 21, 2012, 06001., WOS

ADCA257 KRAJČÍ, Marián - HAFNER, Jürgen. Covalent bonding and bandgap formation in transition-metal aluminides: di-aluminides of group VIII transition metals. In *Journal of Physics: Condensed Matter*, 2002, vol. 14, no. 23, p. 5755-5783. (1.611 - IF2001). (2002 - Current Contents, WOS, SCOPUS). ISSN 0953-8984.

Citácie:

1. [1.1] JELINEK, B. - GROH, S. - HORSTEMEYER, M. F. - HOUZE, J. - KIM, S. G. - WAGNER, G. J. - MOITRA, A. - BASKES, M. I. Modified embedded atom method potential for Al, Si, Mg, Cu, and Fe alloys. In *PHYSICAL REVIEW B*. ISSN 1098-0121, 2012, vol. 85, no. 24, 245102., WOS

2. [1.1] MIHALKOVIC, M. - WIDOM, M. Structure and stability of Al<sub>2</sub>Fe and Al<sub>5</sub>Fe<sub>2</sub>: First-principles total energy and phonon calculations. In *PHYSICAL REVIEW B*. ISSN 1098-0121, 2012, vol. 85, no. 1, 014113., WOS

ADCA258 KRAJČÍ, Marián - HAFNER, Jürgen - MIHALKOVIČ, Marek. Atomic and electronic structure of decagonal. In *Physical Review B*, 2000, vol. 62, no. 1, p. 243-255. (3.008 - IF1999). (2000 - Current Contents). ISSN 1098-0121.

Citácie:

1. [1.1] DOLINSEK, Janez. Electrical and thermal transport properties of icosahedral and decagonal quasicrystals. In *CHEMICAL SOCIETY REVIEWS*. ISSN 0306-0012, 2012, vol. 41, no. 20, pp. 6730., WOS

- ADCA259 KRAJČÍ, Marián - HAFNER, J. Ab initio study of quasiperiodic monolayers on a fivefold i-AlPdMn surface. In Physical Review B, 2005, vol. 71, no. 18, 184207. (3.075 - IF2004). (2005 - Current Contents). ISSN 1098-0121.  
Citácie:  
1. [1.1] MCGRATH, R. - SHARMA, H. R. - SMERDON, J. A. - LEDIEU, J. *The memory of surfaces: epitaxial growth on quasi-crystals. In PHILOSOPHICAL TRANSACTIONS OF THE ROYAL SOCIETY A-MATHEMATICAL PHYSICAL AND ENGINEERING SCIENCES. ISSN 1364-503X, 2012, vol. 370, no. 1969, pp. 2930., WOS*  
2. [1.1] SHARMA, H. R. - SMERDON, J. A. - YOUNG, K. M. - MCGRATH, R. *Epitaxial Bi allotropes on quasicrystal surfaces as templates for adsorption of pentacene and fullerene. In JOURNAL OF PHYSICS-CONDENSED MATTER. ISSN 0953-8984, 2012, vol. 24, no. 35, 354012., WOS*
- ADCA260 KRAJČÍ, Marián - HAFNER, Jürgen. Structure, stability and electronic properties of the i-AlPdMn quasicrystalline surface. In Physical Review B, 2005, vol. 71, 054202. (3.075 - IF2004). (2005 - Current Contents). ISSN 1098-0121.  
Citácie:  
1. [1.1] NAYAK, J. - MANIRAJ, M. - RAI, Abhishek - SINGH, Sanjay - RAJPUT, Parasmani - GLOSKOVSKII, A. - ZEGENHAGEN, J. - SCHLAGEL, D. L. - LOGRASSO, T. A. - HORN, K. - BARMAN, S. R. *Bulk Electronic Structure of Quasicrystals. In PHYSICAL REVIEW LETTERS. ISSN 0031-9007, 2012, vol. 109, no. 21, 216403., WOS*
- ADCA261 KRAJČÍ, Marián - HAFNER, J. Surface structures of complex intermetallic compounds: An ab initio DFT study for the (100) surface of o-Al(13)Co(4). In Physical Review B, 2011, vol. 84, no. 11, 115410. (3.774 - IF2010). (2011 - Current Contents, WOS, SCOPUS). ISSN 1098-0121.  
Citácie:  
1. [1.1] BOBARU, S. *In PHYSICAL REVIEW B, vol. 86, 2012, no. 21., WOS*  
2. [1.1] DUGUET, T. *In PROGRESS IN SURFACE SCIENCE, vol. 87, 2012, p. 47., WOS*  
3. [1.1] WASIO, N.A. *In JOURNAL OF PHYSICAL CHEMISTRY C, vol. 116, 2012, p. 25486., WOS*
- ADCA262 KRAJČÍ, Marián - HAFNER, J. Complex intermetallic compounds as selective hydrogenation catalysts- A case study for the (100) surface of Al(13)Co(4). In Journal of Catalysis, 2011, vol. 278, no. 2, p. 200-207. (5.415 - IF2010). (2011 - Current Contents). ISSN 0021-9517.  
Citácie:  
1. [1.1] KLANJSEK, M. *In JOURNAL OF PHYSICS-COND MATER, vol. 24, 2012, 085703., WOS*
- ADCA263 KRAJČÍ, Marián - HAFNER, J. Pseudomorphic quasiperiodic alkali metal monolayers on an i-Al-Pd-Mn surface. In Physical Review B, 2007, vol. 75, no. 22, 224205. (3.107 - IF2006). (2007 - Current Contents, WOS, SCOPUS). ISSN 1098-0121.  
Citácie:  
1. [1.1] MCGRATH, R. - SHARMA, H. R. - SMERDON, J. A. - LEDIEU, J. *The memory of surfaces: epitaxial growth on quasi-crystals. In PHILOSOPHICAL TRANSACTIONS OF THE ROYAL SOCIETY A-MATHEMATICAL PHYSICAL AND ENGINEERING SCIENCES. ISSN 1364-503X, 2012, vol. 370, no. 1969, pp. 2930., WOS*
- ADCA264 KRAJČÍ, Marián - HAFNER, Jürgen - LEDIEU, L. - MCGRATH, R. Surface vacancies at the fivefold icosahedral Al-Pd-Mn quasicrystal surface: A comparison of ab initio calculated and experimental STM images. In Physical Review B, 2006,

vol. 73, no. 2, 024202. (3.185 - IF2005). (2006 - Current Contents, WOS, SCOPUS). ISSN 1098-0121.

Citácie:

1. [1.1] *DUGUET, T. - THIEL, P. A. Chemical contrast in STM imaging of transition metal aluminides. In PROGRESS IN SURFACE SCIENCE. ISSN 0079-6816, 2012, vol. 87, no. 5-8, pp. 47., WOS*

ADCA265 KRAJČÍ, Marián - HAFNER, J. Ab-initio study of a quasiperiodic Bi monolayer on a fivefold icosahedral Al-Pd-Mn surface. In Philosophical Magazine, 2006, vol. 86, no. 6-8, p. 825-830. ISSN 1478-6435.

Citácie:

1. [1.1] *McGRATH, R. In PHILOSOPHICAL TRANSACTIONS OF THE ROYAL SOCIETY A, vol. 370, 2012, p. 2930., WOS*

ADCA266 KRAJČÍ, Marián - WINDISCH, M. - HAFNER, J. - KRESSE, G. - MIHALKOVIČ, Marek. Atomic and electronic-structure of icosahedral Al-Pd-Mn alloys and approximant phases. In Physical Review B : condensed matter and materials physics, 1995, vol. 51, no. 24, p. 17355-17378. (3.187 - IF1994). (1995 - Current Contents). ISSN 1098-0121.

Citácie:

1. [1.1] *MIZUTANI, U. - INUKAI, M. - SATO, H. - ZIJLSTRA, E. S. Hume-Rothery stabilization mechanism and e/a determination for RT- and MI-type 1/1-1/1-1/1 approximants studied by FLAPW-Fourier analyses. In CHEMICAL SOCIETY REVIEWS. ISSN 0306-0012, 2012, vol. 41, no. 20, pp. 6799., WOS*

2. [1.1] *NAYAK, J. In PHYSICAL REVIEW LETTERS, vol. 109, 2012, 216403., WOS*

ADCA267 KRAJČÍ, Marián - HAFNER, J. - MIHALKOVIČ, Marek. Ab initio study of the surface of a decagonal Al-Co-Ni quasicrystal. In Physical Review B, 2006, vol. 73, no. 13, 134203. (3.185 - IF2005). (2006 - Current Contents, WOS, SCOPUS). ISSN 1098-0121.

Citácie:

1. [1.1] *ZENKYU, R. - YUHARA, J. - MATSUI, T. - ZAMAN, S. Shah - SCHMID, M. - VARGA, P. Composition and local atomic arrangement of decagonal Al-Co-Cu quasicrystal surfaces. In PHYSICAL REVIEW B. ISSN 1098-0121, 2012, vol. 86, no. 11, 115422., WOS*

ADCA268 KRAJČÍ, Marián - HAFNER, Jürgen. Covalent bonding and bandgap formation in intermetallic compounds: a case study for Al<sub>3</sub>V. In Journal of Physics: Condens.Matter., 2002, vol. 14, no. 8, p. 1865-1879. (1.611 - IF2001). (2002 - Current Contents, WOS, SCOPUS). ISSN 0953-8984.

Citácie:

1. [1.1] *MACIA, Enrique. Quasicrystals and the Quest for Next Generation Thermoelectric Materials. In CRITICAL REVIEWS IN SOLID STATE AND MATERIALS SCIENCES. ISSN 1040-8436, 2012, vol. 37, no. 4, pp. 215., WOS*

2. [1.1] *NIU, Haiyang - CHEN, Xing-Qiu - LIU, Peitao - XING, Weiwei - CHENG, Xiyue - LI, Dianzhong - LI, Yiyi. Extra-electron induced covalent strengthening and generalization of intrinsic ductile-to-brittle criterion. In SCIENTIFIC REPORTS. ISSN 2045-2322, 2012, vol. 2, no.718., WOS*

3. [1.1] *PITT, M. P. - VULLUM, P. E. - SORBY, M. H. - EMERICH, H. - PASKEVICIUS, M. - BUCKLEY, C. E. - GRAY, E. MacA - WALMSLEY, J. C. - HOLMESTAD, R. - HAUBACK, B. C. A structural review of nanoscopic Al<sub>1-x</sub>TM<sub>x</sub> phase formation in the TMCl<sub>n</sub> enhanced NaAlH<sub>4</sub> system. In JOURNAL OF ALLOYS AND COMPOUNDS. ISSN 0925-8388, 2012, vol. 527, pp. 16., WOS*

- ADCA269 KRAJČÍ, Marián - HAFNER, J. - MIHALKOVIČ, Marek. Electronic structure and transport properties of decagonal Al-Cu-Co alloys. In *Physical Review B*, 1997, vol. 56, nO. 6, p. 3072-3085. (2.975 - IF1996). (1997 - Current Contents). ISSN 1098-0121.  
Citácie:  
*1. [1.1] DUGUET, T. - THIEL, P. A. Chemical contrast in STM imaging of transition metal aluminides. In PROGRESS IN SURFACE SCIENCE. ISSN 0079-6816, 2012, vol. 87, no. 5-8, pp. 47., WOS*
- ADCA270 KRAJČÍ, Marián - HAFNER, J. - LEDIEU, J. - FOURNÉE, V. - MCGRATH, R. Quasiperiodic Pb monolayer on the fivefold i-Al-Pd-Mn surface: Structure and electronic properties. In *Physical Review B*, 2010, vol. 82, no. 8, 085417. (3.475 - IF2009). (2010 - Current Contents, WOS, SCOPUS). ISSN 1098-0121.  
Citácie:  
*1. [1.1] KAATZ, Forrest H. - ESTRADA, Ernesto - BULTHEEL, Adhemar - SHARROCK, Noel. Statistical mechanics of two dimensional tilings. In PHYSICA A-STATISTICAL MECHANICS AND ITS APPLICATIONS. ISSN 0378-4371, 2012, vol. 391, no. 10, pp. 2957., WOS*
- ADCA271 KRAJČÍ, Marián - HAFNER, J. Fivefold i-Al-Pd-Mn surface as template for growing monatomic quasiperiodic layers: First-principles simulations for adatoms from groups one to three. In *Physical Review B*, 2008, vol. 77, 134202. (3.172 - IF2007). (2008 - Current Contents, WOS, SCOPUS). ISSN 1098-0121.  
Citácie:  
*1. [1.1] BOBARU, S. - GAUDRY, E. - DE WEERD, M.C. - LEDIEU, J. - FOURNÉE, V. Competing allotropes of Bi deposited on the Al<sub>13</sub>Co<sub>4</sub>(100) alloy surface. In PHYSICAL REVIEW B. ISSN 1098-0121, 2012, vol. 86, no. 21, 214201., WOS*
- ADCA272 KRAJČÍ, Marián - FUJIWARA, T. Strictly localized eigenstates on a 3-dimensional penrose lattice. In *Physical Review B*, 1988, vol. 38, no. 18, p. 12903. ISSN 1098-0121.  
Citácie:  
*1. [1.1] DEGUCHI, K. In NATURE MATERIALS, vol. 11, no. 12, 2012, p. 1013., WOS*
- ADCA273 KRAJČÍ, Marián - HAFNER, J. Structure and stability of quasi-crystals- modulated tiling models. In *Physical Review B*, 1992, vol. 46, no. 17, p. 10669. (3.260 - IF1991). (1992 - Current Contents). ISSN 1098-0121.  
Citácie:  
*1. [1.1] MIHALKOVIC, Marek - HENLEY, C. L. Empirical oscillating potentials for alloys from ab initio fits and the prediction of quasicrystal-related structures in the Al-Cu-Sc system. In PHYSICAL REVIEW B. ISSN 1098-0121, 2012, vol. 85, no. 9, 092102., WOS*  
*2. [1.1] SCHOPF, Daniel - BROMMER, Peter - FRIGAN, Benjamin - TREBIN, Hans-Rainer. Embedded atom method potentials for Al-Pd-Mn phases. In PHYSICAL REVIEW B. ISSN 1098-0121, 2012, vol. 85, no. 5, 054201., WOS*
- ADCA274 KRAJČÍ, Marián - HAFNER, J. Metal-insulator transition in approximants to icosahedral Al-Pd-Re. In *Physical Review B*, 1999, vol. 59, no. 13, p. 8347. (2.842 - IF1998). (1999 - Current Contents). ISSN 1098-0121.  
Citácie:  
*1. [1.1] MIZUTANI, U. - INUKAI, M. - SATO, H. - ZIJLSTRA, E. S. Hume-Rothery stabilization mechanism and e/a determination for RT- and MI-type 1/1-1/1-1/1 approximants studied by FLAPW-Fourier analyses. In CHEMICAL SOCIETY REVIEWS. ISSN 0306-0012, 2012, vol. 41, no. 20, pp. 6799., WOS*



- ADCA275 KRAUS, L. - BYDŽOVSKÝ, J. - ŠVEC, Peter. Continuous stress annealing of amorphous ribbons for strain sensing applications. In *Sensors and Actuators A*, 2003, vol. 106, p. 117-120.  
Citácie:  
1. [1.1] FRANCOEUR, Bruno - COUTURE, Pierre. Continuous-annealing method for producing a flexible, curved, soft magnetic amorphous alloy ribbon. In *JOURNAL OF APPLIED PHYSICS*. ISSN 0021-8979, 2012, vol. 111, no. 7, 07A309., WOS
- ADCA276 KRAUS, L. - HASIAR, V. - DUHAJ, Pavol. Correlation between saturation magnetization, magnetostriction and creep-induced anisotropy in amorphous (feco)85b15 alloys. In *IEEE Transactions on Magnetics*, 1994, vol. 30, no. 2, p. 530-532. ISSN 0018-9464.  
Citácie:  
1. [1.1] DONG, Y. In *INTERMETALLICS*, 2012, vol. 23, p. 63-67., WOS
- ADCA277 KRAUS, L. - ZAVETA, K. - HECZKO, O. - DUHAJ, Pavol - VLASÁK, Gabriel - SCHNEIDER, J. Magnetic-anisotropy in as-quenched and stress-annealed amorphous and nanocrystalline fe73.5cu1nb3si13.5b9 alloys. In *Journal of Magnetism and Magnetic Materials*, 1992, vol. 112, no. 1-3, p. 275-277. ISSN 0374-4884.  
Citácie:  
1. [1.1] KERNION, S.J. Giant induced magnetic anisotropy. In *APPLIED PHYSICS LETTERS*. 2012, vol. 101, no. 10, 102408., WOS  
2. [1.1] OHNUMA, M. Structural anisotropy. In *ACTA MATERIALIA*, 2012, vol. 60, no. 3, pp. 1278-1286., WOS
- ADCA278 KRIŠTIAK, Jozef - BARTOŠ, Josef - KRIŠTIAKOVÁ, Katarína - ŠAUŠA, Ondrej - BANDŽUCH, Peter. Free-volume microstructure of amorphous polycarbonate at low-temperatures determined by positron-annihilation-lifetime spectroscopy. In *Physical Review B*, 1994, vol. 49, no. 10, p. 6601-6607. (3.159 - IF1993). (1994 - Current Contents). ISSN 1098-0121.  
Citácie:  
1. [1.1] MASUO, S. - YAMANE, Y. - MACHIDA, S. - ITAYA, A. Fluorescence behavior of individual charge-transfer complexes revealed by single-molecule fluorescence spectroscopy: Influence of the host polymer matrix. In *JOURNAL OF PHOTOCHEMISTRY AND PHOTOBIOLOGY A-CHEMISTRY*. ISSN 1010-6030, JAN 1 2012, vol. 227, no. 1, p. 65-70., WOS
- ADCA279 KRIŠTIAK, Jozef - BARTOŠ, J. - KRIŠTIAKOVÁ, Katarína - ŠAUŠA, Ondrej - BANDŽUCH, Peter. Free-volume microstructure of amorphous polycarbonate at low-temperatures determined by positron-annihilation- lifetime spectroscopy. In *Physical Review B*, 1994, vol. 49, no. 10, p. 6601-6607. (3.159 - IF1993). (1994 - Current Contents). ISSN 1098-0121.  
Citácie:  
1. [1.2] EDLUND, U. - YU, Y. - ZHU RYBERG, Y. - KRAUSE-REHBERG, R. - ALBERTSSON, A.-C. Positron lifetime reveals the nano level packing in complex polysaccharide-rich hydrolysate matrixes. In *Analytical Chemistry*, 2012, 84, 8, pp. 3676-3681., SCOPUS  
2. [1.2] MASUO, S. - YAMANE, Y. - MACHIDA, S. - ITAYA, A. Fluorescence behavior of individual charge-transfer complexes revealed by single-molecule fluorescence spectroscopy: Influence of the host polymer matrix. In *Journal of Photochemistry and Photobiology A: Chemistry*, 2012, 227, 1, pp. 65-70., SCOPUS
- ADCA280 KRIŠTIAKOVÁ, Katarína - ŠVEC, Peter. Continuous distribution of thermodynamic microprocesses in complex metastable systems. In *Physical Review B*, 2001, vol. 64, no. 18, p. 184202. (3.065 - IF2000). (2001 - Current Contents,

WOS, SCOPUS). ISSN 1098-0121.

Citácie:

1. [1.1] ZIVOTSKY, O. - HENDRYCH, A. - KLIMSA, L. - JIRASKOVA, Y. - BURSIK, J. - GOMEZ, J. A. M. - JANICKOVIC, D. *Surface microstructure and magnetic behavior in FeSiB amorphous ribbons from magneto-optical Kerr effect. In JOURNAL OF MAGNETISM AND MAGNETIC MATERIALS. ISSN 0304-8853, 2012, vol. 324, no. 4, pp. 569., WOS*

2. [1.1] ZIVOTSKY, Ondrej - JIRASKOVA, Yvonna - HENDRYCH, Ales - MATEJKA, Vlastimil - KLIMSA, Ladislav - BURSIK, Jiri. *Influence of Annealing Temperature and Atmosphere on Surface Microstructure and Magnetism in FINEMET-Type FeSiNbCuB Ribbons. In IEEE TRANSACTIONS ON MAGNETICS. ISSN 0018-9464, 2012, vol. 48, no. 4, pp. 1367., WOS*

ADCA281 KRIŠTIÁKOVÁ, Katarína - ŠVEC, Peter - DEANKO, Martin. Cluster structure and thermodynamic of formation of (nano)crystalline phases in disordered metastable metallic systems. In *Materials Science and Engineering A - Structural Materials Properties Microstructure and Processing*, 2004, vol. 375, p. 136-149. (1.363 - IF2003). (2004 - Current Contents, WOS, SCOPUS). ISSN 0921-5093.

Citácie:

1. [1.1] FAN, Z.-YU, H.-WANG,X. *Molybdenum based amorphous and nanocrystalline coatings. In RARE METALS, vol. 31, no. 4, 2012, p. 355-361., WOS*

ADCA282 KRUPA, Dalibor - MESHCHERYAKOV, V.A. - SUROVTSEV, Y.S. Multichannel approach to studying scalar resonances. In *Il Nuovo Cimento A*, 1996, vol. 109, no. 3, p. 281-299.

Citácie:

1. [1.1] DAI LING-YUN - WANG XUAN-GONG - ZHENG HAI-QING. *Pole Analysis of Unitarized One Loop chi PT Amplitudes A Triple Channel Study. In COMMUNICATIONS IN THEORETICAL PHYSICS. ISSN 0253-6102, 2012, vol. 58, no. 3, pp. 410., WOS*

ADCA283 KUBIČÁR, Ľudovít - BOHÁČ, Vlastimil. A step-wise method for measuring thermophysical parameters of materials. In *Measurement Science and Technology*, 2000, vol. 11, no. 3, p. 252-258. (0.850 - IF1999). (2000 - Current Contents). ISSN 0957-0233.

Citácie:

1. [1.1] CHUDZIK, S. *Measurement of thermal parameters of a heat insulating material using infrared thermography. In INFRARED PHYSICS & TECHNOLOGY. ISSN 1350-4495, 2012, vol. 55, no. 1, pp. 73., WOS*

2. [1.1] CHUDZIK, Stanislaw. *Measurement of thermal diffusivity of insulating material using an artificial neural network. In MEASUREMENT SCIENCE & TECHNOLOGY. ISSN 0957-0233, 2012, vol. 23, no. 6, 065602., WOS*

3. [1.1] GAO, Jing - YOU, Jiang - COCHRAN, Sandy - CORNER, George - HUANG, Zhihong - MURATORE, R - KONOFAGOU, EE. *Simultaneous Measurements of Thermo-Physical Properties of Egg White Phantoms for HIFU by Using the Step-Wise Transient Plane Source Technique. In 11TH INTERNATIONAL SYMPOSIUM ON THERAPEUTIC ULTRASOUND. ISSN 0094-243X, 2012, vol. 1481, pp. 88., WOS*

4. [1.1] GAO, Jing - YOU, Jiang - HUANG, Zhihong - COCHRAN, Sandy - CORNER, George. *Simultaneous Measurement of Thermophysical Properties of Tissue-Mimicking Phantoms for High Intensity Focused Ultrasound (HIFU) Exposures. In INTERNATIONAL JOURNAL OF THERMOPHYSICS. ISSN 0195-928X, 2012, vol. 33, no. 3, pp. 495., WOS*

5. [1.1] HOU, W-S - CHUANG, T-F - HSIEH, E-C - CHANG, Y-H. *An analysis of*

- heat insulation efficiency of building outer skins used for green building. In BUILDING SERVICES ENGINEERING RESEARCH & TECHNOLOGY. ISSN 0143-6244, 2012, vol. 33, no. 4, pp. 407., WOS*
6. [1.1] MALINARIC, Svetozar - DIESKA, Peter - KRUPA, Peter. Modified Dynamic Plane Source Method for Measuring Thermophysical Parameters of Solids. In INTERNATIONAL JOURNAL OF THERMOPHYSICS. ISSN 0195-928X, 2012, vol. 33, no. 3, pp. 528., WOS
7. [1.1] TIAN, Mingwei - ZHU, Sukang - CHEN, Qun - PAN, Ning. Effects of layer stacking sequence on temperature response of multi-layer composite materials under dynamic conditions. In APPLIED THERMAL ENGINEERING. ISSN 1359-4311, 2012, vol. 33-34, pp. 219., WOS
8. [1.1] TIAN, Mingwei - ZHU, Sukang - PAN, Ning. Measuring the thermophysical properties of porous fibrous materials with a new unsteady-state method. In JOURNAL OF THERMAL ANALYSIS AND CALORIMETRY. ISSN 1388-6150, 2012, vol. 107, no. 1, pp. 395., WOS
- ADCA284 KUBIČÁR, Ľudovít - BOHÁČ, Vlastimil - VRETENÁR, Viliam. Transient methods for the measurement of thermophysical properties: The pulse transient method. In High Temperatures-High Pressures, 2002, vol. 34, no. 5, p. 505-514. ISSN 0018-1544.
- Citácie:
1. [1.1] TIAN, Mingwei - ZHU, Sukang - CHEN, Qun - PAN, Ning. Effects of layer stacking sequence on temperature response of multi-layer composite materials under dynamic conditions. In APPLIED THERMAL ENGINEERING. ISSN 1359-4311, 2012, vol. 33-34, no., pp. 219., WOS
- ADCA285 KUBIČÁR, Ľudovít - VRETENÁR, Viliam - BOHÁČ, Vlastimil - TIANO, P. Thermophysical analysis of sandstone by pulse transient method. In International Journal of Thermophysics, 2006, vol. 27, no. 1, p. 220-234. ISSN 0195-928X.
- Citácie:
1. [3] HUA, Liu- FuJun, Niu- ZhiYing, Xu. Acoustic experimental study of two types of rock from the Tibetan Plateau under the condition of freeze-thaw cycles. In SCIENCES IN COLD AND ARID REGIONS, 2012, vol. 4, no. 1, 0021-0027.
2. [3] ŠIMKOVÁ, I.-GREIF, V.-KOMPANÍKOVÁ, Z. Study the change of thermophysical properties of natural stone in the conditions of cyclic freezing. In ACTA GEOLOGICA SLOVACA, 2012, vol. 4, no. 1, P. 23-30.
- ADCA286 KUBIČÁR, Ľudovít - ILLEKOVÁ, Emília. Use of pulse method for study of structural- changes of materials. In Thermochimica Acta, 1985, vol. 92, p. 441-444. ISSN 0040-6031.
- Citácie:
1. [1.1] HOLBA, Pavel - SESTAK, Jaroslav. CZECHOSLOVAK FOOTPRINTS IN THE DEVELOPMENT OF METHODS OF THERMOMETRY, CALORIMETRY AND THERMAL ANALYSIS. In CERAMICS-SILIKATY. ISSN 0862-5468, 2012, vol. 56, no. 2, pp. 159., WOS
- ADCA287 KUBIČÁR, Ľudovít - VRETENÁR, Viliam - ŠTOFANIK, Vladimír - BOHÁČ, Vlastimil. Hot-ball method for measuring thermal conductivity. In International Journal of Thermophysics, 2010, vol. 31, no. 10, p. 1904-1918. (0.702 - IF2009). (2010 - Current Contents, WOS, SCOPUS). ISSN 0195-928X.
- Citácie:
1. [3] BRIONIZIO, J.D.-BONNIER, G.H.-ORLANDO, A.F. Temperature profiles produced by a spherical heat source immersed in an infinite liquid medium. In XX IMEKO WORLD CONGRESS METROLOGY FOR GREEN GROWTH, September 9-14, 2012, Busan, Republic of Korea, 2012.
- ADCA288 KUBIČÁR, Ľudovít. Trends in the methods of measurement of thermo-physical

properties in the solid-state. In *Thermochimica Acta*, 1987, vol. 110, p. 209-215. ISSN 0040-6031.

Citácie:

1. [1.1] *HOLBA, Pavel - SESTAK, Jaroslav. CZECHOSLOVAK FOOTPRINTS IN THE DEVELOPMENT OF METHODS OF THERMOMETRY, CALORIMETRY AND THERMAL ANALYSIS. In CERAMICS-SILIKATY. ISSN 0862-5468, 2012, vol. 56, no. 2, pp. 159., WOS*

ADCA289 KUCHARÍK, Marián - KORENKO, Michal - JANIČKOVIČ, Dušan - KADLEČÍKOVÁ, M. - BOČA, Miroslav - OBOŇA, Jozef Vincenc. Rapid solidification of cryolite and cryolite-alumina melts. In *Monatshefte für Chemie*, 2010, vol. 141, p. 7-13. (1.312 - IF2009). (2010 - Current Contents). ISSN 0026-9247.

Citácie:

1. [1.1] *COULOMBE, M.A. - LEBEUF, M. - FAIRLEY, N. - WALTON, J. - SOUCY, G. In JOURNAL OF ELECTRON SPECTROSCOPY AND RELATED PHENOMENA. DEC 2012, vol. 185, no. 12, p. 588-597., WOS*

ADCA290 LAI, W.K. - BUŽEK, Vladimír - KNIGHT, P.L. Nonclassical fields in a linear directional coupler. In *Physical Review A*, 1991, vol. 43, no. 11, p. 6323-6336. ISSN 1050-2947.

Citácie:

1. [1.1] *JAVADI, A. - ROSTAMI, A. Measurement base change for localization encoded dual rail photonic quantum computing. In OPTIK. ISSN 0030-4026, 2012, vol. 123, no. 15, pp. 1336., WOS*

2. [1.1] *RIAUD, P. The quantum stellar interferometer. In EUROPEAN PHYSICAL JOURNAL D. ISSN 1434-6060, 2012, vol. 66, no. 1., WOS*

ADCA291 LAI, W.K. - BUŽEK, Vladimír - KNIGHT, P.L. Interaction of a 3-level atom with an su(2) coherent state. In *Physical Review A*, 1991, vol. 44, no. 3, p. 2003-2012. ISSN 1050-2947.

Citácie:

1. [1.1] *YU WEN-JIAN - WANG JI-SUO - LIANG BAO-LONG. Quantum properties of two-level atoms interacting with nonlinear coherent states. In ACTA PHYSICA SINICA. ISSN 1000-3290, 2012, vol. 61, no. 6, 060301., WOS*

ADCA292 LAI, W.K. - BUŽEK, Vladimír - KNIGHT, P.L. Dynamics of a 3-level atom in a 2-mode squeezed vacuum. In *Physical Review A*, 1991, vol. 44, no. 9, p. 6043-6056. ISSN 1050-2947.

Citácie:

1. [1.1] *PRIYESH, K. V. - THAYYULLATHIL, Ramesh Babu. Effect of Phase Shifted Frequency Modulation on Two Level Atom-Field Interaction. In COMMUNICATIONS IN THEORETICAL PHYSICS. ISSN 0253-6102, 2012, vol. 57, no. 3, pp. 468., WOS*

2. [1.1] *VALVERDE, C. - DE OLIVEIRA, H. C. B. - AVELAR, A. T. - BASEIA, B. Controlling Excitation Inversion of a Cooper Pair Box Interacting with a Nanomechanical Resonator. In CHINESE PHYSICS LETTERS. ISSN 0256-307X, 2012, vol. 29, no. 8, 080303., WOS*

3. [1.1] *YUAN HONG-CHUN - XU XUE-XIANG. One- and two-mode successively squeezed state and its statistical properties. In ACTA PHYSICA SINICA. ISSN 1000-3290, 2012, vol. 61, no. 6, 064205., WOS*

ADCA293 LANGE, S. - SILDOS, I. - HARTMANOVÁ, Mária - AARIK, J. - KIISK, V. Luminescence properties of Sm<sup>3+</sup>-doped polycrystalline ZrO<sub>2</sub>. In *Journal of Non-Crystalline Solids*, 2008, vol. 354, no. 35-39, p. 4380-4382. (1.319 - IF2007). (2008 - Current Contents, SCOPUS). ISSN 0022-3093.

Citácie:



1. [1.2] CHO, S.-H. - CHO, S.-W. *Synthesis and Photoluminescence Properties of Red Phosphors Gd<sub>1-x</sub>Al<sub>3</sub>(BO<sub>3</sub>)<sub>4</sub>: Eu<sup>3+</sup>*. In *Korean Journal of Materials Research*, 2012, vol.22, no.3, 145-149., SCOPUS
  2. [1.2] GAO, Q.-X. - WANG, X.-F. - TAO, Y.-R. - WU, X.-C. *Photoluminescence properties of zirconia nanobelts with trace Sm<sup>3+</sup> ions*. In *Science of Advanced Materials*, 2012, vol.4, no.2, 327-331., SCOPUS
  3. [1.2] TISEANU, C. - PARVULESCU, V.I. - COJOCARU, B. - PEMARTIN, K. - SANCHEZ-DOMINGUEZ, M. - BOUTONNET, M. *In situ Raman and time-resolved luminescence investigation of the local structure of ZrO<sub>2</sub> in the amorphous to crystalline phase transition*. In *Journal of Physical Chemistry C*, 2012, vol.116, no.31, 16776-16783., SCOPUS
  4. [1.2] WANG, X. - ZHAO, J. - DU, P. - GUO, L. - XU, X. - TANG, C. *The photoluminescence properties of Er<sup>3+</sup>-doped ZrO<sub>2</sub> nanotube arrays prepared by anodization*. In *Materials Research Bulletin*, 2012, vol.47, no.11, 3916-3919., SCOPUS
  5. [1.2] WANG, Z. - ZHANG, J. - ZHENG, G. - LIU, Y. - ZHAO, Y. *The unusual variations of photoluminescence and afterglow properties in monoclinic ZrO<sub>2</sub> by annealing*. In *Journal of Luminescence*, 2012, vol.132, no.11, 2817-2821., SCOPUS
  6. [1.2] ZHAO, Z. - WANG, Y. *The synthesis and afterglow luminescence properties of a novel red afterglow phosphor: ZrO<sub>2</sub>:Sm<sup>3+</sup>,Sn<sup>4+</sup>*. In *Journal of Luminescence*, 2012, vol.132, no.11, 2842-2846., SCOPUS
- ADCA294 LÁNYI, Štefan. Effect of tip shape on capacitance determination accuracy in scanning capacitance microscopy. In *Ultramicroscopy*, 2005, vol. 103, no. 3, p. 221-228. ISSN 0304-3991.  
Citácie:  
1. [1.1] FENNER, M. A. - WU, S. - YU, J.J. - HUBER, H.P. - KIENBERGER, F. *Advanced Characterization of Material Properties on the Nanometer Scale Using Atomic Force Microscopy*. In *ACTA PHYSICA POLONICA A*. ISSN 0587-4246, 2012, vol. 121, no. 2, pp. 416., WOS
- ADCA295 LÁNYI, Štefan - HRUŠKOVIČ, M. The resolution limit of scanning capacitance microscopes. In *Journal of Physics D: Applied Physics*, 2003, vol. 36, no. 5, p. 598-602. (2003 - Current Contents, SCOPUS). ISSN 0022-3727.  
Citácie:  
1. [1.1] BALKE, Nina - BONNELL, Dawn - GINGER, David S. - KEMERINK, Martijn. *Scanning probes for new energy materials: Probing local structure and function*. In *MRS BULLETIN*. ISSN 0883-7694, 2012, vol. 37, no. 7, pp. 633., WOS
- ADCA296 LEDIEU, J. - KRAJČÍ, Marián - HAFNER, J. - LEUNG, L. - WEARING, L.H. - MCGRATH, R. - LOGRASSO, T.A. - WU, D. - FOURNEE, V. Nucleation of Pb starfish clusters on the five-fold Al-Pd-Mn quasicrystal surface. In *Physical Review B*, 2009, vol. 79, no. 16, 165430. (3.322 - IF2008). (2009 - Current Contents, WOS, SCOPUS). ISSN 1098-0121.  
Citácie:  
1. [1.1] MURALIDHARAN, Srevatsan - KHODADAD, Raika - SULLIVAN, Ethan - HAATAJA, Mikko. *Multilayer thin film growth on crystalline and quasicrystalline surfaces: A phase-field crystal study*. In *PHYSICAL REVIEW B*. ISSN 1098-0121, 2012, vol. 85, no. 24, 245428., WOS
- ADCA297 LEO, G. - CHUSHKIN, Jurij - LUBY, Štefan - MAJKOVÁ, Eva - KOSTIČ, Ivan - ULMEANU, M. - LUCHES, A. - GIERSIG, Michael - HILGENDORFF, M. Ordering of free-standing Co nanoparticles. In *Materials Science and Engineering C - Biomimetic and Supramolecular Systems*, 2003, vol. 23, no. 6-8, p. 949-952. ISSN

0928-4931.

Citácie:

1. [1.1] *BELLIDO, Elena - DOMINGO, Neus - OJEA-JIMENEZ, Isaac - RUIZ-MOLINA, Daniel. Structuration and Integration of Magnetic Nanoparticles on Surfaces and Devices. In SMALL. ISSN 1613-6810, 2012, vol. 8, no. 10, pp. 1465., WOS*

ADCA298 LIANG, X.B. - KULIK, T. - KOWALCZYK, M. - VLASÁK, Gabriel - SUN, W.S. - XU, B.S. Influence of structure on coercivity in nanocrystalline  $(\text{Fe}_{1-x}\text{Co}_x)(86)\text{Hf}7\text{B}6\text{Cu}1$  alloys. In *Physica B*, 2005, vol. 370, no. 1-4, p. 151-157. ISSN 0921-4526.

Citácie:

1. [1.1] *CHAO YUESHENG - WANG LI - ZHANG YANHUI - ZHU HANXIAN - LUO LIPING. EFFECT OF LOW-TEMPERATURE VACUUM ANNEALING ON THE MAGNETIC PULSED AMORPHOUS  $\text{Fe}_{52}\text{Co}_{34}\text{Hf}_7\text{B}_6\text{Cu}_1$  ALLOY. In ACTA METALLURGICA SINICA. ISSN 0412-1961, 2012, vol. 48, no. 6, pp. 749., WOS*

2. [1.1] *JIA, Yun-yun - WANG, Zhi - WANG, Jia - SHI, Rui-min. Structure and magnetic properties of  $\text{Ni}_{-5}(\text{Fe}_{0.5}\text{Co}_{0.5})(68.5)\text{Si}_{13.5}\text{Nb}_3\text{B}_9\text{Cu}$  alloy. In JOURNAL OF MAGNETISM AND MAGNETIC MATERIALS. ISSN 0304-8853, 2012, vol. 324, no. 23, pp. 3981., WOS*

3. [1.1] *ZHANG YAN-HUI - LI YAN-LONG - GU YUE - CHAO YUE-SHENG. Investigation of positron annihilation in  $\text{Fe}_{52}\text{Co}_{34}\text{Hf}_7\text{B}_6\text{Cu}_1$  amorphous alloy treated by intermediate frequency magnetic pulse. In ACTA PHYSICA SINICA. ISSN 1000-3290, 2012, vol. 61, no. 16, 167502., WOS*

ADCA299 LIPTÁK, Ľudovít - OLEJNÍK, Štefan. Casimir scaling in  $G(2)$  lattice gauge theory. In *Physical Review D*, 2008, vol. 78, 074501. ISSN 1550-7998.

Citácie:

1. [1.1] *DELDAR, S. - LOOKZADEH, H. - NEJAD, S. M. Hosseini. Confinement in  $G(2)$  gauge theories using the thick center vortex model and domain structures. In PHYSICAL REVIEW D. ISSN 1550-7998, 2012, vol. 85, no. 5, 054501., WOS*

2. [1.1] *DELDAR, S. - LOOKZADEH, H. - NEJAD, S. M. Hosseini. Confinement in  $G(2)$  gauge theories using the thick center vortex model and domain structures. In PHYSICAL REVIEW D. ISSN 1550-7998, 2012, vol. 85, no. 5, 054501., WOS*

3. [1.1] *ILGENFRITZ, Ernst-Michael - MAAS, Axel. Topological aspects of  $G(2)$  Yang-Mills theory. In PHYSICAL REVIEW D. ISSN 1550-7998, 2012, vol. 86, no. 11, 114508., WOS*

4. [1.1] *ILGENFRITZ, Ernst-Michael - MAAS, Axel. Topological aspects of  $G(2)$  Yang-Mills theory. In PHYSICAL REVIEW D. ISSN 1550-7998, 2012, vol. 86, no. 11, 114508., WOS*

5. [1.1] *MAAS, Axel - VON SMEKAL, Lorenz - WELLEGEHAUSEN, Bjoern - WIPF, Andreas. Phase diagram of a gauge theory with fermionic baryons. In PHYSICAL REVIEW D. ISSN 1550-7998, 2012, vol. 86, no. 11, 111901., WOS*

6. [1.1] *MAAS, Axel - VON SMEKAL, Lorenz - WELLEGEHAUSEN, Bjoern - WIPF, Andreas. Phase diagram of a gauge theory with fermionic baryons. In PHYSICAL REVIEW D. ISSN 1550-7998, 2012, vol. 86, no. 11, 111901., WOS*

7. [1.1] *MYKKANEN, Anne - PANERO, Marco - RUMMUKAINEN, Kari. Casimir scaling and renormalization of Polyakov loops in large- $N$  gauge theories. In JOURNAL OF HIGH ENERGY PHYSICS. ISSN 1029-8479, 2012, no. 5, 069., WOS*

8. [1.1] *MYKKANEN, Anne - PANERO, Marco - RUMMUKAINEN, Kari. Casimir scaling and renormalization of Polyakov loops in large- $N$  gauge theories. In JOURNAL OF HIGH ENERGY PHYSICS. ISSN 1029-8479, 2012, no. 5, 069.,*

WOS

9. [3] MAAS, A. - WELLEGEHAUSEN, B.H. *G2 gauge theories. In LATTICE 2012 (PROCEEDINGS OF SCIENCE-LATTICE 2012, SISSA), p. 080.*

- ADCA300 LOCKMULLER, N. - REDGROVE, I. - KUBIČÁR, Ľudovít. Measurement of thermal conductivity with the needle probe. In High Temperatures-High Pressure, 2003, vol. 35-36, no. 2, p. 127-138. ISSN 0018-1544.

Citácie:

1. [1.1] ALKAHARI, Mohd Rizal - FURUMOTO, Tatsuaki - UEDA, Takashi - HOSOKAWA, Akira - TANAKA, Ryutara - AZIZ, Mohd Sanusi Abdul - AOYAMA, T - AOYAMA, H - MATSUBARA, A - YOSHIOKA, H - ZHOU, L. *Thermal Conductivity of Metal Powder and Consolidated Material fabricated via Selective Laser Melting. In EMERGING TECHNOLOGY IN PRECISION ENGINEERING XIV. ISSN 1013-9826, 2012, vol. 523-524, pp. 244-249., WOS*

2. [1.1] SPARROW, E. M. - GORMAN, J. M. - TRAWICK, A. - ABRAHAM, J. P. *Novel techniques for measurement of thermal conductivity of both highly and lowly conducting solid media. In INTERNATIONAL JOURNAL OF HEAT AND MASS TRANSFER. ISSN 0017-9310, 2012, vol. 55, no. 15-16, pp. 4037., WOS*

- ADCA301 LUBY, Štefan - MAJKOVÁ, Eva - CARICATO, A.P. - FERNANDEZ, M. - LUCHES, A. - FRAIT, Z. - FRAITOVA, D. - MALYCH, R. Pulsed excimer laser deposited Co- and Fe- based magnetic films for fast magnetic sensors. In Journal of Magnetism and Magnetic Materials, 2004, vol. 272-276, sp.Iss., p. 1408-1409. (0.910 - IF2003). (2004 - Current Contents, WOS, SCOPUS). ISSN 0304-8853.

Citácie:

1. [1.1] GUITTOUM, A. - BOURZAMI, A. - LAYADI, A. - SCHMERBER, G. *Structural, electrical and magnetic properties of evaporated permalloy thin films: effect of substrate and thickness. In EUROPEAN PHYSICAL JOURNAL-APPLIED PHYSICS. ISSN 1286-0042, 2012, vol. 58, no. 2, 20301., WOS*

- ADCA302 LUBY, Štefan - ANWARZAI, B. - AC, V. - MAJKOVÁ, Eva - SENDERÁK, Rudolf. Pseudo spin-valves with different spacer thickness as sending elements of mechanical strain. In Vacuum, 2012, vol. 86, no. 6, p 718-720. (1.317 - IF2011). (2012 - Current Contents). ISSN 0042-207X.

Citácie:

1. [1.1] DEMYDENKO, M.-PROTSENKO, S.-SIFALOVIC, P. *Null-ellipsometry investigations of the optical properties. In THIN SOLID FILMS, vol. 520, 2012, no. 17, pp. 5722-5726., WOS*

- ADCA303 LUBY, Štefan - MAJKOVÁ, Eva - JERGEL, Matej - BRUNEL, M. - LEGGIERI, G. - LUCHES, A. - MAJNI, G. - MENGUCCI, P. Stability of interfaces in Mo/Cu multilayered metallization. In Thin Solid Films, 1996, vol. 277, p. 138-143. (1996 - Current Contents). ISSN 0040-6090.

Citácie:

1. [1.2] GUO, Z. - SUN, Y. - DUAN, Y. - PENG, M. - WU, D. - LIU, G. *Structure and properties of Cu/Mo nanostructure multilayer deposited by magnetron sputtering. In Chinese Journal of Rare Metals, 2012, 36, 1, pp. 92-97., SCOPUS*

- ADCA304 MA, Y.G. - NATOWITZ, J.B. - WADA, R. - HAGEL, K. - WANG, J. - KEUTGEN, T. - MAJKA, Z. - MURRAY, M. - QIN, L. - SMITH, P. - ALFARO, R. - CIBOR, J. - CINAUSERO, M. - EL MASRI, Y. - FABRIS, D. - FIORETTO, E. - KEKSIS, A. - LUNARDON, M. - MAKEEV, A. - MARIE, N. - MARTIN, E. - MARTINEX-DAVALOS, A. - MENCHACA-ROCHA, A. - PRETE, G. - RIZZI, V. - RUANGMA, A. - SHETTY, D.V. - SOULIOTIS, G. - STASZEL, P. - VESELSKÝ, Martin - VIESTI, G. - WINCHESTER, E.M. - YENNELLO, S.J. Critical behavior in light nuclear systems: Experimental aspects. In Physical Review



C. Nuclear physics, 2005, vol. 71, no. 5, 054606. (3.125 - IF2004). (2005 - Current Contents, WOS, SCOPUS). ISSN 0556-2813.

Citácie:

1. [1.1] MA CHUN-WANG - PU JIE - WANG SHAN-SHAN - WEI HUI-LING. *The Symmetry Energy from the Neutron-Rich Nucleus Produced in the Intermediate-Energy Ca-40, Ca-48 and Ni-58, Ni-64 Projectile Fragmentation. In CHINESE PHYSICS LETTERS. ISSN 0256-307X, 2012, vol. 29, no. 6, 062101., WOS*

2. [1.1] MA CHUNWANG - ZHANG YANFANG - JIN CHAN. *Isospin Dependence of Fragmentation Cross Sections in Collisions of Neutron-Rich Ca Isotopes with C-12. In PLASMA SCIENCE & TECHNOLOGY. ISSN 1009-0630, 2012, vol. 14, no. 5, pp. 396., WOS*

3. [1.1] MA, Chun-Wang - PU, Jie - WEI, Hui-Ling - WANG, Shan-Shan - SONG, Heng-Li - ZHANG, Sha - CHEN, Li. *Symmetry energy extracted from fragments in relativistic energy heavy-ion collisions induced by Xe-124, Xe-136. In EUROPEAN PHYSICAL JOURNAL A. ISSN 1434-6001, 2012, vol. 48, no. 6, 78., WOS*

4. [1.1] ZHANG GUOQIANG - CAO XIGUANG - FU YAO - MA YUGANG - CAI XIANGZOU - WANG HONGWEI - FANG DEQING - CHEN JINGEN - GUO WEI - TIAN WENDONG - LIU GUIHUA. *Origin of the finite nuclear spin and its effect in intermediate energy heavy ion collisions. In NUCLEAR SCIENCE AND TECHNIQUES. ISSN 1001-8042, 2012, vol. 23, no. 1, pp. 61., WOS*

ADCA305 MAAS, Axel - MENDES, T. - OLEJNÍK, Štefan. Yang-Mills theory in lambda gauges. In Physical Review D, 2011, vol. 84, 114501. (4.964 - IF2010). (2011 - Current Contents). ISSN 1550-7998.

Citácie:

1. [1.2] BOUCAUD, Ph. *at all. The infrared behaviour of the pure Yang-Mills Green functions. In FEW BODY SYSTEMS, 2012, vol. 53, p. 387-436., SCOPUS*

ADCA306 MAAS, Axel. More on Gribov copies and propagators in Landau-gauge Yang-Mills theory. In Physical review D, 2009, vol. 79, no. 1, 014505. (2009 - Current Contents). ISSN 1550-7998.

Citácie:

1. [1.1] BORNIAKOV, V. G. - MITRUSHKIN, V. K. - ROGALYOV, R. N. *Lattice gluon propagators in 3D SU(2) theory and effects of Gribov copies. In PHYSICAL REVIEW D. ISSN 1550-7998, 2012, vol. 86, no. 11, 114503., WOS*

2. [1.1] CUCCHIERI, Attilio - DUDAL, David - VANDERSICKEL, Nele. *No-pole condition in Landau gauge: Properties of the Gribov ghost form factor and a constraint on the 2d gluon propagator. In PHYSICAL REVIEW D. ISSN 1550-7998, 2012, vol. 85, no. 8, 085025., WOS*

3. [1.1] DUDAL, D. - OLIVEIRA, O. - RODRIGUEZ-QUINTERO, J. *Nontrivial ghost-gluon vertex and the match of the Renet-Gribov-Zwanziger, Dyson-Schwinger equations, and lattice Yang-Mills propagators. In PHYSICAL REVIEW D. ISSN 1550-7998, 2012, vol. 86, no. 10, 105005., WOS*

4. [1.1] LLANES-ESTRADA, Felipe J. - WILLIAMS, Richard. *Two infrared Yang-Mills solutions in stochastic quantization and in an effective action formalism. In PHYSICAL REVIEW D. ISSN 1550-7998, 2012, vol. 86, no. 6, 065034., WOS*

5. [1.1] VANDERSICKEL, N. - ZWANZIGER, Daniel. *The Gribov problem and QCD dynamics. In PHYSICS REPORTS-REVIEW SECTION OF PHYSICS LETTERS. ISSN 0370-1573, 2012, vol. 520, no. 4, pp. 175., WOS*

ADCA307 MAAS, Axel. Two- and three- point Green's functions in two-dimensional Landau-gauge Yang-Mills theory. In Physical review D, 2007, vol. 75, 116004.

ISSN 1550-7998.

Citácie:

1. [1.1] GRACEY, J.A. In *PHYSICAL REVIEW D*, 2012, vol. 86, 105029., WOS
2. [1.1] WEBER, A. In *JOURNAL OF PHYSICS CONF SER*, 2012, vol. 378, 012042., WOS
3. [1.2] CUCCHIERI, A. - DUDAL, D. - MENDES, T. - VANDERSICKEL, N. Modeling the gluon propagator in Landau gauge: Lattice estimates of pole masses and dimension-two condensates. In *Physical Review D Particles, Fields, Gravitation and Cosmology*, 2012, 85, 9, 094513., SCOPUS
4. [1.2] CUCCHIERI, A. - DUDAL, D. - VANDERSICKEL, N. No-pole condition in Landau gauge: Properties of the Gribov ghost form factor and a constraint on the 2d gluon propagator. In *Physical Review D Particles, Fields, Gravitation and Cosmology*, 2012, 85, 8, 085025., SCOPUS
5. [1.2] VANDERSICKEL, N. - ZWANZIGER, D. The Gribov problem and QCD dynamics. In *Physics Reports*, 2012, 520, 4, pp. 175-251., SCOPUS
6. [1.2] WEBER, A. Epsilon expansion for infrared Yang-Mills theory in Landau gauge. In *Physical Review D Particles, Fields, Gravitation and Cosmology*, 2012, 85, 12, 125005., SCOPUS
7. [3] DUDAL, D. In "GHOST DISSECTION". *PROCEEDINGS OF SCIENCE, QCD-TNT-II* (2011), 015.
8. [3] ZWANZIGER, D. Exact bounds on the free energy in QCD. In *PREPRINT HEP-TH*, 1202.1269, 2012

ADCA308 MAJERNÍK, V. - MAJERNÍKOVÁ, Eva. The determination of bounds of the beta-entropic sum of two noncommuting observables. In *Reports on Mathematical Physics*, 2001, vol. 47, no. 3, p. 381-392. ISSN 0034-4877.

Citácie:

1. [1.1] MATIA-HERNANDO, Paloma - LUIS, Alfredo. Contradictions between different measures of quantum uncertainty. In *PHYSICAL REVIEW A*. ISSN 1050-2947, 2012, vol. 86, no. 5, 052106., WOS
2. [1.1] RASTEGIN, Alexey E. Fano type quantum inequalities in terms of  $q$ -entropies. In *QUANTUM INFORMATION PROCESSING*. ISSN 1570-0755, 2012, vol. 11, no. 6, pp. 1895., WOS
3. [1.1] RASTEGIN, Alexey E. Notes on Entropic Uncertainty Relations Beyond the Scope of Riesz's Theorem. In *INTERNATIONAL JOURNAL OF THEORETICAL PHYSICS*. ISSN 0020-7748, 2012, vol. 51, no. 4, pp. 1300., WOS

ADCA309 MAJERNÍKOVÁ, Eva - SHPYRKO, S. Quantum phase crossover and chaos in a generalized Jahn-Teller lattice model. In *Journal of Physics A: Mathematical and Theoretical*, 2011, vol. 44, no. 6, 065101. (1.641 - IF2010). (2011 - Current Contents, EBSCO, SCOPUS). ISSN 1751-8113.

Citácie:

1. [1.1] DERELI, Tekin - GUL, Yusuf - FORN-DIAZ, Pol - MUSTEAPLIOGLU, Ozgur E. Two-frequency Jahn-Teller systems in circuit QED. In *PHYSICAL REVIEW A*. ISSN 1050-2947, 2012, vol. 85, no. 5, 053841., WOS

ADCA310 MAJERNÍKOVÁ, Eva - SHPYRKO, S. Incipience of quantum chaos in the Jahn-Teller model. In *Physical Review E*, 2006. Vol. 73, 066215.

Citácie:

1. [1.1] DERELI, Tekin - GUL, Yusuf - FORN-DIAZ, Pol - MUSTEAPLIOGLU, Ozgur E. Two-frequency Jahn-Teller systems in circuit QED. In *PHYSICAL REVIEW A*. ISSN 1050-2947, 2012, vol. 85, no. 5, 053841., WOS

ADCA311 MAJERNÍKOVÁ, Eva - MAJERNÍK, V. - SHPYRKO, S. Entropic uncertainty measure for fluctuations in two-level electron-phonon models. In *European Physical Journal B*, 2004, vol. 38, no. 1, p. 25-35. (2004 - Current Contents, SCOPUS). ISSN

1434-6028.

Citácie:

1. [1.1] ABDALLA, M. Sebawe - AHMED, M. M. A. Some statistical properties for a spin-(1/2) particle coupled to two spirals. In *OPTICS COMMUNICATIONS*. ISSN 0030-4018, 2012, vol. 285, no. 16, pp. 3578., WOS
2. [1.1] ABDALLA, M. Sebawe - ELEUCH, H. - PERINA, J. Quantum treatment of atom-field interaction via the quadratic invariant. In *JOURNAL OF THE OPTICAL SOCIETY OF AMERICA B-OPTICAL PHYSICS*. ISSN 0740-3224, 2012, vol. 29, no. 4, pp. 719., WOS
3. [1.1] ABDALLA, M. Sebawe - KHALIL, E. M. Two coupled oscillators in the form of a frequency converter in interaction with a single atom via two-photon processes. In *JOURNAL OF RUSSIAN LASER RESEARCH*. ISSN 1071-2836, 2012, vol. 33, no. 4, pp. 336., WOS
4. [1.1] CALIXTO, M. - NAGY, A. - PARADELA, I. - ROMERA, E. Signatures of quantum fluctuations in the Dicke model by means of Renyi uncertainty. In *PHYSICAL REVIEW A*. ISSN 1050-2947, 2012, vol. 85, no. 5, 053813., WOS

ADCA312 MAJERNÍKOVÁ, Eva - SHPYRKO, S. Quantum chaotic patterns in the  $E \times (b_1 + b_2)$  Jahn-Teller model. In *Physical Review E*, 2006, vol. 73, 057202.

Citácie:

1. [1.1] DERELI, T. Two-frequency Jahn-Teller systems in circuit QED. In *PHYSICAL REVIEW A*, vol. 85, 2012, 053841., WOS

ADCA313 MAJKOVÁ, Eva - ČERVENÁK, Ján - KREMPASKÝ, Juraj - DUHAJ, Pavol. Temperature dependence of the seebeck coefficient in InSb prepared by rapid quenching. In *Physica Status Solidi B*, 1989, vol. 153, p. K147.

Citácie:

1. [1.1] LOHN, A.J. - COLEMAN, E. - TOMPA, G.S. - KOBAYASHI, N.P. In *PHYSICA STATUS SOLIDI A-APPLICATIONS AND MATERIALS SCIENCE*. JAN 2012, vol. 209, no. 1, p. 171-175., WOS
2. [1.1] NORRIS, K.J. - ZHANG, J. - FRYAUF, D.M. - RUGAR, A. - FLORES, A. - LONGSON, T.J. - LOHN, A.J. - KOBAYASHI, N.P. In *NANOEPITAXY: MATERIALS AND DEVICES IV*. 2012, vol. 8467., WOS

ADCA314 MAJKOVÁ, Eva - ŠIFFALOVÍČ, Peter - CHITU, Livia - JERGEL, Matej - LUBY, Štefan - TIMMANN, A. - ROTH, S.V. - ŠATKA, A. - KECKES, J. - MAIER, G.A. Real-time tracking of nanoparticle self-assembling using GISAXS. In *Superlattices and Microstructures*, 2009, vol. 46, no. 1-2, p. 286-290. ISSN 0749-6036.

Citácie:

1. [1.1] PERLICH, Jan - MEMESA, Mine - DIETHERT, Alexander - METWALLI, Ezzeldin - WANG, Weinan - ROTH, Stephan V. - GUTMANN, Jochen S. - MUELLER-BUSCHBAUM, Peter. Layer-by-layer fabrication of an anatase titania multilayer with gradual sponge-like morphology. In *COLLOID AND POLYMER SCIENCE*. ISSN 0303-402X, 2012, vol. 290, no. 2, pp. 119-126., WOS

ADCA315 MAJKOVÁ, Eva - ČERVENÁK, Ján - KREMPASKÝ, Juraj - DUHAJ, Pavol. Temperature-dependence of the seebeck coefficient in INSB prepared by rapid quenching. In *Physica status solidi B*, 1989, vol. 153, no. 2, k147-K149. ISSN 0370-1972.

Citácie:

1. [1.1] LOHN, Andrew J. - COLEMAN, Elane - TOMPA, Gary S. - KOBAYASHI, Nobuhiko P. Assessment on thermoelectric power factor in silicon nanowire networks. In *PHYSICA STATUS SOLIDI A-APPLICATIONS AND MATERIALS SCIENCE*. ISSN 1862-6300, 2012, vol. 209, no. 1, pp. 171-175., WOS
2. [1.1] NORRIS, Kate J. - ZHANG, Junce - FRYAUF, David M. - RUGAR, Alison - FLORES, Amanda - LONGSON, Timothy J. - LOHN, Andrew J. - KOBAYASHI,

- Nobuhiko P. - KOBAYASHI, NP - TALIN, AA - ISLAM, MS. Indium Phosphide Nanowire Network Growth and Characterization for Thermoelectric Conversion. In NANOEPITAXY: MATERIALS AND DEVICES IV. ISSN 0277-786X, 2012, vol. 8467, no. 84670E., WOS*
- ADCA316 MAJLING, L. - GMUCA, Štefan. What can we learn about Baryon-Baryon interaction from hypernuclei. In Physics of Atomic Nuclei, 2007, vol. 70, no. 9, p. 1611-1616.  
Citácie:  
*1. [1.1] KOPELIOVICH, V. B. Neutron-rich hypernuclei in the chiral soliton model. In JETP LETTERS. ISSN 0021-3640, 2012, vol. 96, no. 4, pp. 210-214., WOS*
- ADCA317 MARKOŠ, Peter. Electronic transport in strongly anisotropic disordered systems: Model for the random matrix theory with noninteger beta. In Physical Review B, 2002, vol. 65, p. 092202-14. (3.070 - IF2001). (2002 - Current Contents, WOS, SCOPUS). ISSN 1098-0121.  
Citácie:  
*1. [1.1] SHUKLA, Pragya. GENERALIZED RANDOM MATRIX THEORY: A MATHEMATICAL PROBE FOR COMPLEXITY. In INTERNATIONAL JOURNAL OF MODERN PHYSICS B. ISSN 0217-9792, 2012, vol. 26, no. 16, 1230008., WOS*
- ADCA318 MARKOŠ, Peter - ROUSOCHATZAKIS, I. - SOUKOULIS, C.M. Transmission losses in left-handed materials. In Physical Review E, 2002, vol. 66, no. 4, 045601. (2.235 - IF2001). (2002 - Current Contents). ISSN 1539-3755.  
Citácie:  
*1. [1.1] XU HE-XIU - WANG GUANG-MING - WANG JIA-FU - YANG ZI-MU. Dual-band left-handed metamaterials fabricated by using tree-shaped fractal. In CHINESE PHYSICS B. ISSN 1674-1056, 2012, vol. 21, no. 12, 124101., WOS*
- ADCA319 MARKOŠ, Peter - SOUKOULIS, C.M. Numerical studies of left-handed materials and arrays of split ring resonators. In Physical Review E, 2002, vol. 65, p. 036622-1-8. (2.235 - IF2001). (2002 - Current Contents). ISSN 1539-3755.  
Citácie:  
*1. [1.1] HASAR, U. C. - OZBEK, I. Y. - ORAL, E. A. - KARACALI, T. - EFEOGLU, H. The effect of silicon loss and fabrication tolerance on spectral properties of porous silicon Fabry-Perot cavities in sensing applications. In OPTICS EXPRESS. ISSN 1094-4087, 2012, vol. 20, no. 20, pp. 22208., WOS*  
*2. [1.1] SHEN, Yifeng - WU, Fangfang - WANG, Yongchun - LI, Lulu - GUO, Changqing. Imaging enhancement of a photonic crystal superlens due to a surface mode with a specific dispersion. In PHOTONICS AND NANOSTRUCTURES-FUNDAMENTALS AND APPLICATIONS. ISSN 1569-4410, 2012, vol. 10, no. 4, pp. 485., WOS*  
*3. [1.1] SHU, Weiwei - SONG, Jiming. Sommerfeld Integral Path for Layered Double Negative Metamaterials. In IEEE TRANSACTIONS ON ANTENNAS AND PROPAGATION. ISSN 0018-926X, 2012, vol. 60, no. 3, pp. 1496., WOS*  
*4. [1.1] SLOBOZHANYUK, A. P. - KAPITANOVA, P. V. - SHADRIVOV, I. V. - BELOV, P. A. - KIVSHAR, Yu S. Metamaterials with tunable nonlinearity. In JETP LETTERS. ISSN 0021-3640, 2012, vol. 95, no. 12, pp. 613., WOS*  
*5. [1.1] SYMS, R.R.A. - SOLYMAR, L. Effextive permeability of a metamaterial. In APPLIED PHYSICS LETTERS, 2012, vol. 100, no.12, 124103., WOS*
- ADCA320 MARKOŠ, Peter. Metal-insulator transition in the three-dimensional Anderson model:. In Journal of Physics A: Mathematical and Theoretical, 2000, vol. 33, no. 42, p. L393-L398. ISSN 1751-8113.  
Citácie:



- ADCA321 *1. [1.1] SUSLOV, I.M. Finite-size scaling. In JOURNAL OF EXPERIMENTAL AND THEORETICAL PHYSICS, 2012, vol. 114, pp. 107., WOS*  
MARKOŠ, Peter - SCHWEITZER, L. Critical regime of two-dimensional Ando model: relation between critical conductance and fractal dimension of electronic eigenstates. In Journal of Physics A: Mathematical and Theoretical, 2006, vol., 39, p. 3221-3230. (1.566 - IF2005). (2006 - Current Contents, WOS, SCOPUS). ISSN 1751-8113.  
 Citácie:  
*1. [1.1] CHEN, Liang - LIU, Qin - LIN, Xulin - ZHANG, Xiaogang - JIANG, Xunya. Disorder dependence of helical edge states in HgTe/CdTe quantum wells. In NEW JOURNAL OF PHYSICS. ISSN 1367-2630, 2012, vol. 14, 043028., WOS*  
*2. [1.1] FU, Liang - KANE, C. L. Topology, Delocalization via Average Symmetry and the Symplectic Anderson Transition. In PHYSICAL REVIEW LETTERS. ISSN 0031-9007, 2012, vol. 109, no. 24, 246605., WOS*  
*3. [1.1] FULGA, I. C. - AKHMEROV, A. R. - TWORZYDLO, J. - BERI, B. - BEENAKKER, C. W. J. Thermal metal-insulator transition in a helical topological superconductor. In PHYSICAL REVIEW B. ISSN 1098-0121, 2012, vol. 86, no. 5, 054505., WOS*  
*4. [1.1] MONG, Roger S. K. - BARDARSON, Jens H. - MOORE, Joel E. Quantum Transport and Two-Parameter Scaling at the Surface of a Weak Topological Insulator. In PHYSICAL REVIEW LETTERS. ISSN 0031-9007, 2012, vol. 108, no. 7, 076804., WOS*  
*5. [1.1] VAN NIEUWENBURG, E. P. L. - EDGE, J. M. - DAHLHAUS, J. P. - TWORZYDLO, J. - BEENAKKER, C. W. J. Metal-topological insulator transition in the quantum kicked rotator with Z(2) symmetry. In PHYSICAL REVIEW B. ISSN 1098-0121, 2012, vol. 85, no. 16, 165131., WOS*
- ADCA322 MARKOŠ, Peter - SOUKOULIS, C.M. Transmission studies of left-handed materials. In Physical Review B, 2002, vol. 65, p. 033401-1-4. (3.070 - IF2001). (2002 - Current Contents, WOS, SCOPUS). ISSN 1098-0121.  
 Citácie:  
*1. [1.1] GAMRA, D. - NACHI, K. - ABDELMALEK, F. - BOUCHRIHA, H. Analysis of guided modes in metamaterial photonic crystals. In MATERIALS LETTERS. ISSN 0167-577X, 2012, vol. 66, no. 1, pp. 89., WOS*
- ADCA323 MARKOŠ, Peter - KRAMER, B. Statistical properties of the Anderson transition-numerical results. In Philosophical Magazine B, 1993, vol. 68, no. 3, p. 357-379.  
 Citácie:  
*1. [1.1] SHI, Zhou - GENACK, Azriel Z. Transmission Eigenvalues and the Bare Conductance in the Crossover to Anderson Localization. In PHYSICAL REVIEW LETTERS. ISSN 0031-9007, 2012, vol. 108, no. 4, 043901., WOS*
- ADCA324 MARKOŠ, Peter. Dimension dependence of the conductance distribution in the nonmetallic regimes. In Physical Review B, 2002, vol. 65, no. 10, 104207. (3.070 - IF2001). (2002 - Current Contents, WOS, SCOPUS). ISSN 1098-0121.  
 Citácie:  
*1. [1.1] PAULIN, Guillaume - CARPENTIER, David. Crossover between universality classes in a magnetically disordered metallic wire. In NEW JOURNAL OF PHYSICS. ISSN 1367-2630, 2012, vol. 14, 023026., WOS*
- ADCA325 MARKOŠ, Peter - HENNEKE, M. Metal-insulator-transition in the 4-dimensional Anderson model. In Journal of Physics: Condensed Matter, 1994, vol. 6, no. 49, p. L765-L769. (1.654 - IF1993). (1994 - Current Contents). ISSN 0953-8984.  
 Citácie:  
*1. [1.1] SUSLOV, I. M. Finite-Size Scaling from the Self-Consistent Theory of Localization. In JOURNAL OF EXPERIMENTAL AND THEORETICAL*

- PHYSICS. ISSN 1063-7761, 2012, vol. 114, no. 1, pp. 107., WOS*
- ADCA326 MARKOŠ, Peter. Weak disorder expansion of Lyapunov exponents of products of Random matrices. In Journal of Statistical Physics, 1993, vol. 70, no. 3-4, p. 899-919. ISSN 0022-4715.
- Citácie:
1. [1.1] *PAULIN, Guillaume - CARPENTIER, David. Crossover between universality classes in a magnetically disordered metallic wire. In NEW JOURNAL OF PHYSICS. ISSN 1367-2630, 2012, vol. 14, 023026., WOS*
- ADCA327 MARQUES, M. - OSTENDORF, R.W. - LAUTRIDOU, P. - LEFEVRE, F. - MATULEWICZ, T. - MITTIG, W. - ROUSSELCHOMAZ, P. - SCHUTZ, Y. - QUEBERT, J. - DIAZ, J. - MARIN, A. - MARTINEZ, G. - HOLZMANN, R. - HLAVÁČ, Stanislav - SCHUBERT, A. - SIMON, R.S. - WAGNER, W. Hard photon intensity interferometry in heavy-ion reactions. In Physical Review Letters, 1994, vol. 73, no. 1, p. 34-37. (1994 - Current Contents). ISSN 0031-9007.
- Citácie:
1. [1.1] *MA, Y. G. - LIU, G. H. - CAI, X. Z. - FANG, D. Q. - GUO, W. - SHEN, W. Q. - TIAN, W. D. - WANG, H. W. Hard-photon flow and photon-photon correlation in intermediate-energy heavy-ion collisions. In PHYSICAL REVIEW C. ISSN 0556-2813, 2012, vol. 85, no. 2, 024618., WOS*
- ADCA328 MARTINEZ, G. - MARQUES, F.M. - SCHUTZ, Y. - WOLF, G. - DIAZ, J. - FRANKE, M. - HLAVÁČ, Stanislav - HOLZMANN, R. - LAUTRIDOU, P. - LEFEVRE, F. - LOHNER, H. - MARIN, A. - MATULEWICZ, T. - MITTIG, W. - OSTENDORF, R.W. - VANPOL, J.H.G. - QUEBERT, J. - ROUSSELCHOMAZ, P. - SCHUBERT, A. - SIEMSEN, R.H. - SIMON, R.S. - SUJKOWSKI, Z. Bremsstrahlung photons as a probe of hot nuclei. In Physics Letters B, 1995, vol. 349, no. 1-2, p 23-29.. (3.056 - IF1994). (1995 - Current Contents, SCOPUS). ISSN 0370-2693.
- Citácie:
1. [1.1] *MA, Y. G. - LIU, G. H. - CAI, X. Z. - FANG, D. Q. - GUO, W. - SHEN, W. Q. - TIAN, W. D. - WANG, H. W. Hard-photon flow and photon-photon correlation in intermediate-energy heavy-ion collisions. In PHYSICAL REVIEW C. ISSN 0556-2813, 2012, vol. 85, no. 2, 024618., WOS*
- ADCA329 MARTINOVIČ, Lubomír - VARY, J.P. Theta vacuum of the bosonized massive light-front Schwinger model. In Physics Letters B, 1999, vol. 459, no. 1-3, p. 186-192. (3.567 - IF1998). (1999 - Current Contents, WOS, SCOPUS). ISSN 0370-2693.
- Citácie:
1. [1.1] *MORE, J.D. Infrared divergences. In PHYSICAL REVIEW D, vol. 86, 2012, 065037., WOS*
- ADCA330 MAŤKO, Igor - ILLEKOVÁ, Emília - ŠVEC, Peter - DUHAJ, Pavol. Crystallization characteristics in the Fe-Si-B glassy ribbon system. In Materials Science and Engineering A, 1997, vol. 225, no. 1-2, p. 145-152. (0.852 - IF1996). (1997 - Current Contents, SCOPUS). ISSN 0921-5093.
- Citácie:
1. [1.1] *LI, Song - XIE, Guoqiang - LOUZGUINE-LUZGIN, D. V. - SATO, Motoyasu - INOUE, Akihisa. Nanocrystallization of Fe<sub>73</sub>Si<sub>7</sub>B<sub>17</sub>Nb<sub>3</sub> metallic glass induced by microwave treatment in magnetic field of a single mode 915 MHz applicator. In JOURNAL OF ALLOYS AND COMPOUNDS. ISSN 0925-8388, 2012, vol. 536, pp. S315., WOS*
2. [1.1] *LIU, Z. W. - LI, Y. M. - WANG, J. - ZHONG, X. C. - YU, H. Y. - ZENG, D. C. Improved soft magnetic properties and thermal stability for Fe<sub>82.65</sub>Cu<sub>1.35</sub>Si<sub>2</sub>B<sub>14</sub> alloys with Nb, Zr, Ta or Co addition. In MATERIALS*

- SCIENCE AND TECHNOLOGY. ISSN 0267-0836, 2012, vol. 28, no. 8, pp. 987., WOS*
3. [1.1] ZHANG, Jianhua - CHANG, Chuntao - WANG, Anding - SHEN, Baolong. Development of quaternary Fe-based bulk metallic glasses with high saturation magnetization above 1.6 T. In *JOURNAL OF NON-CRYSTALLINE SOLIDS. ISSN 0022-3093, 2012, vol. 358, no. 12-13, pp. 1443., WOS*
- ADCA331 MCHUGH, D. - ZIMAN, Mário - BUŽEK, Vladimír. Entanglement, purity and energy. In *Physical Review A*, 2006, vol. 74, no. 4, 042303. (2006 - Current Contents, SCOPUS). ISSN 1050-2947.
- Citácie:
1. [1.1] ISAR, Aurelian - BUNOIU, M - AVRAM, N - BIRIS, CG. *Quantum Correlations in Gaussian Open Systems. In PROCEEDINGS OF THE PHYSICS CONFERENCE TIM 11. ISSN 0094-243X, 2012, vol. 1472, pp. 53., WOS*
2. [1.1] ISAR, Aurelian. *EVOLUTION OF CONTINUOUS VARIABLE CORRELATIONS IN OPEN QUANTUM SYSTEMS. In ROMANIAN JOURNAL OF PHYSICS. ISSN 1221-146X, 2012, vol. 57, no. 1-2, pp. 262., WOS*
3. [1.1] LULLI, A. - BINA, M. - GENONI, M. G. Robustness of tripartite entanglement transfer from bosonic modes to localized qubits. In *EUROPEAN PHYSICAL JOURNAL-SPECIAL TOPICS. ISSN 1951-6355, 2012, vol. 203, no. 1, pp. 25., WOS*
- ADCA332 MCHUGH, D. - BUŽEK, Vladimír - ZIMAN, Mário. When non-Gaussian states are Gaussian: Generalization of non-separability criterion for continuous variables. In *Physical Review A*, 2006, vol. 74, 050306(R. ISSN 1050-2947.
- Citácie:
1. [1.1] NAMIKI, R. Photonic families of non-Gaussian entangled states. In *PHYSICAL REVIEW A*, 2012, vol. 85, 062307., WOS
- ADCA333 MIGLIERINI, M. - KANUCH, T. - ŠVEC, Peter - KRENICKÝ, T. - VUJTEK, M. - ZBORIL, R. Magnetic microstructure of NANOPERM- type nanocrystalline alloys. In *Physica Status Solidi B*, 2006, vol. 243, no. 1, p. 57-64. (0.836 - IF2005). (2006 - Current Contents, WOS, SCOPUS). ISSN 0370-1972.
- Citácie:
1. [1.1] ZHANG, Zeqiang - SHARMA, Parmanand - MAKINO, Akihiro. Role of Si in high B-s and low core-loss Fe<sub>85.2</sub>B<sub>10</sub>-XP<sub>4</sub>Cu<sub>0.8</sub>Si<sub>x</sub> nano-crystalline alloys. In *JOURNAL OF APPLIED PHYSICS. ISSN 0021-8979, 2012, vol. 112, no. 10, 103902., WOS*
- ADCA334 MIHALKOVIČ, Marek - LEHYANI, A.I. - COCKAYNE, E. - HENLEY, C.L. - WIDOM, M. Total energy based prediction of a quasicrystal structure. In *Physical Review B*, 2002, vol. 65, p. 104205. (3.070 - IF2001). (2002 - Current Contents, WOS, SCOPUS). ISSN 1098-0121.
- Citácie:
1. [1.1] ABE, Eiji. Electron microscopy of quasicrystals where are the atoms? In *CHEMICAL SOCIETY REVIEWS. ISSN 0306-0012, 2012, vol. 41, no. 20, pp. 6787., WOS*
2. [1.1] SCHOPF, Daniel - BROMMER, Peter - FRIGAN, Benjamin - TREBIN, Hans-Rainer. Embedded atom method potentials for Al-Pd-Mn phases. In *PHYSICAL REVIEW B. ISSN 1098-0121, 2012, vol. 85, no. 5, 054201., WOS*
- ADCA335 MIHALKOVIČ, Marek - WIDOM, M. First-principles calculations of cohesive energies in the Al-Co binary alloy system. In *Physical Review B*, 2007, vol. 75, no. 1, 014207. (3.107 - IF2006). (2007 - Current Contents, WOS, SCOPUS). ISSN 1098-0121.
- Citácie:
1. [1.1] DONG, Wei-Ping - KIM, Hyun-Kyu - KO, Won-Seok - LEE,



- Byeong-Moon - LEE, Byeong-Joo. Atomistic modeling of pure Co and Co-Al system. In CALPHAD-COMPUTER COUPLING OF PHASE DIAGRAMS AND THERMOCHEMISTRY. ISSN 0364-5916, 2012, vol. 38, pp. 7-16., WOS*
- ADCA336 MIHALKOVIČ, Marek - WIDOM, M. Ab initio calculations of cohesive energies of Fe-based glass-forming alloys. In Physical Review B, 2004, vol. 70, no. 14, 144107. (2.962 - IF2003). (2004 - Current Contents, WOS, SCOPUS). ISSN 1098-0121.  
Citácie:  
1. [1.1] HOSTERT, C. - MUSIC, D. - BEDNARCIK, J. - KECKES, J. - SCHNEIDER, J. M. Quantum mechanically guided design of  $\text{Co}_{43}\text{Fe}_{20}\text{Ta}_{5.5}\text{X}_{31.5}$  ( $\text{X} = \text{B}, \text{Si}, \text{P}, \text{S}$ ) metallic glasses. In JOURNAL OF PHYSICS-CONDENSED MATTER. ISSN 0953-8984, 2012, vol. 24, no. 17, 175402., WOS  
2. [1.1] PARK, Junyoung - SHIBUTANI, Yoji. Common errors of applying the Voronoi tessellation technique to metallic glasses. In INTERMETALLICS. ISSN 0966-9795, 2012, vol. 23, pp. 91-95., WOS
- ADCA337 MIHALKOVIČ, Marek - WIDOM, M. Canonical cell model of cadmium-based icosahedral alloys. In Philosophical Magazine, 2006, vol. 86, no. 3-5, p. 519-527. ISSN 1478-6435.  
Citácie:  
1. [1.1] DE BOISSIEU, Marc. Study of the structure and physical properties of quasicrystals using large scale facilities. In COMPTES RENDUS PHYSIQUE. ISSN 1631-0705, 2012, vol. 13, no. 3, pp. 207., WOS
- ADCA338 MIHALKOVIČ, Marek - WIDOM, M. Structure and stability of  $\text{Al}_2\text{Fe}$  and  $\text{Al}_5\text{Fe}_2$ : First-principles total energy and phonon calculations. In Physical Review B, 2012, vol. 85, no. 1, 014113. (3.691 - IF2011). (2012 - Current Contents, WOS, SCOPUS). ISSN 1098-0121.  
Citácie:  
1. [1.1] KLAVER, T. P. C. - MADSEN, G. K. H. - DRAUTZ, R. A DFT study of formation energies of Fe-Zn-Al intermetallics and solutes. In INTERMETALLICS. ISSN 0966-9795, 2012, vol. 31, pp. 137-144., WOS  
2. [1.1] OUYANG, Yifang - TONG, Xiaofeng - LI, Chang - CHEN, Hongmei - TAO, Xiaoma - HICKEL, Tilmann - DU, Yong. Thermodynamic and physical properties of FeAl and  $\text{Fe}_3\text{Al}$ : an atomistic study by EAM simulation. In PHYSICA B-CONDENSED MATTER. ISSN 0921-4526, 2012, vol. 407, no. 23, pp. 4530., WOS
- ADCA339 MIKULIK, P. - JERSEL, Matej - BAUMBACH, T. - MAJKOVÁ, Eva - PINČÍK, Emil - LUBY, Štefan - ORTEGA, L. - TUCOULOU, R. - HUDEK, Peter - KOSTIČ, Ivan. Coplanar and non-coplanar x-ray reflectivity characterization of lateral W/Si multilayer gratings. In Journal of Physics D: Applied Physics. - Bristol : Institute of Physics Publishing, 2001, vol. 34, no. 10A, p. A188-A192. (1.179 - IF2000). (2001 - Current Contents, SCOPUS). ISSN 0022-3727.  
Citácie:  
1. [1.1] RUEDA, D.R. et al. Grazing-incidence small-angle x-ray scattering. In Journal of Applied Crystallography. 2012, vol. 45, p. 1038-1045., WOS  
2. [1.1] WERNECKE, J. - SCHOLTZE, F. - KRUMLEY, M. Direct structural characterization of line gratings. In Review of Scientific Instruments. 2012, vol. 83, art. no. 103906., WOS
- ADCA340 MINGALEEV, S.F. - GAIDIDEI, Y.B. - MAJERNÍKOVÁ, Eva - SHPYRKO, S. Kinks in the discrete sine-Gordon model with Kac-Baker long-range interactions. In Physical Review E, 2000, vol. 61, no. 4, p. 4454-4461. (2.045 - IF1999). (2000 - Current Contents). ISSN 1539-3755.  
Citácie:

1. [1.1] SAHA, Mirabeau - KOFANE, Timoleon C. *NONLINEAR DYNAMICS OF LONG-RANGE PROTEIN-HELICOIDAL DNA INTERACTIONS*. In *INTERNATIONAL JOURNAL OF MODERN PHYSICS B*. ISSN 0217-9792, 2012, vol. 26, no. 19, 1250101., WOS
- ADCA341 MORHÁČ, Miroslav - KLIMAN, Ján - MATOUŠEK, Vladislav - VESELSKÝ, Martin - TURZO, Ivan. Identification of peaks in multidimensional coincidence  $\gamma$ -ray spectra. In *Nuclear Instruments and Methods in Physics Research A*, 2000, vol. 443, no. 1, p. 108-125. (0.920 - IF1999). (2000 - Current Contents). ISSN 0168-9002.
- Citácie:
1. [1.1] ADRIANI, O. In *PHYSICAL REVIEW D*, vol. 86, 2012, 092001., WOS
  2. [1.1] LAU, F.W.Y. In *IEEE TRANSACTIONS OF NUCLEAR SCIENCE*, vol. 59, 2012, pp. 1815., WOS
  3. [1.1] PAL, S.K. In *NUCLEAR INSTRUMENTS AND METHODS A*, vol. 693, 2012, pp. 285., WOS
- ADCA342 MORHÁČ, Miroslav - KLIMAN, Ján - JANDEL, Marián - KRUPA, L. - MATOUŠEK, Vladislav. Study of fitting algorithms applied to simultaneous analysis of large numbers of Peaks in gama-ray spectra. In *Applied Spectroscopy*, 2003, vol. 57, no. 7, p.753-760.
- Citácie:
1. [1.1] PRECLIKOVA, J. *Excitation of Rydberg wave packets*. In *PHYSICAL REVIEW A*, vol. 86, 2012, 063418., WOS
- ADCA343 MORHÁČ, Miroslav - MATOUŠEK, Vladislav. Complete positive deconvolution of spectrometric data. In *Digital Signal Processing*, 2009, vol. 19, no. 3, p.372-392. ISSN 1051-2004.
- Citácie:
1. [1.1] BERGER, Naum K. *Spectral superresolution with ultrashort optical pulses*. In *APPLIED OPTICS*. ISSN 1559-128X, 2012, vol. 51, no. 2, pp. 181., WOS
  2. [1.1] LANDIS, Joshua D. - RENSHAW, Carl E. - KASTE, James M. *Measurement of Be-7 in soils and sediments by gamma spectroscopy*. In *CHEMICAL GEOLOGY*. ISSN 0009-2541, 2012, vol. 291, pp. 175., WOS
  3. [1.1] MAHMOUD, I. I. - EL TOKHY, M. S. - KONBER, H. A. *Pileup recovery algorithms for digital gamma ray spectroscopy*. In *JOURNAL OF INSTRUMENTATION*. ISSN 1748-0221, 2012, vol. 7, P09013., WOS
- ADCA344 MORHÁČ, Miroslav. An algorithm for determination of peak regions and baseline elimination in spectroscopic data. In *Nuclear Instruments and Methods in Physics Research A*, 2009, vol. 600, no. 2, p. 478-487. ISSN 0168-9002.
- Citácie:
1. [1.1] KOURKOUMELIS, Nikolaos. *Continuum determination in spectroscopic data by means of topological concepts and Fourier filtering*. In *NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION A-ACCELERATORS SPECTROMETERS DETECTORS AND ASSOCIATED EQUIPMENT*. ISSN 0168-9002, 2012, vol. 691, pp. 1., WOS
  2. [1.1] MEISEL, Susann - STOECKEL, Stephan - ELSCHNER, Mandy - MELZER, Falk - ROESCH, Petra - POPP, Juergen. *Raman Spectroscopy as a Potential Tool for Detection of Brucella spp. in Milk*. In *APPLIED AND ENVIRONMENTAL MICROBIOLOGY*. ISSN 0099-2240, 2012, vol. 78, no. 16, pp. 5575., WOS
  3. [1.1] SCHULZE, H. Georg - FOIST, Rod B. - OKUDA, Kadek - IVANOV, Andre - TURNER, Robin F. B. *A Small-Window Moving Average-Based Fully Automated Baseline Estimation Method for Raman Spectra*. In *APPLIED*

- SPECTROSCOPY. ISSN 0003-7028, 2012, vol. 66, no. 7, pp. 757., WOS*
4. [1.1] *STOECKEL, S. - MEISEL, S. - ELSCHNER, M. - ROESCH, P. - POPP, J. Identification of Bacillus anthracis via Raman Spectroscopy and Chemometric Approaches. In ANALYTICAL CHEMISTRY. ISSN 0003-2700, 2012, vol. 84, no. 22, pp. 9873., WOS*
5. [1.1] *ZHANG, Qingxian - GE, Liangquan - GU, Yi - LIN, Yanchang - ZENG, Guoqiang - YANG, Jia. Background estimation based on Fourier Transform in the energy-dispersive X-ray fluorescence analysis. In X-RAY SPECTROMETRY. ISSN 0049-8246, 2012, vol. 41, no. 2, pp. 75., WOS*
6. [1.1], *WOS*
- ADCA345 MORHÁČ, Miroslav - MATOUŠEK, Vladislav. Peak clipping algorithms for background estimation in spectroscopic data. In *Applied Spectroscopy*, 2008, vol. 62, no. 1, p. 91-106.
- Citácie:
1. [1.1] *KOURKOUMELIS, Nikolaos. Continuum determination in spectroscopic data by means of topological concepts and Fourier filtering. In NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION A-ACCELERATORS SPECTROMETERS DETECTORS AND ASSOCIATED EQUIPMENT. ISSN 0168-9002, 2012, vol. 691, pp. 1-4., WOS*
- ADCA346 MORHÁČ, Miroslav - KLIMAN, Ján - MATOUŠEK, Vladislav - VESELSKÝ, Martin - TURZO, Ivan. Background elimination methods for multidimensional coincidence gamma-ray spectra. In *Nuclear Instruments and Methods in Physics Research A*, 1997, vol. 401, no. 1, p. 113-132. (1.038 - IF1996). (1997 - Current Contents, SCOPUS). ISSN 0168-9002.
- Citácie:
1. [1.1] *AGUILAR, J.A. In NUCLEAR INSTRUMENTS AND METHODS A, vol. 675, 2012, pp. 113-132., WOS*
2. [1.1] *KOURKOUMELIS, N. In NUCLEAR INSTRUMENTS AND METHODS A, vol. 691, 2012, pp. 1-4., WOS*
3. [1.1] *KWON, Y. In JOURNAL OF THE KOREAN PHYSICAL SOCIETY, vol. 60, no. 10, 2012, pp. 1803-1808., WOS*
4. [1.1] *LAU, S.K. In JOURNAL OF RAMAN SPECTROSCOPY, vol. 43, 2012, pp. 1299-1305., WOS*
5. [1.1] *ZHANG, Q. In X-RAY SPECTROMETRY, vol. 41, no. 2, 2012, pp. 75., WOS*
- ADCA347 MORHÁČ, Miroslav - KLIMAN, Ján - MATOUŠEK, Vladislav - VESELSKÝ, Martin - TURZO, Ivan. Efficient one-and two-dimensional gold deconvolution and its application. In *Nuclear Instruments and Methods in Physics Research A*, 1997, vol. 401, no. 2-3, p. 385-408. (1.038 - IF1996). (1997 - Current Contents, SCOPUS). ISSN 0168-9002.
- Citácie:
1. [1.1] *KWON, Y. - YUN, Y. B. - HA, J. M. - LEE, J. S. - YOON, Y. S. - EUN, J. W. Radiation damage of multipixel Geiger-mode avalanche photodiodes irradiated with low-energy gamma's and electrons. In JOURNAL OF THE KOREAN PHYSICAL SOCIETY. ISSN 0374-4884, 2012, vol. 60, no. 10, pp. 1803., WOS*
2. [1.1] *LANDIS, Joshua D. - RENSHAW, Carl E. - KASTE, James M. Measurement of Be-7 in soils and sediments by gamma spectroscopy. In CHEMICAL GEOLOGY. ISSN 0009-2541, 2012, vol. 291, pp. 175., WOS*
- ADCA348 MORHÁČ, Miroslav - MORHÁČOVÁ, E. Monte Carlo simulation algorithms of grain growth in polycrystalline materials. In *Crystal Research and Technology*, 2000, vol. 35, p. 117-128.

Citácie:

1. [1.1] AYAD, Abdelhak - ROUAG, Nadjet - PALMIERE, EJ - WYNNE, BP. *Effect Of Matrix Size And Neighbour Sites On Microstructure Evolution In 3D Monte Carlo Grain Growth Simulation. In RECRYSTALLIZATION AND GRAIN GROWTH IV. ISSN 0255-5476, 2012, vol. 715-716, pp. 872., WOS*
2. [1.1] TENGGEN, T. B. *The response of the statistics of the cumulative features on grains in nanomaterials to different grain growth phenomena. In INTERNATIONAL JOURNAL OF MECHANICS AND MATERIALS IN DESIGN. ISSN 1569-1713, 2012, vol. 8, no. 2, pp. 101., WOS*

ADCA349 MOYACESSA, H. - BUŽEK, Vladimír - KIM, M.S. - KNIGHT, P.L. *Intrinsic decoherence in the atom-field interaction. In Physical Review A, 1993, vol. 48, no. 5, p. 3900-3905. ISSN 1050-2947.*

Citácie:

1. [1.1] AI, Jian-Feng - ZHANG, Jian-Song - CHEN, Ai-Xi. *TRANSMITTING BIPARTITE AND MULTIPARTITE CORRELATIONS VIA SPIN CHAINS UNDER PHASE DECOHERENCE. In INTERNATIONAL JOURNAL OF QUANTUM INFORMATION. ISSN 0219-7499, 2012, vol. 10, no. 6, 1250073., WOS*
2. [1.1] CHEN, Ai Min - CHO, Sam Young - KIM, Mun Dae. *Implementation of a three-qubit Toffoli gate in a single step. In PHYSICAL REVIEW A. ISSN 1050-2947, 2012, vol. 85, no. 3, 032326., WOS*
3. [1.1] DE LOS SANTOS-SANCHEZ, O. - RECAMIER, J. *The  $f$ -deformed Jaynes-Cummings model and its nonlinear coherent states. In JOURNAL OF PHYSICS B-ATOMIC MOLECULAR AND OPTICAL PHYSICS. ISSN 0953-4075, 2012, vol. 45, no. 1, 015502., WOS*
4. [1.1] HOU, Xi-Wen - WAN, Ming-Fang - MA, Zhong-Qi. *Tripartite entanglement dynamics for mixed states in the Tavis-Cummings model with intrinsic decoherence. In EUROPEAN PHYSICAL JOURNAL D. ISSN 1434-6060, 2012, vol. 66, no. 6, 152., WOS*

ADCA350 NA49 COLL., incl. - FILIP, Peter. *Evidence for an exotic  $S=-2$ ,  $Q=-2$  baryon resonance in proton-proton collisions at the CERN SPS. In Physical Review Letters, 2004, vol. 92, no. 4, 042003. (7.035 - IF2003). (2004 - Current Contents, WOS, SCOPUS). ISSN 0031-9007.*

Citácie:

1. [1.2] GANGADHARAN, D. *Resonance results from the ALICE detector in 7 TeV  $pp$  collisions at the LHC. In Acta Physica Polonica B, Proceedings Supplement, 2012, 5, 2, pp. 277-282., SCOPUS*
2. [1.2] GROOTE, S. - KÖRNER, J.G. - PIVOVAROV, A.A. *Calculating loops without loop calculations: Next-to-leading order computation of pentaquark correlators. In Physical Review D Particles, Fields, Gravitation and Cosmology, 2012, 86, 3, 034023., SCOPUS*
3. [1.2] HICKS, K.H. *On the conundrum of the pentaquark. In European Physical Journal H, 2012, 37, 1, pp. 1-31., SCOPUS*
4. [1.2] HONG, D.K. - SONG, C. *Light scalar decay in a diquark chiral effective theory. In International Journal of Modern Physics A, 2012, 27, 10, 1250051., SCOPUS*
5. [1.2] LEVCHENKO, B.B. *In ADVANCES IN HIGH ENERGY PHYSICS, 2012, 502179., SCOPUS*
6. [1.2] YANG, G.-S. - KIM, H.-C. *Mass splittings of  $SU(3)$  baryons within a chiral soliton model. In Progress of Theoretical Physics, 2012, 128, 2, pp. 397-413., SCOPUS*
7. [1.2] YANG, G.-S. - KIM, H.-C. *Mass splittings of the baryon decuplet and*



*antidecuplet with second-order flavor symmetry breakings within a chiral soliton model. In Journal of the Korean Physical Society, 2012, 61, 12, pp. 1956-1964., SCOPUS*

8. [1.2] ŠAFARÍK, K. *Experimental achievements at the DAWN of LHC ERA. In Acta Physica Polonica B, 2012, 43, 4, pp. 867-880., SCOPUS*

- ADCA351 NÁDAŽDY, Vojtech - DURNÝ, R. - PUIGDOLLERS, J. - VOZ, C. - CHEYLAN, S. - GMUCOVÁ, Katarína. Experimental observation of oxygen-related defect state in pentacene thin films. In Applied Physics Letters, 2007, vol. 90, no. 9, 092112. (3.977 - IF2006). (2007 - Current Contents, SCOPUS). ISSN 0003-6951.

Citácie:

1. [1.1] LEE, Keanchuan - WEIS, Martin - MANAKA, Takaaki - IWAMOTO, Mitsumasa. Conservation of the injection and transit time ratio in organic field-effect transistors: A thermally accelerated aging study. In JOURNAL OF APPLIED PHYSICS. ISSN 0021-8979, 2012, vol. 111, no. 10, 104505., WOS

2. [1.1] LEE, Keanchuan - WEIS, Martin - MANAKA, Takaaki - IWAMOTO, Mitsumasa. Multiple-trapping in pentacene field-effect transistors with a nanoparticles self-assembled monolayer. In AIP ADVANCES. ISSN 2158-3226, 2012, vol. 2, no. 2, 022128., WOS

3. [1.1] LEE, Keanchuan - WEIS, Martin - TAGUCHI, Dai - MANAKA, Takaaki - IWAMOTO, Mitsumasa. Memory effect in organic transistor: Controllable shifts in threshold voltage. In CHEMICAL PHYSICS LETTERS. ISSN 0009-2614, 2012, vol. 551, pp. 105., WOS

4. [1.1] TSAO, Hou-Yen - LIN, Yow-Jon. Electronic properties of annealed pentacene films in air at various temperatures up to 400 K. In APPLIED PHYSICS LETTERS. ISSN 0003-6951, 2012, vol. 101, no. 11, 113306., WOS

- ADCA352 NÁDAŽDY, Vojtech - DURNÝ, R. - THURZO, Ilja - PINČÍK, Emil. New experimental facts on the Staebler-Wronski effect. In Journal of Non-Crystalline Solids, 1998, vol. 227, p. 316-319. (1.017 - IF1997). (1998 - Current Contents, WOS, SCOPUS). ISSN 0022-3093.

Citácie:

1. [1.1] LIN, Yang-Shih - LIEN, Shui-Yang - WANG, Chao-Chun - LIU, Chueh-Yang - NAUTIYAL, Asheesh - WUU, Dong-Sing - TSAI, Pi-Chuen - CHEN, Chia-Fu - LEE, Shuo-Jen. Power effect of ZnO:Al film as back reflector on the performance of thin-film solar cells. In JOURNAL OF VACUUM SCIENCE & TECHNOLOGY A. ISSN 0734-2101, 2012, vol. 30, no. 1, 011302., WOS

- ADCA353 NÁDAŽDY, Vojtech - DURNÝ, R. - PINČÍK, Emil. Evidence for the improved defect-pool model for gap states in amorphous silicon from charge DLTS experiments on undoped a-Si:H. In Physical Review Letters, 1997, vol. 78, no. 6, p. 1102-1105. (1997 - Current Contents, SCOPUS). ISSN 0031-9007.

Citácie:

1. [1.1] STEINGRUBE, S. - BRENDDEL, R. - ALTERMATT, P. P. Limits to model amphoteric defect recombination via SRH statistics. In PHYSICA STATUS SOLIDI A-APPLICATIONS AND MATERIALS SCIENCE. ISSN 1862-6300, 2012, vol. 209, no. 2, pp. 390., WOS

- ADCA354 NAGAJ, Daniel - WOCJAN, P. - ZHANG, Y. Fast amplification of QMA. In Quantum Information and Computation, 2009, vol. 9, no. 11-12, p.1053-1068. ISSN 1533-7146.

Citácie:

1. [1.1] SCHWARZ, Martin - TEMME, Kristan - VERSTRAETE, Frank. Preparing Projected Entangled Pair States on a Quantum Computer. In PHYSICAL REVIEW LETTERS. ISSN 0031-9007, 2012, vol. 108, no. 11, 110502.,

**WOS**

- ADCA355 NAGAJ, Daniel. Fast universal quantum computation with railroad-switch local Hamiltonians. In Journal of Mathematical Physics, 2010, vol. 51, no. 6, 062201. (1.318 - IF2009). (2010 - Current Contents). ISSN 0022-2488.  
Citácie:  
1. [1.1] DE FALCO, Diego - TAMASCELLI, Dario. Time-dependent density-functional theory for open spin chains. In PHYSICAL REVIEW A. ISSN 1050-2947, 2012, vol. 85, no. 2, 022341., WOS
- ADCA356 NAGAJ, Daniel - WOCJAN, P. Hamiltonian quantum cellular automata in 1D. In Physical Review A, 2008, vol. 78, no. 3, 032311. (2.893 - IF2007). (2008 - Current Contents). ISSN 1050-2947.  
Citácie:  
1. [1.1] ARRIGHI, P. In JOURNAL OF COMPUTER AND SYSTEM SCIENCES, vol. 78, 2012, p. 1833-1898., WOS  
2. [1.1] BLEH, D. Quantum game of life. In EPL, vol. 97, no. 2, 2012, 20012., WOS
- ADCA357 OBLOŽINSKÝ, Pavol. Preequilibrium gamma-rays with angular-momentum coupling. In Physical review C : nuclear physics, 1987, vol. 35, no. 2, p. 407-414. ISSN 0556-2813.  
Citácie:  
1. [1.1] BETAK, E. - NIKSIC, T - MILIN, M - VRETENAR, D - SZILNER, S. Heavy Ion Collisions and the Pre-Equilibrium Exciton Model. In NUCLEAR STRUCTURE AND DYNAMICS &12. ISSN 0094-243X, 2012, vol. 1491, pp. 342., WOS  
2. [1.1] BETAK, Emil - KRTICKA, M - BECVAR, F - KROLL, J. Iwamoto-Harada model of pre-equilibrium cluster emission: Should we care about angular momentum? In CNR\*11 THIRD INTERNATIONAL WORKSHOP ON COMPOUND NUCLEAR REACTIONS AND RELATED TOPICS. ISSN 2100-014X, 2012, vol. 21, 09004., WOS  
3. [1.1] HAN, Yinlu - XU, Yongli - LIANG, Haiying - GUO, Hairui - CAI, Chonghai - SHEN, Qingbiao. Theoretical Calculations and Analysis of  $n+Al-27$  Reaction. In NUCLEAR SCIENCE AND ENGINEERING. ISSN 0029-5639, 2012, vol. 172, no. 1, pp. 102., WOS  
4. [1.1] HAN, Yinlu - XU, Yongli - ZHANG, Zhengjun - SHEN, Qingbiao. The cross sections and energy spectra of the particle emission in proton induced reactions on Bi-209. In NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION B-BEAM INTERACTIONS WITH MATERIALS AND ATOMS. ISSN 0168-583X, 2012, vol. 289, pp. 106., WOS
- ADCA358 OBLOŽINSKÝ, Pavol. Particle-hole state densities for statistical multistep compound reactions. In Nuclear Physics A, 1986, vol. 453, no. 1, p. 127-140. ISSN 0375-9474.  
Citácie:  
1. [1.1] KUNIEDA, S. - HAIGHT, R. C. - KAWANO, T. - CHADWICK, M. B. - STERBENZ, S. M. - BATEMAN, F. B. - WASSON, O. A. - GRIMES, S. M. - MAIER-KOMOR, P. - VONACH, H. - FUKAHORI, T. - WATANABE, Y. Measurement and model analysis of  $(n, x\alpha)$  cross sections for Cr, Fe, Co-59, and Ni-58, Ni-60 from threshold energy to 150 MeV. In PHYSICAL REVIEW C. ISSN 0556-2813, 2012, vol. 85, no. 5, 054602., WOS
- ADCA359 OBLOŽINSKÝ, Pavol - CHADWICK, M.B. Gamma-ray emission from multistep compound reactions. In Physical Review C. Nuclear physics, 1990, vol. 42, no. 4, p. 1652-1664. ISSN 0556-2813.  
Citácie:

1. [1.1] BETAK, Emil - KRTICKA, M - BECVAR, F - KROLL, J. Iwamoto-Harada model of pre-equilibrium cluster emission: Should we care about angular momentum? In *CNR\*11 THIRD INTERNATIONAL WORKSHOP ON COMPOUND NUCLEAR REACTIONS AND RELATED TOPICS*. ISSN 2100-014X, 2012, vol. 21, 09004., WOS
- ADCA360 OGANESSIAN, Y.T. - YEREMIN, A.V. - GULBEKIAN, G.G. - BOGOMOLOV, S.L. - CHEPIGIN, V.I. - GIKAL, B.N. - GORSHKOV, V.A. - ITKIS, M.G. - KABACHENKO, A.P. - KUTNER, V.B. - AVRENTSEV, A.Y. - MALYSHEV, O.N. - POPEKO, A.G. - ROHAC, J. - SAGAIK, R.N. - HOFMANN, S. - MUNZENBERG, G. - VESELSKÝ, Martin - SARO, S. - IWASSA, N. - MORITA, K. Search for new isotopes of element 112 by irradiation of U-238 with Ca-48. In *European Physical Journal A*, 1999, vol. 5, no. 1, p. 63-68. ISSN 1434-6001.
- Citácie:
1. [1.1] DUELLMANN, Ch E. Superheavy elements at GSI: a broad research program with element 114 in the focus of physics and chemistry. In *RADIOCHIMICA ACTA*. ISSN 0033-8230, 2012, vol. 100, no. 2, pp. 67., WOS
2. [1.1] ZHANG, H. F. - GAO, Y. - WANG, N. - LI, J. Q. - ZHAO, E. G. - ROYER, G. Double magic nuclei for  $Z > 82$  and  $N > 126$ . In *PHYSICAL REVIEW C*. ISSN 0556-2813, 2012, vol. 85, no. 1, 014325., WOS
- ADCA361 OLIVARES, S. - SEDLÁK, Michal - RAPČAN, Peter - PARIS, M.G.A. - BUŽEK, Vladimír. Optimal unambiguous comparison of two unknown squeezed vacua. In *Physical Review A*, 2011, vol. 83, no. 1, 012313. (2.861 - IF2010). (2011 - Current Contents). ISSN 1050-2947.
- Citácie:
1. [1.1] FILIPPOV, Sergey N. - ZIMAN, Mario. Probability-based comparison of quantum states. In *PHYSICAL REVIEW A*. ISSN 1050-2947, 2012, vol. 85, no. 6, 062301., WOS
2. [1.1] MISHRA, Devendra Kumar. Unambiguous discrimination of two squeezed states using probabilistic quantum cloning. In *OPTICS COMMUNICATIONS*. ISSN 0030-4018, 2012, vol. 285, no. 6, pp. 1560., WOS
- ADCA362 OPATRNY, T. - BUŽEK, Vladimír - BAJER, J. - DROBNÝ, Gabriel. Propensities in discrete phase spaces-q-function of a state in a finite-dimensional hilbert-space. In *Physical Review A*, 1995, vol. 52, no. 3, p. 2419-2428. ISSN 1050-2947.
- Citácie:
1. [1.1] CARMELI, Claudio - HEINOSAARI, Teiko - TOIGO, Alessandro. Informationally complete joint measurements on finite quantum systems. In *PHYSICAL REVIEW A*. ISSN 1050-2947, 2012, vol. 85, no. 1, 012109., WOS
2. [1.1] COTFAS, Nicolae - DRAGOMAN, Daniela. Properties of finite Gaussians and the discrete-continuous transition. In *JOURNAL OF PHYSICS A-MATHEMATICAL AND THEORETICAL*. ISSN 1751-8113, 2012, vol. 45, no. 42, 425305., WOS
3. [1.1] MARCHIOLLI, M. A. - RUZZI, M. Theoretical formulation of finite-dimensional discrete phase spaces: I. Algebraic structures and uncertainty principles. In *ANNALS OF PHYSICS*. ISSN 0003-4916, 2012, vol. 327, no. 6, pp. 1538., WOS
4. [1.1] SUA, Yong Meng - LEE, Kim Fook. Macroscopic mechanical correlations using single-photon spatial compass state and operational Wigner distribution. In *PHYSICAL REVIEW A*. ISSN 1050-2947, 2012, vol. 85, no. 6, 062113., WOS
- ADCA363 OPATRNY, T. - WELSCH, D.G. - BUŽEK, Vladimír. Parametrized discrete phase-space functions. In *Physical Review A*, 1996, vol. 53, no. 6, p. 3822-3835. ISSN 1050-2947.
- Citácie:



1. [1.1] COTFAS, Nicolae - DRAGOMAN, Daniela. *Properties of finite Gaussians and the discrete-continuous transition. In JOURNAL OF PHYSICS A-MATHEMATICAL AND THEORETICAL. ISSN 1751-8113, 2012, vol. 45, no. 42, 425305., WOS*
  2. [1.1] MARCHIOLLI, M. A. - RUZZI, M. *Theoretical formulation of finite-dimensional discrete phase spaces: I. Algebraic structures and uncertainty principles. In ANNALS OF PHYSICS. ISSN 0003-4916, 2012, vol. 327, no. 6, pp. 1538., WOS*
- ADCA364 OU-YANG, W. - WEIS, Martin Jr. - MANAKA, T. - IWAMOTO, M. Study of relaxation process of dipalmitoyl phosphatidylcholine monolayers at air-water interface: Effect of electrostatic energy. In *Journal of Chemical Physics*, 2011, vol. 134, 154709. (2.921 - IF2010). (2011 - Current Contents). ISSN 0021-9606.
- Citácie:
1. [1.1] KWAN, James J. - BORDEN, Mark A. *Lipid monolayer dilatational mechanics during microbubble gas exchange. In SOFT MATTER. ISSN 1744-683X, 2012, vol. 8, no. 17, pp. 4756., WOS*
- ADCA365 OŽVOLD, Milan - BOHÁČ, Vlastimil - GASPARIK, V. - LEGGIERI, G. - LUBY, Štefan - LUCHES, A. - MAJKOVÁ, Eva - MRAFKO, Peter. The optical band-gap of semiconducting iron disilicide thin-films. In *Thin Solid Films : international journal on the science and technology of Thin and Thick Films*, 1995, vol. 263, no. 1, p. 92-98. (1.410 - IF1994). (1995 - Current Contents). ISSN 0040-6090.
- Citácie:
1. [1.1] HIMENO, Roto - OHASHI, Fumitaka - KUME, Tetsuji - ASAI, Erika - BAN, Takayuki - SUZUKI, Takatoshi - IIDA, Tamio - HABUCHI, Hitoe - TSUTSUMI, Yasuo - NATSUHARA, Hironori - NONOMURA, Shuichi. *Optical band gap of semiconductive type II Si clathrate purified by centrifugation. In JOURNAL OF NON-CRYSTALLINE SOLIDS. ISSN 0022-3093, 2012, vol. 358, no. 17, pp. 2138., WOS*
  2. [1.2] HIMENO, R. - OHASHI, F. - KUME, T. - ASAI, E. - BAN, T. - SUZUKI, T. - IIDA, T. - HABUCHI, H. - TSUTSUMI, Y. - NATSUHARA, H. - NONOMURA, S. *Optical band gap of semiconductive type II Si clathrate purified by centrifugation. In Journal of Non-Crystalline Solids, 2012, 358, 17, pp. 2138-2140., SCOPUS*
- ADCA366 OŽVOLD, Milan - BOHÁČ, Vlastimil - GASPARIK, V. - LEGGIERI, G. - LUBY, Štefan - LUCHES, A. - MAJKOVÁ, Eva - MRAFKO, Peter. On optical band gap of semiconducting iron disilicide thin films. In *Thin Solid Films*, 1995, vol. 263, p. 92-98. (1.410 - IF1994). (1995 - Current Contents). ISSN 0040-6090.
- Citácie:
1. [1.1] HIMENO, W.R. at all. *Optical band gap of semiconducting type. In JOURNAL OF NON-CRYSTALLINE SOLIDS, 2012, vol. 358, p. 2138., WOS*
  2. [3] QIU, Y. *A close to unity and all-solar spectrum absorption. In OPTICS EXPRESS, 2012, vol. 20, 22087.*
- ADCA367 PALUGA, Marek - ŠVEC, Peter - JANIČKOVIČ, Dušan - MRAFKO, Peter - CONDE, Clara F.. Surface morphology in amorphous Fe-Mo-Cu-B ribbon system. In *Journal of Non-Crystalline Solids*, 2007, vol. 353, no. 18-21, p. 2039-2044. (1.362 - IF2006). (2007 - Current Contents, SCOPUS). ISSN 0022-3093.
- Citácie:
1. [1.1] BUTVINOVA, B. - BUTVIN, P. - KADLECIKOVA, M. - MALINOVSKY, L. *Raman spectroscopy used to inspect relationship between surface and magnetic properties of Fe-Nb-Cu-B-Si(4.5) nanocrystalline ribbons. In KOVOVE MATERIALY-METALLIC MATERIALS. ISSN 0023-432X, 2012, vol. 50, no. 3, pp. 145., WOS*

- ADCA368 PAWLUS, S. - BARTOŠ, Josef - ŠAUŠA, Ondrej - KRIŠTIAK, Jozef - PALUCH, M. Positronium annihilation lifetime and dielectric spectroscopy studies on diethyl phthalate: Phenomenological correlations and microscopic analyses in terms of the extended free volume model by Cohen-Grest. In Journal of Chemical Physics, 2006, vol. 124, no. 10, 104505. (3.138 - IF2005). ISSN 0021-9606.  
Citácie:  
1. [1.1] MARTINEZ-GARCIA, J.C. The new insight into dynamic crossover in glass forming liquids from the apparent enthalpy analysis. In JOURNAL OF CHEMICAL PHYSICS, 2012, vol. 137, no. 6, 064501., WOS
- ADCA369 PINČÍK, Emil - JERGEL, Matej - FALCONY, C. - ORTEGA, L. - IVANČO, Jozef - BRUNNER, Róbert - KUČERA, Michal. Low-energy particle treatment of GaAs surface. In Thin Solid Films : International Journal on the Science and Technology of Thin and Thick Films, 2003, vol. 433, p. 108-113. ISSN 0040-6090.  
Citácie:  
1. [1.1] KLYUI, N.I. - LIPTUGA, A.I. - LOZINSKII, V.B. - LUKYANOV, A.N. - OKSANICH, A.P. - TERBAN, V.A. Application of diamond-like carbon films to increase transmission of semi-insulating GaAs crystals in the IR spectral range. In TECHNICAL PHYSICS LETTERS. JUL 2012, vol. 38, no. 7, p. 609-612., WOS  
2. [1.1] KLYUI, N.I. - LIPTUGA, A.I. - LOZINSKII, V.B. - OKSANICH, A.P. - TERBAN, V.A. - FOMOVSKII, F.V. Increasing the degradation resistance of semi-insulating gallium arsenide crystals by plasma processing. In TECHNICAL PHYSICS LETTERS. NOV 2012, vol. 38, no. 11, p. 1016-1019., WOS
- ADCA370 PINČÍK, Emil - KOBAYASHI, H. - GLESKOVÁ, H. - KUČERA, Michal - ORTEGA, L. - JERGEL, Matej - FALCONY, C. - BRUNNER, Róbert - SHIMIZU, T. - NÁDAŽDY, Vojtech - ZEMAN, Milan - MIKULA, M. - KUMEDA, M - VAN SWAAIJAND, R.A.C.M.M. Photoluminescence properties of a-Si:H based thin films and corresponding solar cells. In Thin Solid Films, 2003, vol. 433, p. 344-351.  
Citácie:  
1. [1.1] WU, D.D. - MA, Y.Q. - ZHANG, X. - QIAN, S.B. - ZHENG, G.H. - WU, M.Z. - LI, G. - SUN, Z.Q. Dy<sup>3+</sup> activated LaVO<sub>4</sub> films synthesized by precursors with different solution concentrations. In JOURNAL OF RARE EARTHS. APR 2012, vol. 30, no. 4, p. 325-329., WOS
- ADCA371 PINČÍK, Emil - KOBAYASHI, H. - RUSNÁK, Jaroslav - KIM, W.B. - BRUNNER, Róbert - MALINOVSKÝ, Ľudovít - MATSUMOTO, T. - IMAMURA, K. - JERGEL, Matej - TAKAHASHI, M. - HIGASHI, Y. - KUČERA, Michal - MIKULA, M. On ultra-thin oxide/Si and very-thin oxide/Si structures prepared by wet chemical process. In Applied Surface Science, 2010, vol. 256, no. 19, p. 5757-5764. (1.616 - IF2009). (2010 - Current Contents). ISSN 0169-4332.  
Citácie:  
1. [1.1] ANGERMANN, H. - WOLKE, K. - GOTTSCHALK, C. - MOLDOVAN, A. - ROCZEN, M. - FITTKAU, J. - ZIMMER, M. - RENTSCH, J. Electronic interface properties of silicon substrates after ozone based wet-chemical oxidation studied by SPV measurements. In APPLIED SURFACE SCIENCE. AUG 15 2012, vol. 258, no. 21, p. 8387-8396., WOS
- ADCA372 PINČÍK, Emil - KOBAYASHI, H. - BRUNNER, Róbert - TAKAHASHI, M. - YUEH-LING, Liu - ORTEGA, L. - IMAMURA, K. - JERGEL, Matej - RUSNÁK, Jaroslav. Passivation of defect states in Si-based and GaAs structures. In Applied Surface Science, 2008. Vol. 254, p. 8059-8066. ISSN 0169-4332.  
Citácie:  
1. [1.1] HAN, Y. Kinetics of passive film of low carbon steel. In ADVANCED MATERIALS RESEARCH, 2012, vol. 457-8, pp. 358-364., WOS
- ADCA373 PÍSEČNÝ, Pavol - HUSEKOVÁ, K. - FRÖHLICH, Karol - HARMATHA, L. -

ŠOLTÝS, Ján - MACHAJDÍK, Daniel - ESPINOS, J.P. - JERGEL, Matej - JAKABOVIČ, J. Growth of lanthanum oxide films for application as a gate dielectric in CMOS technology. In Materials Science in Semiconductor Processing, 2004, vol. 7, no. 4-6, p. 231-236. ISSN 1369-8001.

Citácie:

1. [1.1] LONG YULIN - YANG JUN - LI XIAOCI - HUANG WEIYA - TANG YU - ZHANG YUANMING. Combustion synthesis and stability of nanocrystalline La<sub>2</sub>O<sub>3</sub> via ethanolamine-nitrate process. In JOURNAL OF RARE EARTHS. ISSN 1002-0721, 2012, vol. 30, no. 1, pp. 48-52., WOS

2. [1.1] ZHAO, Yi. Design of Higher-k and More Stable Rare Earth Oxides as Gate Dielectrics for Advanced CMOS Devices. In MATERIALS. ISSN 1996-1944, 2012, vol. 5, no. 8, pp. 1413-1438., WOS

ADCA374 PÍSEČNÝ, Pavol - HUŠEKOVÁ, Kristína - FRÖHLICH, Karol - HARMATHA, L. - ŠOLTÝS, Ján - MACHAJDÍK, Daniel - ESPINOS, J.P. - JERGEL, Matej - JAKABOVIČ, J. Growth of lanthanum oxide films for application as a gate dielectrics in CMOS technology. In Materials science in semiconductor processing, 2004, vol. 7, p. 231-236.

Citácie:

1. [1.1] LONG, Y.L. - YANG, J. - LI, X.C. - HUANG, W.Y. - TANG, Y. - ZHANG, Y.M. In JOURNAL OF RARE EARTHS. JAN 2012, vol. 30, no. 1, p. 48-52., WOS

2. [1.1] ZHAO, Y. In MATERIALS. AUG 2012, vol. 5, no. 8, p. 1413-1438., WOS

ADCA375 PLESCH, Martin - BUŽEK, Vladimír. Entangled graphs: Bipartite entanglement in multiqubit systems. In Physical Review A, 2003, vol. 67, no. 1, 012322. ISSN 1050-2947.

Citácie:

1. [1.1] SALIMI, S. - KARAMI, D. - SALIMI, E. Investigation of Preparation up to Six and N-Atom Graph States. In INTERNATIONAL JOURNAL OF THEORETICAL PHYSICS. ISSN 0020-7748, 2012, vol. 51, no. 7, pp. 2031., WOS

ADCA376 PLESCH, Martin - BUŽEK, Vladimír. Entangled graphs. II. Classical correlations in multiqubit entangled systems. In Physical Review A, 2003, vol. 68, no. 1, 012313. ISSN 1050-2947.

Citácie:

1. [1.1] SALIMI, S. - KARAMI, D. - SALIMI, E. Investigation of Preparation up to Six and N-Atom Graph States. In INTERNATIONAL JOURNAL OF THEORETICAL PHYSICS. ISSN 0020-7748, 2012, vol. 51, no. 7, pp. 2031., WOS

ADCA377 PLESCH, Martin - BRUKNER, C. Quantum-state preparation with universal gate decompositions. In Physical Review A, 2011, vol. 83, no. 3, 032302. (2.861 - IF2010). (2011 - Current Contents). ISSN 1050-2947.

Citácie:

1. [1.1] LUO, Mingxing. Some Quantum States Prepared with Polynomial Quantum Circuit. In INTERNATIONAL JOURNAL OF THEORETICAL PHYSICS. ISSN 0020-7748, 2012, vol. 51, no. 12, pp. 3733., WOS

ADCA378 PRITYCHENKO, B. - BĚTÁK, Emil - KELLETT, M.A. - SINGH, B. - TOTANS, J. The nuclear science references (NSR) database and web retrieval system. In Nuclear Instruments and Methods in Physics Research A, 2011, vol. 640, p. 213-218. (1.142 - IF2010). (2011 - Current Contents, WOS, SCOPUS). ISSN 0168-9002.

Citácie:

1. [1.1] AUDI, G. - KONDEV, F. G. - WANG, M. - PFEIFFER, B. - SUN, X. - BLACHOT, J. - MACCORMICK, M. The NUBASE2012 evaluation of nuclear properties. In CHINESE PHYSICS C. ISSN 1674-1137, 2012, vol. 36, no. 12, pp. 1157-1286., WOS

2. [1.1] WANG, M. - AUDI, G. - WAPSTRA, A. H. - KONDEV, F. G. -

- MACCORMICK, M. - XU, X. - PFEIFFER, B. The AME2012 atomic mass evaluation (II). Tables, graphs and references. In CHINESE PHYSICS C. ISSN 1674-1137, 2012, vol. 36, no. 12, pp. 1603-2014., WOS*
- ADCA379 PUSSI, K. - FERRALIS, N. - MIHALKOVIČ, Marek - WIDOM, M. - CURTAROLO, S. - GIERER, M. - JENKS, C.J. - CANFIELD, P. - FISHER, I.R. - DIEHL, R.D. Use of periodic approximants in a dynamical LEED study of the quasicrystalline tenfold surface of decagonal Al-Ni-Co. In Physical Review B : condensed matter and materials physics, 2006, vol. 73, no. 18, 184203. (3.185 - IF2005). (2006 - Current Contents, WOS, SCOPUS). ISSN 1098-0121.
- Citácie:
1. [1.1] *MCGRATH, Ronan - KAMARULZAMAN, N - WUI, WT - MOHAMED, NS - RUSDI, R - CHAYED, NF. Quasicrystal surfaces: structure, adsorption and epitaxy. In ADVANCEMENT OF MATERIALS AND NANOTECHNOLOGY II. ISSN 1022-6680, 2012, vol. 545, pp. 43-49., WOS*
  2. [1.1] *ZENKYU, R. - YUHARA, J. - MATSUI, T. - ZAMAN, S. Shah - SCHMID, M. - VARGA, P. Composition and local atomic arrangement of decagonal Al-Co-Cu quasicrystal surfaces. In PHYSICAL REVIEW B. ISSN 1098-0121, 2012, vol. 86, no. 11, 115422., WOS*
- ADCA380 QUANG, T. - KNIGHT, P.L. - BUŽEK, Vladimír. Quantum collapses and revivals in an optical cavity. In Physical Review A, 1991, vol. 44, no. 9, p. 6092-6108. ISSN 1050-2947.
- Citácie:
1. [1.1] *BHATTACHARYA, M. - STOUTIMORE, M. J. A. - OSBORN, K. D. - MIZEL, Ari. Understanding the damping of a quantum harmonic oscillator coupled to a two-level system using analogies to classical friction. In AMERICAN JOURNAL OF PHYSICS. ISSN 0002-9505, 2012, vol. 80, no. 9, pp. 810., WOS*
  2. [1.1] *CORDERO, Sergio - RECAMIER, Jose. Algebraic treatment of the time-dependent Jaynes-Cummings Hamiltonian including nonlinear terms. In JOURNAL OF PHYSICS A-MATHEMATICAL AND THEORETICAL. ISSN 1751-8113, 2012, vol. 45, no. 38, 385303., WOS*
  3. [1.1] *OBADA, A-S F. - ABDEL-KHALEK, S. - KHALIL, E. M. - ALI, S. I. Effects of Stark shift and decoherence terms on the dynamics of phase-space entropy of the multiphoton Jaynes Cummings model. In PHYSICA SCRIPTA. ISSN 0031-8949, 2012, vol. 86, no. 5, 055009., WOS*
  4. [1.1] *PRIYESH, K. V. - THAYYULLATHIL, Ramesh Babu. Effect of Phase Shifted Frequency Modulation on Two Level Atom-Field Interaction. In COMMUNICATIONS IN THEORETICAL PHYSICS. ISSN 0253-6102, 2012, vol. 57, no. 3, pp. 468., WOS*
  5. [1.1] *VALVERDE, C. - DE OLIVEIRA, H. C. B. - AVELAR, A. T. - BASEIA, B. Controlling Excitation Inversion of a Cooper Pair Box Interacting with a Nanomechanical Resonator. In CHINESE PHYSICS LETTERS. ISSN 0256-307X, 2012, vol. 29, no. 8, 080303., WOS*
- ADCA381 RANDRIANANTOANDRO, N. - CRISAN, A.D. - CRISAN, O. - MARCIN, J. - KOVÁČ, J. - HANKO, J. - GRENECHE, J.M. - ŠVEC, Peter - CHROBAK, A. - ŠKORVÁNEK, I. The influence of microstructure on magnetic properties of nanocrystalline Fe-Pt-Nb-B permanent magnet ribbons. In Journal of Applied Physics, 2010, vol. 108, no. 9, art. no. 093910. (2.072 - IF2009). (2010 - Current Contents, WOS, SCOPUS). ISSN 0021-8979.
- Citácie:
1. [1.1] *ZHANG, Zeqiang - SHARMA, Parmanand - YUBUTA, Kunio - MAKINO, Akihiro. Synthesis, microstructure and magnetic properties of low Nd content Fe<sub>90</sub>Nd<sub>5</sub>B<sub>3.5</sub>M<sub>1.5</sub> (M = Hf, Ti and Ta) alloys. In JOURNAL OF APPLIED*



- PHYSICS. ISSN 0021-8979, 2012, vol. 111, no. 7, 07B501., WOS*
- ADCA382 RAPČAN, Peter - CALSAMIGLIA, J. - MUNOZ-TAPIA, R. - BAGAN, E. - BUŽEK, Vladimír. Scavenging quantum information: Multiple observations of quantum systemS. In Physical Review A, 2011, vol. 84, no. 3, 032326. (2.861 - IF2010). (2011 - Current Contents). ISSN 1050-2947.
- Citácie:
1. [1.1] *NAGALI, Eleonora - FELICETTI, Simone - DE ASSIS, Pierre-Louis - D AMBROSIO, Vincenzo - FILIP, Radim - SCIARRINO, Fabio. Testing sequential quantum measurements: how can maximal knowledge be extracted? In SCIENTIFIC REPORTS. ISSN 2045-2322, 2012, vol. 2, 443., WOS*
- ADCA383 REITZNER, Daniel - HILLERY, M. - FELDMAN, E. - BUŽEK, Vladimír. Quantum searches on highly symmetric graphs. In Physical Review A, 2009, vol. 79, no. 1, 012323. (2.908 - IF2008). (2009 - Current Contents, WOS, SCOPUS). ISSN 1050-2947.
- Citácie:
1. [1.1] *ANDRADE, F. M. - DA LUZ, M. G. E. Superdiffusivity of quantum walks: A Feynman sum-over-paths description. In PHYSICAL REVIEW A. ISSN 1050-2947, 2012, vol. 86, no. 4, 042309., WOS*
2. [1.1] *ANISHCHENKO, Anastasiia - BLUMEN, Alexander - MUELKEN, Oliver. Enhancing the spreading of quantum walks on star graphs by additional bonds. In QUANTUM INFORMATION PROCESSING. ISSN 1570-0755, 2012, vol. 11, no. 5, pp. 1273-1286., WOS*
3. [1.1] *HEN, Itay - YOUNG, A. P. Solving the graph-isomorphism problem with a quantum annealer. In PHYSICAL REVIEW A. ISSN 1050-2947, 2012, vol. 86, no. 4, 042310., WOS*
4. [1.1] *RUDINGER, Kenneth - GAMBLE, John King - WELLONS, Mark - BACH, Eric - FRIESEN, Mark - JOYNT, Robert - COPPERSMITH, S. N. Noninteracting multiparticle quantum random walks applied to the graph isomorphism problem for strongly regular graphs. In PHYSICAL REVIEW A. ISSN 1050-2947, 2012, vol. 86, no. 2, 022334., WOS*
- ADCA384 RICHARDS, H.L. - KOLEŠÍK, Miroslav - LINDGARD, P.A. - RIKVOLD, P.A. - NOVOTNY, M.A. Effects of boundary conditions on magnetization switching in kinetic Ising model. In Physical Review B : condensed matter and materials physics, 1997, vol. 55, no. 17, p. 11521-11540. (2.975 - IF1996). (1997 - Current Contents). ISSN 1098-0121.
- Citácie:
1. [1.2] *ENACHESCU, C. - NISHINO, M. - MIYASHITA, S. - STOLERIU, L. - STANCU, A. Monte carlo metropolis study of cluster evolution in spin-crossover solids within the framework of a mechanoelastic model. In Physical Review B Condensed Matter and Materials Physics, 2012, 86, 5, 054114., SCOPUS*
2. [1.2] *PARK, H. - PLEIMLING, M. Surface criticality at a dynamic phase transition. In Physical Review Letters, 2012, 109, 17, 175703., SCOPUS*
- ADCA385 RUNGTA, P. - BUŽEK, Vladimír - CAVES, C.M. - HILLERY, M. - MILBURN, G.J. Universal state inversion and concurrence in arbitrary dimensions. In Physical Review A, 2001, vol. 64, p. 042315. (2.684 - IF2000). ISSN 1050-2947.
- Citácie:
1. [1.1] *ABDEL-KHALEK, S. - BERRADA, K. - OBADA, A. S. F. Quantum Fisher information for a single qubit system. In EUROPEAN PHYSICAL JOURNAL D. ISSN 1434-6060, 2012, vol. 66, no. 3., WOS*
2. [1.1] *BERRADA, K. - MOHAMMADZADE, A. - ABDEL-KHALEK, S. - ELEUCH, H. - SALIMI, S. Nonlocal correlations for manifold quantum systems: Entanglement of two-spin states. In PHYSICA E-LOW-DIMENSIONAL SYSTEMS*

- & NANOSTRUCTURES. ISSN 1386-9477, 2012, vol. 45, pp. 21., WOS
3. [1.1] CHEN, Zhi-Hua - MA, Zhi-Hao - GUEHNE, Otfried - SEVERINI, Simone. Estimating Entanglement Monotones with a Generalization of the Wootters Formula. In PHYSICAL REVIEW LETTERS. ISSN 0031-9007, 2012, vol. 109, no. 20., WOS
4. [1.1] DAOUD, M. - CHOUBABI, E. B. BIPARTITE ENTANGLEMENT OF MULTIPARTITE COHERENT STATES USING QUANTUM NETWORK OF BEAM SPLITTERS. In INTERNATIONAL JOURNAL OF QUANTUM INFORMATION. ISSN 0219-7499, 2012, vol. 10, no. 1., WOS
5. [1.1] DAOUD, M. - LAAMARA, R. Ahl. QUANTUM DISCORD FOR MULTIPARTITE COHERENT STATES INTERPOLATING BETWEEN WERNER AND GREENBERGER-HORNE-ZEILINGER STATES. In INTERNATIONAL JOURNAL OF QUANTUM INFORMATION. ISSN 0219-7499, 2012, vol. 10, no. 5., WOS
6. [1.1] DERMEZ, Rasim - KHALEK, S. Abdel - KARA, Kemal - DEVECI, Bekir - GUNAYDIN, G. N. FULL-TRAPPED THREE-LEVEL ION IN THE LAMB-DICKE LIMIT: ANALYZING AND COMPARING QUANTUM ENTANGLEMENT MEASURES OF TWO QUDITS. In JOURNAL OF RUSSIAN LASER RESEARCH. ISSN 1071-2836, 2012, vol. 33, no. 1, pp. 42., WOS
7. [1.1] HUANG, Yi - QIU, Daowen. Concurrence vectors of multipartite states based on coefficient matrices. In QUANTUM INFORMATION PROCESSING. ISSN 1570-0755, 2012, vol. 11, no. 1, pp. 235., WOS
8. [1.1] JIMENEZ FARIAS, O. - AGUILAR, G. H. - VALDES-HERNANDEZ, A. - SOUTO RIBEIRO, P. H. - DAVIDOVICH, L. - WALBORN, S. P. Observation of the Emergence of Multipartite Entanglement Between a Bipartite System and its Environment. In PHYSICAL REVIEW LETTERS. ISSN 0031-9007, 2012, vol. 109, no. 15., WOS
9. [1.1] JIMENEZ FARIAS, O. - VALDES-HERNANDEZ, A. - AGUILAR, G. H. - SOUTO RIBEIRO, P. H. - WALBORN, S. P. - DAVIDOVICH, L. - QIAN, Xiao-Feng - EBERLY, J. H. Experimental investigation of dynamical invariants in bipartite entanglement. In PHYSICAL REVIEW A. ISSN 1050-2947, 2012, vol. 85, no. 1., WOS
10. [1.1] LI, Dafa. The n-tangle of odd n qubits. In QUANTUM INFORMATION PROCESSING. ISSN 1570-0755, 2012, vol. 11, no. 2, pp. 481., WOS
11. [1.1] LI, Ming - FEI, Shao-Ming. Method for measuring the entanglement of formation for arbitrary-dimensional pure states. In PHYSICAL REVIEW A. ISSN 1050-2947, 2012, vol. 85, no. 1., WOS
12. [1.1] RAFSANJANI, S. M. Hashemi - HUBER, M. - BROADBENT, C. J. - EBERLY, J. H. Genuinely multipartite concurrence of N-qubit X matrices. In PHYSICAL REVIEW A. ISSN 1050-2947, 2012, vol. 86, no. 6., WOS
13. [1.1] RUDOLFFSSON, Pierre - SJOQVIST, Erik. RELATIVE STATE MEASURES OF CORRELATIONS IN BIPARTITE QUANTUM SYSTEMS. In QUANTUM INFORMATION & COMPUTATION. ISSN 1533-7146, 2012, vol. 12, no. 1-2, pp. 119., WOS
14. [1.1] SABOUR, Abbass - JAFARPOUR, Mojtaba. Probability interpretation, an equivalence relation, and a lower bound on the convex-roof extension of negativity. In PHYSICAL REVIEW A. ISSN 1050-2947, 2012, vol. 85, no. 4., WOS
15. [1.1] SALIMI, S. - MOHAMMADZADE, A. - BERRADA, K. Concurrence for a two-qubits mixed state consisting of three pure states in the framework of SU(2) coherent states. In QUANTUM INFORMATION PROCESSING. ISSN 1570-0755, 2012, vol. 11, no. 2, pp. 501., WOS
16. [1.1] SIOMAU, Michael - KAMLI, Ali A. Defeating entanglement sudden

- death by a single local filtering. In PHYSICAL REVIEW A. ISSN 1050-2947, 2012, vol. 86, no. 3., WOS*
17. [1.1] SIOMAU, Michael. Entanglement dynamics of three-qubit states in local many-sided noisy channels. In JOURNAL OF PHYSICS B-ATOMIC MOLECULAR AND OPTICAL PHYSICS. ISSN 0953-4075, 2012, vol. 45, no. 3., WOS
18. [1.1] XIAO, Hailin - OUYANG, Shan. Capacity of multiple-input multiple-output quantum depolarizing channels. In JOURNAL OF APPLIED PHYSICS. ISSN 0021-8979, 2012, vol. 112, no. 3., WOS
19. [1.1] ZHU, Xue-Na - LI, Ming - FEI, Shao-Ming - DARIANO, M - FEI, SM - HAVEN, E - HIESMAYR, B - JAEGER, G - KHRENNIKOV, A - LARSSON, JA. Lower Bounds of Concurrence for Multipartite States. In FOUNDATIONS OF PROBABILITY AND PHYSICS 6. ISSN 0094-243X, 2012, vol. 1424., WOS
20. [1.1] ZHU, Xue-Na - ZHAO, Ming-Jing - FEI, Shao-Ming. Lower bound of multipartite concurrence based on subquantum state decomposition. In PHYSICAL REVIEW A. ISSN 1050-2947, 2012, vol. 86, no. 2., WOS
- ADCA386 RYBÁŘ, Tomáš - ZIMAN, Mário. Quantum finite-depth memory channels: Case study. In Physical Review A, 2009, vol. 80, no. 4, 042306. ISSN 1050-2947.  
Citácie:  
1. [1.1] AHLBRECHT, Andre - RICHTER, Florian - WERNER, Reinhard F. HOW LONG CAN IT TAKE FOR A QUANTUM CHANNEL TO FORGET EVERYTHING? In INTERNATIONAL JOURNAL OF QUANTUM INFORMATION. ISSN 0219-7499, 2012, vol. 10, no. 5, 1250057., WOS
- ADCA387 ŠÁLY, V. - HARTMANOVÁ, Mária - GLUSHKOVA, V.B. Electrical behavior of HFO2 stabilized with rare-earths. In Solid State Ionics, 1989, vol. 36, no. 3-4, p.189-192. ISSN 0167-2738.  
Citácie:  
1. [1.1] SHLYAKHTINA, A. V. - SHCHERBAKOVA, L. G. New Solid Electrolytes of the Pyrochlore Family. In RUSSIAN JOURNAL OF ELECTROCHEMISTRY. ISSN 1023-1935, 2012, vol. 48, no. 1, pp. 1-25., WOS
- ADCA388 ŠAMAJ, Ladislav - TRAVĚNEC, Igor. Thermodynamic Properties of the Two-Dimensional Plasma. In Journal of Statistical Physics, 2000, vol. 101, no. 3-4, p. 713-730. (1.192 - IF1999). ISSN 0022-4715/00.  
Citácie:  
1. [1.1] FANTONI, R. Two component plasma in a Flamm's paraboloid. In JOURNAL OF STATISTICAL MECHANICS, 2012, P04015., WOS
- ADCA389 ŠAMAJ, Ladislav. The statistical mechanics of the classical two-dimensional Coulomb gas is exactly solved. In Journal of Physics A, 2003, vol. 36, p. 5913-5920.  
Citácie:  
1. [1.1] POLTORATSKI, Alexei. Spectral gaps for sets and measures. In ACTA MATHEMATICA. ISSN 0001-5962, 2012, vol. 208, no. 1, pp. 151., WOS
- ADCA390 ŠAMAJ, Ladislav - TRIZAC, E. Counterions at highly charged interfaces: From one plate to like-charge attraction. In Physical Review Letters, 2011, vol. 106, no. 7, 078301. (7.622 - IF2010). (2011 - Current Contents, WOS, SCOPUS). ISSN 0031-9007.  
Citácie:  
1. [1.1] CARRIVAIN, Pascal - Cournac, Axel - Lavelle, Christophe - LESNE, Annick - MOZZICONACCI, Julien - PAILLUSSON, Fabien - SIGNON, Laurence - VICTOR, Jean-Marc - BARBI, Maria. Electrostatics of DNA compaction in viruses, bacteria and eukaryotes: functional insights and evolutionary perspective. In SOFT MATTER. ISSN 1744-683X, 2012, vol. 8, no. 36, pp. 9285., WOS



2. [1.1] DEMERY, Vincent - DEAN, David S. - PODGORNIK, Rudolf. *Electrostatic interactions mediated by polarizable counterions: Weak and strong coupling limits. In JOURNAL OF CHEMICAL PHYSICS. ISSN 0021-9606, 2012, vol. 137, no. 17, 174903., WOS*
  3. [1.1] HANSSON, Per - BYSELL, Helena - MANSSON, Ronja - MALMSTEN, Martin. *Peptide-Microgel Interactions in the Strong Coupling Regime. In JOURNAL OF PHYSICAL CHEMISTRY B. ISSN 1520-6106, 2012, vol. 116, no. 35, pp. 10964., WOS*
  4. [1.1] HATLO, Marius M. - BANERJEE, Priyanka - FORSMAN, Jan - LUE, Leo. *Density functional theory for Yukawa fluids. In JOURNAL OF CHEMICAL PHYSICS. ISSN 0021-9606, 2012, vol. 137, no. 6, 064115., WOS*
  5. [1.1] LAANAIT, Nouamane - MIHAYLOV, Miroslav - HOU, Binyang - YU, Hao - VANYSEK, Petr - MERON, Mati - LIN, Binhua - BENJAMIN, Ilan - SCHLOSSMAN, Mark L. *Tuning ion correlations at an electrified soft interface. In PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA. ISSN 0027-8424, 2012, vol. 109, no. 50, pp. 20326., WOS*
  6. [1.1] LEE, Nam-Kyung - SCHMATKO, Tatiana - MULLER, P. - MAALOUM, M. - JOHNER, A. *Shape of adsorbed supercoiled plasmids: An equilibrium description. In PHYSICAL REVIEW E. ISSN 1539-3755, 2012, vol. 85, no. 5, p051804, WOS*
  7. [1.1] PEZESHKIAN, Weria - NIKOOFARD, Narges - NOROUZI, Davood - MOHAMMAD-RAFIEE, Farshid - FAZLI, Hossein. *Distribution of counterions and interaction between two similarly charged dielectric slabs: Roles of charge discreteness and dielectric inhomogeneity. In PHYSICAL REVIEW E. ISSN 1539-3755, 2012, vol. 85, no. 6, 061925., WOS*
- ADCA391    ŠAMAJ, Ladislav. A generalization of the Stillinger- Lovett sum rules for two-dimensional jellium. In *Journal of Statistical Physics*, 2007, vol. 128, p. 1415-1428.  
Citácie:
1. [1.1] TELLEZ, G. -FORRESTER, P.J. *Expanded vandermonde powers. In JOURNAL OF STATISTICAL PHYSICS, 2012, vol. 148, no. 5, pp. 824-855., WOS*
- ADCA392    ŠAMAJ, Ladislav - JANCOVICI, Bernard. Equilibrium long-ranged charge correlations at the surface of a conductor coupled to electromagnetic radiation. In *Physical Review E*, 2008, vol. 78, 051119. ISSN 1539-3755.  
Citácie:
1. [1.1] HAAKH, H. R. - HENKEL, C. *Magnetic near fields as a probe of charge transport in spatially dispersive conductors. In EUROPEAN PHYSICAL JOURNAL B. ISSN 1434-6028, 2012, vol. 85, no. 1, 46., WOS*
- ADCA393    ŠAMAJ, Ladislav - JANCOVICI, B. Wigner-Kirkwood expansion for semi-infinite quantum fluids. In *Journal of Statistical Mechanics*, 2007, no. 2, p02002. ISSN 1742-5468.  
Citácie:
1. [1.1] BIROLI, G. - ZAMPONI, F. *A Tentative Replica Theory of Glassy Helium 4. In JOURNAL OF LOW TEMPERATURE PHYSICS. ISSN 0022-2291, 2012, vol. 168, no. 3-4, pp. 101., WOS*
- ADCA394    ŠAMAJ, Ladislav. Is the two-dimensional one-component plasma exactly solvable ? In *Journal of Statistical Physics*, 2004, vol. 117, p. 131-158.  
Citácie:
1. [1.1] JANSEN, Sabine. *Fermionic and bosonic Laughlin state on thick cylinders. In JOURNAL OF MATHEMATICAL PHYSICS. ISSN 0022-2488, 2012, vol. 53, no. 12, 123306., WOS*

2. [1.1] TELLEZ, Gabriel - FORRESTER, Peter J. *Expanded Vandermonde Powers and Sum Rules for the Two-Dimensional One-Component Plasma*. In *JOURNAL OF STATISTICAL PHYSICS*. ISSN 0022-4715, 2012, vol. 148, no. 5, pp. 824., WOS
  3. [1.1] TELLEZ, Gabriel - TRIZAC, Emmanuel. *A Two-Dimensional One Component Plasma and a Test Charge: Polarization Effects and Effective Potential*. In *JOURNAL OF STATISTICAL PHYSICS*. ISSN 0022-4715, 2012, vol. 146, no. 4, pp. 832., WOS
- ADCA395 ŠAMAJ, Ladislav - KALINAY, Pavol - TRAVĚNEC, Igor. The t-expansion study of critical phenomena in quantum systems. In *Journal of Physics A: Mathematical and Theoretical*, 1997, vol. 30, no. 5, p. 1471-1482. ISSN 1751-8113.
- Citácie:
1. [1.1] AMORE, Paolo - FERNANDEZ, Francisco M. - RODRIGUEZ, Martin. *High-order connected moments expansion for the Rabi Hamiltonian*. In *CENTRAL EUROPEAN JOURNAL OF PHYSICS*. ISSN 1895-1082, 2012, vol. 10, no. 1, pp. 102., WOS
  2. [1.1] FESSATIDIS, Vassilios - CORVINO, Frank A. - MANCINI, Jay D. - MASSANO, William J. - BOWEN, Samuel P. *Ground-state energy of a two level system with phonon coupling*. In *PHYSICS LETTERS A*. ISSN 0375-9601, 2012, vol. 376, no. 4, pp. 573., WOS
- ADCA396 ŠAMAJ, Ladislav - TRIZAC, E. Wigner-crystal formulation of strong-coupling theory for counterions near planar charged interfaces. In *Physical Review E*, 2011, vol. 84, no. 4, 041401. (2.352 - IF2010). (2011 - Current Contents, WOS, SCOPUS). ISSN 1539-3755.
- Citácie:
1. [1.1] CARRIVAIN, Pascal - COURNAC, Axel - LAVELLE, Christophe - LESNE, Annick - MOZZICONACCI, Julien - PAILLUSSON, Fabien - SIGNON, Laurence - VICTOR, Jean-Marc - BARBI, Maria. *Electrostatics of DNA compaction in viruses, bacteria and eukaryotes: functional insights and evolutionary perspective*. In *SOFT MATTER*. ISSN 1744-683X, 2012, vol. 8, no. 36, pp. 9285., WOS
- ADCA397 ŠAMAJ, Ladislav - TRIZAC, E. Ground state of classical bilayer Wigner crystals. In *Europhysics Letters*, 2012, vol. 98, no. 3, 36004. (2.171 - IF2011). (2012 - Current Contents, SCOPUS). ISSN 0295-5075.
- Citácie:
1. [1.1] VANGAVETI, S. - TRAVESSET, A. *General solution to the electric double layer with discrete interfacial charges*. In *JOURNAL OF CHEMICAL PHYSICS*. ISSN 0021-9606, 2012, vol. 137, no. 6, 064708., WOS
- ADCA398 ŠAMAJ, Ladislav - MARKOŠ, Peter. Singular behavior of the free-energy for random ising chains. In *Journal of Physics A: Mathematical and Theoretical*, 1991, vol. 24, no. 6, p. 1319-1333. ISSN 1751-8113.
- Citácie:
1. [1.1] TIMONIN, P.D. *Smeared spin-flop transition in random antiferromagnetic ising chain*. In *JOURNAL OF EXPERIMENTAL AND THEORETICAL PHYSICS*, 2012, vol. 115, no. 6, pp. 1020-1028., WOS
- ADCA399 ŠAMAJ, Ladislav - PERCUS, J.K. A functional relation among the pair correlations of the 2-dimensional one-component plasma. In *Journal of Statistical Physics*, 1995, vol. 80, no. 3-4, p. 811-824. ISSN 0022-4715/00.
- Citácie:
1. [1.1] TELLEZ, G. - TRIZAC, E. *A two-dimensional one component plasma*. In *JOURNAL OF STATISTICAL PHYSICS*, 2012, vol. 146, no. 4, pp. 832-849., WOS
  2. [1.1] TELLEZ, G. - FORRESTER, P.J. *Expanded vandermonde powers and*

- sum rules for the two-dimensional one-component plasma. In JOURNAL OF STATISTICAL PHYSICS, 2012, vol. 148, no. 5, pp. 824-855., WOS*
- ADCA400 ŠAMAJ, Ladislav - PERCUS, J.K. - KOLESÍK, M. 2-dimensional one-component plasma. In Physical Review E, 1994, vol. 49, no. 6, p. 5623-5627. (1994 - Current Contents). ISSN 1539-3755.  
Citácie:  
*1. [1.1] TELLEZ, Gabriel - TRIZAC, Emmanuel. A Two-Dimensional One Component Plasma and a Test Charge: Polarization Effects and Effective Potential. In JOURNAL OF STATISTICAL PHYSICS. ISSN 0022-4715, 2012, vol. 146, no. 4, pp. 832., WOS*
- ADCA401 ŠAŠURA, Marek - BUŽEK, Vladimír. Multiparticle entanglement with quantum logic networks: Application to cold trapped ions. In Physical Review A, 2001, vol. 64, no. 1, p. 012305-1-10. (2.684 - IF2000). ISSN 1050-2947.  
Citácie:  
*1. [1.1] NOH, C. - RODRIGUEZ-LARA, B. M. - ANGELAKIS, D. G. Quantum simulation of neutrino oscillations with trapped ions. In NEW JOURNAL OF PHYSICS. ISSN 1367-2630, 2012, vol. 14, 033028., WOS*  
*2. [1.1] ZHANG, Y. Q. - ZHANG, S. - YEON, K. H. - YU, S. C. One-step implementation of a multiqubit controlled-phase gate with superconducting quantum interference devices coupled to a resonator. In JOURNAL OF THE OPTICAL SOCIETY OF AMERICA B-OPTICAL PHYSICS. ISSN 0740-3224, 2012, vol. 29, no. 3, pp. 300., WOS*
- ADCA402 ŠAŠURA, Marek - BUŽEK, Vladimír. Cold trapped ions as quantum information processors. In Journal of Modern Optics, 2002, vol. 49, p. 1593-1647. (2002 - Current Contents). ISSN 0950-0340.  
Citácie:  
*1. [1.1] DONG, Yu-Li - ZHU, Shi-Qun - YOU, Wen-Long. Quantum-state transmission in a cavity array via two-photon exchange. In PHYSICAL REVIEW A. ISSN 1050-2947, 2012, vol. 85, no. 2, 023833., WOS*  
*2. [1.1] MOYA-CESSA, Hector - SOTO-EGUIBAR, Francisco - VARGAS-MARTINEZ, Jose M. - JUAREZ-AMARO, Raul - ZUNIGA-SEGUNDO, Arturo. Ion-laser interactions: The most complete solution. In PHYSICS REPORTS-REVIEW SECTION OF PHYSICS LETTERS. ISSN 0370-1573, 2012, vol. 513, no. 5, pp. 229., WOS*  
*3. [1.1] RODRIGUEZ-MENDEZ, D. - MOYA-CESSA, H. High NOON states in trapped ions. In PHYSICA SCRIPTA. ISSN 0031-8949, 2012, vol. T147, 014028., WOS*  
*4. [1.1] ZUNIGA-SEGUNDO, A. - JUAREZ-AMARO, R. - VARGAS-MARTINEZ, J. M. - MOYA-CESSA, H. Exact solution of the ion-laser interaction in all regimes. In ANNALEN DER PHYSIK. ISSN 0003-3804, 2012, vol. 524, no. 2, pp. 107., WOS*
- ADCA403 SCARANI, V. - ZIMAN, Mário - ŠTELMACHOVIČ, Peter - GISIN, N. - BUŽEK, Vladimír. Thermalizing quantum machines: Dissipation and entanglement. In Physical Review Letters, 2002, vol. 88, no. 9, p. 097905. (6.668 - IF2001). (2002 - Current Contents, WOS, SCOPUS). ISSN 0031-9007.  
Citácie:  
*1. [1.1] GIOVANNETTI, V. - PALMA, G. M. Master Equations for Correlated Quantum Channels. In PHYSICAL REVIEW LETTERS. ISSN 0031-9007, 2012, vol. 108, no. 4, 040401., WOS*  
*2. [1.1] GIOVANNETTI, V. - PALMA, G. M. Master equation for cascade quantum channels: a collisional approach. In JOURNAL OF PHYSICS B-ATOMIC MOLECULAR AND OPTICAL PHYSICS. ISSN 0953-4075, 2012, vol.*

- 45, no. 15, 154003., WOS  
3. [1.1] MODI, Kavan - RODRIGUEZ-ROSARIO, Cesar A. - ASPURU-GUZI, Alan. Positivity in the presence of initial system-environment correlation. In *PHYSICAL REVIEW A*. ISSN 1050-2947, 2012, vol. 86, no. 6, 064102., WOS
- ADCA404 SCHUTZ, Y. - MARTINEZ, G. - MARIN, A. - MATULEWICZ, T. - OSTENDORF, R.W. - BOZEK, P. - DELAGRANGE, H. - DIAZ, J. - FRANKE, M. - GUDIMA, K.K. - HLAVÁČ, Stanislav - HOLZMANN, R. - LAUTRIDOU, P. - LEFEVRE, F. - LOHNER, H. - MITTIG, W. - PLOSZJCZAK, M. - VANPOL, J.H.G. - QUEBERT, J. - ROUSSELCHOMAZ, P. - SCHUBERT, A. - SIEMSEN, R.H. - SIMON, R.S. - SUJKOWSKI, Z. - TONEEV, V.D. - WAGNER, V. - WILSCHUT, A. - WOLF, G. Hard photons and neutral pions as probes of hot and dense nuclear matter. In *Nuclear Physics A*, 1997, vol. 622, no. 3, p. 404-477. ISSN 0375-9474.  
Citácie:  
1. [1.1] MA, Y. G. - LIU, G. H. - CAI, X. Z. - FANG, D. Q. - GUO, W. - SHEN, W. Q. - TIAN, W. D. - WANG, H. W. Hard-photon flow and photon-photon correlation in intermediate-energy heavy-ion collisions. In *PHYSICAL REVIEW C*. ISSN 0556-2813, 2012, vol. 85, no. 2, 024618., WOS
- ADCA405 SCHWEITZER, L. - MARKOŠ, Peter. Universal conductance and conductivity at critical points in integer quantum Hall systems. In *Physical Review Letters*, 2005, vol. 95, 256805.  
Citácie:  
1. [1.1] MORIMOTO, Takahiro - AOKI, Hideo. Two-parameter flow of  $\sigma_{xx}(\omega)\sigma_{xy}(\omega)$  for the graphene quantum Hall system in the ac regime. In *PHYSICAL REVIEW B*. ISSN 1098-0121, 2012, vol. 85, no. 16, 165445., WOS
- ADCA406 ŠEBO, Pavol - ŠVEC, Peter - JANIČKOVIČ, Dušan - ILLEKOVÁ, Emília - PLEVACHUK, Yu. Interface between Sn-Sb-Cu solder and copper substrate. In *Materials Science and Engineering A - Structural Materials Properties Microstructure and Processing*, 2011, vol. 528, p. 5955-5960. (2.101 - IF2010). (2011 - Current Contents). ISSN 0921-5093.  
Citácie:  
1. [1.1] KOBAYASHI, Y. - SHIROCHI, T. - YASUDA, Y. - MORITA, T. Metal-metal bonding process using metallic copper nanoparticles prepared in aqueous solution. In *INTERNATIONAL JOURNAL OF ADHESION AND ADHESIVES*. ISSN 0143-7496, MAR 2012, vol. 33, p. 50-55., WOS
- ADCA407 ŠEBO, Pavol - MOSER, Zbigniew - ŠVEC, Peter - JANIČKOVIČ, Dušan - DOBROČKA, Edmund - GASIOR, Wladyslaw - PSTRUŠ, Janus. Effect of indium on the microstructure of the interface between Sn<sub>3.13</sub>Ag<sub>0.74</sub>CuIn solder and Cu substrate. In *Journal of Alloys and Compounds*, 2009, vol. 480, no. 2, p. 409-415. (1.510 - IF2008). (2009 - Current Contents, WOS, SCOPUS). ISSN 0925-8388.  
Citácie:  
1. [1.1] FALLAHI, H. - NURULAKMAL, M.S. - FALLAHI, A. - ABDULLAH, J. In *JOURNAL OF MATERIALS SCIENCE-MATERIALS IN ELECTRONICS*. SEP 2012, vol. 23, no. 9, p. 1739-1749., WOS  
2. [1.1] PIYAVATIN, P. - LOTHONGKUM, G. - LOHWONGWATANA, B. In *MATERIALS TESTING*. 2012, vol. 54, no. 6, p. 383-389., WOS
- ADCA408 ŠEBO, Pavol - ŠVEC, Peter - JANIČKOVIČ, Dušan - ŠTEFÁNIK, Pavol. Influence of thermal cycling on shear strength of Cu-Sn<sub>3.5</sub>AgIn-Cu joints with various content of indium. In *Journal of Alloys and Compounds*, 2008, vol. 463, p. 168-172. (1.455 - IF2007). (2008 - Current Contents, WOS, SCOPUS). ISSN 0925-8388.  
Citácie:



1. [1.1] PIYAVATIN, P. - LOTHONGKUM, G. - LOHWONGWATANA, B. Characterization of Eutectic Sn-Cu Solder Alloy Properties Improved by Additions of Ni, Co and In. In MATERIALS TESTING. ISSN 0025-5300, 2012, vol. 54, no. 6, p. 383-389., WOS
- ADCA409 SEDLÁK, Michal - ZIMAN, Mário - BUŽEK, Vladimír - HILLERY, M. Unambiguous identification of coherent states II.: Multiple resources. In Physical Review A, 2009, vol. 79, no. 6, 062305. (2.908 - IF2008). (2009 - Current Contents, WOS, SCOPUS). ISSN 1050-2947.
- Citácie:
1. [1.1] MISHRA, Devendra Kumar. Unambiguous discrimination of two squeezed states using probabilistic quantum cloning. In OPTICS COMMUNICATIONS. ISSN 0030-4018, 2012, vol. 285, no. 6, pp. 1560., WOS
- ADCA410 SEDLÁK, Michal - ZIMAN, Mário - PRIBYLA, O. - BUŽEK, Vladimír - HILLERY, M. Unambiguous identification of coherent states: Searching a quantum database. In Physical Review A, 2007, vol. 76, no. 2, 022326. (3.047 - IF2006). (2007 - Current Contents, WOS, SCOPUS). ISSN 1050-2947.
- Citácie:
1. [1.1] BECERRA, F. E. - MIGDALL, A. - KHRENNIKOV, A - ATMANSPACHER, H - MIGDALL, A - POLYAKOV, S. Adaptive measurements in nonorthogonal state discrimination. In QUANTUM THEORY: RECONSIDERATION OF FOUNDATIONS 6. ISSN 0094-243X, 2012, vol. 1508, pp. 61., WOS
  2. [1.1] MISHRA, Devendra Kumar. Unambiguous discrimination of two squeezed states using probabilistic quantum cloning. In OPTICS COMMUNICATIONS. ISSN 0030-4018, 2012, vol. 285, no. 6, pp. 1560., WOS
- ADCA411 SEDLÁK, Michal - ZIMAN, Mário. Unambiguous comparison of unitary channels. In Physical Review A, 2009. Vol. 79, 012303.
- Citácie:
1. [1.1] MISHRA, Devendra Kumar. Unambiguous discrimination of two squeezed states using probabilistic quantum cloning. In OPTICS COMMUNICATIONS. ISSN 0030-4018, 2012, vol. 285, no. 6, pp. 1560., WOS
- ADCA412 SEDLÁK, Michal - ZIMAN, Mário - BUŽEK, Vladimír - HILLERY, M. Unambiguous comparison of ensembles of quantum states. In Physical Review A, 2008, vol. 77, no. 4, 042304. (2.893 - IF2007). (2008 - Current Contents). ISSN 1050-2947.
- Citácie:
1. [1.1] COLIN, A. J. T. Programmed discrimination of multiple sets of qbits with added classical information. In EUROPEAN PHYSICAL JOURNAL D. ISSN 1434-6060, 2012, vol. 66, no. 7, 185., WOS
  2. [1.1] FILIPPOV, Sergey N. - ZIMAN, Mario. Probability-based comparison of quantum states. In PHYSICAL REVIEW A. ISSN 1050-2947, 2012, vol. 85, no. 6, 062301., WOS
  3. [1.1] MISHRA, Devendra Kumar. Unambiguous discrimination of two squeezed states using probabilistic quantum cloning. In OPTICS COMMUNICATIONS. ISSN 0030-4018, 2012, vol. 285, no. 6, pp. 1560., WOS
- ADCA413 SEDLÁK, Michal - PLESCH, Martin. Towards optimization of quantum circuits. In Central European Journal of Physics, 2008, vol. 6, no. 1, p. 128-134. (0.538 - IF2007). (2008 - Current Contents, SCOPUS). ISSN 1895-1082.
- Citácie:
1. [1.1] MOHAMMADZADEH, Naser - SEDIGHI, Mehdi - ZAMANI, Morteza Saheb. GATE LOCATION CHANGING: AN OPTIMIZATION TECHNIQUE FOR QUANTUM CIRCUITS. In INTERNATIONAL JOURNAL OF QUANTUM

- ADCA414 *INFORMATION. ISSN 0219-7499, 2012, vol. 10, no. 3, 1250037., WOS*  
SENDERÁK, Rudolf - JERGEL, Matej - LUBY, Štefan - MAJKOVÁ, Eva - HOLY, V. - HAINDL, G. - HAMELMANN, F. - KLEINEBERG, U. - HEINZMANN, U. Thermal stability of W<sub>1-x</sub>Si<sub>x</sub>/Si multilayers under rapid thermal annealing. In Journal of Applied Physics, 1997, vol. 81, no. 5, 2229-2235. (1.812 - IF1996). (1997 - Current Contents, SCOPUS). ISSN 0021-8979.  
 Citácie:  
 1. [1.1] HU, M.H. - LE GUEN, K. - ANDRE, J.M. - ZHOU, S. K. - LI, H. C. - ZHU, J. T. - WANG, Z. S. - MENY, C. - MAHNE, N. - GIGLIA, A. - NANNARONE, S. - ESTEVE, I. - WALLS, M. - JONNARD, P. Investigation of the thermal stability of Mg/Co periodic multilayers for EUV applications. In APPLIED PHYSICS A-MATERIALS SCIENCE & PROCESSING. ISSN 0947-8396, 2012, vol. 106, no. 3, pp. 737., WOS
- ADCA415 SIFFALOVIC, P. - MAJKOVÁ, Eva - CHITU, Livia - JERGEL, Matej - LUBY, Štefan - CAPEK, Ignác - ŠATKA, A. - TIMMANN, A. - ROTH, S.V. Real-time tracking of superparamagnetic nanoparticle self-assembly. In small, 2008, vol. 4, no. 12, p. 2222 - 2228. (6.408 - IF2007). (2008 - Current Contents). ISSN 1613-6810.  
 Citácie:  
 1. [1.1] MISHRA, D. - BENITEZ, M.J. - PETRACIC, O. - CONFALONIERI, G.A.B. - SZARY, P. - BRUSSING, F. - THEIS-BROHL, K. - DEVISHVILI, A. - VOROBIEV, A. - KONOVALOV, O. - PAULUS, M. - STERNEMANN, C. - TOPERVERG, B.P. - ZABEL, H. Self-assembled iron oxide nanoparticle multilayer: x-ray and polarized neutron reflectivity. In NANOTECHNOLOGY. ISSN 0957-4484, FEB 10 2012, vol. 23, no. 5., WOS
- ADCA416 ŠIFFALOVIČ, Peter - DRESCHER, M. - HEINZMANN, U. Femtosecond time-resolved core-level photoelectron spectroscopy tracking surface photovoltage transients on p-GaAs. In Europhysics Letters, 2002, vol. 60, no. 6, p. 924-930. (2.256 - IF2001). (2002 - Current Contents). ISSN 0295-5075.  
 Citácie:  
 1. [1.1] HELLMANN, S. - SOHRT, C. - BEYE, M. - ROHWER, T. - SORGENFREI, F. - MARCZYNSKI-BUEHLOW, M. - KALLAENE, M. - REDLIN, H. - HENNIES, F. - BAUER, M. - FOEHLISCH, A. - KIPP, L. - WURTH, W. - ROSSNAGEL, K. Time-resolved x-ray photoelectron spectroscopy at FLASH. In NEW JOURNAL OF PHYSICS. ISSN 1367-2630, 2012, vol. 14, 013062., WOS  
 2. [1.1] HEYL, C. M. - GUEDDE, J. - L'&HUILIER, A. - HOEFER, U. High-order harmonic generation with mu J laser pulses at high repetition rates. In JOURNAL OF PHYSICS B-ATOMIC MOLECULAR AND OPTICAL PHYSICS. ISSN 0953-4075, 2012, vol. 45, no. 7, 074020., WOS  
 3. [1.1] OGURI, Katsuya - KATO, Keiko - NISHIKAWA, Tadashi - GOTOH, Hideki - TATENO, Kouta - SOGAWA, Tetsuomi - NAKANO, Hidetoshi. Time-Resolved Surface Photoelectron Spectroscopy of Photoexcited Electron and Hole Dynamics on GaAs Using 92 eV Laser Harmonic Source. In JAPANESE JOURNAL OF APPLIED PHYSICS. ISSN 0021-4922, 2012, vol. 51, no. 7, 072401., WOS  
 4. [1.1] TANAKA, Shin-ichiro. Utility and constraint on the use of pump-probe photoelectron spectroscopy for detecting time-resolved surface photovoltage. In JOURNAL OF ELECTRON SPECTROSCOPY AND RELATED PHENOMENA. ISSN 0368-2048, 2012, vol. 185, no. 5-7, pp. 152., WOS
- ADCA417 ŠIFFALOVIČ, Peter - DRESCHER, M. - SPEIWECK, M. - WIESENTHAL, T. - LIM, Y.C. - WEIDNER, R. - ELIZAROV, A. - HEINZMANN, U. Laser-based apparatus for extended ultraviolet femtosecond time-resolved photoemission. In Review of Scientific Instruments, 2001, vol. 72, no. 1, p. 30-35. (1.239 - IF2000).

ISSN 0034-6748.

Citácie:

1. [1.1] FAURE, J. - MAUCHAIN, J. - PAPALAZAROU, E. - YAN, W. - PINON, J. - MARSI, M. - PERFETTI, L. Full characterization and optimization of a femtosecond ultraviolet laser source for time and angle-resolved photoemission on solid surfaces. In REVIEW OF SCIENTIFIC INSTRUMENTS. ISSN 0034-6748, 2012, vol. 83, no. 4, 043109., WOS
2. [1.1] FUSHITANI, Mizuho - MATSUDA, Akitaka - HISHIKAWA, Akiyoshi. EUV and soft X-ray photoelectron spectroscopy of isolated atoms and molecules using single-order laser high-harmonics at 42 eV and 91 eV. In JOURNAL OF ELECTRON SPECTROSCOPY AND RELATED PHENOMENA. ISSN 0368-2048, 2012, vol. 184, no. 11-12, pp. 561., WOS
3. [1.1] GILBERTSON, Steve - DAKOVSKI, Georgi L. - DURAKIEWICZ, Tomasz - ZHU, Jian-Xin - DANI, Keshav M. - MOHITE, Aditya D. - DATTELBAUM, Andrew - RODRIGUEZ, George. Tracing Ultrafast Separation and Coalescence of Carrier Distributions in Graphene with Time-Resolved Photoemission. In JOURNAL OF PHYSICAL CHEMISTRY LETTERS. ISSN 1948-7185, 2012, vol. 3, no. 1, pp. 64., WOS
4. [1.1] OGURI, Katsuya - KATO, Keiko - NISHIKAWA, Tadashi - GOTOH, Hideki - TATENO, Kouta - SOGAWA, Tetsuomi - NAKANO, Hidetoshi. Time-Resolved Surface Photoelectron Spectroscopy of Photoexcited Electron and Hole Dynamics on GaAs Using 92 eV Laser Harmonic Source. In JAPANESE JOURNAL OF APPLIED PHYSICS. ISSN 0021-4922, 2012, vol. 51, no. 7, 072401., WOS
5. [1.1] SMALLWOOD, Christopher L. - JOZWIAK, Christopher - ZHANG, Wentao - LANZARA, Alessandra. An ultrafast angle-resolved photoemission apparatus for measuring complex materials. In REVIEW OF SCIENTIFIC INSTRUMENTS. ISSN 0034-6748, 2012, vol. 83, no. 12, 123904., WOS

ADCA418 ŠIFFALOVÍČ, Peter - MAJKOVÁ, Eva - CHITU, Livia - JERGEL, Matej - LUBY, Štefan - ŠATKA, A. - ROTH, S.V. Self-assembly of iron oxide nanoparticles studied by time-resolved grazing-incidence small-angle x-ray scattering. In Physical Review B, 2007. Vol. 76, 195432. ISSN 1098-0121.

Citácie:

1. [1.1] WERNECKE, Jan - SCHOLZE, Frank - KRUMREY, Michael. Direct structural characterisation of line gratings with grazing incidence small-angle x-ray scattering. In REVIEW OF SCIENTIFIC INSTRUMENTS. ISSN 0034-6748, 2012, vol. 83, no. 10, 103906., WOS

ADCA419 ŠIFFALOVÍČ, Peter - MAJKOVÁ, Eva - CHITU, Livia - JERGEL, Matej - LUBY, Štefan - KECKES, J. - MAIER, G. - TIMMANN, A. - ROTH, S.V. - TSURU, T. - HARADA, T. - YAMAMOTO, M. - HEINZMANN, U. Characterization of Mo/Si soft X-ray multilayer mirrors by grazing-incidence small-angle X-ray scattering. In Vacuum, 2009, vol. 84, p. 19-25. (1.114 - IF2008). (2009 - Current Contents). ISSN 0042-207X.

Citácie:

1. [1.1] VAN DEN BOOGAARD, A. J. R. - ZOETHOUT, E. - MAKHOTKIN, I. A. - LOUIS, E. - BIJKERK, F. Influence of noble gas ion polishing species on extreme ultraviolet mirrors. In JOURNAL OF APPLIED PHYSICS. ISSN 0021-8979, 2012, vol. 112, no. 12, 123502., WOS
2. [1.1] WERNECKE, Jan - SCHOLZE, Frank - KRUMREY, Michael. Direct structural characterisation of line gratings with grazing incidence small-angle x-ray scattering. In REVIEW OF SCIENTIFIC INSTRUMENTS. ISSN 0034-6748, 2012, vol. 83, no. 10, 103906., WOS



- ADCA420 ŠIFFALOVIČ, Peter - JERGEL, Matej - CHITU, Livia - MAJKOVÁ, Eva - MAŤKO, Igor - LUBY, Štefan - TIMMANN, A. - VOLKER ROTH, S. - KECKES, J. - MAIER, G.A. - HEMBD, A. - HERTLEIN, F. - WIESMANN, J. Interface study of a high-performance W/B4C X-ray mirror. In Journal of Applied Crystallography, 2010, vol. 43, p. 1431-1439. (3.018 - IF2009). (2010 - Current Contents, WOS, SCOPUS). ISSN 0021-8898.
- Citácie:
1. [1.1] *KOPYLETS, I. A. - KONDRATENKO, V. V. - ZUBAREV, E. N. - ROSHCHUPKIN, D. V. Formation of short-period multilayer W/B4C compositions. In TECHNICAL PHYSICS. ISSN 1063-7842, 2012, vol. 57, no. 12, pp. 1709., WOS*
- ADCA421 ŠIFFALOVIČ, Peter - CHITU, Livia - MAJKOVÁ, Eva - VÉGSO, Karol - JERGEL, Matej - LUBY, Štefan - CAPEK, Ignác - SATKA, A. - MAIER, G.A. - KECKES, J. - TIMMANN, A. - ROTH, S.V. Kinetics of nanoparticle reassembly mediated by UV-photolysis of surfactant. In Langmuir, 2010, vol. 26, no. 8, p. 5451-5455. (3.898 - IF2009). (2010 - Current Contents). ISSN 0743-7463.
- Citácie:
1. [1.1] *GROSS, Elad - KRIER, James M. - HEINKE, Lars - SOMORJAI, Gabor A. Building Bridges in Catalysis Science. Monodispersed Metallic Nanoparticles for Homogeneous Catalysis and Atomic Scale Characterization of Catalysts Under Reaction Conditions. In TOPICS IN CATALYSIS. ISSN 1022-5528, 2012, vol. 55, no. 1-2, pp. 13., WOS*
2. [1.1] *MASEK, K. - BLUMENTRIT, P. - BERAN, J. - SKALA, T. - PIS, I. - POLASEK, J. - MATOLIN, V. Structural and electronic studies of supported Pt and Au epitaxial clusters on tungsten oxide surface. In VACUUM. ISSN 0042-207X, 2012, vol. 86, no. 6, pp. 586., WOS*
3. [1.1] *SMILGIES, Detlef-M. - HEITSCH, Andrew T. - KORGEL, Brian A. Stacking of Hexagonal Nanocrystal Layers during Langmuir-Blodgett Deposition. In JOURNAL OF PHYSICAL CHEMISTRY B. ISSN 1520-6106, 2012, vol. 116, no. 20, pp. 6017., WOS*
- ADCA422 ŠIFFALOVIČ, Peter - CHITU, Livia - VÉGSO, Karol - MAJKOVÁ, Eva - JERGEL, Matej - WEIS, Martin Jr. - LUBY, Štefan - CAPEK, Ignác - KECKES, J. - MAIER, G.A. - SATKA, A. - PERLICH, J. - ROTH, S.V. Towards strain gauges based on a self-assembled nanoparticle monolayer- SAXS study. In Nanotechnology, 2010, vol. 21, 385702. (3.137 - IF2009). (2010 - Current Contents, WOS, SCOPUS). ISSN 0957-4484.
- Citácie:
1. [1.1] *OLICHWER, Natalia - LEIB, Elisabeth W. - HALFAR, Annelie H. - PETROV, Alexey - VOSSMEYER, Tobias. Cross-Linked Gold Nanoparticles on Polyethylene: Resistive Responses to Tensile Strain and Vapors. In ACS APPLIED MATERIALS & INTERFACES. ISSN 1944-8244, 2012, vol. 4, no. 11, pp. 6151-6161., WOS*
2. [1.1] *TANNER, J. L. - MOUSADAKOS, D. - GIANNAKOPOULOS, K. - SKOTADIS, E. - TSOUKALAS, D. High strain sensitivity controlled by the surface density of platinum nanoparticles. In NANOTECHNOLOGY. ISSN 0957-4484, 2012, vol. 23, no. 28, 285501., WOS*
- ADCA423 ŠIFFALOVIČ, Peter - MAJKOVÁ, Eva - CHITU, Livia - JERGEL, Matej - LUBY, Štefan - CAPEK, I. - SATKA, A. - TIMMANN, A. - ROTH, S.V. Real-time tracking of superparamagnetic nanoparticle self-assembly. In Small, 2008, vol. 4, no.12, p. 2222-2228. (6.408 - IF2007). (2008 - Current Contents). ISSN 1613-6810.
- Citácie:
1. [1.2] *MISHRA, D. - BENITEZ, M.J. - PETRACIC, O. - BADINI*

- CONFALONIERI, G.A. - SZARY, P. - BRÜSSING, F. - THEIS-BRÖHL, K. - DEVISHVILI, A. - VOROBIEV, A. - KONOVALOV, O. - PAULUS, M. - STERNEMANN, C. - TOPERVERG, B.P. - ZABEL, H. Self-assembled iron oxide nanoparticle multilayer: X-ray and polarized neutron reflectivity. In Nanotechnology, 2012, 23, 5, 055707., SCOPUS*
- ADCA424 SILVEYRA, J.M. - VLASÁK, Gabriel - ŠVEC, Peter - JANIČKOVIČ, Dušan - CREMASCHI, V.J. Domain imaging in FINEMET ribbons. In Journal of Magnetism and Magnetic Materials, 2010, vol. 322, no. 18, p. 2797-2800. (1.204 - IF2009). (2010 - Current Contents, WOS, SCOPUS). ISSN 0304-8853.
- Citácie:
1. [1.1] SRIVASTAVA, A. P. - SRIVASTAVA, D. - SUDARSHAN, K. - SHARMA, S. K. - PUJARI, P. K. - MAJUMDAR, B. - SURESH, K. G. - DEY, G. K. Correlation of soft magnetic properties with free volume and medium range ordering in metallic glasses probed by fluctuation microscopy and positron annihilation technique. In JOURNAL OF MAGNETISM AND MAGNETIC MATERIALS. ISSN 0304-8853, 2012, vol. 324, no. 16, pp. 2476., WOS
- ADCA425 SIMON, C. - BUŽEK, Vladimír - GISIN, N. No-signaling condition and quantum dynamics. In Physical Review Letters, 2001, vol. 87, no. 17, 170405. (6.462 - IF2000). (2001 - Current Contents, WOS, SCOPUS). ISSN 0031-9007.
- Citácie:
1. [1.1] DE MARTINI, Francesco - SCIARRINO, Fabio. Colloquium: Multiparticle quantum superpositions and the quantum-to-classical transition. In REVIEWS OF MODERN PHYSICS. ISSN 0034-6861, 2012, vol. 84, no. 4, pp. 1765., WOS
2. [1.1] HAGAR, Amit. Decoherence: the view from the history and philosophy of science. In PHILOSOPHICAL TRANSACTIONS OF THE ROYAL SOCIETY A-MATHEMATICAL PHYSICAL AND ENGINEERING SCIENCES. ISSN 1364-503X, 2012, vol. 370, no. 1975, pp. 4594., WOS
3. [1.1] WANG, Yi-Nan - SHI, Han-Duo - JING, Li - XIONG, Zhao-Xi - LEI, Jin - MU, Liang-Zhu - FAN, Heng. Non-compression of quantum phase information. In JOURNAL OF PHYSICS A-MATHEMATICAL AND THEORETICAL. ISSN 1751-8113, 2012, vol. 45, no. 2, 025304., WOS
4. [1.1] ZHANG WENHAI - YU LONGBAO - YANG MING - CAO ZHUOLIANG. Multicopy quantum state discrimination. In SCIENCE CHINA-PHYSICS MECHANICS & ASTRONOMY. ISSN 1674-7348, 2012, vol. 55, no. 1, pp. 60., WOS
- ADCA426 SIMON, P. - ILLEKOVÁ, Emília - MOJUMDAR, S.C. Kinetics of crystallization of metallic glasses studied by non-isothermal and isothermal DSC. In Journal of Thermal Analysis and Calorimetry, 2006, vol. 83, no. 1, p. 67-69. (2006 - Current Contents). ISSN 1418-2874.
- Citácie:
1. [1.1] CUSU, Jeanina Pandele - MUSUC, Adina Magdalena - OANCEA, Dumitru. Kinetic analysis of thermal decomposition in liquid and solid state of 3-nitro and 4-nitro-benzaldehyde-2,4-dinitrophenylhydrazones. In JOURNAL OF THERMAL ANALYSIS AND CALORIMETRY. ISSN 1388-6150, 2012, vol. 109, no. 1, pp. 255., WOS
- ADCA427 SKORVANEK, I. - KOVAC, J. - MARCIN, J. - DUHAJ, Pavol - GERLING, R. Annealing effects on the magnetic properties of nanocrystalline FeNbB alloys. In Journal of Magnetism and Magnetic Materials, 1999, vol. 203, p. 226-228. ISSN 0374-4884.
- Citácie:
1. [1.1] HUA, Z. - SUN, Y. M. - YU, W. Q. - WEI, M. B. CRYSTALLIZATION

*PROGRESS AND MAGNETIC PROPERTY OF Fe-Zr(Nb)-B*

*AMORPHOUS-NANOCRYSTALLINE ALLOY. In INTERNATIONAL JOURNAL OF MODERN PHYSICS B. ISSN 0217-9792, 2012, vol. 26, no. 11, 1250088., WOS*

2. [1.1] JIANG, X. L. - YAO, Y. J. - LAI, M. - PENG, K. - DU, Y. W. - CONG, HL. *Cutoff Frequency Study on Nanocrystalline FeNbB Thin Films. In ADVANCED IN NANOSCIENCE AND TECHNOLOGY. ISSN 1022-6680, 2012, vol. 465, pp. 72-75., WOS*

- ADCA428 ŠKORVÁNEK, I. - KOVÁČ, J. - MARCIN, J. - ŠVEC, Peter - JANIČKOVIČ, Dušan. Magnetocaloric effect in amorphous and nanocrystalline Fe<sub>81-x</sub>Cr<sub>x</sub>Nb<sub>7</sub>B<sub>12</sub> (x=0 and 3.5) alloys. In Materials Science and Engineering A, 2007, vol. 449, p. 460-463. (1.490 - IF2006). (2007 - Current Contents, WOS, SCOPUS). ISSN 0921-5093.

*Citácie:*

1. [1.1] BLAZQUEZ, J. S. - FRANCO, V. - CONDE, A. *Enhancement of the magnetic refrigerant capacity in partially amorphous Fe<sub>70</sub>Zr<sub>30</sub> powders obtained by mechanical alloying. In INTERMETALLICS. ISSN 0966-9795, 2012, vol. 26, pp. 52., WOS*

2. [1.1] FRANCO, V. - BLAZQUEZ, J. S. - INGALE, B. - CONDE, A. - CLARKE, DR. *The Magnetocaloric Effect and Magnetic Refrigeration Near Room Temperature: Materials and Models. In ANNUAL REVIEW OF MATERIALS RESEARCH, VOL 42. ISSN 1531-7331, 2012, vol. 42, pp. 305-342., WOS*

3. [1.1] FRANCO, V. - CONDE, A. *Magnetic refrigerants with continuous phase transitions: Amorphous and nanostructured materials. In SCRIPTA MATERIALIA. ISSN 1359-6462, 2012, vol. 67, no. 6, pp. 594-599., WOS*

4. [1.1] LAW, J. Y. - FRANCO, V. - RAMANUJAN, R. V. *The magnetocaloric effect of partially crystalline Fe-B-Cr-Gd alloys. In JOURNAL OF APPLIED PHYSICS. ISSN 0021-8979, 2012, vol. 111, no. 11, 113919., WOS*

- ADCA429 ŠKORVÁNEK, Ivan - MARCIN, Jozef - KRENICKÝ, Tibor - KOVÁČ, Jozef - ŠVEC, Peter - JANIČKOVIČ, Dušan. Improved soft magnetic behaviour in field-annealed nanocrystalline Hitperm alloys. In Journal of Magnetism and Magnetic Materials, 2006, vol. 304, no. 2, p. 203-207. (0.985 - IF2005). (2006 - Current Contents, WOS, SCOPUS). ISSN 0304-8853.

*Citácie:*

1. [1.1] COJOCARU, V.D. *Ball milling synthesis and stability under pressure in nanostructured HITPERM alloys. In JOURNAL OF MAGNETISM AND MAGNETIC MATERIALS, 2012, vol. 324, no. 9, p. 1664-1669., WOS*

2. [1.1] WILLARD, M. A. - DANIIL, M. - KNIPING, K. E. *Nanocrystalline soft magnetic materials at high temperatures: A perspective. In SCRIPTA MATERIALIA. ISSN 1359-6462, 2012, vol. 67, no. 6, pp. 554., WOS*

- ADCA430 ŠKORVÁNEK, Ivan - ŠVEC, Peter - GRENECHE, J.M. - KOVÁČ, Jozef - MARCIN, Jozef - GERLING, R. Influence of microstructure on the magnetic and mechanical behaviour of amorphous and nanocrystalline FeNbB alloy. In Journal of Physics: Condensed Matter, 2002, vol. 14, no. 18, p. 4717-4736. (1.611 - IF2001). (2002 - Current Contents, WOS, SCOPUS). ISSN 0953-8984.

*Citácie:*

1. [1.1] LAW, J.Y. - FRANCO, V. - RAMANUJAN, R.V. *The magnetocaloric effect of partially crystalline Fe-B-Cr-Gd alloys. In JOURNAL OF APPLIED PHYSICS, 2012, vol. 111, no. 11, art. no. 113919., WOS*

- ADCA431 ŠKORVÁNEK, Ivan - ŠVEC, Peter - MARCIN, Jozef - KOVÁČ, Jozef - KRENICKÝ, Tibor - DEANKO, Martin. Nanocrystalline Cu-free HITPERM alloys with improved soft magnetic properties. In Physica status solidi A. Applied

research, 2003, vol. 196, no 1., p. 217-220. (0.979 - IF2002). (2003 - Current Contents, WOS, SCOPUS). ISSN 0031-8965.

Citácie:

1. [1.1] WILLARD, M. A. - DANIIL, M. - KNIPING, K. E. *Nanocrystalline soft magnetic materials at high temperatures: A perspective. In SCRIPTA MATERIALIA. ISSN 1359-6462, 2012, vol. 67, no. 6, pp. 554., WOS*

- ADCA432 ŠKORVÁNEK, Ivan - MARCIN, Jozef - KRENICKÝ, Tibor - KOVÁČ, Jozef - ŠVEC, Peter - JANIČKOVIČ, Dušan. Improved soft magnetic behaviour in field-annealed nanocrystalline Hitperm alloys. In Journal of Magnetism and Magnetic Materials, 2006, vol. 304, no. 2, p. 203-207. (0.985 - IF2005). (2006 - Current Contents, WOS, SCOPUS). ISSN 0304-8853.

Citácie:

1. [1.1] COJOCARU, V.D. *Ball milling synthesis and stability under pressure in nanostructured HITPERM alloys. In JOURNAL OF MAGNETISM AND MAGNETIC MATERIALS, 2012, vol. 324, no. 9, p. 1664-1669., WOS*

- ADCA433 SLEVIN, Keith - MARKOŠ, Peter - OHTSUKI, Tomi. Scaling of the conductance distribution near the Anderson transition. In Physical Review B, 2003, vol. 67, no. 15, 155106. (3.327 - IF2002). (2003 - Current Contents). ISSN 1098-0121.

Citácie:

1. [1.1] CHEN, Liang - LIU, Qin - LIN, Xulin - ZHANG, Xiaogang - JIANG, Xunya. *Disorder dependence of helical edge states in HgTe/CdTe quantum wells. In NEW JOURNAL OF PHYSICS. ISSN 1367-2630, 2012, vol. 14, 043028., WOS*  
2. [1.1] SUSLOV, I. M. *Reply to the comment by P. Marko. In JOURNAL OF EXPERIMENTAL AND THEORETICAL PHYSICS. ISSN 1063-7761, 2012, vol. 115, no. 6, pp. 1079., WOS*

- ADCA434 SLEVIN, Keith - MARKOŠ, Peter - OHTSUKI, Tomi. Reconciling Conductance Fluctuations and the Scaling Theory of Localization. In Physical Review Letters, 2001, vol. 86, no. 16, p. 3594-3597. (6.462 - IF2000). (2001 - Current Contents, WOS, SCOPUS). ISSN 0031-9007.

Citácie:

1. [1.1] CHEN L. A *reformulation of the transfer matrix method. In COMPUTER PHYSICS COMMUNICATIONS, 2012, vol. 183, pp. 2513., WOS*  
2. [1.1] CHEN, Liang - LIU, Qin - LIN, Xulin - ZHANG, Xiaogang - JIANG, Xunya. *Disorder dependence of helical edge states in HgTe/CdTe quantum wells. In NEW JOURNAL OF PHYSICS. ISSN 1367-2630, 2012, vol. 14, 043028., WOS*  
3. [1.1] CHOE, Duk-Hyun - CHANG, K. J. *Effect of Dimensionality on the Localization Behavior in Hydrogenated Graphene Systems. In NANO LETTERS. ISSN 1530-6984, 2012, vol. 12, no. 10, pp. 5175., WOS*  
4. [1.1] PAULIN, Guillaume - CARPENTIER, David. *Crossover between universality classes in a magnetically disordered metallic wire. In NEW JOURNAL OF PHYSICS. ISSN 1367-2630, 2012, vol. 14, 023026., WOS*

- ADCA435 SMITH, D.R. - SCHULTZ, S. - MARKOŠ, Peter - SOUKOULIS, C.M. Determination of effective permittivity and permeability of metamaterials from reflection and transmission coefficients. In Physical Review B, 2002, vol. 65, no. 19, 195104. (3.070 - IF2001). (2002 - Current Contents, WOS, SCOPUS). ISSN 1098-0121.

Citácie:

1. [1.1] ZHAO, X. *Bottom-up fabrication methods. In JOURNAL OF MATERIALS CHEMISTRY, 2012, vol. 22, pp. 9439., WOS*  
2. [1.1] AGRAWAL, Anurag - PARK, Wounjhang - PIESTUN, Rafael. *Negative permeability with arrays of aperiodic silver nanoclusters. In APPLIED PHYSICS LETTERS. ISSN 0003-6951, 2012, vol. 101, no. 8, 083109., WOS*



3. [1.1] ALAEIAN, Hadiseh - DIONNE, Jennifer A. Plasmon nanoparticle superlattices as optical-frequency magnetic metamaterials. In *OPTICS EXPRESS*. ISSN 1094-4087, 2012, vol. 20, no. 14, pp. 15781., WOS
4. [1.1] ANDRYIEUSKI, Andrei - HA, Sangwoo - SUKHORUKOV, Andrey A. - KIVSHAR, Yuri S. - LAVRINENKO, Andrei V. Bloch-mode analysis for retrieving effective parameters of metamaterials. In *PHYSICAL REVIEW B*. ISSN 1098-0121, 2012, vol. 86, no. 3, 035127., WOS
5. [1.1] AOUDADI, Belgacem - TAHAR, Jamel Belhadj - ALBEGAIN, K. Design and performances of Multiple-Input Multiple-Output antennas for wireless communications with Left-Handed Metamaterials. In *2012 6TH INTERNATIONAL CONFERENCE ON NEXT GENERATION MOBILE APPLICATIONS, SERVICES AND TECHNOLOGIES (NGMAST)*. ISSN 2161-2897, 2012, pp. 137., WOS
6. [1.1] ASLAM, Muhammad I. - GUNEY, Durdu Oe. Dual-band, double-negative, polarization-independent metamaterial for the visible spectrum. In *JOURNAL OF THE OPTICAL SOCIETY OF AMERICA B-OPTICAL PHYSICS*. ISSN 0740-3224, 2012, vol. 29, no. 10, pp. 2839., WOS
7. [1.1] BARROSO, J. J. - HASAR, U. C. Constitutive Parameters of a Metamaterial Slab Retrieved by the Phase Unwrapping Method. In *JOURNAL OF INFRARED MILLIMETER AND TERAHERTZ WAVES*. ISSN 1866-6892, 2012, vol. 33, no. 2, pp. 237., WOS
8. [1.1] BELYAMOUN, Mohamed Hicham - DUBRUNFAUT, Olivier - ZOUHDI, Said. Dynamic homogenization of split-ring metamaterials by Floquet-Bloch decomposition. In *APPLIED PHYSICS A-MATERIALS SCIENCE & PROCESSING*. ISSN 0947-8396, 2012, vol. 109, no. 4, pp. 1043., WOS
9. [1.1] CAMPIONE, S. Ewald method for 3D periodic dyadic . In *RADIO SCIENCE*, 2012, vol. 47, RS0N06., WOS
10. [1.1] CAMPIONE, Salvatore - CAPOLINO, Filippo - ADIBI, A - LIN, SY - SCHERER, A. Metamaterials based on plasmonic nanoshells and loss-compensation using fluorescent dye molecules and quantum dots. In *PHOTONIC AND PHONONIC PROPERTIES OF ENGINEERED NANOSTRUCTURES II*. ISSN 0277-786X, 2012, vol. 8269, 82691E., WOS
11. [1.1] CAO, T. - CRYAN, M. J. MODELING OF OPTICAL TRAPPING USING DOUBLE NEGATIVE INDEX FISHNET METAMATERIALS. In *PROGRESS IN ELECTROMAGNETICS RESEARCH-PIER*. ISSN 1559-8985, 2012, vol. 129, pp. 33., WOS
12. [1.1] CAO, Tun - CRYAN, Martin J. Study of incident angle dependence for dual-band double negative-index material using elliptical nanohole arrays. In *JOURNAL OF THE OPTICAL SOCIETY OF AMERICA A-OPTICS IMAGE SCIENCE AND VISION*. ISSN 1084-7529, 2012, vol. 29, no. 3, pp. 209., WOS
13. [1.1] CHAU, K.J. Homogenization of waveguide. In *PHYSICAL REVIEW B*, 2012, vol. 85, 125101., WOS
14. [1.1] CHENG, D. Pantoscopic and polarization. In *JOURNAL OF THE OPTICAL SOCIETY OF AMERICA B*, 2012, vol. 29, pp. 1503., WOS
15. [1.1] CHENG, Y. Z. - NIE, Y. - GONG, R. Z. Broadband 3D isotropic negative-index metamaterial based on fishnet structure. In *EUROPEAN PHYSICAL JOURNAL B*. ISSN 1434-6028, 2012, vol. 85, no. 2, 62., WOS
16. [1.1] DHOUIBI, A. Comparison of compact electric-LC resonators. In *MICROWAVE AND OPTICAL TECHNOLOGY LETTERS*, 2012, vol. 54, pp. 2287., WOS
17. [1.1] DHOUIBI, Abdallah - BUROKUR, Shah Nawaz - DE LUSTRAC, Andre - PRIOU, Alain. Compact Metamaterial-Based Substrate-Integrated Luneburg

- Lens Antenna. In IEEE ANTENNAS AND WIRELESS PROPAGATION LETTERS. ISSN 1536-1225, 2012, vol. 11, pp. 1504., WOS*
18. [1.1] DHOUBI, Abdallah - BUROKUR, Shah Nawaz - DE LUSTRAC, Andre - PRIOU, Alain. Z-shaped meta-atom for negative permittivity metamaterials. In *APPLIED PHYSICS A-MATERIALS SCIENCE & PROCESSING. ISSN 0947-8396, 2012, vol. 106, no. 1, pp. 47., WOS*
19. [1.1] DIEDRICH, D. - ROTTLE, A. - HEITMANN, D. - MENDACH, S. Metal-dielectric metamaterials for transformation-optics and gradient-index devices in the visible regime. In *NEW JOURNAL OF PHYSICS. ISSN 1367-2630, 2012, vol. 14, 053042., WOS*
20. [1.1] DIMITRIADIS, Alexandros I. - SOUNAS, Dimitrios L. - KANTARTZIS, Nikolaos V. - CALOZ, Christophe - TSIBOUKIS, Theodoros D. Surface Susceptibility Bianisotropic Matrix Model for Periodic Metasurfaces of Uniaxially Mono-Anisotropic Scatterers Under Oblique TE-Wave Incidence. In *IEEE TRANSACTIONS ON ANTENNAS AND PROPAGATION. ISSN 0018-926X, 2012, vol. 60, no. 12, pp. 5753., WOS*
21. [1.1] DONG LI-JUAN - DU GUI-QIANG - YANG CHENG-QUAN - SHI YUN-LONG. Magneto-optical Faraday rotation effect enhancement of a thick metal Ag. In *ACTA PHYSICA SINICA. ISSN 1000-3290, 2012, vol. 61, no. 16, 164210., WOS*
22. [1.1] DU, Qiujiu - YANG, Hongwu - WANG, Xicheng - LV, Tao. An improved fishnet three-dimensional metamaterial with multiband left-handed characteristics at terahertz frequencies. In *OPTICS COMMUNICATIONS. ISSN 0030-4018, 2012, vol. 285, no. 6, pp. 980., WOS*
23. [1.1] DUAN, Jinsong - PACHTER, Ruth - EYINK, KG - SZMULOWICZ, F - HUFFAKER, DL. Computational analysis of the effects of gain material inclusion in engineered metal nanostructures. In *QUANTUM DOTS AND NANOSTRUCTURES: SYNTHESIS, CHARACTERIZATION, AND MODELING IX. ISSN 0277-786X, 2012, vol. 8271, 82710V., WOS*
24. [1.1] DUBROVINA, Natalia - LE CUNFF, Loic O. - BUROKUR, N. - GHASEMI, R. - DEGIRO, A. - DE LUSTRAC, A. - VIAL, A. - LERONDEL, G. - LUPU, A. Single metafilm effective medium behavior in optical domain: Maxwell-Garnett approximation and beyond. In *APPLIED PHYSICS A-MATERIALS SCIENCE & PROCESSING. ISSN 0947-8396, 2012, vol. 109, no. 4, pp. 901., WOS*
25. [1.1] EMIROGLU, C.D. Dichroic FSS design. *IEEE ANTENNAS AND PROPAGATION SOCIETY INTERNATIONAL SYMPOSIUM, 2012., WOS*
26. [1.1] FAN, K. Three-dimensional magnetic terahertz metamaterials using. In *JOURNAL OF MICROMECHANICS AND MICROENGINEERING, 2012, vol. 22, 045011., WOS*
27. [1.1] FAN, Kebin - STRIKWERDA, Andrew C. - AVERITT, Richard D. - ZHANG, Xin. Three-dimensional magnetic terahertz metamaterials using a multilayer electroplating technique. In *JOURNAL OF MICROMECHANICS AND MICROENGINEERING. ISSN 0960-1317, 2012, vol. 22, no. 4, 045011., WOS*
28. [1.1] FIALA, Jan - KWIECIEN, Pavel - RICHTER, Ivan - PERINA, J - NOZKA, L - HRABOVSKY, M - SENDERAKOVA, D - URBANCZYK, W. Physics and design possibilities of plasmonic-based fishnet metamaterial structures. In *18TH CZECH-POLISH-SLOVAK OPTICAL CONFERENCE ON WAVE AND QUANTUM ASPECTS OF CONTEMPORARY OPTICS. ISSN 0277-786X, 2012, vol. 8697., WOS*
29. [1.1] GILOAN, M. Visible frequency. In *OPTICS COMMUNICATIONS, 2012, vol. 285, pp. 1533., WOS*

30. [1.1] GINN, James C. - BRENER, Igal - PETERS, David W. - WENDT, Joel R. - STEVENS, Jeffrey O. - HINES, Paul F. - BASILIO, Lorena I. - WARNE, Larry K. - IHLEFELD, Jon F. - CLEM, Paul G. - SINCLAIR, Michael B. *Realizing Optical Magnetism from Dielectric Metamaterials*. In *PHYSICAL REVIEW LETTERS*. ISSN 0031-9007, 2012, vol. 108, no. 9, 097402., WOS
31. [1.1] GOMPF, Bruno - KRAUSZ, Barbara - FRANK, Bettina - DRESSEL, Martin. *k-dependent optics of nanostructures: Spatial dispersion of metallic nanorings and split-ring resonators*. In *PHYSICAL REVIEW B*. ISSN 1098-0121, 2012, vol. 86, no. 7, 075462., WOS
32. [1.1] GONG, B. *Three-dimensional isotropic metamaterials consisting*. In *PHYSICA B*, 2012, vol. 407, pp. 1034., WOS
33. [1.1] GUENEY, D. Oe. - ASLAM, M. I. *Comment on "Silver/silicon dioxide/silver sandwich films in the blue-to-red spectral regime with negative-real refractive index"* [Appl. Phys. Lett. 99, 181117 (2011)]. In *APPLIED PHYSICS LETTERS*. ISSN 0003-6951, 2012, vol. 101, no. 15, 156101., WOS
34. [1.1] GUSTAFSSON, Mats - VAKILI, Iman - KESKIN, Sena Esen Bayer - SJOBERG, Daniel - LARSSON, Christer. *Optical Theorem and Forward Scattering Sum Rule for Periodic Structures*. In *IEEE TRANSACTIONS ON ANTENNAS AND PROPAGATION*. ISSN 0018-926X, 2012, vol. 60, no. 8, pp. 3818., WOS
35. [1.1] GUTH, N. - GALLAS, B. - RIVORY, J. - GRAND, J. - OURIR, A. - GUIDA, G. - ABDEDDAIM, R. - JOUVAUD, C. - DE ROSNY, J. *Optical properties of metamaterials: Influence of electric multipoles, magnetoelectric coupling, and spatial dispersion*. In *PHYSICAL REVIEW B*. ISSN 1098-0121, 2012, vol. 85, no. 11, 115138., WOS
36. [1.1] HASAR, U. C. - BARROSO, J. J. - ERTUGRUL, M. - SABAH, C. - CAVUSOGLU, B. *APPLICATION OF A USEFUL UNCERTAINTY ANALYSIS AS A METRIC TOOL FOR ASSESSING THE PERFORMANCE OF ELECTROMAGNETIC PROPERTIES RETRIEVAL METHODS OF BIANISOTROPIC METAMATERIALS*. In *PROGRESS IN ELECTROMAGNETICS RESEARCH-PIER*. ISSN 1559-8985, 2012, vol. 128, pp. 365., WOS
37. [1.1] HASAR, U. C. - BARROSO, J. J. - ERTUGRUL, M. *PERMEABILITY MEASUREMENT OF SPLIT-RING-RESONATOR METAMATERIALS FROM FREE-SPACE TRANSMISSION-ONLY CALIBRATION-INDEPENDENT METHODS*. In *JOURNAL OF ELECTROMAGNETIC WAVES AND APPLICATIONS*. ISSN 0920-5071, 2012, vol. 26, no. 1, pp. 54., WOS
38. [1.1] HASAR, U. C. - BARROSO, J. J. - SABAH, C. - OZBEK, I. Y. - KAYA, Y. - DAL, D. - AYDIN, T. *RETRIEVAL OF EFFECTIVE ELECTROMAGNETIC PARAMETERS OF ISOTROPIC METAMATERIALS USING REFERENCE-PLANE INVARIANT EXPRESSIONS*. In *PROGRESS IN ELECTROMAGNETICS RESEARCH-PIER*. ISSN 1559-8985, 2012, vol. 132, no., pp. 425., WOS
39. [1.1] HASAR, Ugur C. - BARROSO, Joaquim J. *Permeability Measurement of Metamaterials with Split-Ring-Resonators Using Free-Space Calibration-Independent Methods*. In *JOURNAL OF INFRARED MILLIMETER AND TERAHERTZ WAVES*. ISSN 1866-6892, 2012, vol. 33, no. 2, pp. 218., WOS
40. [1.1] HASAR, Ugur Cem - BARROSO, Joaquim J. - SABAH, Cumali - KAYA, Yunus - ERTUGRUL, Mehmet. *Differential uncertainty analysis for evaluating the accuracy of S-parameter retrieval methods for electromagnetic properties of metamaterial slabs*. In *OPTICS EXPRESS*. ISSN 1094-4087, 2012, vol. 20, no. 27, pp. 29002., WOS



41. [1.1] HESS, O. Active nanoplasmonic metamaterials. In *NATURE MATERIALS*, 2012. vol. 11, pp. 573., WOS
42. [1.1] HOSSEINZADEH, Arash - SEMOUCHKINA, Elena. Effects of Magnetic Resonance on the Band Structure of 3D Dielectric Metamaterial Arrays. In *2012 IEEE ANTENNAS AND PROPAGATION SOCIETY INTERNATIONAL SYMPOSIUM (APSURSI)*. ISSN 1522-3965, 2012., WOS
43. [1.1] HOU ZHI-LING - KONG LING-BAO - JIN HAI-BO - CAO MAO-SHENG - LI XIAO - QI XIN. The Comprehensive Retrieval Method of Electromagnetic Parameters Using the Scattering Parameters of Metamaterials for Two Choices of Time-Dependent Factors. In *CHINESE PHYSICS LETTERS*. ISSN 0256-307X, 2012, vol. 29, no. 1, 017701., WOS
44. [1.1] HSIEH, Feng-Ju - WANG, Wei-Chih. Full extraction methods to retrieve effective refractive index and parameters of a bianisotropic metamaterial based on material dispersion models. In *JOURNAL OF APPLIED PHYSICS*. ISSN 0021-8979, 2012, vol. 112, no. 6, 064907., WOS
45. [1.1] HUANG, J. Thermally tunable lmetamaterial. In *MICROWAVE AND OPTICAL TECHNOLOGY LETTERS*, 2012, vol. 54, pp. 1889., WOS
46. [1.1] HWANG, Ruey-Bing - HSU, Neng-Chieh - CHIN, Cheng-Yuan. A Spatial Beam Splitter Consisting of a Near-Zero Refractive Index Medium. In *IEEE TRANSACTIONS ON ANTENNAS AND PROPAGATION*. ISSN 0018-926X, 2012, vol. 60, no. 1, pp. 417., WOS
47. [1.1] IWANAGA, M. First-principle analysis. In *PROGRESS IN ELECTROMAGNETICS RESEARCH-PIER*, 2012, vol. 132, pp. 129., WOS
48. [1.1] IWANAGA, Masanobu. Photonic metamaterials: a new class of materials for manipulating light waves. In *SCIENCE AND TECHNOLOGY OF ADVANCED MATERIALS*. ISSN 1468-6996, 2012, vol. 13, no. 5, 053002., WOS
49. [1.1] JENKINS, S.D. Theoretical formalism for collective electromagnetic response. In *PHYSICAL REVIEW B*, 2012, vol. 86, 085116., WOS
50. [1.1] KANTE, Boubacar - PARK, Yong-Shik - O&APOS;BRIEN, Kevin - SHULDMAN, Daniel - LANZILLOTTI-KIMURA, Norberto D. - WONG, Zi Jing - YIN, Xiaobo - ZHANG, Xiang. Symmetry breaking and optical negative index of closed nanorings. In *NATURE COMMUNICATIONS*. ISSN 2041-1723, 2012, vol. 3, 1180., WOS
51. [1.1] KHODASEVYCH, I. E. - SHAH, C. M. - SRIRAM, S. - BHASKARAN, M. - WITHAYACHUMNANKUL, W. - UNG, B. S. Y. - LIN, H. - ROWE, W. S. T. - ABBOTT, D. - MITCHELL, A. Elastomeric silicone substrates for terahertz fishnet metamaterials. In *APPLIED PHYSICS LETTERS*. ISSN 0003-6951, 2012, vol. 100, no. 6, 061101., WOS
52. [1.1] KIM, Sung - HOLLOWAY, Christopher L. - KUMLEY, Kendra L. - JANEZIC, Michael D. - BAKER-JARVIS, James - KUESTER, Edward F. A frequency-bandgap waveguide controlled with metafilms composed of cubic particles. In *JOURNAL OF APPLIED PHYSICS*. ISSN 0021-8979, 2012, vol. 112, no. 10, 104904., WOS
53. [1.1] KRUK, Sergey S. - POWELL, David A. - MINOVICH, Alexander - NESHEV, Dragomir N. - KIVSHAR, Yuri S. Spatial dispersion of multilayer fishnet metamaterials. In *OPTICS EXPRESS*. ISSN 1094-4087, 2012, vol. 20, no. 14, pp. 15100., WOS
54. [1.1] KUSSOW, A.-G. Suppression of losses in negative refractive index. In *JOURNAL OF NANOPHOTONICS*, 2012, vol. 6, 063506., WOS
55. [1.1] KUZNETSOV, Arseniy I. - MIROSHNICHENKO, Andrey E. - FU, Yuan Hsing - ZHANG, JingBo - LUK&APOS;YANCHUK, Boris. Magnetic light. In *SCIENTIFIC REPORTS*. ISSN 2045-2322, 2012, vol. 2, 492., WOS

56. [1.1] LAI, Yueh-Chun - CHEN, Cheng-Kuang - YANG, Yu-Hang - YEN, Ta-Jen. Low-loss and high-symmetry negative refractive index media by hybrid dielectric resonators. In *OPTICS EXPRESS*. ISSN 1094-4087, 2012, vol. 20, no. 3, pp. 2876., WOS
57. [1.1] LANGLEY, Derrick - COUTU, Ronald A. - COLLINS, Peter J. Low-loss meta-atom for improved resonance response. In *AIP ADVANCES*. ISSN 2158-3226, 2012, vol. 2, no. 1, 012196., WOS
58. [1.1] LANGLEY, Derrick - COUTU, Ronald A. - COLLINS, Peter J. Using Inductance as a Tuning Parameter for RF Meta-atoms. In *NANO-MICRO LETTERS*. ISSN 2150-5551, 2012, vol. 4, no. 2, pp. 103., WOS
59. [1.1] LAROUCHE, Stephane - TSAI, Yu-Ju - TYLER, Talmage - JOKERST, Nan M. - SMITH, David R. Infrared metamaterial hologram. In 2012 *CONFERENCE ON LASERS AND ELECTRO-OPTICS (CLEO)*, 2012., WOS
60. [1.1] LAVRINENKO, Andrei V. - ANDRYIEUSKI, Andrei - HA, Sangwoo - SUKHORUKOV, Andrey A. - KIVSHAR, Yuri S. - CHIGRIN, DN. Bloch-Mode Analysis for Effective Parameters Restoration. In *FIFTH INTERNATIONAL WORKSHOP ON THEORETICAL AND COMPUTATIONAL NANO-PHOTONICS (TACONA-PHOTONICS 2012)*. ISSN 0094-243X, 2012, vol. 1475, pp. 140., WOS
61. [1.1] LI, J.-CH. Design and simulation of a single-sided left handed material. In *ACTA PHYSICA SINICA*, 2012, vol. 61, 124102., WOS
62. [1.1] LI, Zhaofeng - AYDIN, Koray - OZBAY, Ekmel. Retrieval of effective parameters for bianisotropic metamaterials with omega shaped metallic inclusions. In *PHOTONICS AND NANOSTRUCTURES-FUNDAMENTALS AND APPLICATIONS*. ISSN 1569-4410, 2012, vol. 10, no. 3, pp. 329., WOS
63. [1.1] LIU, Yan - MA, Huifeng - CUI, TJ - CHENG, Q - JIANG, WX - MA, HF - BAO, D - TANG, WX. A Broadband Bandpass Rectangular Waveguide Filter Based on Metamaterials. In *PROCEEDINGS OF THE 2012 INTERNATIONAL WORKSHOP ON METAMATERIALS (META)*, 2012., WOS
64. [1.1] LIU, Z. The effective permittivity. In *EPL*, 2012, vol. 99, 48006., WOS
65. [1.1] LOO, Y.L. Broadband microwave Luneburg . In *JOURNAL OF THE OPTICAL SOCIETY OF AMERICA A*, 2012, vol. 29, pp. 426., WOS
66. [1.1] LOSURDO, Maria - BERGMAR, Iris - GIANREGORIO, Maria M. - DASTMALCHI, Babak - BIANCO, Giuseppe V. - HELGERT, Christian - PSHENAY-SEVERIN, Ekaterina - FALKNER, Matthias - PERTSCH, Thomas - KLEY, Ernst-Bernhard - HUEBNER, Uwe - VERSCHUUREN, Marc A. - MUEHLBERGER, Michael - HINGERL, Kurt - BRUNO, Giovanni. Enhancing Chemical and Optical Stability of Silver Nanostructures by Low-Temperature Hydrogen Atoms Processing. In *JOURNAL OF PHYSICAL CHEMISTRY C*. ISSN 1932-7447, 2012, vol. 116, no. 43, pp. 23004., WOS
67. [1.1] LU GUIZHEN - YIN HONGCHENG - YANG LI - ZENG DONGDONG. Study of the Metamaterial Homogenization. In 2012 6TH ASIA-PACIFIC *CONFERENCE ON ENVIRONMENTAL ELECTROMAGNETICS (CEEM&apos; 2012)*, 2012, pp. 120., WOS
68. [1.1] LUPU, A. - DUBROVINA, N. - GHASEMI, R. - DEGIRON, A. - DE LUSTRAC, A. - BOARDMAN, AD - JOHNSON, NP - ZIOLKOWSKI, RW. Metal-dielectric metamaterials for guided optics applications. In *METAMATERIALS VII*. ISSN 0277-786X, 2012, vol. 8423, 842306., WOS
69. [1.1] MAHESH, N. R. - NAIR, Prita. Passive Acoustic Tunable Structure Based on Single Negative Metamaterials. In *ACTA ACUSTICA UNITED WITH ACUSTICA*. ISSN 1610-1928, 2012, vol. 98, no. 5, pp. 827., WOS
70. [1.1] MEI, Z.L. A half maxwell fish-eye. In *IEEE TRANSACTIONS ON*

- ANTENNAS AND PROPAGATION, 2012, vol. 60, pp. 398., WOS
71. [1.1] MOSER, Herbert O. - ROCKSTUHL, Carsten. 3D THz metamaterials from micro/nanomanufacturing. In LASER & PHOTONICS REVIEWS. ISSN 1863-8880, 2012, vol. 6, no. 2, pp. 219., WOS
72. [1.1] MYOGA, Seiji - AMEMIYA, Tomohiro - ISHIKAWA, Atsushi - NISHIYAMA, Nobuhiko - TANAKA, Takuo - ARAI, Shigehisa. Carrier-concentration-dependent resonance frequency shift in a metamaterial loaded semiconductor. In JOURNAL OF THE OPTICAL SOCIETY OF AMERICA B-OPTICAL PHYSICS. ISSN 0740-3224, 2012, vol. 29, no. 8, pp. 2110., WOS
73. [1.1] NEMEC, H. Resonant magnetic response. In APPLIED PHYSICS LETTERS, 2012, vol. 100, 061117., WOS
74. [1.1] OATES, T.W.H. Oblique incidence ellipsometric characterization. In OPTICS EXPRESS, 2012, vol. 20, pp. 11166., WOS
75. [1.1] OBELLEIRO, Fernando - TABOADA, Jose M. - ARAUJO, Marta G. Calculation of wave propagation parameters in generalized media. In MICROWAVE AND OPTICAL TECHNOLOGY LETTERS. ISSN 0895-2477, 2012, vol. 54, no. 12, pp. 2731., WOS
76. [1.1] OBOL, Mahmut - AFSAR, Mohammed N. Simultaneous Permittivity and Permeability Characteristics of Magnetically Biased Thin Ferrite Disk Using Rectangular Waveguide. In IEEE TRANSACTIONS ON MAGNETICS. ISSN 0018-9464, 2012, vol. 48, no. 11, pp. 3068., WOS
77. [1.1] OTOMORI, Masaki - YAMADA, Takayuki - IZUI, Kazuhiro - NISHIWAKI, Shinji - ANDKJAER, Jacob. A topology optimization method based on the level set method for the design of negative permeability dielectric metamaterials. In COMPUTER METHODS IN APPLIED MECHANICS AND ENGINEERING. ISSN 0045-7825, 2012, vol. 237, no., pp. 192., WOS
78. [1.1] OZTURK, Yusuf - YILMAZ, Asim Egemen - COLAK, Evrim - OZBAY, Ekmel. Characterization, slab-pair modeling and phase analysis of circular fishnet metamaterials. In PHOTONICS AND NANOSTRUCTURES-FUNDAMENTALS AND APPLICATIONS. ISSN 1569-4410, 2012, vol. 10, no. 4, pp. 624., WOS
79. [1.1] PARK, Jeongwon - PARK, Buhm - KIM, Deokman - PARK, Junhong. Determination of effective mass density and modulus for resonant metamaterials. In JOURNAL OF THE ACOUSTICAL SOCIETY OF AMERICA. ISSN 0001-4966, 2012, vol. 132, no. 4, pp. 2793., WOS
80. [1.1] PUSCH, Andreas - WUESTNER, Sebastian - HAMM, Joachim M. - TSAKMAKIDIS, Kosmas L. - HESS, Ortwin. Coherent Amplification and Noise in Gain-Enhanced Nanoplasmonic Metamaterials: A Maxwell-Bloch Langevin Approach. In ACS NANO. ISSN 1936-0851, 2012, vol. 6, no. 3, pp. 2420., WOS
81. [1.1] RODRIGO, Sergio G. Theory of Negative-Refractive-Index Response of Double-Fishnet Structures. In OPTICAL PROPERTIES OF NANOSTRUCTURED METALLIC SYSTEMS. ISSN 2190-5053, 2012, pp. 77., WOS
82. [1.1] RUBANO, Andrea - BRAUN, Lukas - WOLF, Martin - KAMPFRATH, Tobias. Mid-infrared time-domain ellipsometry: Application to Nb-doped SrTiO<sub>3</sub>. In APPLIED PHYSICS LETTERS. ISSN 0003-6951, 2012, vol. 101, no. 8, 081103, WOS
83. [1.1] RUDOLPH, Scott Michael - GRBIC, Anthony. A Broadband Three-Dimensionally Isotropic Negative-Refractive-Index Medium. In IEEE TRANSACTIONS ON ANTENNAS AND PROPAGATION. ISSN 0018-926X, 2012, vol. 60, no. 8, pp. 3661., WOS



84. [1.1] SABAH, C. *Microwave response of octagon-shaped parallel plates: Low-loss metamaterial.* In *OPTICS COMMUNICATIONS*. ISSN 0030-4018, 2012, vol. 285, no. 21-22, pp. 4549., WOS
85. [1.1] SABAH, Cumali. *Electric and magnetic excitations in anisotropic broadside-coupled triangular-split-ring resonators.* In *APPLIED PHYSICS A-MATERIALS SCIENCE & PROCESSING*. ISSN 0947-8396, 2012, vol. 108, no. 2, pp. 457., WOS
86. [1.1] SAKODA, Kazuaki. *Dirac cone in two- and three-dimensional metamaterials.* In *OPTICS EXPRESS*. ISSN 1094-4087, 2012, vol. 20, no. 4, pp. 3898., WOS
87. [1.1] SCARBOROUGH, C. P. - JIANG, Z. H. - WERNER, D. H. - RIVERO-BALEINE, C. - DRAKE, C. *Experimental demonstration of an isotropic metamaterial super lens with negative unity permeability at 8.5 MHz.* In *APPLIED PHYSICS LETTERS*. ISSN 0003-6951, 2012, vol. 101, no. 1, 014101., WOS
88. [1.1] SECHRIST, Zachary A. - CAMBREA, Lee R. - TONUCCI, Ronald J. - STOCKMAN, MI. *Comparison of Novel Graded Refractive Index Tapered Nanowell Design Against A Triangle Array Commonly Used For Surface Enhanced Raman Scattering.* In *PLASMONICS: METALLIC NANOSTRUCTURES AND THEIR OPTICAL PROPERTIES X*. ISSN 0277-786X, 2012, vol. 8457, 84573E., WOS
89. [1.1] SEIFOORY, H. *Designing Single and Multi-Functional Layer Fishnet Metamaterial at Telecommunication Wavelength.* In *3RD INTERNATIONAL CONFERENCE ON PHOTONICS 2012 (ICP 2012)*, 2012, 145., WOS
90. [1.1] SI, Li-Ming - ZHU, Weiren - LV, Xin - CUI, TJ - CHENG, Q - JIANG, WX - MA, HF - BAO, D - TANG, WX. *Determination of the effective constitutive parameters of active transmission line metamaterials.* In *PROCEEDINGS OF THE 2012 INTERNATIONAL WORKSHOP ON METAMATERIALS (META)*, 2012., WOS
91. [1.1] SOEMPHOL, C. - WONGKASEM, N. - CUI, TJ - CHENG, Q - JIANG, WX - MA, HF - BAO, D - TANG, WX. *Design of Near-Zero Refractive Index Metamaterials using epsilon and mu Near-Zero Media.* In *PROCEEDINGS OF THE 2012 INTERNATIONAL WORKSHOP ON METAMATERIALS (META)*, 2012., WOS
92. [1.1] SONG, Z. *Making a continuous metal film transparent.* In *APPLIED PHYSICS LETTERS*, 2012, vol. 101, 181110., WOS
93. [1.1] SU BIN - GONG BO-YI - ZHAO XIAO-PENG. *Numerical simulation of leaf-shaped metamaterial absorber at infrared frequency.* In *ACTA PHYSICA SINICA*. ISSN 1000-3290, 2012, vol. 61, no. 14, 144203., WOS
94. [1.1] SUN, Liangkui - CHENG, Haifeng - ZHOU, Yongjiang - WANG, Jun. *Design of a Lightweight Magnetic Radar Absorber Embedded With Resistive FSS.* In *IEEE ANTENNAS AND WIRELESS PROPAGATION LETTERS*. ISSN 1536-1225, 2012, vol. 11, pp. 675., WOS
95. [1.1] SUN, M. *Gain enhancement.* In *IEEE ASIA-PACIFIC CONFERENCE ON ANTENNAS AND PROPAGATION*, 2012, pp. 70., WOS
96. [1.1] TALLEB, Hakeim - DJEFFAL, Zine Eddine - LAUTRU, David - OURIR, Abdelwaheb - HANNA, Victor Fouad. *Electric near field measurements and electromagnetic simulations of a bianisotropic metamaterial composed of split ring resonator (SRR) particles.* In *APPLIED PHYSICS A-MATERIALS SCIENCE & PROCESSING*. ISSN 0947-8396, 2012, vol. 109, no. 3, pp. 693., WOS
97. [1.1] TANG, M.-CH. *Design of a broadband mu-negative planar material.* In *APPLIED PHYSICS A*, 2012, vol. 106, pp. 821., WOS

98. [1.1] TANG, Ming-Chun - XIAO, Shaoqiu - DENG, Tianwei - WANG, Yan - BAI, Yanying - LIU, Changrong - SHANG, Yuping - XIONG, Jiang - WANG, Bingzhong. Design of a broadband mu-negative planar material with low frequency dispersion. In *APPLIED PHYSICS A-MATERIALS SCIENCE & PROCESSING*. ISSN 0947-8396, 2012, vol. 106, no. 4, pp. 821., WOS
99. [1.1] TURPIN, Jeremiah P. - WU, Qi - WERNER, Douglas H. - MARTIN, Bonnie - BRAY, Matt - LIER, Erik. Low Cost and Broadband Dual-Polarization Metamaterial Lens for Directivity Enhancement. In *IEEE TRANSACTIONS ON ANTENNAS AND PROPAGATION*. ISSN 0018-926X, 2012, vol. 60, no. 12, pp. 5717., WOS
100. [1.1] URZHUMOV, Yaroslav - CHEN, Wenchen - BINGHAM, Chris - PADILLA, Willie - SMITH, David R. Magnetic levitation of metamaterial bodies enhanced with magnetostatic surface resonances. In *PHYSICAL REVIEW B*. ISSN 1098-0121, 2012, vol. 85, no. 5, 054430., WOS
101. [1.1] VALDIVIA-VALERO, F. J. - NIETO-VESPERINAS, M. Composites of resonant dielectric rods: A test of their behavior as metamaterial refractive elements. In *PHOTONICS AND NANOSTRUCTURES-FUNDAMENTALS AND APPLICATIONS*. ISSN 1569-4410, 2012, vol. 10, no. 4, pp. 423., WOS
102. [1.1] VINCENTI, Maria Antonietta - CAMPIONE, Salvatore - DE CEGLIA, Domenico - CAPOLINO, Filippo - SCALORA, Michael. Gain-assisted harmonic generation in near-zero permittivity metamaterials made of plasmonic nanoshells. In *NEW JOURNAL OF PHYSICS*. ISSN 1367-2630, 2012, vol. 14, 103016., WOS
103. [1.1] VIOKTALAMO, Aunuddin Syabba - WATANABE, Ryosuke - ISHIHARA, Teruya. Permeability enhancement of stratified metal dielectric metamaterial in optical regime. In *PHOTONICS AND NANOSTRUCTURES-FUNDAMENTALS AND APPLICATIONS*. ISSN 1569-4410, 2012, vol. 10, no. 3, pp. 325., WOS
104. [1.1] VU VAN YEM - PHAM VAN CHI - JOURNET, Bernard. Novel MIMO Antenna Using Complementary Split Ring Resonator(CSRR) For LTE Applications. In *2012 INTERNATIONAL CONFERENCE ON ADVANCED TECHNOLOGIES FOR COMMUNICATIONS (ATC 2012)*. ISSN 2162-1020, 2012, pp. 222., WOS
105. [1.1] WANG, Junqiao - FAN, Chunzhen - DING, Pei - HE, Jinna - CHENG, Yongguang - HU, Weiqin - CAI, Genwang - LIANG, Erjun - XUE, Qianzhong. Tunable broad-band perfect absorber by exciting of multiple plasmon resonances at optical frequency. In *OPTICS EXPRESS*. ISSN 1094-4087, 2012, vol. 20, no. 14, pp. 14871., WOS
106. [1.1] WANG, Jô. ACHIEVING ALL-DIELECTRIC LEFT-HANDED METAMATERIALS. In *JOURNAL OF APPLIED PHYSICS*, 2012, vol. 111, 044903., WOS
107. [1.1] WANG, W. - NISHIMURA, N. CALCULATION OF SHAPE DERIVATIVES WITH PERIODIC FAST MULTIPOLE METHOD WITH APPLICATION TO SHAPE OPTIMIZATION OF METAMATERIALS. In *PROGRESS IN ELECTROMAGNETICS RESEARCH-PIER*. ISSN 1559-8985, 2012, vol. 127, no., pp. 49., WOS
108. [1.1] WANG, Yang - SUN, Tianyi - PAUDEL, Trilochan - ZHANG, Yi - REN, Zhifeng - KEMPA, Krzysztof. Metamaterial-Plasmonic Absorber Structure for High Efficiency Amorphous Silicon Solar Cells. In *NANO LETTERS*. ISSN 1530-6984, 2012, vol. 12, no. 1, pp. 440., WOS
109. [1.1] WU, Qian-nan - XU, Ya-dong - CHEN, Huan-yang. A broadband perfect field rotator. In *FRONTIERS OF PHYSICS*. ISSN 2095-0462, 2012, vol. 7, no. 3, pp. 315., WOS

110. [1.1] WUESTNER, Sebastian - PUSCH, Andreas - HAMM, Joachim M. - TSAKMAKIDIS, Kosmas L. - HESS, Ortwin. Dynamics of amplification in a nanoplasmonic metamaterial. In *APPLIED PHYSICS A-MATERIALS SCIENCE & PROCESSING*. ISSN 0947-8396, 2012, vol. 107, no. 1, pp. 77., WOS
111. [1.1] XI, F. Omnidirectional reflectance gaps. In *EUROPEAN PHYSICAL JOURNAL D*, 2012, vol. 66, 33., WOS
112. [1.1] XIN-HE, Xu - SHAO-QIU, Xiao - YUE-HONG, Gan - CHONG-FANG, Fu - BING-ZHONG, Wang. Analysis of symmetrical, periodic negative-permeability metamaterial using interdigital capacitance loading. In *ACTA PHYSICA SINICA*. ISSN 1000-3290, 2012, vol. 61, no. 12, 124103., WOS
113. [1.1] XIONG, Xiang - JIANG, Shang-Chi - HU, Yu-Hui - ZHAO, Jun-Ming - FENG, Yi-Jun - PENG, Ru-Wen - WANG, Mu. Assembling optically active and nonactive metamaterials with chiral units. In *AIP ADVANCES*. ISSN 2158-3226, 2012, vol. 2, no. 4, 041413., WOS
114. [1.1] XUAN, Yimin - HUANG, Jinguo - LI, Qiang. TUNABLE NEGATIVE REFRACTIVE INDEX METAMATERIALS BASED ON THERMOCHROMIC OXIDES. In *PROCEEDINGS OF THE ASME MICRO/NANOSCALE HEAT AND MASS TRANSFER INTERNATIONAL CONFERENCE*, 2012, pp. 455., WOS
115. [1.1] YAHIAOUI, R. - CHUNG, U.C. - ELISSALDE, C. - MAGLIONE, M. - VIGNERAS, V. - MOUNAIX, P. Towards left-handed metamaterials using single-size dielectric resonators: The case of TiO<sub>2</sub>-disks at millimeter wavelengths. In *APPLIED PHYSICS LETTERS*. ISSN 0003-6951, 2012, vol. 101, no. 4, pp. 891., WOS
116. [1.1] YAHIAOUI, R. - NEMEC, H. - KADLEC, C. - KADLEC, F. - KUZEL, P. - CHUNG, U.C. - ELISSALDE, C. - MAGLIONE, M. - MOUNAIX, P. TiO<sub>2</sub> microsphere-based metamaterials exhibiting effective magnetic response in the terahertz regime. In *APPLIED PHYSICS A-MATERIALS SCIENCE & PROCESSING*. ISSN 0947-8396, 2012, vol. 109, no. 4, pp. 891., WOS
117. [1.1] YAN, S. - VANDENBOSCH, G. A. E. INCREASING THE NRI BANDWIDTH OF DIELECTRIC SPHERE-BASED METAMATERIALS BY COATING. In *PROGRESS IN ELECTROMAGNETICS RESEARCH-PIER*. ISSN 1559-8985, 2012, vol. 132, pp. 1., WOS
118. [1.1] YANG, Y.-H. Magnetic surface polariton. In *PLASMONICS*, 2012, vol. 7, pp. 87., WOS
119. [1.1] YUN, Seokho - JIANG, Zhi Hao - XU, Qian - LIU, Zhiwen - WERNER, Douglas H. - MAYER, Theresa S. Low-Loss Impedance-Matched Optical Metamaterials with Zero-Phase Delay. In *ACS NANO*. ISSN 1936-0851, 2012, vol. 6, no. 5, pp. 4475., WOS
120. [1.1] YUN, Seokho - LIN, Lan - JIANG, Zhi Hao - MA, Ding - LIU, Zhiwen - WERNER, Douglas H. - MAYER, Theresa S. - BOARDMAN, AD - ENGHETA, N - NOGINOV, MA - ZHELUDEV, NI. Flexible zero refractive index optical metamaterial with matched impedance. In *METAMATERIALS: FUNDAMENTALS AND APPLICATIONS V*. ISSN 0277-786X, 2012, vol. 8455, 84551Q., WOS
121. [1.1] ZENG, Y. - DALVIT, D. A. R. - O&APOS;HARA, J. - TRUGMAN, S. A. Modal analysis method to describe weak nonlinear effects in metamaterials. In *PHYSICAL REVIEW B*. ISSN 1098-0121, 2012, vol. 85, no. 12, 125107., WOS
122. [1.1] ZHANG, F. - SADAUNE, V. - KANG, L. - ZHAO, Q. - ZHOU, J. - LIPPENS, D. COUPLING EFFECT FOR DIELECTRIC METAMATERIAL DIMER. In *PROGRESS IN ELECTROMAGNETICS RESEARCH-PIER*. ISSN 1559-8985, 2012, vol. 132, pp. 587., WOS
123. [1.1] ZHANG, Fuli - KANG, Lei - ZHAO, Qian - ZHOU, Ji - LIPPENS,



- Didier. Magnetic and electric coupling effects of dielectric metamaterial. In NEW JOURNAL OF PHYSICS. ISSN 1367-2630, 2012, vol. 14, 033031., WOS*
124. [1.1] ZHAO, Jiangnan - ZHENG, Guoxing - LI, Song - ZHOU, Hui - MA, Yue - ZHANG, Ruiying - SHI, Yan - HE, Ping - an. A hyperlens-based device for nanoscale focusing of light. In CHINESE OPTICS LETTERS. ISSN 1671-7694, 2012, vol. 10, no. 4, 042302., WOS
125. [1.1] ZHAO, Y. Optimizing low loss silver nanowires structure. In PHYSICS LETTERS A, 2012, vol. 376, pp. 252., WOS
126. [1.1] ZHILIN, A. A. - SHEPILOV, M. P. - ZAPALOVA, S. S. - TAGANTSEV, D. K. - ALEMASKIN, M. Yu. - SAZONOV, M. E. Metamaterials with a network structure. In JOURNAL OF OPTICAL TECHNOLOGY. ISSN 1070-9762, 2012, vol. 79, no. 4, pp. 241., WOS
127. [1.1] ZHOU, L. - TANG, X. M. - HUANG, C. P. - ZHANG, Y. - ZHU, Y. Y. Magnetolectrically coupled polariton excitation in a plasmonic crystal composed of nanorod dimers. In JOURNAL OF PHYSICS-CONDENSED MATTER. ISSN 0953-8984, 2012, vol. 24, no. 26, 265501., WOS
128. [1.1] ZHU, R. Effective dynamic properties. In JOURNAL OF VIBRATION AND ACOUSTICS, 2012, vol. 134, no. 3, 031006., WOS
- ADCA436 SOULIOTIS, G.A. - SHETTY, D.V. - KEKSIS, A. - BELL, E. - JANDEL, M. - VESELSKÝ, Martin - YENNELLO, S.J. Heavy-residue isoscaling as a probe of the symmetry energy of hot fragments. In Physical Review C. Nuclear physics, 2006, vol. 73, no. 2, 024606. (3.610 - IF2005). (2006 - Current Contents, SCOPUS). ISSN 0556-2813.
- Citácie:
1. [1.1] MA, Chun-Wang - PU, Jie - WEI, Hui-Ling - WANG, Shan-Shan - SONG, Heng-Li - ZHANG, Sha - CHEN, Li. Symmetry energy extracted from fragments in relativistic energy heavy-ion collisions induced by Xe-124, Xe-136. In EUROPEAN PHYSICAL JOURNAL A. ISSN 1434-6001, 2012, vol. 48, no. 6, 78., WOS
2. [1.1] MARINI, P. - BONASERA, A. - MCINTOSH, A. - TRIPATHI, R. - GALANOPOULOS, S. - HAGEL, K. - HEILBORN, L. - KOHLEY, Z. - MAY, L. W. - MEHLMAN, M. - SOISSON, S. N. - SOULIOTIS, G. A. - SHETTY, D. V. - SMITH, W. B. - STEIN, B. C. - WUENSCH, S. - YENNELLO, S. J. Constraining the symmetry term in the nuclear equation of state at subsaturation densities and finite temperatures. In PHYSICAL REVIEW C. ISSN 0556-2813, 2012, vol. 85, no. 3, 034617., WOS
- ADCA437 SPASOVA, M. - WIEDWALD, U. - RAMCHAL, R. - FARLE, M. - JERGER, Matej - MAJKOVÁ, Eva - LUBY, Štefan - SENDERÁK, Rudolf. Magnetization and Magnetic Anisotropy of Co/W Multilayers. In Physica status solidi B : basic solid state physics, 2001, vol. 225, no. 2, p. 449-457. ISSN 0370-1972.
- Citácie:
1. [1.1] VLACHOS, A. - PAPPAS, S. D. - KAPAKLIS, V. - KAROUTSOS, V. - KORDATOS, A. - WILHELM, F. - ROGALEV, A. - FUMAGALLI, P. - POULOPOULOS, P. - VELGAKIS, M. J. - POLITIS, C. Magnetic Properties of Textured CoPd Nanocrystalline Thin Films. In JOURNAL OF NANOSCIENCE AND NANOTECHNOLOGY. ISSN 1533-4880, 2012, vol. 12, no. 8, pp. 6240., WOS
- ADCA438 STANKOV, S. - MIGLIERINI, M. - CHUMAKOV, A.I. - SERGUEEV, I. - YUE, Y.Z. - SEPIOL, B. - ŠVEC, Peter - HU, L. - RUFFER, R. Vibrational thermodynamics of Fe<sub>90</sub>Zr<sub>7</sub>B<sub>3</sub> nanocrystalline alloy from nuclear inelastic scattering. In Physical Review B, 2010, vol. 82, 144301. (3.475 - IF2009). (2010 - Current Contents, WOS, SCOPUS). ISSN 1098-0121.

Citácie:

1. [1.1] CUENYA, B. Roldan - ONO, L. K. - CROY, J. R. - PAREDIS, K. - KARA, A. - HEINRICH, H. - ZHAO, J. - ALP, E. E. - DELARIVA, A. T. - DATYE, A. - STACH, E. A. - KEUNE, W. Size-dependent evolution of the atomic vibrational density of states and thermodynamic properties of isolated Fe nanoparticles. In *PHYSICAL REVIEW B*. ISSN 1098-0121, 2012, vol. 86, no. 16, 165406., WOS
2. [1.1] PARSHIN, P. P. - ZEMLYANOV, M. G. - PANOVA, G. Kh. - SHIKOV, A. A. - KUMZEROV, Yu. A. - NABEREZHNOV, A. A. - SERGUEEV, I. - CRICHTON, W. - CHUMAKOV, A. I. - RUEFFER, R. Atomic dynamics of tin nanoparticles embedded into porous glass. In *JOURNAL OF EXPERIMENTAL AND THEORETICAL PHYSICS*. ISSN 1063-7761, 2012, vol. 114, no. 3, pp. 440., WOS

- ADCA439 STANKOV, S. - YUE, Y.Z. - MIGLIERINI, M. - SEPIOL, B. - SERGUEEV, I. - CHUMAKOV, A.I. - HU, L. - ŠVEC, Peter - RUFFER, R. Vibrational properties of nanograins and interfaces in nanocrystalline materials. In *Physical Review Letters*, 2008, vol. 100, no. 23, 235503. (6.944 - IF2007). (2008 - Current Contents, WOS, SCOPUS). ISSN 0031-9007.

Citácie:

1. [1.1] CUENYA, B. Roldan - ONO, L. K. - CROY, J. R. - PAREDIS, K. - KARA, A. - HEINRICH, H. - ZHAO, J. - ALP, E. E. - DELARIVA, A. T. - DATYE, A. - STACH, E. A. - KEUNE, W. Size-dependent evolution of the atomic vibrational density of states and thermodynamic properties of isolated Fe nanoparticles. In *PHYSICAL REVIEW B*. ISSN 1098-0121, 2012, vol. 86, no. 16, 165406., WOS
2. [1.1] YANG, Weiming - LIU, Haishun - DUN, Chaochao - ZHAO, Yucheng - DOU, Linming - DOU, Lintao. Variations of the permeability with annealing conditions for Fe-based nanocrystalline alloys. In *MATERIALS & DESIGN*. ISSN 0261-3069, 2012, vol. 36, pp. 428., WOS

- ADCA440 STAR, Coll. - FILIP, Peter. Open charm yields in d+Au collisions at root s(NN)=200 GeV. In *Physical Review Letters*, 2005, vol. 94, no. 6, 062301. (7.218 - IF2004). (2005 - Current Contents, WOS, SCOPUS). ISSN 0031-9007.

Citácie:

1. [1.1] BALA, R. In *JOURNAL OF PHYSICS CONFERENCE SERIES*, 2012, vol. 381, 012034., WOS
2. [1.1] INNOCENTI, G. In *ACTA PHYSICA POLONICA B PROC SUPPL*, 2012, vol. 5, pp. 579., WOS
3. [1.1] XU, Wenqin. Recent Heavy Flavor Results at RHIC. In *PROGRESS OF THEORETICAL PHYSICS SUPPLEMENT*. ISSN 0375-9687, 2012, no. 193, pp. 75., WOS

- ADCA441 STAR COLL., incl - FILIP, Peter. Azimuthal charged-particle correlations and possible local strong parity violation. In *Physical Review Letters*, 2009, vol. 103, no. 25, 151601. (7.180 - IF2008). (2009 - Current Contents, WOS, SCOPUS). ISSN 0031-9007.

Citácie:

1. [1.1] KE, H. In *JOURNAL OF PHYSICS CONFERENCE SERIES*, 2012, vol. 389, 012035., WOS
2. [1.1] KOCH, V. In *ACTA PHYSICA POLONICA B PROC SUPPL*, 2012, vol. 5, pp. 773., WOS
3. [1.1] PU, S. In *CENTRAL EUROPEAN JOURNAL OF PHYSICS*, 2012, vol. 10, pp. 1258., WOS
4. [1.1] TONEEV, V.D. In *ACTA PHYSICA POLONICA B PROC SUPPL*, 2012, vol. 5, pp. 887., WOS
5. [1.1] TONEEV, V.D. In *PHYSICAL REVIEW C*, 2012, vol. 85, 034910., WOS

6. [1.1] TONEEV, V.D. In *PHYSICAL REVIEW C*, 2012, vol. 86, 064907., WOS
7. [1.1] TONEEV, V.D. In *PHYSICS OF ATOMIC NUCLEI*, 2012, vol. 75, pp. 607., WOS
8. [1.1] WARRINGA, H.J. In *PHYSICAL REVIEW D*, 2012, vol. 86, 085029., WOS
9. [1.2] ANDRIANOV, A.A. - ANDRIANOV, V.A. - ESPRIU, D. - PLANELLS, X. Abnormal enhancement of dilepton yield in central heavy-ion collisions from local parity breaking. In *Theoretical and Mathematical Physics*, 2012, 170, 1, pp. 17-25., SCOPUS
10. [1.2] BALI, G.S. - BRUCKMANN, F. - ENDRÖDI, G. - FODOR, Z. - KATZ, S.D. - KRIEG, S. - SCHÄFER, A. - SZABÓ, K.K. The QCD phase diagram for external magnetic fields. In *Journal of High Energy Physics*, 2012, 2012, 2, 044., SCOPUS
11. [1.2] BZDAK, A. Suppression of elliptic-flow-induced correlations in an observable of possible local parity violation. In *Physical Review C Nuclear Physics*, 2012, 85, 4, 044919., SCOPUS
12. [1.2] CHAPMAN, S. - NEIMAN, Y. - OZ, Y. Fluid/gravity correspondence, local Wald entropy current and gravitational anomaly. In *Journal of High Energy Physics*, 2012, 2012, 7, 128., SCOPUS
13. [1.2] CHATTERJEE, B. - MISHRA, H. - MISHRA, A. Strong CP violation and chiral symmetry breaking in hot and dense quark matter. In *Physical Review D Particles, Fields, Gravitation and Cosmology*, 2012, 85, 11, 114008., SCOPUS
14. [1.2] CHEN, J.-W. - DAI, S.-H. - LEE, N.-E. - MAITY, D. Novel parity violating transport coefficients in  $2 + 1$  dimensions from holography. In *Journal of High Energy Physics*, 2012, 2012, 9, 096., SCOPUS
15. [1.2] DENG, W.-T. - HUANG, X.-G. Event-by-event generation of electromagnetic fields in heavy-ion collisions. In *Physical Review C Nuclear Physics*, 2012, 85, 4, 044907., SCOPUS
16. [1.2] DUNNE, G.V. The heisenbergeuler effective action: 75 years on. In *International Journal of Modern Physics A*, 2012, 27, 15, 1260004., SCOPUS
17. [1.2] FUKUSHIMA, K. - MAMEDA, K. Wess-Zumino-Witten action and photons from the chiral magnetic effect. In *Physical Review D Particles, Fields, Gravitation and Cosmology*, 2012, 86, 7, 071501., SCOPUS
18. [1.2] FUKUSHIMA, K. Chiral magnetic effect. In *Progress of Theoretical Physics Supplement*, 2012, 193, pp. 15-19., SCOPUS
19. [1.2] FUKUSHIMA, K. QCD matter in extreme environments. In *Journal of Physics G: Nuclear and Particle Physics*, 2012, 39, 1, 013101., SCOPUS
20. [1.2] GAHRAMANOV, I. - KALAYDZHYAN, T. - KIRSCH, I. Anisotropic hydrodynamics, holography, and the chiral magnetic effect. In *Physical Review D Particles, Fields, Gravitation and Cosmology*, 2012, 85, 12, 126013., SCOPUS
21. [1.2] GATTO, R. - RUGGIERI, M. Hot quark matter with an axial chemical potential. In *Physical Review D Particles, Fields, Gravitation and Cosmology*, 2012, 85, 5, 054013., SCOPUS
22. [1.2] ILGENFRITZ, E.-M. - KALINOWSKI, M. - MÜLLER-PREUSSKER, M. - PETERSSON, B. - SCHREIBER, A. Two-color QCD with staggered fermions at finite temperature under the influence of a magnetic field. In *Physical Review D Particles, Fields, Gravitation and Cosmology*, 2012, 85, 11, 114504., SCOPUS
23. [1.2] LIU, K.F. Charge-dependent azimuthal correlations in relativistic heavy-ion collisions and electromagnetic effects. In *Physical Review C Nuclear Physics*, 2012, 85, 1, 014909., SCOPUS
24. [1.2] NAM, S.-I. Electrical conductivity of quark matter at finite  $T$  under external magnetic field. In *Physical Review D Particles, Fields, Gravitation and*

- Cosmology*, 2012, 86, 3, 033014., SCOPUS
25. [1.2] ZHITNITSKY, A.R. *Local P violation effects and thermalization in QCD: Views from quantum field theory and holography*. In *Nuclear Physics A*, 2012, 886, pp. 17-47., SCOPUS
26. [1.2] ZYUZIN, A.A. - BURKOV, A.A. *Topological response in Weyl semimetals and the chiral anomaly*. In *Physical Review B Condensed Matter and Materials Physics*, 2012, 86, 11, 115133., SCOPUS
- ADCA442 STAR COLL., incl. - FILIP, Peter. Net charge fluctuations in Au+Au collisions at root square=130 GeV. In *Physical Review C. Nuclear physics*, 2003, vol. 68, no. 4, 044905. (2.848 - IF2002). (2003 - Current Contents, WOS, SCOPUS). ISSN 0556-2813.
- Citácie:
- [1.1] TARNOWSKY, T. In *ACTA PHYSICA POLONICA B PROC SUPPL*, 2012, vol. 5, pp. 515., WOS
  - [1.1] TARNOWSKY, T. In *PHYSICS OF ATOMIC NUCLEI*, 2012, vol. 785, pp. 546., WOS
  - [1.1] YAN, Y. In *PLASMA SCIENCE AND TECHNOLOGY*, 2012, vol. 14, pp. 577., WOS
- ADCA443 STAR COLL., incl. - FILIP, Peter. Transverse-momentum and collision-energy dependence of high-P+ hadron suppression in An + An collisions at ultrarelativistic energies. In *Physical Review Letters*, 2003, vol. 91, no. 17, 172302. (7.323 - IF2002). (2003 - Current Contents, WOS, SCOPUS). ISSN 0031-9007.
- Citácie:
- [1.1] BETZ, B. In *EUROPEAN PHYSICAL JOURNAL A*, 2012, vol. 48, 164., WOS
  - [1.1] GROSSE-OETRINGHAUS, J.F. In *AIP CONFERENCE PROCEEDINGS*, 2012, vol. 1422., WOS
  - [1.1] HUANG, B. In *ACTA PHYSICA POLONICA B PROC SUPPL*, 2012, vol. 5, pp. 471., WOS
  - [1.1] JACAK, B.V. In *SCIENCE*, 2012, vol. 337, no. 6092, pp. 310., WOS
  - [1.1] KANG, Z.-B. In *PHYSICAL REVIEW D*, 2012, vol. 86, 114011., WOS
  - [1.1] LIETAVA, R. In *JOURNAL OF PHYSICS CONFERENCE SERIES*, 2012, vol. 381, 012040., WOS
  - [1.1] OTWINOWSKI, J. In *ACTA PHYSICA POLONICA B*, 2012, vol. 43, pp. 713., WOS
  - [1.1] SONG, L.-H. In *PHYSICS LETTERS B*, 2012, vol. 708, pp. 68., WOS
  - [1.1] WONG, C.-Y. In *PHYSICAL REVIEW C*, 2012, vol. 85, 064909., WOS
- ADCA444 STAR COLL., incl. - FILIP, Peter. Evidence from d + An measurements for final-state suppression of high-P+ hadrons in An + An collisions at RHIC. In *Physical Review Letters*, 2003, vol. 91, no. 7, p. 072304.
- Citácie:
- [1.1] ARMESTO, N. In *PHYSICAL REVIEW C*, 2012, vol. 86, 064904., WOS
  - [1.1] REZAEIAN, A.H. In *PHYSICAL REVIEW D*, 2012, vol. 86, no. 9, 094016., WOS
  - [1.1] XU, R. In *PHYSICAL REVIEW C*, 2012, vol. 86, 051901., WOS
- ADCA445 STAR COLL., incl. - FILIP, Peter. Centrality dependence of charged hadron and strange hadron elliptic flow from root s(NN)=200 GeV Au+Au collisions. In *Physical Review C*, 2008, vol. 77, no. 5, 054901. (3.302 - IF2007). (2008 - Current Contents, WOS, SCOPUS). ISSN 0556-2813.
- Citácie:
- [1.1] BAUTISTA, I. In *EUROPEAN PHYSICAL JOURNAL C*, 2012, vol. 72, 2038., WOS



2. [1.1] BHATT, J.R. In *NUCLEAR PHYSICS A*, 2012, vol. 875, pp. 181., WOS
  3. [1.1] DUSLING, K. In *PHYSICAL REVIEW C*, 2012, vol. 85, 044909., WOS
  4. [1.1] GEURTS, F. In *EPJ WEB OF CONFERENCES*, 2012, vol. 36, UNSP 00010., WOS
  5. [1.1] HE, M. In *PHYSICAL REVIEW C*, 2012, vol. 85, 044911., WOS
  6. [1.1] LI, L. In *CHINESE PHYSICS C*, 2012, vol. 36, pp. 423., WOS
  7. [1.1] MATTIELLO, S. In *NUCLEAR PHYSICS A*, 2012, vol. 894, pp. 1-19., WOS
  8. [1.1] NOREFINI, F. In *ACTA PHYSICA POLONICA B PROCEEDINGS SUPPL*, 2012, vol. 5, pp. 329., WOS
  9. [1.1] TARANENKO, A. In *PHYSICS OF ATOMICS NUCLEI*, 2012, vol. 75, pp. 550., WOS
  10. [1.1] VREDEVOOGD, J. In *PHYSICAL REVIEW C*, 2012, vol. 85, 044908., WOS
  11. [1.1] YIN, Z. In *CENTRAL EUROPEAN JOURNAL OF PHYSICS*, 2012, vol. 10, pp. 1361., WOS
  12. [1.1] ZHANG, X. In *ACTA PHYSICA POLONICA B PROCEEDINGS SUPPL*, 2012, vol. 5, pp. 509., WOS
  13. [1.1] ZHANG, X. In *JOURNAL OF PHYSICS CONFERENCE SERIES*, 2012, vol. 389, 012009., WOS
  14. [1.1] ZHANG, X. In *PLASMA SCIENCE AND TECHNOLOGY*, 2012, vol. 14, no. 6., WOS
- ADCA446 STAR COLL., incl. - FILIP, Peter. Forward neutral pion transverse single spin asymmetries in p+p collisions at  $\sqrt{s}=200$  GeV. In *Physical Review Letters*, 2008, vol. 101, no. 22, 222001. (6.944 - IF2007). (2008 - Current Contents, WOS, SCOPUS). ISSN 0031-9007.
- Citácie:
1. [1.1] ANSELMINO, M. In *PHYSICAL REVIEW D*, 2012, vol. 86, 074032., WOS
  2. [1.1] KANG, Z. In *PHYSICAL REVIEW D*, 2012, vol. 85, 074008., WOS
  3. [1.1] KOVCHEGOV, Yu. In *PHYSICAL REVIEW D*, 2012, vol. 86, 034028., WOS
  4. [1.1] QIANG, Y. In *PHYSICAL REVIEW D*, 2012, vol. 86, 014033., WOS
- ADCA447 STAR COLL., incl. - FILIP, Peter. Hadronic resonance production in d+Au collisions at 200 GeV at RHIC. In *Physical Review C. Nuclear physics*, 2008, vol. 78, no. 4, 044906. (3.302 - IF2007). (2008 - Current Contents, WOS, SCOPUS). ISSN 0556-2813.
- Citácie:
1. [1.1] LAVAGNO, A. In *PHYSICAL REVIEW C*, 2012, vol. 86, 024917., WOS
  2. [1.1] STEINHEIMER, J. In *EPJ WEB OF CONFERENCE*, 2012, vol. 36, UNSP 00002., WOS
  3. [1.1] VOGEL, S. In *EPJ WEB OF CONFERENCE*, 2012, vol. 36, UNSP 00019., WOS
- ADCA448 STAR COLL., incl. - FILIP, Peter. Rho(0) photoproduction in ultraperipheral relativistic heavy ion collisions at  $\sqrt{s(NN)}=200$  GeV. In *Physical Review C*, 2008, vol. 77, no. 3, 034910. ISSN 0556-2813.
- Citácie:
1. [1.1] DEBBE, R. In *JOURNAL OF PHYSICS CONFERENCE SERIES*, 2012, vol. 389, 012042., WOS
  2. [1.1] REBYAKOVA, V. In *PHYSICS LETTERS B*, 2012, vol. 710, pp. 647., WOS
- ADCA449 STAR COLL., incl. - FILIP, Peter. Longitudinal double-spin asymmetry for

inclusive jet production in p+p collisions at  $\sqrt{s}=200$  GeV. In *Physical Review Letters*, 2008, vol. 100, no. 23, 232003. (6.944 - IF2007). (2008 - Current Contents, WOS, SCOPUS). ISSN 0031-9007.

Citácie:

1. [1.1] *ASCHEAUER, E.C. In PHYSICAL REVIEW D, 2012, vol. 86, 054020., WOS*
2. [1.1] *JIA, S. In PHYSICAL REVIEW D, 2012, vol. 86, 094035., WOS*
3. [1.1] *MUKHERJEE, A. In PHYSICAL REVIEW D, 2012, vol. 86, 094009., WOS*

ADCA450 STAR COLL., incl. - FILIP, Peter. Enhanced strange baryon production in Au+Au collisions compared to p+p at  $\sqrt{s}=200$  GeV. In *Physical Review C. Nuclear physics*, 2008, vol. 77, no. 4, 044908. (3.302 - IF2007). (2008 - Current Contents, WOS, SCOPUS). ISSN 0556-2813.

Citácie:

1. [1.1] *BECATTINI, F. In PHYSICS OF ATOMIC NUCLEI, 2012, vol. 75, pp. 646., WOS*
2. [1.1] *BLUME, C. In PHYSICS OF ATOMIC NUCLEI, 2012, vol. 75, pp. 571., WOS*
3. [1.1] *NICASSIO, M. In ACTA PHYSICA POLONICA B PROCEEDINGS SUPPL, 2012, vol. 5, pp. 237., WOS*
4. [1.1] *SCHUCHMANN, S. In ACTA PHYSICA POLONICA B PROCEEDINGS SUPPL, 2012, vol. 5, pp. 355., WOS*

ADCA451 STAR COLL., incl. - FILIP, Peter. Azimuthal anisotropy at the relativistic heavy ion collider: The first and fourth harmonics. In *Physical Review Letters*, 2004, vol. 92, no. 6, 062301. (7.035 - IF2003). (2004 - Current Contents, WOS, SCOPUS). ISSN 0031-9007.

Citácie:

1. [1.1] *GARDIM, F.G. In PHYSICAL REVIEW C, 2012, vol. 85, 024908., WOS*
2. [1.1] *GARDIM, F.G. In PHYSICAL REVIEW LETTERS, 2012, vol. 109, 202302., WOS*
3. [1.1] *QIN, G.-Y. In PHYSICAL REVIEW C, 2012, vol. 85, 061901., WOS*

ADCA452 STAR, Coll. incl. - FILIP, Peter. Particle-type dependence of azimuthal anisotropy and nuclear modification of particle production at moderate p(T) in Au + Au collisions at  $\sqrt{s(NN)}=200$  GeV. In *Physical Review Letters*, 2004, vol. 92, no. 5, 052302. (7.035 - IF2003). (2004 - Current Contents, WOS, SCOPUS). ISSN 0031-9007.

Citácie:

1. [1.1] *CAMPBELL, S. In EPJ WEB OF CONFERENCES, 2012, vol. 36, UNSP 00006., WOS*
2. [1.1] *MASUI, H. In PROGRESS OF THEORETICAL PHYSICS SUPPL, 2012, vol. 193, pp. 149., WOS*
3. [1.1] *MATTIELLO, S. In NUCLEAR PHYSICS A, 2012, vol. 894, pp. 1., WOS*
4. [1.1] *NAKANO, E. In PHYSICAL REVIEW D, 2012, vol. 85, 096007., WOS*
5. [1.1] *NASIM, M. In ACTA PHYSICA POLONICA B PROC SUPPL, 2012, vol. 5, pp. 3174., WOS*
6. [1.1] *SCHMAH, A. In CENTRAL EUROPEAN JOURNAL OF PHYSICS, 2012, vol. 10, pp. 1238., WOS*
7. [1.1] *SHI, S. IN CENTRAL EUROPEAN JOOURNAL OF PHYSICS, 2012, vol. 10, pp. 1338., WOS*
8. [1.1] *SHI, S. In ACTA PHYSICA POLONICA B PROC SUPPL, 2012, vol. 5, pp. 311., WOS*
9. [1.1] *SULEYMANOV, M. In JOURNAL OF PHYSICS CONFERENCE SERIES,*



2012, vol. 347, 012024., WOS

10. [1.1] ZHANG, X. In *PLASMA SCIENCE AND TECHNOLOGY*, 2012, vol. 14., WOS

- ADCA453 STAR COLL., incl. - FILIP, Peter. Azimuthally sensitive hanbury brown-twiss interferometry in Au+Au collisions at root s(NN)= 200-GeV. In *Physical Review Letters*, 2004, vol. 93, no. 1, 012301. (7.035 - IF2003). (2004 - Current Contents, WOS, SCOPUS). ISSN 0031-9007.

Citácie:

1. [1.1] ENOKIZONO, Akitomo. *Systematic Measurements of HBT Radii in Relativistic Heavy-Ion Collisions*. In *PROGRESS OF THEORETICAL PHYSICS SUPPLEMENT*. ISSN 0375-9687, 2012, no. 193, pp. 141., WOS

- ADCA454 STAR COLL., incl. - FILIP, Peter. Identified particle distribution in pp and Au+Au collisions at root s(NN)=200 GeV. In *Physical Review Letters*, 2004, vol. 92, no. 11, 112301. (7.035 - IF2003). (2004 - Current Contents, WOS, SCOPUS). ISSN 0031-9007.

Citácie:

1. [1.1] BADALA, A. In *AIP CONFERENCE PROC*, 2012, vol. 1422., WOS

2. [1.1] BLUME, C. In *ACTA PHYSICA POLONICA B*, 2012, vol. 43, pp. 577., WOS

3. [1.1] De SILVA, L.C. In *ACTA PHYSICA POLONICA B PROC SUPPL*, 2012, vol. 5, pp. 425., WOS

4. [1.1] FRAGIACOMO, E. In *EPJ WEB OF CONFERENCES*, 2012, vol. 36, UNSP 0009., WOS

5. [1.1] HE, M. In *PHYSICAL REVIEW C*, 2012, vol. 85, 044911., WOS

6. [1.1] HUOVINEN, P. In *EUROPEAN PHYSICAL JOURNAL A*, 2012, vol. 48, 171., WOS

7. [1.1] JIANG Z.-J. In *CHINESE PHYSICS LETTERS*, 2012, vol. 29, 022502., WOS

8. [1.1] KREIN, G. In *JOURNAL OF PHYSICS CONFERENCE SERIES*, 2012, vol. 378, 012032., WOS

9. [1.1] PERALTA-RAMOS, J. In *PHYSICAL REVIEW D*, 2012, vol. 86, 125024., WOS

10. [1.1] PETERSEN, H. In *JOURNAL OF PHYSICS G*, 2012, vol. 39, 055102., WOS

11. [1.1] PRATT, S. In *PHYSICAL REVIEW C*, 2012, vol. 85, 014904., WOS

12. [1.1] PRATT, S. In *PHYSICAL REVIEW LETTERS*, 2012, vol. 108, 212301., WOS

13. [1.1] QUI, Z. In *PHYSICAL REVIEW C*, 2012, vol. 86, 064906., WOS

14. [1.1] SONG, H. In *PHYSICAL REVIEW C*, 2012, vol. 86, 059903., WOS

15. [1.1] ZHU, X. In *ACTA PHYSICA POLONICA B PROC SUPPL*, 2012, vol. 5, pp. 213., WOS

- ADCA455 STAR COLL., incl. - FILIP, Peter. Cross sections and transverse single-spin asymmetries in forward neutral-pion production from proton collisions at root s= 200-GeV. In *Physical Review Letters*, 2004, vol. 92, no. 17, 171801. (7.035 - IF2003). (2004 - Current Contents, WOS, SCOPUS). ISSN 0031-9007.

Citácie:

1. [1.1] ANSELMINO, M. - BOGLIONE, M. - D'APOS;ALESIO, U. - LEADER, E. - MELIS, S. - MURGIA, F. - PROKUDIN, A. *Role of Collins effect in the single spin asymmetry A(N) in p up arrow p & h X processes*. In *PHYSICAL REVIEW D*. ISSN 1550-7998, 2012, vol. 86, no. 7., WOS

2. [1.1] METZ, A. - PITONYAK, D. - SCHAEFER, A. - SCHLEGEL, M. - VOGELSANG, W. - ZHOU, J. *Single-spin asymmetries in inclusive deep inelastic*

- scattering and multiparton correlations in the nucleon. In PHYSICAL REVIEW D. ISSN 1550-7998, 2012, vol. 86, no. 9., WOS*
3. [1.1] METZ, A. - PITONYAK, D. - SCHAEFER, A. - ZHOU, J. Analysis of the double-spin asymmetry  $A(LT)$  in inelastic nucleon-nucleon collisions. In PHYSICAL REVIEW D. ISSN 1550-7998, 2012, vol. 86, no. 11., WOS
4. [1.1] NODA, Hujio - TASHIRO, Tsutomu - NAKARIKI, Shin-Ichi. ANTI-HYPERON POLARIZATION IN  $pA$  AND  $Sigma(-)A$  COLLISIONS AND INTRINSIC ANTIDIQUARK STATE IN INCIDENT BARYON. In INTERNATIONAL JOURNAL OF MODERN PHYSICS E-NUCLEAR PHYSICS. ISSN 0218-3013, 2012, vol. 21, no. 1., WOS
- ADCA456 STAR COLL., incl. - FILIP, Peter. Multistrange baryon production in Au + Au collisions at  $s(NN)=130$ -GeV. In Physical Review Letters, 2004, vol. 92, no. 18, 182301.  
Citácie:  
1. [1.1] BLUME, C. In ACTA PHYSICA POLONICA B, 202, vol. 43, pp. 577., WOS  
2. [1.1] ZHAO, F. In AIP CONFERENCE PROCEEDINGS, 2012, vol. 1441, pp. 797., WOS  
3. [1.1] ZHU, X. In ACTA PHYSICA POLONICA B PROC SUPPL, 2012, vol. 5, pp. 213., WOS
- ADCA457 STAR, Coll. incl. - FILIP, Peter. Indications of conical emission of charged hadrons at the BNL relativistic heavy ion collider. In Physical Review Letters, 2009, vol. 102, no. 5, 052302. (7.180 - IF2008). (2009 - Current Contents, WOS, SCOPUS). ISSN 0031-9007.  
Citácie:  
1. [1.1] ANDRADE, R. P. G. - GRASSI, F. - HAMA, Y. - QIAN, W-L. Temporal evolution of tubular initial conditions and their influence on two-particle correlations in relativistic nuclear collisions. In PHYSICS LETTERS B. ISSN 0370-2693, 2012, vol. 712, no. 3, pp. 226., WOS  
2. [1.1] HAMA, Y. On the origin of the Trigger-Angle dependence. In PROGRESS OF THEORETICAL PHYSICS SUPPL, 2012, vol. 193, pp. 167., WOS  
3. [1.1] HONG, Juhee - TEANEY, Derek - CHESLER, Paul M. Wake of a heavy quark in non-Abelian plasmas: Comparing kinetic theory and the anti-de Sitter space/conformal field theory correspondence. In PHYSICAL REVIEW C. ISSN 0556-2813, 2012, vol. 85, no. 6, 064903., WOS  
4. [1.1] NEUFELD, R. B. - VITEV, I. Parton showers as sources of energy-momentum deposition in the quark-gluon plasma and their implication for shockwave formation at energies available at the BNL Relativistic Heavy Ion Collider and at the CERN Large Hadron Collider. In PHYSICAL REVIEW C. ISSN 0556-2813, 2012, vol. 86, no. 2, 024905., WOS  
5. [1.1] SCHENKE, Bjoern - JEON, Sangyong - GALE, Charles. Higher flow harmonics from  $(3+1)D$  event-by-event viscous hydrodynamics. In PHYSICAL REVIEW C. ISSN 0556-2813, 2012, vol. 85, no. 2, 024901., WOS
- ADCA458 STAR, Coll. incl. - FILIP, Peter. Beam-energy and system-size dependence of dynamical net charge fluctuations. In Physical Review C : nuclear physics, 2009, vol. 79, no. 2, 024906. (3.124 - IF2008). (2009 - Current Contents, SCOPUS). ISSN 0556-2813.  
Citácie:
1. [1.1] GAVIN, S. In PHYSICAL REVIEW C, 2012, vol. 85, 014905., WOS
- ADCA459 STAR, Coll. incl. - FILIP, Peter. Energy and system size dependence of phi meson production in Cu plus Cu and Au plus Au collisions. In Physics Letters B, 2009, vol. 673, no. 3, p. 183-191. (4.034 - IF2008). (2009 - Current Contents, WOS, SCOPUS).

ISSN 0370-2693.

Citácie:

1. [1.1] SCHREIBER, C. In *PHYSICS OF ATOMIC NUCLEI*, 2012, vol. 75, pp. 640., WOS
2. [1.1] TORRIERI, G. In *ACTA PHYSICA POLONICA B*, 2012, vol. 43, pp. 821., WOS
3. [1.1] ZHU, X. In *ACTA PHYSICA POLONICA B PROC SUPPL*, 2012, vol. 5, pp. 213-218., WOS

ADCA460 STAR, Coll. incl. - FILIP, Peter. Observation of two-source interference in the photoproduction reaction AuAu - AuAu rho(0). In *Physical Review Letters*, 2009, vol. 102, no. 11, 112301. (7.180 - IF2008). (2009 - Current Contents, WOS, SCOPUS). ISSN 0031-9007.

Citácie:

1. [1.1] DEBBE, R. *Rho Meson Diffraction off Au Nuclei*. In *28TH WINTER WORKSHOP ON NUCLEAR DYNAMICS 2012*. ISSN 1742-6588, 2012, vol. 389, 012042., WOS

ADCA461 STAR, Coll. incl. - FILIP, Peter. Systematic measurements of identified particle spectra in pp, d plus Au, and Au plus Au collisions at the STAR detector. In *Physical Review C*, 2009, vol. 79, no. 3, 034909. (3.124 - IF2008). (2009 - Current Contents, SCOPUS). ISSN 0556-2813.

Citácie:

1. [1.1] BARILE, F. In *AIP CONFERENCE PROCEEDINGS*, 2012, vol. 1492, p. 323., WOS
2. [1.1] BAZAVOV, A. In *PHYSICAL REVIEW LETTERS*, 2012, vol. 109, 192302., WOS
3. [1.1] BOTTA, E. In *EUROPEAN PHYSICAL JOURNAL A*, 2012, vol. 48, 41., WOS
4. [1.1] BRAUN-MUNZINGER, P. In *NUCLEAR PHYSICS A*, 2012, vol. 880, p. 48., WOS
5. [1.1] BZDAK, A. In *PHYSICAL REVIEW C*, 2012, vol. 85, 051901., WOS
6. [1.1] CAPELLA, A. In *EUROPEAN PHYSICAL JOURNAL C*, 2012, vol. 72, 1936., WOS
7. [1.1] CLEYMANS, J. In *ACTA PHYSICA POLONICA B*, 2012, vol. 43, p. 563., WOS
8. [1.1] CLEYMANS, J. In *ACTA PHYSICA POLONICA B PROCEEDINGS SUPPL*, 2012, vol. 5, p. 669., WOS
9. [1.1] COCO, V. In *JOURNAL OF PHYSICS CONFERENCE SERIES*, 2012, vol. 347, 012022., WOS
10. [1.1] DUMITRU, A. In *PHYSICAL REVIEW C*, 2012, vol. 85, 034907., WOS
11. [1.1] EVOLI, C. In *PHYSICAL REVIEW D*, 2012, vol. 85, 123511., WOS
12. [1.1] GAVIN, S. In *PHYSICAL REVIEW C*, 2012, vol. 85, 014905., WOS
13. [1.1] GRAEF, G. In *PHYSICAL REVIEW C*, 2012, vol. 85, 044901., WOS
14. [1.1] GUERZONI, B. In *ACTA PHYSICA POLONICA B PROCEEDINGS SUPPL*, 2012, vol. 5, p. 987., WOS
15. [1.1] HE, M. In *PHYSICAL REVIEW C*, 2012, vol. 85, 044911., WOS
16. [1.1] HWA, R.C. In *PHYSICAL REVIEW C*, 2012, vol. 86, 024901., WOS
17. [1.1] KE, H. In *JOURNAL OF PHYSICS CONFERENCE SERIES*, 2012, vol. 389, 012035., WOS
18. [1.1] KITAZAWA, M. In *PHYSICAL REVIEW C*, 2012, vol. 86, 024904., WOS
19. [1.1] MUELLER, B. In *ANNUAL REVIEW OF NUCLEAR AND PARTICLE SCIENCE*, 2012, vol. 62, p. 361., WOS
20. [1.1] PATEL, A. In *PHYSICAL REVIEW D*, 2012, vol. 85, 114019., WOS

21. [1.1] PETRAN, M. In *ACTA PHYSICA POLONICA B PROCEEDINGS SUPPL*, 2012, vol. 5, p. 255., WOS
22. [1.1] PETROVICI, M. In *ROMANIAN JOURNAL OF PHYSICS*, 2012, vol. 57, p. 419., WOS
23. [1.1] PRATT, S. In *PHYSICAL REVIEW C*, 2012, vol. 85, 014904., WOS
24. [1.1] SA, B.-L. In *COMPUTER PHYSICS COMMUNICATIONS*, 2012, vol. 183, p. 333., WOS
25. [1.1] SAFARIK, K. In *ACTA PHYSICA POLONICA B*, 2012, vol. 43, p. 867., WOS
26. [1.1] SCHENKE, B. In *PHYSICAL REVIEW C*, 2012, vol. 86, Iss. 3., WOS
27. [1.1] SCHREIBER, C. In *PHYSICS OF ATOMIC NUCLEI*, 2012, vol. 75, p. 640., WOS
28. [1.1] SHEN, Ch. In *PHYSICAL REVIEW C*, 2012, vol. 85, 054902., WOS
29. [1.1] SONG, H. In *EUROPEAN PHYSICAL JOURNAL A*, 2012, vol. 48, 163., WOS
30. [1.1] SONG, H. In *PHYSICAL REVIEW C*, 2012, vol. 86, 059903., WOS
31. [1.1] SONG, H. In *PHYSICAL REVIEW LETTERS*, 2012, vol. 109, 139904., WOS
32. [1.1] TIBEDY, P. In *PHYSICS LETTERS B*, 2012, vol. 710, p. 125., WOS
33. [1.1] VREDEVOOGD, J. In *PHYSICAL REVIEW C*, 2012, vol. 85, 044908., WOS
34. [1.1] ZHANG, X. In *ACTA PHYSICA POLONICA B PROCEEDINGS SUPPL*, 2012, vol. 5, p. 509., WOS
35. [1.1] ZHANG, X. In *JOURNAL OF PHYSICS CONFERENCE SERIES*, 2012, vol. 389, 012009., WOS

ADCA462 STAR, Coll. incl. - FILIP, Peter. Measurements of phi meson production in relativistic heavy-ion collisions at the BNL relativistic heavy ion collider (RHIC). In *Physical Review C*, 2009, vol. 79, no. 6, 064903. (3.124 - IF2008). (2009 - Current Contents, SCOPUS). ISSN 0556-2813.

Citácie:

1. [1.1] BADALA, A. In *AIP CONFERENCE PROCEEDINGS*, 2012, vol. 1422., WOS
2. [1.1] BECATTINI, F. In *PHYSICS OF ATOMIC NUCLEI*, 2012, vol. 75, pp. 646., WOS
3. [1.1] FRAGIACOMO, E. In *EPJ WEB OF CONFERENCES*, In 2012, vol. 36, UNSP 00009., WOS
4. [1.1] HE, Min - FRIES, Rainer J. - RAPP, Ralf. Ideal hydrodynamics for bulk and multistrange hadrons in root  $s(NN)=200A$  GeV Au-Au collisions. In *PHYSICAL REVIEW C*. ISSN 0556-2813, 2012, vol. 85, no. 4, 044911., WOS
5. [1.1] KO, Ch-M. In *EPJ WEB OF CONFERENCES*, 2012, vol. 36, UNSP 00014., WOS
6. [1.1] NASIM, M. In *ACTA PHYSICA POLONICA B PROC SUPPL*, 2012, vol. 5, pp. 317., WOS
7. [1.1] PETRAN, Michal - LETESSIER, Jean - PETRACEK, Vojtech - RAFELSKI, Jan - PRASZALOWICZ, M. STRANGENESS PRODUCTION IN Au-Au COLLISIONS AT root  $s(NN)=62.4$  GeV. In *STRANGENESS IN QUARK MATTER 2011*. ISSN 1899-2358, 2012, vol. 5, no. 2, pp. 255., WOS
8. [1.1] ZHANG XIAOPING. The Elliptic Flow of Multi-Strange Hadrons in root  $S-NN=200$  GeV Au + Au Collisions at STAR. In *PLASMA SCIENCE & TECHNOLOGY*. ISSN 1009-0630, 2012, vol. 14, no. 6., WOS
9. [1.1] ZHANG, X. In *ACTA PHYSICA POLONICA B PROC SUPPL*, 2012, vol. 5, pp. 509., WOS



10. [1.1] ZHANG, Xiaoping. *Probe the partonic/hadronic matter with elliptic flow in STAR Beam Energy Scan. In 28TH WINTER WORKSHOP ON NUCLEAR DYNAMICS 2012. ISSN 1742-6588, 2012, vol. 389,012009., WOS*
- ADCA463 STAR, Coll. incl. - FILIP, Peter. Pion interferometry in Au plus Au and Cu plus Cu collisions at  $\sqrt{s(NN)}$ =62.4 and 200 GeV. In *Physical Review C : nuclear physics*, 2009, vol. 80, no. 2, 024905. (3.124 - IF2008). (2009 - Current Contents, SCOPUS). ISSN 0556-2813.
- Citácie:
1. [1.1] CHEN XIAO-FAN. *Coherence parameters of partially chaotic sources in relativistic heavy-ion collisions. In ACTA PHYSICA SINICA. ISSN 1000-3290, 2012, vol. 61, no. 9, 092501., WOS*
2. [1.1] ENOKIZONO, Akitomo. *Systematic Measurements of HBT Radii in Relativistic Heavy-Ion Collisions. In PROGRESS OF THEORETICAL PHYSICS SUPPLEMENT. ISSN 0375-9687, 2012, vol., no. 193, pp. 141., WOS*
3. [1.1] GRAEF, G. In *PHYSICAL REVIEW C*, 2012, vol. 85, 044901., WOS
4. [1.1] SHEN, Ch. In *PHYSICAL REVIEW C*, 2012, vol. 85, 054902., WOS
- ADCA464 STAR, Coll. incl. - FILIP, Peter. K/pi fluctuations at relativistic energies. In *Physical Review Letters*, 2009, vol. 103, no. 9, 092301. (7.180 - IF2008). (2009 - Current Contents, WOS, SCOPUS). ISSN 0031-9007.
- Citácie:
1. [1.1] BLUME, Christoph. *Search for the critical point and the onset of deconfinement. In CENTRAL EUROPEAN JOURNAL OF PHYSICS. ISSN 1895-1082, 2012, vol. 10, no. 6, pp. 1245., WOS*
2. [1.1] FU, Jinghua. *Statistical model analysis of particle ratio fluctuations in heavy-ion collisions. In PHYSICAL REVIEW C. ISSN 0556-2813, 2012, vol. 85, no. 6, 064905., WOS*
3. [1.1] KONCHAKOVSKI, V. P. - BRATKOVSKAYA, E. L. - CASSING, W. - GORENSTEIN, M. I. *Fluctuations and correlations as a signal of deconfinement. In PHYSICS OF ATOMIC NUCLEI. ISSN 1063-7788, 2012, vol. 75, no. 6, pp. 683., WOS*
4. [1.1] MACKOWIAK, M. *Identity method-a new tool for studying chemical fluctuations. In PHYSICS OF ATOMIC NUCLEI. ISSN 1063-7788, 2012, vol. 75, no. 6, pp. 651., WOS*
5. [1.1] RUSTAMOV, A. - GORENSTEIN, M. I. *Identity method for the determination of the moments of multiplicity distributions. In PHYSICAL REVIEW C. ISSN 0556-2813, 2012, vol. 86, no. 4, 044906., WOS*
6. [1.1] TAWFIK, A. *Event-by-event fluctuations of particle ratios in heavy-ion collisions. In INDIAN JOURNAL OF PHYSICS. ISSN 0973-1458, 2012, vol. 86, no. 7, pp. 641., WOS*
7. [1.1] TAWFIK, A. *Fluctuations of particle yield ratios in heavy-ion collisions. In INDIAN JOURNAL OF PHYSICS. ISSN 0973-1458, 2012, vol. 86, no. 12, pp. 1139., WOS*
8. [1.1] WANG, Hui. *Scaling properties and charge dependence of particle ratio fluctuations at RHIC. In CENTRAL EUROPEAN JOURNAL OF PHYSICS. ISSN 1895-1082, 2012, vol. 10, no. 6, pp. 1282., WOS*
- ADCA465 STAR COLL., incl. - FILIP, Peter. Mass, quark-number and  $\sqrt{s(NN)}$  dependence of the second and fourth flow harmonics in ultrarelativistic nucleus-nucleus collisions. In *Physical review C : nuclear physics*, 2007, vol. 75, no. 5, 054906. (3.327 - IF2006). (2007 - Current Contents, WOS, SCOPUS). ISSN 0556-2813.
- Citácie:
1. [1.1] MASUI, H. In *PROGRESS OF THEORETICAL PHYSICS SUPPL*, 2012, vol. 193, pp. 149., WOS

2. [1.1] TYARANENKO, A. In *PHYSICS OF ATOMIC NUCLEI*, 2012, vol. 75. pp. 550., WOS
  3. [1.1] ZABRODIN, E. In *ACTA PHYSICA POLONICA B PROCEEDINGS SUPPL*, 2012, vol. 5, pp. 349., WOS
- ADCA466 STAR COLL., incl. - FILIP, Peter. Strange particle production in p+p collisions at root s=200 GeV. In *Physical review C : nuclear physics*, 2007, vol. 75, no. 6, 064901. (3.327 - IF2006). (2007 - Current Contents, WOS, SCOPUS). ISSN 0556-2813.
- Citácie:
1. [1.1] BYLINKIN, A. A. - ROSTOVTSEV, A. A. *Anomalous behavior of pion production in high energy particle collisions. In EUROPEAN PHYSICAL JOURNAL C*. ISSN 1434-6044, 2012, vol. 72, no. 3, 1961., WOS
  2. [1.1] CLEYMANS, J. In *ACTA PHYSICA POLONICA B PROCEEDINGS SUPPL*, 2012, vol. 5, pp. 669., WOS
  3. [1.1] CLEYMANS, J. In *ACTA PHYSICA POLONICA B*, 2012, vol. 43, pp. 563., WOS
  4. [1.1] CLEYMANS, J. In *EUROPEAN PHYSICAL JOURNAL A*, 2012, vol. 48, 160., WOS
  5. [1.1] CLEYMANS, J. In *JOURNAL OF PHYSICS G*, 2012, vol. 39, 025006., WOS
  6. [1.1] COCO, Victor. *Electroweak and QCD measurements at LHCb. In 2ND INTERNATIONAL CONFERENCE ON PARTICLE PHYSICS IN MEMORIAM ENGIN ARIK AND HER COLLEAGUES*. ISSN 1742-6588, 2012, vol. 347, 012022., WOS
  7. [1.1] MAIRE, A. In *ACTA PHYSICA POLONICA B, PROCEEDINGS SUPPL*, 2012, vol. 5. pp. 231., WOS
  8. [1.1] MURESAN, Raluca. *Measurements of Particle Production in pp Collisions in the Forward Region at the LHC. In PROGRESS OF THEORETICAL PHYSICS SUPPLEMENT*. ISSN 0375-9687, 2012, no. 193, pp. 193., WOS
  9. [1.1] RYBCZYNSKI, M. In *JOURNAL OF PHYSICS G*, 2012, vol. 39, 095004., WOS
  10. [1.1] SHARMA, N. In *ACTA PHYSICA POLONICA B PROCEEDINGS SUPPL*, 2012, vol. 5, pp. 605., WOS
  11. [1.1] WILK, G. In *EUROPEAN PHYSICAL JOURNAL A*, 2012, vol. 48, 161., WOS
  12. [1.1] WONG, Ch.-Y. In *ACTA PHYSICA POLONICA B*, 2012, vol. 43, pp. 2047., WOS
  13. [1.1] YAN, Y.-L. In *PHYSICAL REVIEW C*, 2012, vol. 85, 024907., WOS
- ADCA467 STAR COLL., incl. - FILIP, Peter. Strange baryon resonance production in root s(NN)=200 GeV. In *Physical Review Letters*, 2006, vol. 97, no. 13, 132301. (7.489 - IF2005). (2006 - Current Contents, WOS, SCOPUS). ISSN 0031-9007.
- Citácie:
1. [1.1] BLUME, Christoph. *IS THERE LIFE AFTER HADRONIZATION? AN EXPERIMENTAL OVERVIEW. In ACTA PHYSICA POLONICA B*. ISSN 0587-4254, 2012, vol. 43, no. 4, pp. 577., WOS
  2. [1.1] KO, Che Ming - BADALA, A - BLEICHER, M - FABBIETTI, L - MARKERT, C - RAPP, RF - STROTH, J. *Resonances from AMPT. In RESONANCE WORKSHOP AT UT AUSTIN*. ISSN 2100-014X, 2012, vol. 36, UNSP 00014., WOS
  3. [1.1] WADA, Masayuki - BADALA, A - BLEICHER, M - FABBIETTI, L - MARKERT, C - RAPP, RF - STROTH, J. *Hadronic Resonances from STAR. In RESONANCE WORKSHOP AT UT AUSTIN*. ISSN 2100-014X, 2012, vol. 36,



*UNSP 00020., WOS*

4. [1.1] ZHANG, Kai - SONG, Jun - SHAO, Feng-lan. *K\*0 and Sigma\* production in Au+Au collisions at root s(NN)=200 GeV and 62.4 GeV. In PHYSICAL REVIEW C. ISSN 0556-2813, 2012, vol. 86, no. 1, 014906., WOS*

- ADCA468 STAR COLL., incl. - FILIP, Peter. Identified baryon and meson distributions at large transverse momenta from Au plus Au collisions. In Physical Review Letters, 2006, vol. 97, no. 15, 152301. (7.489 - IF2005). (2006 - Current Contents, WOS, SCOPUS). ISSN 0031-9007.

Citácie:

1. [1.1] MUELLER, B. In ANNUAL REVIEW OF NUCLEAR AND PARTICLE SCIENCE, 2012, vol. 62, pp. 361., WOS

2. [1.1] RENK, T. In PHYSICAL REVIEW C, 2012, vol. 85, 044903., WOS

3. [1.1] ZHANG, K. In PHYSICAL REVIEW C, 2012, vol. 86, 014906., WOS

4. [1.1] ZHU, X. In CENTRAL EUROPEAN JOURNAL OF PHYSICS, 2012, vol. 10, pp. 1345., WOS

- ADCA469 STAR COLL., incl. - FILIP, Peter. Transverse momentum and centrality dependence of high-p(T) nonphotonic electron suppression. In Physical Review Letters, 2007, vol. 98, no. 19, 192301. (7.072 - IF2006). (2007 - Current Contents, WOS, SCOPUS). ISSN 0031-9007.

Citácie:

1. [1.1] ACCARDI, A. In EUROPEAN PHYSICAL JOURNAL A. 2012, vol. 48, 92., WOS

2. [1.1] ARMESTO, N. In JOURNAL OF HIGH ENERGY PHYSICS, 2012, 1., WOS

3. [1.1] AYALA, A. In JOURNAL OF PHYSICS CONFERENCE SERIES, 2012, vol. 378, 012029., WOS

4. [1.1] BUZZATTI, A. In PHYSICAL REVIEW LETTERS, 2012, vol. 108, 022301., WOS

5. [1.1] CACCIARI, M. In JOURNAL OF HIGH ENERGY PHYSICS, 2012, Iss. 10, 137., WOS

6. [1.1] GRECO, V. In AIP CONFERENCE PROCEEDINGS, 2012, vol. 1422., WOS

7. [1.1] HE, M. In PHYSICAL REVIEW C, 2012, vol. 86, 014903., WOS

8. [1.1] MAJUMDER, A. In PHYSICAL REVIEW D, 2012, vol. 85, 014023., WOS

9. [1.1] PESHIER, A. In NUCLEAR PHYSICS A, 2012, vol. 888, pp. 7-22., WOS

10. [1.1] SALGADO, C.A. In AIP CONFERENCE PROCEEDINGS, 2012, vol. 1441, pp. 87., WOS

11. [1.1] SALGADO, C.A. In JOURNAL OF PHYSICS CONFERENCE SERIES, 2012, vol. 381, 012012., WOS

12. [1.1] TLUSTY, D. In JOURNAL OF PHYSICS CONFERENCE SERIES, 2012, vol. 389, 012024., WOS

13. [1.1] VITEV, I. In EPJ WEB OF CONFERENCES, 2012, vol. 36, UNSP 00018., WOS

14. [1.1] WONG, C.Y. In JOURNAL OF PHYSICS CONFERENCE SERIES, 2012, vol. 387, 012009., WOS

15. [1.1] WONG, Ch.-Y. In PHYSICAL REVIEW C, 2012, vol. 85, 064909., WOS

16. [1.1] XU, W. In AIP CONFERENCE PROCEEDINGS, 2012, vol. 1441, pp. 883., WOS

- ADCA470 STAR COLL., incl. - FILIP, Peter. Partonic flow and phi-meson production. In Physical Review Letters, 2007, vol. 99, 112301. (7.072 - IF2006). (2007 - Current Contents, WOS, SCOPUS). ISSN 0031-9007.

Citácie:

1. [1.1] LI, Na - SHI, Shusu - TANG, Aihong - WU, Yuanfang. The study of non-collectivity by the forward-backward multiplicity correlation function. In *JOURNAL OF PHYSICS G-NUCLEAR AND PARTICLE PHYSICS*. ISSN 0954-3899, 2012, vol. 39, no. 11, 115105., WOS
  2. [1.1] MASUI, H. In *PROGRESS OF THEORETICAL PHYSICS SUPPL*, 2012, Iss. 193, pp. 149., WOS
  3. [1.1] NASIM, M. In *ACTA PHYSICA POLONICA B PROC SUPPL*, 2012, vol. 5, pp. 317., WOS
  4. [1.1] QIU, Hao - PRASZALOWICZ, M. MEASUREMENT OF J/psi ELLIPTIC FLOW IN Au plus Au COLLISIONS AT  $\sqrt{s(NN)}=200$  GeV IN STAR EXPERIMENT. In *STRANGENESS IN QUARK MATTER 2011*. ISSN 1899-2358, 2012, vol. 5, no. 2, pp. 323., WOS
  5. [1.1] SHI, Shusu - PRASZALOWICZ, M. THE ELLIPTIC FLOW IN Au plus Au COLLISIONS AT  $\sqrt{s(NN)}=7.7, 11.5$  AND 39 GeV AT STAR. In *STRANGENESS IN QUARK MATTER 2011*. ISSN 1899-2358, 2012, vol. 5, no. 2, pp. 311., WOS
  6. [1.1] SHI, Shusu. Probing the QCD phase boundary with elliptic flow in relativistic heavy ion collisions at STAR. In *CENTRAL EUROPEAN JOURNAL OF PHYSICS*. ISSN 1895-1082, 2012, vol. 10, no. 6, pp. 1338., WOS
  7. [1.1] TRAUTMANN, W. - WOLTER, H. H. ELLIPTIC FLOW AND THE SYMMETRY ENERGY AT SUPRA-SATURATION DENSITY. In *INTERNATIONAL JOURNAL OF MODERN PHYSICS E-NUCLEAR PHYSICS*. ISSN 0218-3013, 2012, vol. 21, no. 6, 1230003., WOS
  8. [1.1] ZHANG XIAOPING. The Elliptic Flow of Multi-Strange Hadrons in  $\sqrt{s(NN)}=200$  GeV Au + Au Collisions at STAR. In *PLASMA SCIENCE & TECHNOLOGY*. ISSN 1009-0630, 2012, vol. 14, no. 6., WOS
  9. [1.1] ZHANG, Kai - SONG, Jun - SHAO, Feng-lan.  $K^0$  and  $\Sigma^*$  production in Au+Au collisions at  $\sqrt{s(NN)}=200$  GeV and 62.4 GeV. In *PHYSICAL REVIEW C*. ISSN 0556-2813, 2012, vol. 86, no. 1, 014906., WOS
  10. [1.1] ZHANG, X. In *ACTA PHYSICA POLONICA B PROC SUPPL*, 2012, vol. 5, pp. 509., WOS
  11. [1.1] ZHANG, Xiaoping. Probe the partonic/hadronic matter with elliptic flow in STAR Beam Energy Scan. In *28TH WINTER WORKSHOP ON NUCLEAR DYNAMICS 2012*. ISSN 1742-6588, 2012, vol. 389, 012009., WOS
- ADCA471 STAR COLL., incl. - FILIP, Peter. Energy dependence of  $\phi(+/-)$ , p and (p)over-bar transverse momentum spectra. In *Physics Letters B*, 2007, vol. 655, p. 104-113. (5.043 - IF2006). (2007 - Current Contents, WOS, SCOPUS). ISSN 0370-2693.
- Citácie:
1. [1.1] AYALA, A. In *JOURNAL OF PHYSICS CONFERENCE SERIES*, 2012, vol. 378, 012029., WOS
  2. [1.1] ZHANG, K. In *PHYSICAL REVIEW C*, 2012, vol. 86, 014906., WOS
  3. [1.1] ZHU, X. In *CENTRAL EUROPEAN JOURNAL OF PHYSICS*, 2012, vol. 10, pp. 1345., WOS
- ADCA472 STAR COLL., incl. - FILIP, Peter. Two-particle correlations on transverse momentum and momentum dissipation in Au-Au collisions at  $\sqrt{s(NN)}=130$  GeV. In *Journal of Physics G*, 2007, vol. 34, p. 799-816. (1.781 - IF2006). (2007 - Current Contents, WOS, SCOPUS). ISSN 0954-3899.
- Citácie:
1. [1.1] BOZEK, P. - BRONIOWSKI, W. In *PHYSICAL REVIEW C*, 2012, vol. 85, 044910., WOS
  2. [1.1] FEOFILOV, G. In *AIP CONFERENCE PROCEEDINGS*, 2012, vol. 1422., WOS

ADCA473 STAR COLL., incl. - FILIP, Peter. Experimental and theoretical challenges in the search for the quark-gluon plasma. In Nuclear Physics A, 2005, vol. 757, no. 1-2, p. 102-183. (2.108 - IF2004). ISSN 0375-9474.

Citácie:

1. [1.1] ABIR, R. In PHYSICS LETTERS B, 2012, vol. 715, pp. 183., WOS
2. [1.1] ALI-AKBARI, M. In JOURNAL OF HIGH ENERGY PHYSICS, 2012, Iss. 1, 105., WOS
3. [1.1] BARILE, F. In AIP CONFERENCE PROCEEDINGS, 2012, vol. 1492, pp. 323., WOS
4. [1.1] BARNBY, L.S. In AIP CONFERENCE PROCEEDINGS, 2012, vol. 1422, 012., WOS
5. [1.1] BAUTISTA, I. In EUROPEAN PHYSICAL JOURNAL C, 2012, vol. 72, 2038., WOS
6. [1.1] BERAUDO, A. In JOURNAL OF HIGH ENERGY PHYSICS, 2012, vol. 7, 144., WOS
7. [1.1] BERGES, J. In JOURNAL OF PHYSICS G, 2012, vol. 39, 085115., WOS
8. [1.1] BERGES, J. In PHYSICAL REVIEW D, 2012, vol. 86, 074006., WOS
9. [1.1] BERGES, J. In PHYSICAL REVIEW LETTERS, 2012, vol. 108, 161601., WOS
10. [1.1] BETZ, B. In EUROPEAN PHYSICAL JOURNAL A, 2012, vol. 48, 164., WOS
11. [1.1] BETZ, B. In PHYSICAL REVIEW C, 2012, vol. 86, 024903., WOS
12. [1.1] BLUHM, M. In PHYSICS LETTERS B, 2012, vol. 709, pp. 77., WOS
13. [1.1] BORNYAKOV, V.G. In PHYSICAL REVIEW D, 2012, vol. 86, 074508., WOS
14. [1.1] BOTTA, E. In EUROPEAN PHYSICAL JOURNAL A, 2012, vol. 48, 41., WOS
15. [1.1] BOZEK, P. In AIP CONFERENCE PROCEEDINGS, 2012, vol. 1422., WOS
16. [1.1] BOZEK, P. In PHYSICAL REVIEW C, 2012, vol. 85, 014911., WOS
17. [1.1] BOZEK, P. In PHYSICAL REVIEW C, 2012, vol. 85, 034901., WOS
18. [1.1] BOZEK, P. In PHYSICAL REVIEW C, 2012, vol. 85, 064915., WOS
19. [1.1] BRAGUTA, V.V. In PHYSICAL REVIEW D, 2012, vol. 86, 014511., WOS
20. [1.1] BUZZATTI, A. In PHYSICAL REVIEW LETTERS, 2012, vol. 108, 022301., WOS
21. [1.1] CAINES, H. In AIP CONFERENCE PROCEEDINGS, 2012, vol. 1422., WOS
22. [1.1] CARR, L.D. In NATURE, 2012., vol. 491, Iss. 7426, pp. 681., WOS
23. [1.1] CHANDRA, V. In PHYSICAL REVIEW D, 2012, vol. 86, 114008., WOS
24. [1.1] CHAUDHURI, A.K. In JOURNAL OF PHYSICS G, 2012, vol. 39, 125102., WOS
25. [1.1] CHAUDHURI, A.K. In PHYSICS LETTERS, B, 2012, vol. 710, pp. 339., WOS
26. [1.1] CHERNICOFF, M. In JOURNAL OF HIGH ENERGY PHYSICS, 2012, Iss. 8, 041., WOS
27. [1.1] CHERNICOFF, M. In JOURNAL OF HIGH ENERGY PHYSICS, 2012, Iss. 8, 100., WOS
28. [1.1] DENG, V.-T. In PHYSICS LETTERS, B, 2012, vol. 711, pp. 301., WOS
29. [1.1] DUSLING, K. In PHYSICAL REVIEW D, 2012, vol. 86, 085040., WOS
30. [1.1] FENG, Q. In PLASMA SCIENCE AND TECHNOLOGY, 2012, vol. 14, pp. 573., WOS

31. [1.1] FERREIRO, E.G. In *PHYSICAL REVIEW C*, 2012, vol. 86, 034903., WOS
32. [1.1] FICNAR, A. In *PHYSICAL REVIEW D*, 2012, vol. 86, 04601., WOS
33. [1.1] GALANTE, D. In *JOURNAL OF HIGH ENERGY PHYSICS*, 2012, Iss. 7, 096., WOS
34. [1.1] GIATAGANAS, D. In *JOURNAL OF HIGH ENERGY PHYSICS*, 2012, Iss. 7, 031., WOS
35. [1.1] GRECO, V. In *PHYSICAL REVIEW C*, 2012, vol. 86, 044905., WOS
36. [1.1] GUPTA, S. In *PRAMANA*, 2012, vol. 79, pp. 753., WOS
37. [1.1] GUPTA, S. In *PROGRESS OF THEORETICAL PHYSICS SUPPL*, 2012, vol. 193, pp. 11., WOS
38. [1.1] HAMAGAKI, H. In *PROGRESS OF THEORETICAL PHYSICS SUPPL*, 2012, vol. 193, pp. 79., WOS
39. [1.1] HE, M. In *PHYSICAL REVIEW C*, 2012, vol. 86, 014903., WOS
40. [1.1] HE, X. In *ACTA PHYSICA POLONICA B*, 2012, vol. 43, pp. 527., WOS
41. [1.1] HE, M. In *PHYSICAL REVIEW C*, 2012, vol. 85, 044911., WOS
42. [1.1] HUNG, N. In *PHYSICAL REVIEW C*, 2012, vol. 86, 024302., WOS
43. [1.1] IHL, M. In *JOURNAL OF HIGH ENERGY PHYSICS*, 2012, Iss. 12, 070., WOS
44. [1.1] JACAK, B. In *SCIENCE*, 2012, vol. 6092, p. 310., WOS
45. [1.1] JIANG, B.-F. In *JOURNAL OF PHYSICS G*, 2012, vol. 39, 025007., WOS
46. [1.1] KACZMAREK, O. In *PHYSICAL REVIEW D*, 2012, vol. 86, 036006., WOS
47. [1.1] KATORE, S.D. In *INT.J.THEORET.PHYS.*, 2012, vol. 51, p. 6., WOS
48. [1.1] KATORE, S.D. In *INT.J.THEORET.PHYS.*, 2012, vol. 51, p. 83., WOS
49. [1.1] KE, H. In *JOURNAL OF PHYSICS CONFERENCE SERIES*, 2012, vol. 389, 012035., WOS
50. [1.1] KIRITSIS, E. In *JOURNAL OF PHYSICS G*, 2012, vol. 39, 054003., WOS
51. [1.1] KITAZAWA, M. In *PHYSICAL REVIEW C*, 2012, vol. 86, 024904., WOS
52. [1.1] KUIJER, P.G. In *EPJ WEB OF CONFERENCES*, 2012, vol. 28, UNSP 03007., WOS
53. [1.1] KUMAR T.V. In *PHYSICAL REVIEW D*, 2012, vol. 86, 094032., WOS
54. [1.1] LANG, R. In *EUROPEAN PHYSICAL JOURNAL A*, 2012, vol. 48, 109., WOS
55. [1.1] LI, W. In *MODERN PHYSICS LETTERS A*, 2012, vol. 27, 1230018., WOS
56. [1.1] LI, Z. In *JOURNAL OF PHYSICS G*, 2012, vol. 39, 085101., WOS
57. [1.1] LOIZIDES, C. In *AIP CONFERENCE PROCEEDINGS*, 2012, vol. 1441, p. 79., WOS
58. [1.1] MAJUMDER, A. In *PHYSICAL REVIEW D*, 2012, vol. 85, 014023., WOS
59. [1.1] MAJUMDER, A. In *PHYSICAL REVIEW LETTERS*, 2012, vol. 109, 202301., WOS
60. [1.1] MAMO, K.A. In *JOURNAL OF HIGH ENERGY PHYSICS*, 2012, Iss. 10, 070., WOS
61. [1.1] MASTACHE, J. In *PHYSICAL REVIEW D*, 2012, vol. 85, 123009., WOS
62. [1.1] MATTIELLO, S. In *NUCLEAR PHYSICS A*, 2012, vol. 894, p. 1., WOS
63. [1.1] MAZUMDER, S. In *PHYSICAL REVIEW C*, 2012, vol. 85, 044918., WOS
64. [1.1] MEHTAR-TANI, Y. In *JOURNAL OF HIGH ENERGY PHYSICS*, 2012,



*Iss. 10, 197., WOS*

65. [1.1] MEHTAR-TANI, Y. In *JOURNAL OF HIGH ENERGY PHYSICS*, 2012, Iss. 4, 064., WOS

66. [1.1] MONNAI, A. In *PHYSICAL REVIEW C*, 2012, vol. 86, 014908., WOS

67. [1.1] MOORE, G.D. In *JOURNAL OF HIGH ENERGY PHYSICS*, 2012, Iss. 11, 148., WOS

68. [1.1] MUELLER, B. In *ANNUAL REVIEW OF NUCLEAR AND PARTICLE SCIENCE*, 2012, vol. 62, p. 361., WOS

69. [1.1] MYKKANEN, A. In *JOURNAL OF HIGH ENERGY PHYSICS*, 2012, Iss. 5, 069., WOS

70. [1.1] NAKKAGAWA, H. In *PHYSICAL REVIEW D*, 2012, vol. 85, 031902., WOS

71. [1.1] NAKKAGAWA, H. In *PHYSICAL REVIEW D*, 2012, vol. 86, 096007., WOS

72. [1.1] NEUFELD, R.B. In *PHYSICAL REVIEW C*, 2012, vol. 86, 024905., WOS

73. [1.1] NGUYEN DINH DANG. In *JOURNAL OF PHYSICS CONFERENCE SERIES*, 2012, vol. 366, 012035., WOS

74. [1.1] NIEMI, H. In *PHYSICAL REVIEW C*, 2012, vol. 86, 014909., WOS

75. [1.1] OHNISHI, A. In *PROGRESS OF THEORETICAL PHYSICS SUPPLEMENT*, 2012, vol. 193, p. 1., WOS

76. [1.1] OTWINOWSKI, J. In *ACTA PHYSICA POLONICA B*, 2012, vol. 43, p. 713., WOS

77. [1.1] OVANESYAN, G. In *PHYSICS LETTERS B*, 2012, vol. 706, p. 371., WOS

78. [1.1] PAL, S. In *PHYSICAL REVIEW C*, 2012, vol. 85, 011901., WOS

79. [1.1] PAL, S. In *PHYSICS LETTERS B*, 2012, vol. 709, p. 82., WOS

80. [1.1] PERALTA-RAMOS, J. In *JOURNAL OF HIGH ENERGY PHYSICS*, 2012, Iss. 2, 085., WOS

81. [1.1] PLUMARI, S. In *AIP CONFERENCE PROCEEDINGS*, 2012, vol. 1422., WOS

82. [1.1] PLUMARI, S. In *PHYSICAL REVIEW C*, 2012, vol. 86, 054902., WOS

83. [1.1] PRATT, S. In *PHYSICAL REVIEW LETTERS*, 2012, vol. 108, 212301., WOS

84. [1.1] ROY, V. *PHYSICAL REVIEW C*, 2012, vol. 85, 024909., WOS

85. [1.1] SALGADO, C.A. In *AIP CONFERENCE PROCEEDINGS*, 2012, vol. 1441, p. 87., WOS

86. [1.1] SALGADO, C.A. In *JOURNAL OF PHYSICS CONFERENCE SERIES*, 2012, vol. 381, 012012., WOS

87. [1.1] SALUR, S. In *AIP CONFERENCE PROCEEDINGS*, 2012, vol. 1441, p. 865., WOS

88. [1.1] SATZ, H. In *INTERNATIONAL JOURNAL OF MODERN PHYSICS E*, 2012, vol. 21, 1230006., WOS

89. [1.1] SCHAEFER, T. In *PHYSICAL REVIEW A*, 2012, vol. 85, 033623., WOS

90. [1.1] SHURYAK, E. In *PHYSICAL REVIEW D*, 2012, vol. 85, 104006., WOS

91. [1.1] SIMIC, D. In *PHYSICAL REVIEW D*, 2012, vol. 85, 105027., WOS

92. [1.1] SONG, H. In *EUROPEAN PHYSICAL JOURNAL*, 2012, vol. 48, 163., WOS

93. [1.1] SONG, J. In *PHYSICAL REVIEW C*, 2012, vol. 86, 064903., WOS

94. [1.1] STEINHEIMER, J. In *PHYSICAL REVIEW C*, 2012, vol. 86, 044903., WOS

95. [1.1] STEINHEIMER, J. In *PHYSICS LETTERS B*, 2012, vol. 714, p. 85.,

WOS

96. [1.1] STEPHANOV, M.A. In *JOURNAL OF HIGH ENERGY PHYSICS*, 2012, Iss. 2, 017., WOS
97. [1.1] SU, NAN. In *COMMUNICATION IN THEORETICAL PHYSICS*, 2012, vol. 57, p. 409., WOS
98. [1.1] TAWFIK, A. In *CANADIAN JOURNAL OF PHYSICS*, 2012, vol. 90, p. 433., WOS
99. [1.1] TAWFIK, A. In *PHYSICAL REVIEW A*, 2012, vol. 85, 084032., WOS
100. [1.1] TIAN, J. In *ACTA PHYSICA POLONICA B PROCEEDINGS SUPPL*, 2012, vol. 5, p. 503., WOS
101. [1.1] TROSHIN, S.M. In *MODERN PHYSICS LETTERS A*, 2012, vol. 27, 1271001., WOS
102. [1.1] WADA, M. In *ACTA PHYSICA POLONICA B PROCEEDINGS SUPPL*, 2012, vol. 5, p. 249., WOS
103. [1.1] WEBER, M. In *JOURNAL OF PHYSICS CONFERENCE SERIES*, 2012, vol. 389, 20125., WOS
104. [1.1] WERNER, K. In *PHYSICAL REVIEW LETTERS*, 2012, vol. 109, 102301., WOS
105. [1.1] WIRANATA, A. In *PHYSICAL REVIEW C*, 2012, vol. 85, 054908., WOS
106. [1.1] WU, Y. In *CENTRAL EUROPEAN JOURNAL OF PHYSICS*, 2012, vol. 10, p. 1341., WOS
107. [1.1] YILMAZ, I. In *GENERAL RELATIVITY AND GRAVITATION*, 2012, vol. 44, p. 2313., WOS
108. [1.1] ZAPP, K.C. In *EUROPEAN PHYSICAL JOURNAL C*, 2012, vol. 72, 2028., WOS
109. [1.1] di NEZZA, P. In *AIP CONFERENCE PROCEEDINGS*, 2012, vol. 1427., WOS

ADCA474 STAR COLL., incl. - FILIP, Peter. Production of  $e^{+}e^{-}$  pairs accompanied by nuclear dissociation in ultraperipheral heavy-ion collisions. In *Physical Review C*, 2004, vol. 70, no. 3, 031902. (2.708 - IF2003). (2004 - Current Contents, SCOPUS). ISSN 0556-2813.

Citácie:

1. [1.1] AREFEVA I.Y. In *JOURNAL OF HIGH ENERGY PHYSICS*, 2012, Iss. 5, 117., WOS
2. [1.1] SAHIN, B. In *PHYSICAL REVIEW D*, 2012, vol. 86, 074026., WOS

ADCA475 STAR COLL., incl. - FILIP, Peter. Photon and neutral pion production in Au+Au collisions at  $\sqrt{s(NN)}=130$  GeV. In *Physical Review C*, 2004, vol. 70, no. 4, 044902. (2.708 - IF2003). (2004 - Current Contents, SCOPUS). ISSN 0556-2813.

Citácie:

1. [1.1] LI, W. In *ACTA PHYSICA POLONICA B PROCEEDINGS SUPPLEMENT*, 2012, vol. 5, pp. 413., WOS

ADCA476 STAR COLL., incl. - FILIP, Peter. Electric charge fluctuations in central Pb+Pb collisions at 20A, 30A, 40A, 80A and 158A GeV. In *Physical Review C*, 2004, vol. 70, no. 6, 064903. (2.708 - IF2003). (2004 - Current Contents, SCOPUS). ISSN 0556-2813.

Citácie:

1. [1.1] GREBIESZKOW, K. In *ACTA PHYSICA POLONICA B PROCEEDINGS SUPPLEMENT*, 2012, vol. 5, pp. 727., WOS
2. [1.1] MACKOWIAK, M. In *PHYSICS OF ATOMIC NUCLEI*, 2012, vol. 75, pp. 651., WOS

ADCA477 STAR COLL., incl. - FILIP, Peter. Pion interferometry in Au+Au collisions at root



s(NN)=200 GeV. In *Physical review C*, 2005, vol. 71, no. 4, 044906. (3.125 - IF2004). (2005 - Current Contents, WOS, SCOPUS). ISSN 0556-2813.

Citácie:

1. [1.1] BOZEK, Piotr. *Flow and interferometry in (3+1)-dimensional viscous hydrodynamics*. In *PHYSICAL REVIEW C*. ISSN 0556-2813, 2012, vol. 85, no. 3, 034901., WOS
2. [1.1] BOZEK, Piotr. *HYDRODYNAMIC FLOW FROM RHIC TO LHC*. In *ACTA PHYSICA POLONICA B*. ISSN 0587-4254, 2012, vol. 43, no. 4, pp. 689., WOS
3. [1.1] RYBLEWSKI, Radoslaw - FLORKOWSKI, Wojciech. *Highly anisotropic hydrodynamics in 3+1 space-time dimensions*. In *PHYSICAL REVIEW C*. ISSN 0556-2813, 2012, vol. 85, no. 6, 064901., WOS
4. [1.1] SHEN, Chun - HEINZ, Ulrich. *Collision energy dependence of viscous hydrodynamic flow in relativistic heavy-ion collisions*. In *PHYSICAL REVIEW C*. ISSN 0556-2813, 2012, vol. 85, no. 5, 054902., WOS
5. [1.1] YIN HONGJIE - EFAAF, M. J. - ZHANG WEINING. *Two-Pion Interferometry for the Granular Source in Heavy Ion Collisions at LHC Energies*. In *PLASMA SCIENCE & TECHNOLOGY*. ISSN 1009-0630, 2012, vol. 14, no. 6., WOS

ADCA478 STAR COLL., incl. - FILIP, Peter.  $K(892)^*$  resonance production in Au+Au and p+p collisions at root s(NN)=200GeV. In *Physical review C*, 2005, vol. 71, no. 6, 064902. (3.125 - IF2004). (2005 - Current Contents, WOS, SCOPUS). ISSN 0556-2813.

Citácie:

1. [1.1] BADALA, A. In *AIP CONFERENCE PROCEEDINGS*, 2012, vol. 1422., WOS
2. [1.1] CAMPBELL, S. In *EPJ WEB OF CONFERENCE*, 2012, vol. 36., WOS
3. [1.1] FRAGIACOMO, E. In *EPJ WEB OF CONFERENCE*, 2012, vol. 36., WOS
4. [1.1] WADA, M. In *EPJ WEB OF CONFERENCE*, 2012, vol. 36, UNSP 00020., WOS
5. [1.1] ZHANG, K. In *PHYSICAL REVIEW C*, 2012, vol. 86, 014906., WOS

ADCA479 STAR COLL., incl. - FILIP, Peter. Incident energy dependence of p(t) correlations at relativistic energies. In *Physical review C*, 2005, vol. 72, no. 4, 044902. (3.125 - IF2004). (2005 - Current Contents, WOS, SCOPUS). ISSN 0556-2813.

Citácie:

1. [1.1] BOZEK, Piotr - BRONIOWSKI, Wojciech. *Transverse-momentum fluctuations in relativistic heavy-ion collisions from event-by-event viscous hydrodynamics*. In *PHYSICAL REVIEW C*. ISSN 0556-2813, 2012, vol. 85, no. 4, 044910., WOS
2. [1.1] DE BARROS, G. O. V. - STEADMAN, SG - STEPHANS, GSF - TAYLOR, FE. *Inclusive Distribution of Fully Reconstructed Jets in Heavy Ion Collisions at RHIC: Status Report*. In *19TH PARTICLES AND NUCLEI INTERNATIONAL CONFERENCE (PANIC11)*. ISSN 0094-243X, 2012, vol. 1441, pp. 825., WOS
3. [1.1] GAVIN, Sean - MOSCHELLI, George. *Fluctuation and flow probes of early-time correlations in relativistic heavy ion collisions*. In *28TH WINTER WORKSHOP ON NUCLEAR DYNAMICS 2012*. ISSN 1742-6588, 2012, vol. 389, 012038., WOS
4. [1.1] GAVIN, Sean - MOSCHELLI, George. *Fluctuation probes of early-time correlations in nuclear collisions*. In *PHYSICAL REVIEW C*. ISSN 0556-2813, 2012, vol. 85, no. 1, 014905., WOS
5. [1.1] JENA, Satyajit. *First Event-by-Event Fluctuation Studies in Pb-Pb*

- Collisions at LHC Energy by the ALICE Experiment. In PROGRESS OF THEORETICAL PHYSICS SUPPLEMENT. ISSN 0375-9687, 2012, no. 193, pp. 301., WOS*
6. [1.1] WU YUANFANG - CHEN LIZHU - XUE, Pan - MING, Shao - CHEN, Xiaosong. Finite-size behaviour of a critical related observable. In CENTRAL EUROPEAN JOURNAL OF PHYSICS. ISSN 1895-1082, 2012, vol. 10, no. 6, pp. 1341., WOS
- ADCA480 STAR COLL., incl. - FILIP, Peter. Multiplicity and pseudorapidity distributions of charged particles and photons as forward pseudorapidity in Au plus Au collisions at root s(NN)=62.4 GeV. In Physical review C, 2006, vol. 73, no. 3, 034906. (3.610 - IF2005). (2006 - Current Contents, SCOPUS). ISSN 0556-2813.  
Citácie:  
*1. [1.1] GHOSH, D. In JOURNAL OF PHYSICS G, 2012, vol. 39, 035101., WOS*
- ADCA481 STAR COLL., incl. - FILIP, Peter. Minijet deformation and charge-independent angular correlations on momentum subspace (eta, phi) in AU-Au collisions at root s-NN=130 GeV. In Physical review C, 2006, vol. 73, no. 6, 064907. (3.610 - IF2005). (2006 - Current Contents, SCOPUS). ISSN 0556-2813.  
Citácie:  
*1. [1.1] FEOFILOV, G. In AIP CONFERENCE PROCEEDINGS, 2012, vol. 1422., WOS*  
*2. [1.1] HWA, R.C. In PHYSICAL REVIEW C, 2012, vol. 86, 024901., WOS*  
*3. [1.1] WONG, Ch.-Y. PHYSICAL REVIEW C, 2012, vol. 85, 064909., WOS*
- ADCA482 STAR COLL., incl. - FILIP, Peter. System-size independence of directed flow measured at the BNL relativistic heavy-ion collider. In Physical Review Letters, 2008, vol. 101, no. 25, 252301. (6.944 - IF2007). (2008 - Current Contents, WOS, SCOPUS). ISSN 0031-9007.  
Citácie:  
*1. [1.1] BOZEK, P. In ACTA PHYSICA POLONICA B, 2012, vol. 43, pp. 689., WOS*  
*2. [1.1] BOZEK, P. In AIP CONFERENCE PROCEEDINGS, 2012, vol. 1422., WOS*  
*3. [1.1] BOZEK, P. In PHYSICAL REVIEW C, 2010, VOL. 81, 054902., WOS*  
*4. [1.1] BOZEK, P. In PHYSICAL REVIEW C, 2012, vol. 85, 034901., WOS*  
*5. [1.1] BOZEK, P. In PHYSICS LETTERS B, 2012, vol. 717, pp. 287., WOS*  
*6. [1.1] CSERNAI, L.P. In ACTA PHYSICA POLONICA B, 2012, vol. 43, pp. 803., WOS*  
*7. [1.1] EYYUBOVA, G. In ACTA PHYSICA POLONICA B PROC SUPPL, 2012, vol. 5, pp. 445., WOS*  
*8. [1.1] PANDIT, Y. In ACTA PHYSICA POLONICA B PROC SUPPL, 2012, vol. 5, pp. 439., WOS*  
*9. [1.1] RYBLEWSKI, R. In ACTA PHYSICA POLONICA B PROC SUPPL, 2012, vol. 5, pp. 457., WOS*  
*10. [1.1] RYBLEWSKI, R. In PHYSICAL REVIEW C, 2012, vol. 85, 064901., WOS*
- ADCA483 STAR, Coll. incl. - FILIP, Peter. Observation of an antimatter hypernucleus. In Science, 2010, vol. 328, no. 5974, p. 58-62. (29.747 - IF2009). (2010 - Current Contents). ISSN 0036-8075.  
Citácie:  
*1. [1.1] BOTTA, Elena - BRESSANI, Tullio - GARBARINO, Gianni. Strangeness nuclear physics: a critical review on selected topics. In EUROPEAN PHYSICAL JOURNAL A. ISSN 1434-6001, 2012, vol. 48, no. 3, 41., WOS*

2. [1.1] BOTVINA, A.S. In *NUCLEAR PHYSICS A*, 2012, vol. 881, pp. 228-239., WOS
3. [1.1] BOTVINA, A.S. In *PHYSICAL REVIEW C*, 2012, vol. 86, 011601., WOS
4. [1.1] CHEN, Gang - YAN, Yu-Liang - LI, De-Sheng - ZHOU, Dai-Mei - WANG, Mei-Juan - DONG, Bao-Guo - SA, Ben-Hao. Antimatter production in central Au+Au collisions at  $\sqrt{s(NN)}=200$  GeV. In *PHYSICAL REVIEW C*. ISSN 0556-2813, 2012, vol. 86, no. 5, 054910., WOS
5. [1.1] CLEYMANS, J. - TURKO, L. ANTIMATTER PRODUCTION IN HIGH ENERGY COLLISIONS. In *HIC FOR FAIR WORKSHOP AND XXVIII MAX BORN SYMPOSIUM THREE DAYS ON QUARKYONIC ISLAND*. ISSN 1899-2358, 2012, vol. 5, no. 3, pp. 669., WOS
6. [1.1] CLEYMANS, J. THE THERMAL MODEL AT THE LARGE HADRON COLLIDER. In *ACTA PHYSICA POLONICA B*. ISSN 0587-4254, 2012, vol. 43, no. 4, pp. 563., WOS
7. [1.1] GAITANOS, T. - LARIONOV, A. B. - LENSKE, H. - MOSEL, U. Formation of double-Lambda hypemuclei at PANDA. In *NUCLEAR PHYSICS A*. ISSN 0375-9474, 2012, vol. 881, pp. 240., WOS
8. [1.1] SAFARIK, Karel. EXPERIMENTAL ACHIEVEMENTS AT THE DAWN OF LHC ERA. In *ACTA PHYSICA POLONICA B*. ISSN 0587-4254, 2012, vol. 43, no. 4, pp. 867., WOS
9. [1.1] STEINHEIMER, J. - GUDIMA, K. - BOTVINA, A. - MISHUSTIN, I. - BLEICHER, M. - STOECKER, H. Hypernuclei, dibaryon and antinuclei production in high energy heavy ion collisions: Thermal production vs. coalescence. In *PHYSICS LETTERS B*. ISSN 0370-2693, 2012, vol. 714, no. 1, pp. 85., WOS
10. [1.1] XU, Renli - WU, Chen - REN, Zhongzhou. Single-A hypernuclei in the relativistic mean-field theory with parameter set FSU. In *JOURNAL OF PHYSICS G-NUCLEAR AND PARTICLE PHYSICS*. ISSN 0954-3899, 2012, vol. 39, no. 8, 085107., WOS

ADCA484 STAR, Coll. incl. - FILIP, Peter. Identified particle production, azimuthal anisotropy and interferometry measurements in Au+Au collisions at  $\sqrt{s}=9.2$  GeV. In *Physical Review C. Nuclear physics*, 2010, vol. 81, no. 2, 024911. (3.477 - IF2009). (2010 - Current Contents, SCOPUS). ISSN 0556-2813.

Citácie:

1. [1.1] CHEN, X.-F. In *ACTA PHYSICA SINICA*, 2012, vol. 61, 092501., WOS
2. [1.1] JACAK, B.V. In *SCIENCE*, 2012, vol. 337, pp. 310., WOS
3. [1.1] KONCHAKOVSKI, V.P. In *PHYSICAL REVIEW C*, 2012, vol. 85, 011902., WOS
4. [1.1] NASIM, M. In *ACTA PHYSICA POLONICA B PROC SUPPL*, 2012, vol. 5, pp. 317., WOS
5. [1.1] SAFARIK, K. In *ACTA PHYSICA POLONICA B*, 2012, vol. 43, pp. 867., WOS

ADCA485 STAR, Coll. incl. - FILIP, Peter. Observation of charge-dependent azimuthal correlations and possible local strong parity violation in heavy ion collisions. In *Physical Review C. Nuclear physics*, 2010, vol. 81, no. 5, 54908. (3.477 - IF2009). (2010 - Current Contents, SCOPUS). ISSN 0556-2813.

Citácie:

1. [1.1] KE, H. In *JOURNAL OF PHYSICS CONFERENCE SERIES*, 2012, vol. 389, 012035., WOS
2. [1.1] TONEEV, V.D. In *PHYSICAL REVIEW C*, 2012, vol. 86, 064907., WOS
3. [1.1] WARRINGA, H.J. In *PHYSICAL REVIEW D*, 2012, vol. 86, 085029., WOS

4. [1.2] BARGER, V. - KEUNG, W.-Y. - YU, C.-T. Looking for parity nonconservation from strong interactions beyond QCD. In *Physical Review D Particles, Fields, Gravitation and Cosmology*, 2012, 85, 5, 056008., SCOPUS
5. [1.2] BZDAK, A. - SKOKOV, V. Event-by-event fluctuations of magnetic and electric fields in heavy ion collisions. In *Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics*, 2012, 710, 1, pp. 171-174., SCOPUS
6. [1.2] BZDAK, A. Suppression of elliptic-flow-induced correlations in an observable of possible local parity violation. In *Physical Review C Nuclear Physics*, 2012, 85, 4, 044919., SCOPUS
7. [1.2] CHATTERJEE, B. - MISHRA, H. - MISHRA, A. Strong CP violation and chiral symmetry breaking in hot and dense quark matter. In *Physical Review D Particles, Fields, Gravitation and Cosmology*, 2012, 85, 11, 114008., SCOPUS
8. [1.2] DENG, W.-T. - HUANG, X.-G. Event-by-event generation of electromagnetic fields in heavy-ion collisions. In *Physical Review C Nuclear Physics*, 2012, 85, 4, 044907., SCOPUS
9. [1.2] GATTO, R. - RUGGIERI, M. Hot quark matter with an axial chemical potential. In *Physical Review D Particles, Fields, Gravitation and Cosmology*, 2012, 85, 5, pp., SCOPUS
10. [1.2] KOCH, V. - BZDAK, A. - LIAO, J. Have we seen local parity violation in heavy-ion collisions? In *Acta Physica Polonica B, Proceedings Supplement*, 2012, 5, 3, pp. 773-780., SCOPUS
11. [1.2] NAM, S.-I. Electrical conductivity of quark matter at finite  $T$  under external magnetic field. In *Physical Review D Particles, Fields, Gravitation and Cosmology*, 2012, 86, 3, 033014., SCOPUS
12. [1.2] TONEEV, V.D. - VORONYUK, V. Chiral magnetic effect and electromagnetic field evolution. In *Acta Physica Polonica B, Proceedings Supplement*, 2012, 5, 3, pp. 887-896., SCOPUS
13. [1.2] ZHITNITSKY, A.R. Local  $P$  violation effects and thermalization in QCD: Views from quantum field theory and holography. In *Nuclear Physics A*, 2012, 886, pp. 17-47., SCOPUS

ADCA486 STAR, Coll. incl. - FILIP, Peter. Balance functions from Au+Au, d+Au and p+p collisions at  $\sqrt{s}=200$  GeV. In *Physical Review C. Nuclear physics*, 2010, vol. 82, no. 2, 024905. (3.477 - IF2009). (2010 - Current Contents, SCOPUS). ISSN 0556-2813.

Citácie:

1. [1.1] PRATT, S. In *PHYSICAL REVIEW LETTERS*, 2012, vol. 108, 212301., WOS
2. [1.1] BOZEK, P. In *ACTA PHYSICA POLONICA B PROC SUPPL*, 2012, vol. 5, pp. 1057., WOS
3. [1.1] BOZEK, P. In *PHYSICAL REVIEW LETTERS*, 2012, vol. 109, 062301., WOS
4. [1.1] PRATT, S. In *PHYSICAL REVIEW C*, 2012, vol. 85, 014904., WOS
5. [1.1] SONG, J. In *PHYSICAL REVIEW C*, 2012, vol. 86, 064903., WOS
6. [1.1] TONEEV, V.D. In *PHYSICAL REVIEW C*, 2012, vol. 86, 064907., WOS

ADCA487 STAR, Coll. incl. - FILIP, Peter. Azimuthal di-hadron correlations in d+Au and Au+Au collisions at  $\sqrt{s}=200$  GeV measured at the STAR detector. In *Physical Review C. Nuclear physics*, 2010, vol. 82, 024912. (3.477 - IF2009). (2010 - Current Contents, SCOPUS). ISSN 0556-2813.

Citácie:

1. [1.1] ALFIMOV, M.N. In *NUCLEAR PHYSICS A*, 2012, VOL. 875, PP. 160., WOS



2. [1.1] AYALA, A. In *PHYSICAL REVIEW C*, 2012, vol. 86, 034901., WOS
  3. [1.1] KAPUSTA, J.I. In *PHYSICAL REVIEW C*, 2012, vol. 85, 054906., WOS
  4. [1.1] ZHANG, X. In *PHYSICS LETTERS B*, 2012, vol. 713, pp. 35., WOS
- ADCA488 STAR, Coll. incl. - FILIP, Peter. Longitudinal scaling property of the charge balance function. In *Physics Letters B*, 2010, vol. 690, nO. 3, p. 239-244. (5.083 - IF2009). (2010 - Current Contents, WOS, SCOPUS). ISSN 0370-2693.
- Citácie:
1. [1.1] SONG, Jun - SHAO, Feng-lan - LIANG, Zuo-tang. Quark charge balance function and hadronization effects in relativistic heavy ion collisions. In *PHYSICAL REVIEW C*. ISSN 0556-2813, 2012, vol. 86, no. 6, 064903., WOS
- ADCA489 STAR, Coll. incl. - FILIP, Peter. Upsilon cross section in p+p collisions at  $\sqrt{s}=200$  GeV. In *Physical Review D*, 2010, vol. 82, no. 1, 012004. (4.922 - IF2009). (2010 - Current Contents). ISSN 1550-7998.
- Citácie:
1. [1.1] LANSBERG, J.P. In *FEW-BODY SYSTEMS*, 2012, vol. 53, pp. 11., WOS
- ADCA490 STAR, Coll. incl. - FILIP, Peter. Three-particle coincidence of the long range pseudorapidity correlation in high energy nucleus-nucleus collisions. In *Physical Review Letters*, 2010, vol. 105, nO. 2, 022301. (7.328 - IF2009). (2010 - Current Contents, WOS, SCOPUS). ISSN 0031-9007.
- Citácie:
1. [1.1] CHEREDNIKOV, I.O. In *INTERNATIONAL JOURNAL OF MODERN PHYSICS A*, 2012, vol. 27, 1250008., WOS
  2. [1.1] HWA, R.C. In *PHYSICAL REVIEW C*, 2012, vol. 86, 024901., WOS
- ADCA491 STAR, Coll. incl. - FILIP, Peter. Higher moments of net proton multiplicity distributions at RHIC. In *Physical Review Letters*, 2010, vol. 105, no. 2, 022302. (7.328 - IF2009). (2010 - Current Contents, WOS, SCOPUS). ISSN 0031-9007.
- Citácie:
1. [1.1] ANTONIOU, Nikolaos G. - DAVIS, Nikos - DIAKONOS, Fotis K. Search for critical fluctuations of the proton density in central A plus A collisions at maximum SPS energy. In *CENTRAL EUROPEAN JOURNAL OF PHYSICS*. ISSN 1895-1082, 2012, vol. 10, no. 6, pp. 1330., WOS
  2. [1.1] ASAKAWA, Masayuki. Baryon number cumulants and proton number cumulants in relativistic heavy ion collisions. In *CENTRAL EUROPEAN JOURNAL OF PHYSICS*. ISSN 1895-1082, 2012, vol. 10, no. 6, pp. 1314., WOS
  3. [1.1] GUPTA, Sourendu. Finite size scaling on the phase diagram of QCD. In *CENTRAL EUROPEAN JOURNAL OF PHYSICS*. ISSN 1895-1082, 2012, vol. 10, no. 6, pp. 1261., WOS
  4. [1.1] GUPTA, Sourendu. Sign-Posting the Phase Diagram of QCD. In *PROGRESS OF THEORETICAL PHYSICS SUPPLEMENT*. ISSN 0375-9687, 2012, vol., no. 193, pp. 11., WOS
  5. [1.1] KARSCH, Frithjof - TURKO, L. UNIVERSAL PROPERTIES OF MOMENTS OF NET BARYON NUMBER FLUCTUATIONS. In *HIC FOR FAIR WORKSHOP AND XXVIII MAX BORN SYMPOSIUM THREE DAYS ON QUARKYONIC ISLAND*. ISSN 1899-2358, 2012, vol. 5, no. 3, pp. 747., WOS
  6. [1.1] KARSCH, Frithjof. Determination of freeze-out conditions from lattice QCD calculations. In *CENTRAL EUROPEAN JOURNAL OF PHYSICS*. ISSN 1895-1082, 2012, vol. 10, no. 6, pp. 1234., WOS
  7. [1.1] REDLICH, Krzysztof. Probing the QCD chiral cross-over transition in heavy ion collisions. In *CENTRAL EUROPEAN JOURNAL OF PHYSICS*. ISSN 1895-1082, 2012, vol. 10, no. 6, pp. 1254., WOS
  8. [1.2] BAZAVOV, A. - DING, H.-T. - HEGDE, P. - KACZMAREK, O. - KARSCH, F. - LAERMANN, E. - MUKHERJEE, S. - PETRECZKY, P. -

*SCHMIDT, C. - SMITH, D. - SOELDNER, W. - WAGNER, M. Freeze-out conditions in heavy ion collisions from QCD thermodynamics. In Physical Review Letters, 2012, 109, 19., SCOPUS*

9. [1.2] *BRAUN-MUNZINGER, P. - FRIMAN, B. - KARSCH, F. - REDLICH, K. - SKOKOV, V. Net charge probability distributions in heavy ion collisions at chemical freeze-out. In Nuclear Physics A, 2012, 880, pp. 48-64., SCOPUS*

10. [1.2] *BZDAK, A. - KOCH, V. Acceptance corrections to net baryon and net charge cumulants. In Physical Review C Nuclear Physics, 2012, 86, 4., SCOPUS*

11. [1.2] *CHEN, L.-Z. - PAN, X. - CHEN, X.-S. - WU, Y.-F. Critical behavior of higher cumulants of order parameter in the 3D-Ising universality class. In Chinese Physics C, 2012, 36, 8, pp. 727-732., SCOPUS*

12. [1.2] *GUPTA, S. Sign-posting the phase diagram of QCD. In Progress of Theoretical Physics Supplement, 2012, 193, pp. 11-14., SCOPUS*

13. [1.2] *HEGDE, P. Fluctuations and higher moments of conserved charges from the lattice. In AIP Conference Proceedings, 2012, 1441, pp. 898-900., SCOPUS*

14. [1.2] *KAPUSTA, J.I. - TORRES-RINCON, J.M. Thermal conductivity and chiral critical point in heavy ion collisions. In Physical Review C Nuclear Physics, 2012, 86, 5., SCOPUS*

15. [1.2] *KARSCH, F. O(4) scaling, pseudo-critical temperatures and freeze-out in heavy ion collisions. In AIP Conference Proceedings, 2012, 1441, pp. 901-903., SCOPUS*

16. [1.2] *KITAZAWA, M. - ASAKAWA, M. Relation between baryon number fluctuations and experimentally observed proton number fluctuations in relativistic heavy ion collisions. In Physical Review C Nuclear Physics, 2012, 86, 2., SCOPUS*

17. [1.2] *KITAZAWA, M. - ASAKAWA, M. Revealing baryon number fluctuations from proton number fluctuations in relativistic heavy ion collisions. In Physical Review C Nuclear Physics, 2012, 85, 2., SCOPUS*

18. [1.2] *SCHAEFER, B.-J. - WAGNER, M. QCD critical region and higher moments for three-flavor models. In Physical Review D Particles, Fields, Gravitation and Cosmology, 2012, 85, 3., SCOPUS*

ADCA492 STAR, Coll. incl. - FILIP, Peter. Inclusive  $\pi^0$ , eta and direct photon production at high transverse momentum in p+p and d+Au collisions at  $\sqrt{s}=200$  GeV. In Physical Review C, 2010, vol. 81, no. 6, 64904. (3.477 - IF2009). (2010 - Current Contents, SCOPUS). ISSN 0556-2813.

Citácie:

1. [1.1] *De FLORIAN, D. In PHYSICAL REVIEW D, 2012, vol. 85, 074028., WWOS*

2. [1.1] *HELENIUS, I. In JOURNAL OF HIGH ENERGY PHYSICS, 2012, no. 7, 073., WOS*

ADCA493 STAR COLL., incl. - FILIP, Peter. Event-wise (pt) fluctuations in Au-Au collisions at (odmocnina)  $\sqrt{s_{NN}}=130$  GeV. In Physical Review C. Nuclear physics, 2005, vol. 71, no. 6, 064906. (3.125 - IF2004). (2005 - Current Contents, WOS, SCOPUS). ISSN 0556-2813.

Citácie:

1. [1.1] *BOZEK, P. In PHYSICAL REVIEW C, 2012, vol. 85, 044910., WOS*

2. [1.1] *de BAROSS, G. In AIP CONFERENCE PROCEEDINGS, 2012, vol. 1441, pp. 825., WOS*

ADCA494 STAR COLL., incl. - FILIP, Peter. Azimuthal anisotropy in Au+Au collisions at (odmocnina)  $\sqrt{s_{NN}}=200$  GeV. In Physical Review C. Nuclear physics, 2005, vol. 72, no. 1, 014904. (3.125 - IF2004). (2005 - Current Contents, WOS, SCOPUS). ISSN



0556-2813.

Citácie:

1. [1.1] BOZEK, P. In *AIP CONFERENCE PROCEEDINGS*, 2012, 1422., WOS
2. [1.1] BUBALLA, M. In *PROGRESS IN PARTICLE AND NUCLEAR PHYSICS*, 2012, vol. 67, pp. 348., WOS
3. [1.1] GAVIN, S. In *PHYSICAL REVIEW C*, 2012, vol. 85, 014905., WOS
4. [1.1] HE, M. In *PHYSICAL REVIEW C*, 2012, vol. 85, 044911., WOS
5. [1.1] HECKMANN, K. In *EUROPEAN PHYSICAL JOURNAL A*, 2012, vol. 48, 10., WOS
6. [1.1] HIRANO, T. In *PROGRESS OF THEORETICAL PHYSICS SUPPL*, 2012, vol. 195, pp. 1-18., WOS
7. [1.1] HWA, R.C. In *PHYSICAL REVIEW C*, 2012, vol. 86, 024901., WOS
8. [1.1] KREIN, G. In *JOURNAL OF PHYSICS CONFERENCE SERIES*, 2012, vol. 378, 012032., WOS
9. [1.1] MATTIELLO, S. In *NUCLEAR PHYSICS A*, 2012, vol. 894, pp. 1-19., WOS
10. [1.1] NIEMI, H. In *ACTA PHYSICA POLONICA B PROCEEDINGS SUPPL*, 2012, vol. 5, pp. 305., WOS
11. [1.1] NIEMI, H. In *PHYSICAL REVIEW C*, 2012, vol. 86, 014909., WOS
12. [1.1] PANG, L. In *PHYSICAL REVIEW C*, 2002, vol. 86, 024911., WOS
13. [1.1] PERALTA-RAMOS, J. In *PHYSICAL REVIEW D*, 2012, vol. 86, 125024., WOS
14. [1.1] SONG, H. In *EUROPEAN PHYSICAL JOURNAL A*, 2012, vol. 48, 11., WOS
15. [1.1] SONG, H. In *PHYSICAL REVIEW C*, 2012, vol. 86, 059903., WOS
16. [1.1] SONG, H. In *PHYSICAL REVIEW LETTERS*, 2012, vol. 109, 139904., WOS
17. [1.1] TARANENKO, A. In *PHYSICS OF ATOMIC NUCLEI*, 2012, vol. 75, pp. 550., WOS
18. [1.1] WAMBACH, J. In *AIP CONFERENCE PROCEEDINGS*, 2012, vol. 1441, pp. 794., WOS
19. [1.1] WAMBACH, J. In *ACTA PHYSICA POLONICA B PROCEEDINGS SUPPL*, 2012, vol. 5, pp. 909., WOS

ADCA495 STAR COLL., incl. - FILIP, Peter. Multiplicity and pseudorapidity distributions of photons in Au+Au collisions at (odmocnina) SNN=62.4 GeV. In *Physical Review Letters*, 2005, vol. 95, p. 062301.

Citácie:

1. [1.1] GRECO, V. In *AIP CONFERENCE PROCEEDINGS*, 2012, vol. 1422., WOS

ADCA496 STAR COLL., incl. - FILIP, Peter. Multistrange Baryon elliptic flow in Au+Au collisions at root(NN)= 200 GeV. In *Physical Review Letters*, 2005, vol. 95, no. 12, 122301. (7.218 - IF2004). (2005 - Current Contents, WOS, SCOPUS). ISSN 0031-9007.

Citácie:

1. [1.1] BOZEK, P. In *AIP CONFERENCE PROCEEDINGS*, 2012, vol. 1422., WOS
2. [1.1] SHI, S. In *ACTA PHYSICA POLONICA, B PROC. SUPPL*, 2012, vol. 5, pp. 311., WOS
3. [1.1] SHI, S. In *CENTRAL EUROPEAN JOURNAL OF PHYSICS*, 2012, vol. 10, pp. 1338., WOS
4. [1.1] SULEYMANOV, M.K. In *JOURNAL OF PHYSICS CONFERENCE SERIES*, 2012, vol. 347, 012024., WOS

- ADCA497 STAR COLL., incl. - FILIP, Peter. Distributions of charaged hadrons associated with high transverse momentum particles in pp and Au+Au collisions at  $\sqrt{s(NN)}=200$  GeV. In *Physical Review Letters*, 2005, vol. 95, no. 15, 152301. (7.218 - IF2004). (2005 - Current Contents, WOS, SCOPUS). ISSN 0031-9007.
- Citácie:
1. [1.1] ALFIMOV, M.N. In *NUCLEAR PHYSICS A*, 2012, vol. 875, pp. 160., WOS
  2. [1.1] CHEREDNIKOV, I.O. In *INTERNATIONAL JOURNAL OF MODERN PHYSICS A*, 2012, vol. 27, 1250008., WOS
  3. [1.1] CHERNICOFF, M. In *JOURNAL OF HIGH ENERGY PHYSICS*, 2012, vol. 8, 041-, WOS
  4. [1.1] De SILVA L.C. In *JOURNAL OF PHYSICS CONFERENCE SERIES*, 2012, vol. 389, 012039., WOS
  5. [1.1] JIANG, B. In *JOURNAL OF PHYSICS G*, 2012, vol. 39, 025007., WOS
  6. [1.1] KAPUSTA, J.I. In *PHYSICAL REVIEW C*, 2012, vol. 85, 054906., WOS
  7. [1.1] LI, W. In *MODERN PHYSICS LETTERS A*, 2012, vol. 27, 1230018., WOS
  8. [1.1] MANDAL, M. In *PHYSICAL REVIEW D*, 2012, vol. 86, 114002., WOS
  9. [1.1] NEUFELD, R.B. In *PHYSICAL REVIEW C*, 2012, vol. 86, 024905., WOS
  10. [1.1] SCHENKE, B. In *PHYSICAL REVIEW C*, 2012, vol. 85, 024901., WOS
  11. [1.1] STEINBERG, P. In *NEW JOURNAL OF PHYSICS*, 2012, vol. 14, 035006., WOS
  12. [1.1] WONG, C. In *JOURNAL OF PHYSICS CONFERENCE SERIES*, 2012, vol. 387, 012009., WOS
  13. [1.1] WONG, C. In *PHYSICAL REVIEW C*, 2012, vol. 85, 064909., WOS
  14. [1.1] XU, L. In *PHYSICAL REVIEW C*, 2012, vol. 86, 024910., WOS
  15. [1.1] ZAPP, K. In *EUROPEAN PHYSICAL JOURNAL C*, 2012, vol. 72, 2028., WOS
- ADCA498 STAR COLL., incl. - FILIP, Peter. Azimuthal anisotropy and correlations at large transverse momenta in p+p and Au+Au collisions at  $\sqrt{s(NN)}=$  GeV. In *Physical Review Letters*, 2004, vol. 93, no. 25, 252301. (7.035 - IF2003). (2004 - Current Contents, WOS, SCOPUS). ISSN 0031-9007.
- Citácie:
1. [1.1] MASUI, H. In *PROGRESS OF THEORETICAL PHYSICS SUPPL*, 2012, vol. 193, pp. 149., WOS
  2. [1.1] QIU, H. In *ACTA PHYSICA POLONICA B PROC SUPPL*, 2012, vol. 5, pp. 323., WOS
  3. [1.1] TARANENKO, A. In *PHYSICS OF ATOMIC NUCLEI*, 2012, vol. 75, pp. 550., WOS
  4. [1.1] XU, L. In *PHYSICAL REVIEW C*, 2012, vol. 86, 024910., WOS
- ADCA499 STAR COLL., incl. - FILIP, Peter. Forward neutral pion production in p+p and d+Au collisions. In *Physical Review Letters*, 2006, vol. 97, no. 15, 152302. (7.489 - IF2005). (2006 - Current Contents, WOS, SCOPUS). ISSN 0031-9007.
- Citácie:
1. [1.1] ALBACETE, J.L. In *PROGRESS OF THEORETICAL PHYSICS SUPPL*, 2012, Iss. 193, pp. 67., WOS
  2. [1.1] AWES, T.C. In *AIP CONFERENCE PROCEEDINGS*, 2012, vol. 1422., WOS
  3. [1.1] CHIRILLI, G.A. In *PHISICAL REVIEW D*, 2012, vol. 86, 054005., WOS
  4. [1.1] FRANKFURT, L. In *PHYSICS REPORTS*, 2012, vol. 512, pp. 255., WOS
  5. [1.1] FUJII, H. In *PROGRESS OF THEORETICAL PHYSICS SUPPL*, 2012, vol. 193, pp. 216., WOS
  6. [1.1] HAMAGAKI, H. In *PROGRESS OF THEORETICAL PHYSICS SUPPL*,

2012, Iss. 193, pp. 79., WOS

7. [1.1] HELENIUS, I. In *JOURNAL OF HIGH ENERGY PHYSICS*, 2012, Iss. 7, 073., WOS

8. [1.1] JALILIAN-MARIAN, J. In *PHYSICAL REVIEW D*, 2012, vol. 85, 014017., WOS

9. [1.1] KANG, Z.B. In *PHYSICS LETTERS B*, 2012, vol. 718, pp. 482., WOS

10. [1.1] POLJAK, N. In *AIP CONFERENCE PROCEEDINGS*, 2012, vol. 1441, pp. 573., WOS

11. [1.1] TRIBEDY, P. In *PHYSICS LETTERS B*, 2012, vol. 710, pp. 125., WOS

12. [1.1] de FLORIAN, D. In *PHYSICAL REVIEW D*, 2012, vol. 85, 074028., WOS

ADCA500 STAR COLL., incl. - FILIP, Peter. Direct observation of dijets in central Au plus Au collisions. In *Physical Review Letters*, 2006, vol. 97, no. 16, 162301. (7.489 - IF2005). (2006 - Current Contents, WOS, SCOPUS). ISSN 0031-9007.

Citácie:

1. [1.1] ARMESTO, N. In *JOURNAL OF HIGH ENERGY PHYSICS*, 2012, Iss. 1., WOS

2. [1.1] GROSSE-OETRINGHAUS, Jan Fiete - ELIA, D - BRUNO, GE - COSMAI, L - DIBARI, D - LENTI. In-Medium Energy Loss and Correlations in Pb-Pb Collisions at root s(NN)=2.76TeV. In *EPIC@LHC: INTERNATIONAL WORKSHOP ON EARLY PHYSICS WITH HEAVY-ION COLLISIONS AT THE LHC*. ISSN 0094-243X, 2012, vol. 1422., WOS

3. [1.1] LIETAVA, R. In *JOURNAL OF PHYSICS CONFERENCE SERIES*, 2012, vol. 381, 012040., WOS

4. [1.1] OTWINOWSKI, Jacek. HIGH-p(T) PROCESSES MEASURED WITH ALICE AT THE LHC. In *ACTA PHYSICA POLONICA B*. ISSN 0587-4254, 2012, vol. 43, no. 4, pp. 713., WOS

5. [1.1] RENK, T. In *PHYSICAL REVIEW D*, 2012, vol. 85, 044903., WOS

6. [1.1] RENK, T. In *PROGRESS OF THEORETICAL PHYSICS SUPPL*, 2012, vol. 193, pp. 101., WOS

7. [1.1] RENK, Thorsten. Sensitivity of the dijet asymmetry to the physics of jet quenching. In *PHYSICAL REVIEW C*. ISSN 0556-2813, 2012, vol. 85, no. 6., WOS

ADCA501 STAR COLL., incl. - FILIP, Peter. Phi meson production in Au + Au collisions. In *Physics Letters B*, 2005, vol. 612, no. 3-4, p. 181-189. (4.619 - IF2004). (2005 - Current Contents, WOS, SCOPUS). ISSN 0370-2693.

Citácie:

1. [1.1] BADALA, A. In *AIP CONFERENCE PROCEEDINGS*, 2012, vol. 1422., WOS

2. [1.1] FRAGIACOMO, E. In *EPJ WEB OF CONFERENCES*, 2012, vol. 36, UNSP 00009., WOS

3. [1.1] KOSARZEWSKI, L. In *ACTA PHYSICA POLONICA B PROC SUPPL*, 2012, vol. 5, pp. 543., WOS

ADCA502 STAR COLL., incl. - FILIP, Peter. Pion, kaon, proton and anti-proton transverse momentum distributions. In *Physics Letters B*, 2005, vol. 616, no. 1-2, p. 8-16. (4.619 - IF2004). (2005 - Current Contents, WOS, SCOPUS). ISSN 0370-2693.

Citácie:

1. [1.1] GIATAGANAS, Dimitrios. Probing strongly coupled anisotropic plasma. In *JOURNAL OF HIGH ENERGY PHYSICS*. ISSN 1029-8479, 2012, vol., no. 7, 031., WOS

2. [1.1] HUANG, Bingchu - PRASZALOWICZ, M. DIELECTRON PRODUCTION IN p plus p AND Au plus Au COLLISIONS AT root s(NN)=200 FROM STAR. In

- STRANGENESS IN QUARK MATTER 2011. ISSN 1899-2358, 2012, vol. 5, no. 2, pp. 471., WOS*
3. [1.1] *de FLORIAN, D. In PHYSICAL REVIEW D, 2012, vol. 85, 074028., WOS*
- ADCA503 STAR COLL., incl. - FILIP, Peter. Event-by-event fluctuations of the kaon-to-pion ratio in central Pb plus Pb collisions. In Physical Review Letters, 2001, vol. 86, no. 10, p. 1965-1969. (6.462 - IF2000). (2001 - Current Contents, WOS, SCOPUS). ISSN 0031-9007.
- Citácie:
1. [1.1] *FU, J. In PHYSICAL REVIEW C, 2012, vol. 85, 064905., WOS*
2. [1.1] *MACKOWIAK, M. In PHYSICS OF ATOMIC NUCLEI, 2012, vol. 75, pp. 651., WOS*
3. [1.1] *RUSTAMOV, A. In PHYSICAL REVIEW C, 2012, vol. 86, 044906., WOS*
4. [1.1] *SCHMAH, A. In CENTRAL EUROPEAN JOURNAL OF PHYSICS, 2012, vol. 10, pp. 1238., WOS*
5. [1.1] *TAWFIK, A. In INDIAN JOURNAL OF PHYSICS, 2012, vol. 86, pp. 641., WOS*
6. [1.1] *TIAN, J. In ACTA PHYSICA POLONICA B PROC SUPPL, 2012, vol. 5, pp. 503., WOS*
7. [1.1] *TIAN, J. In CENTRAL EUROPEAN JOURNAL OF PHYSICS, 2012, vol. 10, pp. 1365., WOS*
8. [1.1] *WANG, H. In CENTRAL EUROPEAN JOURNAL OF PHYSICS, 2012, vol. 10, pp. 1282., WOS*
- ADCA504 STAR COLL., incl. - FILIP, Peter. Energy and centrality dependence of deuteron and proton production. In Physical review C, 2004, vol. 69, no. 2, 024902. (2.708 - IF2003). (2004 - Current Contents, SCOPUS). ISSN 0556-2813.
- Citácie:
1. [1.1] *BUSS, O. In PHYSICS REPORTS, 2012, vol. 512, pp. 1-124., WOS*
2. [1.1] *IVANOV, Y.B. In PHYSICS OF ATOMIC NUCLEI, 2012, vol. 75, pp. 621., WOS*
- ADCA505 STAR COLL., incl. - FILIP, Peter. Transverse momentum fluctuations in nuclear collisions at 158A GeV. In Physical Review C, 2004, vol. 70, no. 3, 034902. (2.708 - IF2003). (2004 - Current Contents, SCOPUS). ISSN 0556-2813.
- Citácie:
1. [1.1] *BOZEK, P. In PHYSICAL REVIEW C, 2012, vol. 85, 044910., WOS*
2. [1.1] *MACKOWIAK, M. In PHYSICS OF ATOMIC NUCLEI, 2012, vol. 75, pp. 651., WOS*
3. [1.1] *MACKOWIAK-PAWLOWSKA, M. In CENTRAL EUROPEAN JOURNAL OF PHYSICS, 2012, vol. 10, pp. 1285., WOS*
- ADCA506 STAR COLL., incl. - FILIP, Peter. Lambda and (Lambda) over-bar production in central Pb-Pb collisions. In Physical Review Letters, 2004, vol. 93, no. 2, 022302. (7.035 - IF2003). (2004 - Current Contents, WOS, SCOPUS). ISSN 0031-9007.
- Citácie:
1. [1.1] *TIWARI, S. K. - SRIVASTAVA, P. K. - SINGH, C. P. Description of hot and dense hadron-gas properties in a new excluded-volume model. In PHYSICAL REVIEW C. ISSN 0556-2813, 2012, vol. 85, no. 1, 014908., WOS*
2. [1.1] *WANG, R. In PHYSICAL REVIEW C, 2012, vol. 86, 054906., WOS*
- ADCA507 STAR, Coll. incl. - FILIP, Peter. Measurement of the bottom quark contribution to nonphotonic electron production in p p collisions at  $\sqrt{s}=200$  GeV. In Physical Review Letters, 2010, vol. 105, no. 20, 202301. (7.328 - IF2009). (2010 - Current Contents, WOS, SCOPUS). ISSN 0031-9007.
- Citácie:
1. [1.1] *HE, M. In PHYSICAL REVIEW C, 2012, vol. 86, 014903., WOS*



2. [1.1] VITEV, I. In *EPJ WEB OF CONFERENCES*, 2012, vol. 36, UNSP 00018., WOS
  3. [1.1] ZOLLO, M. In *CLINICAL AND EXPERIMENTAL METASTASIS*, 2012, vol. 29, pp. 585., WOS
- ADCA508 STAR, Coll. incl. - FILIP, Peter. Neutral pion production in Au plus Au collisions at root s(NN)=200 GeV. In *Physical Review C*, 2009, vol. 80, no. 4, 044905. (3.124 - IF2008). (2009 - Current Contents, SCOPUS). ISSN 0556-2813.
- Citácie:
1. [1.1] DJORDJEVIC, Magdalena. Jet suppression of pions and single electrons at Au plus Au collisions at the BNL Relativistic Heavy Ion Collider. In *PHYSICAL REVIEW C*. ISSN 0556-2813, 2012, vol. 85, no. 3, 034904., WOS
  2. [1.1] HE, Yuncun - VITEV, Ivan - ZHANG, Ben-Wei.  $O(\alpha(3)(s))$  analysis of inclusive jet and di-jet production in heavy ion reactions at the Large Hadron Collider. In *PHYSICS LETTERS B*. ISSN 0370-2693, 2012, vol. 713, no. 3, pp. 224., WOS
- ADCA509 STAR, Coll. incl. - FILIP, Peter. Parton energy loss in heavy-ion collisions via direct-photon and charged-particle azimuthal correlations. In *Physical Review C. Nuclear physics*, 2010, vol. 82, no. 3, 034909. (3.477 - IF2009). (2010 - Current Contents, SCOPUS). ISSN 0556-2813.
- Citácie:
1. [1.1] ALFIMOV, M.N. In *NUCLEAR PHYSICS A*, 2012, vol. 875, pp. 160., WOS
  2. [1.1] APOLINARIO, Liliana - ARMESTO, Nestor - SALGADO, Carlos A. Medium-induced emissions of hard gluons. In *PHYSICS LETTERS B*. ISSN 0370-2693, 2012, vol. 718, no. 1, pp. 160., WOS
  3. [1.1] AYALA, A. In *PHYSICAL REVIEW C*, 2012, vol. 86, 034901., WOS
  4. [1.1] KAPUSTA, J.I. In *PHYSICAL REVIEW A*, 2012, vol. 85, 054906., WOS
  5. [1.1] RENK, Thorsten. Constraining the physics of jet quenching. In *PHYSICAL REVIEW C*. ISSN 0556-2813, 2012, vol. 85, no. 4, 044903., WOS
  6. [1.1] RENK, Thorsten. Constraining the physics of jet quenching. In *PHYSICAL REVIEW C*. ISSN 0556-2813, 2012, vol. 85, no. 4, 044903., WOS
  7. [1.1] XING, Hongxi - GUO, Yun - WANG, Enke - WANG, Xin-Nian. Parton energy loss and modified beam quark distribution functions in Drell-Yan process in p plus A collisions. In *NUCLEAR PHYSICS A*. ISSN 0375-9474, 2012, vol. 879, pp. 77., WOS
- ADCA510 STAR, Coll. incl. - FILIP, Peter. Pion femtoscopy in p plus p collisions at root s=200 GeV. In *Physical Review C. Nuclear physics*, 2011, vol. 83, no. 6, 064905. (3.416 - IF2010). (2011 - Current Contents). ISSN 0556-2813.
- Citácie:
1. [1.1] AKKELIN, S. V. - SINYUKOV, Yu. M. Deciphering nonfemtoscopic two-pion correlations in p+p collisions with simple analytical models. In *PHYSICAL REVIEW D*. ISSN 1550-7998, 2012, vol. 85, no. 7, 074023., WOS
  2. [1.1] GREINER, W. In *EUROPEAN PHYSICAL JOURNAL D*, 2012, vol. 66, 200., WOS
  3. [1.1] GREINER, W. In *JOURNAL OF PHYSICS CONFERENCE SERIES*, 2012, vol. 403, 012046., WOS
  4. [1.1] HERMAN, Ch. In *NATURE CHEMISTRY*, 2002, vol. 4, pp. 140., WOS
  5. [1.1] KIESSLING, M. In *JOURNAL OF MATHEMATICAL PHYSICS*, 2012, vol. 53, 095223., WOS
  6. [1.1] SPYROPOULOU-STASSINAKI, M. In *JOURNAL OF PHYSICS CONFERENCE SERIES*, 2012, vol. 381, 012035., WOS
  7. [1.1] STEINHEIMER, J. In *JOURNAL OF PHYSICS CONFERENCE SERIES*,

2012, vol. 389, 012022., WOS

8. [1.1] STEINHEIMER, J. In *PHYSICS LETTERS B*, 2012, vol. 714, pp. 85., WOS

- ADCA511 STAR COLL., incl. - FILIP, Peter. Transverse single-spin asymmetry and cross-section for  $S\pi^0$ S and  $S\eta$ S mesons at large Feynman- $Sx$ S in polarized p+p collisions at  $S\sqrt{s}=200$  GeV. In *Physical Review D. Particle and fields*, 2012, vol. 86, 51101. (4.558 - IF2011). (2012 - Current Contents). ISSN 1550-7998.

Citácie:

1. [1.1] METZ, A. In *PHYSICAL REVIEW D*, 2012, vol. 86, 094039., WOS

2. [1.1] METZ, A. In *PHYSICAL REVIEW D*, 2012, vol. 86, 114020., WOS

- ADCA512 STAR COLL., incl. - FILIP, Peter. Longitudinal and transverse spin asymmetries for inclusive jet production at mid-rapidity in polarized p+p collisions at  $\sqrt{s}=200$  GeV. In *Physical Review D. Particle and fields*, 2012, vol. 86, no. 3, 032006. (4.558 - IF2011). (2012 - Current Contents). ISSN 1550-7998.

Citácie:

1. [1.1] METZ, A. In *PHYSICAL REVIEW D*, 2012, vol. 86, 114020., WOS

2. [1.1] MUKHERJEE, A. In *PHYSICAL REVIEW D*, 2012, vol. 86, 094009., WOS

- ADCA513 STAR COLL., incl. - FILIP, Peter. Identified hadron compositions in p+p and Au+Au collisions at high transverse momenta. In *Physical Review Letters*, 2012, vol. 108, 72302. (7.370 - IF2011). (2012 - Current Contents, WOS, SCOPUS). ISSN 0031-9007.

Citácie:

1. [1.1] EPELE, M. In *PHYSICAL REVIEW D*, 2012, vol. 86, 074028., WOS

2. [1.1] PROCURA, M. In *PHYSICAL REVIEW D*, 2012, vol. 85, 114041., WOS

- ADCA514 STAR COLL., incl. - FILIP, Peter. Directed and elliptic flow of charged particles in Cu+Cu collisions at  $S\sqrt{s_{NN}}=27.4$  GeV. In *Physical Review C. Nuclear physics*, 2012, vol.85, 14901. (3.308 - IF2011). (2012 - Current Contents, SCOPUS). ISSN 0556-2813.

Citácie:

1. [1.1] GREBIESZKOW, K. In *ACTA PHYSICA POLONICA B*, 2012, vol. 43, pp. 609., WOS

2. [1.1] GREBIESZKOW, K.-MROWCZYISKI, S. In *ACTA PHYSICA POLONICA B PROCEED SUPPL*, 2012, vol. 5, p. 727., WOS

3. [1.1] GUO, Y. In *PHYSICAL REVIEW C*, 2012, vol. 86, 044901., WOS

4. [1.1] HUOVINEN, P. In *EUROPEAN PHYSICAL JOURNAL A*, 2012, vol. 48, 11., WOS

5. [1.1] LI, B.Ch. In *CHINESE PHYSICS LETTERS*, 2012, vol. 29, 072501., WOS

6. [1.1] PANDIT, Y. In *ACTA PHYSICA POLONICA B PROCEEDINGS SUPPL*, 2012, vol. 5, pp. 439., WOS

7. [1.1] SHEN, Ch. In *PHYSICAL REVIEW C*, 2012, vol. 85, 054902., WOS

8. [1.1] STEINHEIMER, J. In *PHYSICS OF ATOMIC NUCLEI*, 2012, vol. 75, pp. 759., WOS

9. [1.1] TARANENKO, A. In *PHYSICS OF ATOMIC NUCLEI*, 2012, vol. 75, pp. 550., WOS

10. [1.1] ZHOU, Y. In *ACTA PHYSICA POLONICA B PROCEEDINGS SUPPLEMENT*, 2012, vol. 5, pp. 407., WOS

- ADCA515 STAR COLL., incl. - FILIP, Peter.  $\rho(0)$  photoproduction in AuAu collisions at  $\sqrt{s_{NN}}=62.4$  GeV. In *Physical Review C*, 2012, vol.85, 14910. (3.308 - IF2011). (2012 - Current Contents, SCOPUS). ISSN 0556-2813.

Citácie:



1. [1.1] REBYAKOVA, V. In *PHYSICS LETTERS B*, 2012, vol. 710, pp. 647., WOS
- ADCA516 STAR COLL., incl. - FILIP, Peter. Center of mass energy and system-size dependence of photon production at forward rapidity at RHIC. In *Nuclear Physics A*, 2010, vol. 832, no. 1-2, p. 134-147. (1.706 - IF2009). (2010 - Current Contents, SCOPUS). ISSN 0375-9474.
- Citácie:
1. [1.1] RAHIM, M. A. - FAKHRADDIN, S. - ASHARABI, H. *Systematic study of projectile fragments in nucleus-nucleus collisions at 4.1-4.5 A GeV/c and multi-source thermal model. In EUROPEAN PHYSICAL JOURNAL A. ISSN 1434-6001, 2012, vol. 48, no. 8., WOS*
- ADCA517 STAR, Coll. incl. - FILIP, Peter. K (0) production in Cu plus Cu and Au plus Au collisions at root s(NN)=62.4 GeV and 200 GeV. In *Physical Review C*, 2011, vol. 84, no. 3, 034909. (3.416 - IF2010). (2011 - Current Contents). ISSN 0556-2813.
- Citácie:
1. [1.1] VITEV, I. In *EPJ WEB OF CONFERENCES*, 2012, vol. 36, UNSP 00018., WOS
2. [1.1] ZHANG, K. In *PHYSICAL REVIEW C*, 2012, vol. 86, 014906., WOS
- ADCA518 STAR COLL., incl. - FILIP, Peter. Pseudorapidity asymmetry and centrality dependence of charged hadron spectra in d+Au collisions at root s(NN)=200 GeV. In *Physical Review C*, 2004, vol. 70, no. 6, 064907. (2.708 - IF2003). (2004 - Current Contents, SCOPUS). ISSN 0556-2813.
- Citácie:
1. [1.1] HELENIUS, I. In *JOURNAL OF HIGH ENERGY PHYSICS*, 2012, Iss. 7, 073., WOS
- ADCA519 STAR COLL., incl. - FILIP, Peter. J/psi production at high transverse momenta in p plus and Cu plus Cu collisions at root s(NN)=200 GeV. In *Physical Review C*, 2009, vol. 80, no. 4, 041902. (3.124 - IF2008). (2009 - Current Contents, SCOPUS). ISSN 0556-2813.
- Citácie:
1. [1.1] AKAMATSU, Y. In *PHYSICAL REVIEW D*, 2002, vol. 85, 105011., WOS
2. [1.1] FACCIOLI, P. In *MODERN PHYSICS LETTERS A*, 2012, vol. 27, 1230022., WOS
3. [1.1] FACCIOLI, P. In *PHYSICAL REVIEW D*, 2012, vol. 85, 074005., WOS
4. [1.1] KOPELIOVICH, B.Z. In *PROGRESS OF THEORETICAL PHYSICS SUPPL*, 2012, no. 193, pp. 297., WOS
5. [1.1] LANSBERG, J.P. In *FEW-BODY SYSTEMS*, 2012, vol. 53, pp. 11., WOS
6. [1.1] McGLINGEY, D. In *JOURNAL OF PHYSICS CONFERENCE SERIES*, 2012, vol. 389, 012031., WOS
7. [1.1] QU, Z. In *CHINESE PHYSICS LETTERS*, 2012, vol. 29, 031201., WOS
- ADCA520 STAR COLL., incl. - FILIP, Peter. Long range rapidity correlations and jet production in high energy nuclear collisions. In *Physical Review C*, 2009, vol. 80, no. 6, 064912. (3.124 - IF2008). (2009 - Current Contents, SCOPUS). ISSN 0556-2813.
- Citácie:
1. [1.1] ANDRADE, R.P. In *PHYSICS LETTERS B*, 2012, vol. 712, pp. 226., WOS
2. [1.1] BALIAS, A. In *ACTA PHYSICA POLONICA B*, 2012, vol. 43, pp. 1357., WOS
3. [1.1] BIALKOWSKA, H. In *ACTA PHYSICA POLONICA B*, 2012, vol. 43, pp. 705., WOS
4. [1.1] De SILVA, L.C. In *ACTA PHYSICA POLONICA B PROC SUPPL*, 2012, vol. 5, pp. 425., WOS

5. [1.1] GAVIN, S. In *PHYSICAL REVIEW C*, 2012, vol. 85, 014905., WOS
6. [1.1] HANKS, J.A. In *PHYSICAL REVIEW C*, 2012, vol. 86, 024908., WOS
7. [1.1] HWA, R.C. In *PHYSICAL REVIEW C*, 2012, vol. 86, 024901., WOS
8. [1.1] KONCHAKOVSKI, V.P. In *PHYSICS OF ATOMIC NUCLEI*, 2012, vol. 75, pp. 683., WOS
9. [1.1] LI, W. In *MODERN PHYSICS LETTERS A*, 2012, vol. 27, 1230018., WOS
10. [1.1] LOIZIDES, C. In *AIP CONFERENCE PROCEEDINGS*, 2012, vol. 1441, pp. 79., WOS
11. [1.1] MOHAPATRA, S. In *AIP CONFERENCE PROCEEDINGS*, 2012, vol. 1441, pp. 780., WOS
12. [1.1] SCHENKE, B. In *PHYSICAL REVIEW C*, 2012, vol. 85, 024901., WOS
13. [1.1] WERNER, K. In *PHYSICAL REVIEW C*, 2012, vol. 85, 064907., WOS

ADCA521 STAR COLL., incl. - FILIP, Peter. Growth of long range forward-backward multiplicity correlations. In *Physical Review Letters*, 2009, vol. 103, no. 17, 172301. (7.180 - IF2008). (2009 - Current Contents, WOS, SCOPUS). ISSN 0031-9007.

Citácie:

1. [1.1] ABDELSALAM, A. - BADAWY, B. M. - HAFIZ, M. E. Energy dependence for relativistic hadron emission from S-32 nuclear collisions. In *CANADIAN JOURNAL OF PHYSICS*. ISSN 0008-4204, 2012, vol. 90, no. 6, pp. 515., WOS
2. [1.1] BIALAS, A. - BZDAK, A. - ZALEWSKI, K. Hidden asymmetry and long range rapidity correlations. In *PHYSICS LETTERS B*. ISSN 0370-2693, 2012, vol. 710, no. 2, pp. 332., WOS
3. [1.1] BIALAS, A. - ZALEWSKI, K. PARTICLE CLUSTERS AND MULTIPLICITY FLUCTUATIONS IN NARROW RAPIDITY BINS. In *ACTA PHYSICA POLONICA B*. ISSN 0587-4254, 2012, vol. 43, no. 6, pp. 1357., WOS
4. [1.1] BZDAK, Adam. Symmetric correlations as seen in central Au+Au collisions at root s=200A GeV. In *PHYSICAL REVIEW C*. ISSN 0556-2813, 2012, vol. 85, no. 5, 051901., WOS
5. [1.1] CHRISTIANSEN, P. - HASLUM, E. - STENLUND, E. How to extract physics from nu (dyn). In *PHYSICS OF ATOMIC NUCLEI*. ISSN 1063-7788, 2012, vol. 75, no. 6, pp. 744., WOS
6. [1.1] FEOFILOV, Grigory - ELIA, D - BRUNO, GE - COSMAI, L - DIBARI, D - LENTI. Long-range correlation studies in pp and Pb-Pb collisions. In *EPIC@LHC: INTERNATIONAL WORKSHOP ON EARLY PHYSICS WITH HEAVY-ION COLLISIONS AT THE LHC*. ISSN 0094-243X, 2012, vol. 1422., WOS

ADCA522 ŠTELMACHOVIČ, Peter - BUŽEK, Vladimír. Dynamics of open quantum systems initially entangled with environment: Beyond the Kraus representation. In *Physical Review A*, 2001, vol. 64, no. 6, 062106. (2.684 - IF2000). ISSN 1050-2947.

Citácie:

1. [1.1] ALBASH, T. Quantum adiabatic Markovian master equations. In *NEW JOURNAL OF PHYSICS*, 2012, vol. 14, 123016., WOS
2. [1.1] BREUER, H.-P. Foundations and measures. In *JOURNAL OF PHYSICS B*, 2012, vol. 45, 154001., WOS
3. [1.1] DAJKA, J.- LUCZKA, J. The trace distance and linear entropy. In *REPORTS ON MATHEMATICAL PHYSICS*, 2012, vol. 70, pp. 193., WOS
4. [1.1] GARDAS, B.- PUCHALA, Z. Notes on the Riccati operator. In *JOURNAL OF MATHEMATICAL PHYSICS*, 2012, vol. 53, 012106., WOS
5. [1.1] LI, L. New features of entanglement dynamics. In *PHYSICS LETTERS A*, 2012, vol. 376, pp. 913., WOS
6. [1.1] LI, L. Quantum discord dynamics. In *PHYSICA SCRIPTA*, 2012, vol. 86, 065001., WOS

7. [1.1] *MODI, K. Positivity in the presence of initial system. In PHYSICAL REVIEW A, 2012, vol. 86, 064102., WOS*

8. [1.1] *MOODLEY, M. Stochastic wave-function. In PHYSICA SCRIPTA, 2012, vol. 85, 045002., WOS*

9. [1.1] *MOROZOV, V.G. Decoherence in an exactly solvable qubit model. In PHYSICAL REVIEW A, 2012, vol. 85, 02210., WOS*

10. [1.1] *RODRIGUEZ-ROSARIO, C.A. Unification of witnessing initial system. In EPL, 2012, vol. 99, 20010., WOS*

11. [1.1] *UCHIYAMA, CH. Exploring initial correlations in Gibbs state. In PHYSICAL REVIEW A, 2012, vol. 85, 052104., WOS*

ADCA523 ŠTELMACHOVIČ, Peter - BUŽEK, Vladimír. Dynamics of open quantum systems initially entangled with environment: Beyond the Kraus representation ( vol A 64, art no 062106, 2001 ). In Physical Review A, 2003, vol. 67, no. 2, 029902. ISSN 1050-2947.

Citácie:

1. [1.1] *BREUER, Heinz-Peter. Foundations and measures of quantum*

*non-Markovianity. In JOURNAL OF PHYSICS B-ATOMIC MOLECULAR AND OPTICAL PHYSICS. ISSN 0953-4075, 2012, vol. 45, no. 15, 154001., WOS*

2. [1.1] *GARDAS, Bartłomiej - PUCHALA, Zbigniew. Notes on the Riccati operator equation in open quantum systems. In JOURNAL OF MATHEMATICAL PHYSICS. ISSN 0022-2488, 2012, vol. 53, no. 1, 012106., WOS*

3. [1.1] *LI, Lin - ZOU, Jian - HE, Zhi - LI, Jun-Gang - SHAO, Bin - WU, Lian-Ao. New features of entanglement dynamics with initial system-bath correlations. In PHYSICS LETTERS A. ISSN 0375-9601, 2012, vol. 376, no. 8-9, pp. 913., WOS*

4. [1.1] *LI, Lin - ZOU, Jian - XU, Bao-Ming - RU, Ting-Ting - LI, Hai - SHAO, Bin - HE, Zhi. Quantum discord dynamics in the presence of initial system-bath correlations. In PHYSICA SCRIPTA. ISSN 0031-8949, 2012, vol. 86, no. 6, 065001., WOS*

5. [1.1] *UCHIYAMA, Chikako. Exploring initial correlations in a Gibbs state by application of external field. In PHYSICAL REVIEW A. ISSN 1050-2947, 2012, vol. 85, no. 5, 052104., WOS*

ADCA524 ŠTOFANIK, Vladimír - BALAZ, I. Frequency stability improvement in direct digital frequency synthesis. In Radioengineering, 2004, vol. 13, no. 2, p. 17-19. ISSN 1210-2512.

Citácie:

1. [1.1] *SCHIMMEL, Jiri. Audible Aliasing Distortion in Digital Audio Synthesis.*

*In RADIOENGINEERING. ISSN 1210-2512, 2012, vol. 21, no. 1, pp. 56., WOS*

ADCA525 SUCH, B. - GLATZEL, T. - KAWAI, S. - MEYER, E. - TURANSKÝ, Robert - BRNDIAR, Ján - ŠTICH, Ivan. Interplay of the tip-sample junction stability and image contrast reversal on a Cu(111) surface revealed by the 3D force field. In Nanotechnology, 2012, vol. 23, no. 4, 045705. (3.979 - IF2011). (2012 - Current Contents, WOS, SCOPUS). ISSN 0957-4484.

Citácie:

1. [1.1] *BAYKARA, Mehmet Z. - DAGDEVIREN, Omur E. - SCHWENDEMANN, Todd C. - MOENIG, Harry - ALTMAN, Eric I. - SCHWARZ, Udo D. Probing three-dimensional surface force fields with atomic resolution: Measurement strategies, limitations, and artifact reduction. In BEILSTEIN JOURNAL OF NANOTECHNOLOGY, 2012, vol.3, p. 637-650., WOS*

ADCA526 ŠVEC, Peter - KRIŠTIÁKOVÁ, Katarína - DUHAJ, Pavol - JANIČKOVIČ, Dušan. Energetics of formation of nanocrystalline structures in Finement, Nanoperm and Hitperm alloys. In Czechoslovak Journal of Physics, 2002, vol.52, no. 2, p. 145-150. (0.345 - IF2001). (2002 - Current Contents, WOS, SCOPUS). ISSN 0011-4626.

Citácie:

1. [1.1] VAVILOVA, V.V. *Effect of 0.1 M Na<sub>2</sub>SO<sub>4</sub> solution. In INORGANIC MATERIALS, 2012, vol. 48, no. 3, pp. 272-278., WOS*
- ADCA527 ŠVEC, Peter - DUHAJ, Pavol. Growth of crystalline phase in amorphous-alloys. In Materials Science and Engineering B - Solid-State Materials for Advanced Technology, 1990, vol. 6, no. 4, p. 265-271. ISSN 0921-5107.
- Citácie:
1. [1.1] ISOTANI, Sadao - FUJII, Americo Tsuneo - MIZUKAMI, Akiyoshi - WATARI, Kazunori - ARAI, Toshihiro. *Growth kinetics of CdS in germanium oxide glassy matrix. In PHYSICA E-LOW-DIMENSIONAL SYSTEMS & NANOSTRUCTURES. ISSN 1386-9477, 2012, vol. 44, no. 9, pp. 1820., WOS*
- ADCA528 TAGUCHI, D. - SHINO, T. - ZHANG, L. - LI, J. - WEIS, Martin Jr. - MANAKA, T. - IWAMOTO, M. Direct probing of photovoltaic effect generated in double-layer organic solar cell by electric-field-induced optical second-harmonic generation. In Applied Physics Express, 2011, vol. 4, 021602. (2.747 - IF2010). (2011 - Current Contents). ISSN 1882-0778.
- Citácie:
1. [1.1] LEE, Hsin-Ying - HUANG, Hung-Lin - LEE, Ching-Ting. *Performance Enhancement of Inverted Polymer Solar Cells Using Roughened Al-Doped ZnO Nanorod Array. In APPLIED PHYSICS EXPRESS. ISSN 1882-0778, 2012, vol. 5, no. 12, 122302., WOS*
- ADCA529 ĽAPAJNA, Milan - PÍSEČNÝ, Pavol - LUPTÁK, Roman - HUŠEKOVÁ, Kristína - FRÖHLICH, Karol - HARMATHA, L. - HOOKER, J.C. - ROOZEBOOM, F. - JERGEL, Matej. Application of Ru-based gate materials for CMOS technology. In Materials science in semiconductor processing, 2004, vol. 7, p. 271-276.
- Citácie:
1. [1.1] NOH, Y. - YU, B. - YOO, K. - KO, M.J. - SONG, O. *In KOREAN JOURNAL OF METALS AND MATERIALS. MAR 2012, vol. 50, no. 3, p. 243-247., WOS*
  2. [1.1] PARK, J. - NOH, Y. - SONG, O. *In KOREAN JOURNAL OF METALS AND MATERIALS. AUG 2012, vol. 50, no. 8, p. 557-562., WOS*
  3. [1.1] PARK, T. - CHOI, D. - CHOI, H. - JEON, H. *In PHYSICA STATUS SOLIDI A-APPLICATIONS AND MATERIALS SCIENCE. FEB 2012, vol. 209, no. 2, p. 302-305., WOS*
  4. [1.1] PARK, T. - LEE, J. - PARK, J. - JEON, H. - JEON, H. - LEE, K.H. - CHO, B.C. - KIM, M.S. - AHN, H.B. *In JOURNAL OF VACUUM SCIENCE & TECHNOLOGY A. JAN 2012, vol. 30, no. 1., WOS*
- ADCA530 TER AKOPIAN, G.M. - HAMILTON, J.H. - OGANESEAN, Yu.Ts. - KORMICKI, J. - POPEKO, G.S. - DANIEL, A.V. - RAMAYYA, A.V. - LU, Q. - BUTLER-MOORE, K. - MA, W.C. - DENG, J.K. - SHI, D. - KLIMAN, Ján - POLHORSKÝ, V. - MORHÁČ, Miroslav - GREINER, W. - SANDELESCU, A. - DOLE, J.D. - ARYAEINEJAD, R. - JOHNSON, N.R. - LEE, I.Y. - MCGOWAN, F.K. Neutron multiplicities and yields of correlated Zr-Ce and Mo-Ba fragment pairs in spontaneous fission of <sup>252</sup>Cf. In Physical Review Letters, 1994, vol. 73, no. 11, p. 1477-1480.
- Citácie:
1. [1.1] BANSAL, M.-RAJ, K. *In ROMANIAN JOURNAL OF PHYSICS, vol. 57, 2012, P. 18-35., WOS*
  2. [1.1] MUKHOPADHYAY, S. *In PHYSICAL REVIEW C, vol. 85, 2012, 064321., WOS*
- ADCA531 TER-AKOPIAN, G.M. - HAMILTON, J.H. - OGANESEAN, Y.T. - DANIEL, A.V. - KORMICKI, J. - RAMAYYA, A.V. - POPEKO, G.S. - BABU, B.R.S. - LU,



Q.H. - BUTLERMOORE, K. - MA, W.C. - JONES, E.F. - DENG, J.K. - SHI, D. - KLIMAN, Ján - MORHÁČ, Miroslav - COLE, J.D. - ARYAEINEJAD, R. - JOHNSON, N.R. - LEE, I.Y. - MCGOWAN, F.K. Yields of correlated fragment pairs in spontaneous fission of Cf-252. In Physical Review C, 1997, vol. 55, no. 3, p. 1146-1161. ISSN 0556-2813.

Citácie:

1. [1.1] MALKIEWICZ, T. - SIMPSON, G. S. - URBAN, W. - GENEVEY, J. - KOESTER, U. - MATERNA, T. - PINSTON, J. A. - RAMDHANE, M. - RZACA-URBAN, T. - THIAMOVA, G. - SMITH, A. G. - AHMAD, I. - GREENE, J. P. Near-yrast structure of odd-A, neutron-rich Pr isotopes. In PHYSICAL REVIEW C. ISSN 0556-2813, 2012, vol. 85, no. 4, 044314., WOS

ADCA532 TER-AKOPIAN, G.M. - HAMILTON, J.H. - OGANESSION, Yu.Ts. - DANIEL, A.V. - KORMICKI, J. - RAMAYYA, A.V. - POPEKO, G.S. - BABU, B.R.S. - LU, Q.-H. - BUTLER-MOORE, K. - MA, W.C. - CWIOK, S. - NAZAREWICZ, W. - DENG, J.K. - SHI, D. - KLIMAN, Ján - MORHÁČ, Miroslav - COLE, J.D. - ARYAEINEJAD, R. - JOHNSON, N.R. - LEE, I.Y. - MCGOWAN, F.K. - SALADIN, J.X. New spontaneous fission mode for 252Cf: Indication of hyperdeformed 144, 145, 146Ba at Scission. In Physical Review Letters, 1996, vol. 77, no. 1, p. 32-35.

Citácie:

1. [1.1] BANSAL, M. In ROMANIAN JOURNAL OF PHYSICS, vol. 57, 2012, p. 18-35., WOS

2. [1.1] KOWAL, M. In PHYSICAL REVIEW C, vol. 85, 2012, 061302., WOS

ADCA533 THURZO, Ilja - ZAHN, D.R.T. - GMUCOVÁ, Katarína - DUA, A.K. Improving the performance of the feedback charge capacitance-voltage method. In Measurement Science and Technology, 2003, vol. 14, no. 7, p. 1083-1090.

Citácie:

1. [1.2] POLYAKOV, V.I. - RUKOVISHNIKOV, A.I. - GARIN, B.M. - DRUZ, B. Point defects in chemical-vapor deposited diamond, high-purity semi-insulating SiC, and epitaxial GaN. In ECS Transactions, 2012, 45, 7, pp. 199-207., SCOPUS

ADCA534 THURZO, Ilja - BEYER, R. - ZAHN, D.R.T. Experimental evidence for complementary spatial sensitivities of capacitance. In Semiconductor Science and Technology, 2000, vol. 15, no. 4, p. 378-385. (1.220 - IF1999). (2000 - Current Contents). ISSN 0268-1242.

Citácie:

1. [1.1] ROTHENBERGER, J.B. A Q-DLTS investigation of aluminium nitride surface termination. In SEMICONDUCTOR SCIENCE AND TECHNOLOGY, 2012, vol. 15, no. 4, pp. 378-385., WOS

ADCA535 THURZO, Ilja - GMUCOVÁ, Katarína - ORLICKÝ, Jozef - PAVLÁSEK, Juraj. Introduction to a kinetics-sensitive double-step voltacoulometry. Juraj Pavlásek. In Review of Scientific Instruments, 1999, vol. 70, no. 9, p. 3723-3734. (1.180 - IF1998). (1999 - Current Contents, SCOPUS). ISSN 0034-6748.

Citácie:

1. [3] SCHAUER, F.- NADÁŽDY, V.- LÁNYI, Š. CdS nanoparticles surfactant removal transport study by transient charge measurements. In: PROCEEDINGS OF WORLD RENEWABLE ENERGY CONGRESS 2011, MAY 8-13, 2011, Linköping, Sweden: WREC 2011. ISBN 1650-3686. Linköping: Linköping University Electronic Press, 2011, pp. 2823-2829.

ADCA536 THURZO, Ilja - POGANY, D. - GMUCOVÁ, Katarína. A novel algorithm for high order filtering in DLTS. In Solid-State Electronics, 1992, vol. 35, no. 12, p. 1737-1743. (0.850 - IF1991). (1992 - Current Contents). ISSN 0038-1101.

Citácie:

1. [1.2] CHEN, X. - TAGUCHI, D. - LEE, K. - MANAKA, T. - IWAMOTO, M. Analysis of anomalous discharging processes in pentacene/C 60 double-layer organic solar cell. In *Japanese Journal of Applied Physics*, 2012, 51, 2 PART 2, 02BK01., SCOPUS
  2. [1.2] CHEN, X. - TAGUCHI, D. - MANAKA, T. - IWAMOTO, M. Analyzing photo-induced interfacial charging in IZO/pentacene/C 60/bathocuproine/Al organic solar cells by electric-field-induced optical second-harmonic generation measurement. In *Journal of Applied Physics*, 2012, 111, 11, 113711., SCOPUS
  3. [1.2] CHEN, X. - TAGUCHI, D. - WEIS, M. - MANAKA, T. - IWAMOTO, M. Analyzing photo induced internal electric field in pentacene/C 60 double-layer organic solar cells under various external voltages by electric-field-induced optical second harmonic generation measurement. In *Japanese Journal of Applied Physics*, 2012, 51, 4 PART 1, 041605., SCOPUS
- ADCA537 TOADER, T. - GAVRILA, G. - IVANČO, Ján - BRAUN, W. - ZAHN, D.R.T. Controlling geometric and electronic properties of highly ordered CuPc thin films. In *Applied Surface Science*, 2009, vol. 255, no. 15, p. 6806-6808. (2009 - Current Contents). ISSN 0169-4332.
- Citácie:
1. [1.1] WANG, Yu-Zhan - CAO, Liang - QI, Dong-Chen - CHEN, Wei - WEE, Andrew T. S. - GAO, Xing-Yu. Tuning the interfacial hole injection barrier between p-type organic materials and Co using a MoO<sub>3</sub> buffer layer. In *JOURNAL OF APPLIED PHYSICS*. ISSN 0021-8979, 2012, vol. 112, no. 3, 033704., WOS
- ADCA538 TRAVĚNEC, Igor - MARKOŠ, Peter. Critical conductance distribution in various dimensions. In *Physical Review B*, 2002, vol. 65, no. 11, 113109. (3.070 - IF2001). (2002 - Current Contents, WOS, SCOPUS). ISSN 1098-0121.
- Citácie:
1. [1.1] GROVER, Rakhi - SRIVASTAVA, Ritu - KAMALASANAN, M. N. - MEHTA, D. S. Percolation dominated electron transport in Tetracyanoquinodimethane mixed 4,7-diphenyl-1,10-phenanthroline thin films. In *ORGANIC ELECTRONICS*. ISSN 1566-1199, 2012, vol. 13, no. 12, pp. 3074., WOS
- ADCA539 TRAVĚNEC, Igor - ŠAMAJ, Ladislav. High orders of Weyl series for the heat content. In *Proceedings of the Royal Society A- Mathematical Physical and Engineering Sciences*, 2011, vol. 467, no. 2133, p. 2479-2499. (1.672 - IF2010).
- Citácie:
1. [1.1] GILKEY, P. - MIATELLO, R. J. Growth of heat trace coefficients for locally symmetric spaces. In *JOURNAL OF MATHEMATICAL PHYSICS*. ISSN 0022-2488, 2012, vol. 53, no. 10, 103506., WOS
  2. [1.1] VAN DEN BERG, M. - GILKEY, P. Heat content asymptotics with singular data. In *JOURNAL OF PHYSICS A-MATHEMATICAL AND THEORETICAL*. ISSN 1751-8113, 2012, vol. 45, no. 37, 374027., WOS
- ADCA540 TRAVĚNEC, Igor. Metal-insulator transition in 3D quantum percolation. In *International Journal of Modern Physics B*, 2008. Vol. 22, no. 29, p. 5217-5227. ISSN 0217-9762.
- Citácie:
1. [1.1] CAO, L. - SCHWARZ, J. M. Level statistics for quantum k-core percolation. In *PHYSICAL REVIEW B*. ISSN 1098-0121, 2012, vol. 86, no. 6, 064206., WOS
- ADCA541 TRAVĚNEC, Igor. Solvability of the two-photon Rabi Hamiltonian. In *Physical Review A*, 2012, vol. 85, no. 4, 043805. (2.878 - IF2011). (2012 - Current Contents). ISSN 1050-2947.



Citácie:

1. [1.1] CHEN, Qing-Hu - WANG, Chen - HE, Shu - LIU, Tao - WANG, Ke-Lin. *Exact solvability of the quantum Rabi model using Bogoliubov operators. In PHYSICAL REVIEW A. ISSN 1050-2947, 2012, vol. 86, no. 2, 023822., WOS*
- ADCA542 TURANSKÝ, Robert - KONÔPKA, M. - DOLTSINIS, N.L. - ŠTICH, Ivan - MARX, D. Switching of functionalized azobenzene suspended between gold tips by mechanochemical, photochemical and opto-mechanical means. In *Physical Chemistry Chemical Physics*, 2010, vol. 12, no. 42, p. 13922-13932. (4.116 - IF2009). (2010 - Current Contents). ISSN 1463-9076.
- Citácie:
1. [1.1] BANDARA, H. M. Dhammika - BURDETTE, Shawn C. *Photoisomerization in different classes of azobenzene. In CHEMICAL SOCIETY REVIEWS. ISSN 0306-0012, 2012, vol. 41, no. 5, pp. 1809., WOS*
  2. [1.1] PIPOLO, Silvio - BENASSI, Enrico - BRANCOLINI, Giorgia - VALASEK, Michal - MAYOR, Marcel - CORNI, Stefano. *First-principle-based MD description of azobenzene molecular rods. In THEORETICAL CHEMISTRY ACCOUNTS. ISSN 1432-881X, 2012, vol. 131, no. 10, 1274., WOS*
- ADCA543 TURANSKÝ, Robert - KONÔPKA, M. - DOLTSINIS, N.L. - ŠTICH, Ivan - MARX, D. Optical, mechanical and opto- mechanical switching of anchored dithioazobenzene bridges. In *ChemPhysChem : A European Journal of Chemical and Physical Chemistry*, 2010, vol. 11, no. 2, p. 345-348. (3.453 - IF2009). ISSN 1439-7641.
- Citácie:
1. [1.1] SUN, Mengtao - XU, Hongxing. *A Novel Application of Plasmonics: Plasmon-Driven Surface-Catalyzed Reactions. In SMALL. ISSN 1613-6810, 2012, vol. 8, no. 18, pp. 2777., WOS*
- ADCA544 TYE, R.P. - KUBIČÁR, Ľudovít - LOCKMULLER, N. The development of a standard for contact transient methods of measurement of thermophysical properties. In *International Journal of Thermophysics*, 2005, vol. 26, no. 6, p. 1917-1938. ISSN 0195-928X.
- Citácie:
1. [1.1] CHUDZIK, Stanislaw. *Measurement of thermal diffusivity of insulating material using an artificial neural network. In MEASUREMENT SCIENCE & TECHNOLOGY. ISSN 0957-0233, 2012, vol. 23, no. 6, 065602., WOS*
  2. [1.1] KWON, Su Yong - LEE, Sanghyun. *Precise measurement of thermal conductivity of liquid over a wide temperature range using a transient hot-wire technique by uncertainty analysis. In THERMOCHIMICA ACTA. ISSN 0040-6031, 2012, vol. 542, pp. 18., WOS*
  3. [1.1] TIAN, Mingwei - ZHU, Sukang - PAN, Ning. *Measuring the thermophysical properties of porous fibrous materials with a new unsteady-state method. In JOURNAL OF THERMAL ANALYSIS AND CALORIMETRY. ISSN 1388-6150, 2012, vol. 107, no. 1, pp. 395., WOS*
- ADCA545 UEDA, K. - NISHINO, T. - OKUNISHI, K. - HIEIDA, Y. - DERIAN, René - GENDIAR, Andrej. Product wave function renormalization group: Construction from the matrix product point of view. In *Journal of Physical Society of Japan*, 2006, vol. 75, art. No. 014003.
- Citácie:
1. [1.1] SCHOLLWOCK, U. *In LECTURES ON THE PHYSICS OF STRONGLY CORRELATED SYSTEMS XVI. 2012, vol. 1485, p. 135-225., WOS*
- ADCA546 VENHART, Martin - HESSBERGER, F.P. - ACKERMANN, D. - ANTALIC, S. - GRAY-JONES, C. - GREENLEES, P.T. - HEINZ, S. - HERZBERG, R.D. - HOFMANN, S. - KETELHUT, S. - KINDLER, B. - KOJOUHAROV, I. - LEINO,

M. - LOMMEL, B. - MANN, R. - PAPADAKIS, P. - ROSTRON, D. - RUDOLPH, D. - SARO, S. - SULIGNANO, B. Decay study of  $(^{246}\text{Fm})$  at SHIP. In European Physical Journal A, 2011, vol. 47, no. 2, 20. (2.592 - IF2010). (2011 - Current Contents). ISSN 1434-6001.

Citácie:

1. [1.1] KUZMINA, A.N. Influence of proton shell closure on production. In PHYSICAL REVIEW C, 2012, vol. 85, 014319., WOS

ADCA547 VESELSKÝ, Martin. Production mechanism of hot nuclei in violent collisions in the Fermi energy domain. In Nuclear Physics A, 2002, vol. 705, no. 1-2, p. 193-222. (6.226 - IF2001). (2002 - Current Contents, SCOPUS). ISSN 0550-3213.

Citácie:

1. [1.1] HOVHANNISYAN, G.H. Formation of close-to-target products. In PHYSICS OF ATOMIC NUCLEI, 2012, vol. 75, no. 2, pp. 136-142., WOS

ADCA548 VESELSKÝ, Martin - SOULIOTIS, G.A. Effect of nuclear periphery on nucleon transfer in peripheral collisions. In Nuclear Physics A, 2006, vol. 765, no. 1-2, p. 252-261. (1.950 - IF2005). (2006 - Current Contents, WOS, SCOPUS). ISSN 0375-9474.

Citácie:

1. [1.1] HOVHANNISYAN, G. H. - DANAGULYAN, A. S. - BALABEKYAN, A. R. - DEMEKHINA, N. A. - ADAM, J. - KALINNIKOV, V. G. - PRONSKIKH, V. S. Formation of Close-to-Target Products in Reactions Induced by C-12 Ions on Tin Isotopes at the Energy of 2.2 GeV per Nucleon. In PHYSICS OF ATOMIC NUCLEI. ISSN 1063-7788, 2012, vol. 75, no. 2, pp. 136., WOS

ADCA549 VLASÁK, Gabriel - CONDE, C.F. - JANIČKOVIČ, Dušan - ŠVEC, Peter. Measurements of magnetostriction of paramagnetic Fe-Mo-Cu-B metallic glasses. In Journal of Physics D: Applied Physics, 2006, vol. 304, no. 2, e580-E582. (1.957 - IF2005). (2006 - Current Contents, WOS, SCOPUS). ISSN 0022-3727.

Citácie:

1. [1.1] HENTSCHEL, H. G. E. - ILYIN, Valery - PROCACCIA, Itamar. The plastic response of magnetoelastic amorphous solids. In EPL. ISSN 0295-5075, 2012, vol. 99, no. 2, 26003., WOS

ADCA550 VLASÁK, Gabriel - PAVÚK, M. - MRAFKO, Peter - JANIČKOVIČ, Dušan - ŠVEC, Peter - BUTVINOVÁ, Beata. Influence of heat treatment on magnetostrictions and electrical properties of  $(\text{Fe}_{10}\text{Co}_{10})_{76}\text{Mo}_8\text{Cu}_{10}\text{B}_{15}$ . In Journal of Magnetism and Magnetic Materials, 2008, vol. 320, no. 20, e837-e840. (1.704 - IF2007). (2008 - Current Contents, SCOPUS). ISSN 0304-8853.

Citácie:

1. [1.1] KLEIN, P.-VARGA, R.-INFANTE, G.-VAZQUEZ, M. Ferromagnetic resonance study of FeCoMoB microwires during devitrification process. In JOURNAL OF APPLIED PHYSICS, 2012, vol. 111, no.5, 053920., WOS

2. [1.2] MICHALIK, S.-GAMCOVA, J.-BEDNARCIK, J.-VARGA, R. In situ structural investigation. In JOURNAL OF ALLOYS AND COMPOUNDS, 2011, vol. 509, no. 7, p. 3409-3412., SCOPUS

ADCA551 WAGNER, V. - KUGLER, a. - PACHR, M. - SUMBERA, M. - TARANENKO, A. - HLAVÁČ, Stanislav - LORENCZ, R. - WOHLGEMUTH, R. - SIMON, R.S. Detection of relativistic neutrons by BaF<sub>2</sub> scintillators. In Nuclear Instruments and Methods in Physics Research A, 1997, vol. 394, no. 3, p. 332-340. (1.040 - IF1996). (1997 - Current Contents). ISSN 0168-9002.

Citácie:

1. [1.1] YUREVICH, V. I. High-energy neutron spectrometry. In PHYSICS OF PARTICLES AND NUCLEI. ISSN 1063-7796, 2012, vol. 43, no. 3, pp. 367-418., WOS

- ADCA552 WANG, J. - WADA, R. - KEUTGEN, T. - HAGEL, K. - MA, Y.G. - MURRAY, M. - QIN, L. - BOTVINA, A. - KOWALSKI, S. - MATERNA, T. - NATOWITZ, J.B. - ALFARRO, R. - CIBOR, J. - CINAUSERO, M. - MASRI, Y.E. - FABRIS, D. - FIORETTO, E. - KEKSIS, A. - LUNARDON, M. - MAKEEV, A. - MARIE, N. - MARTIN, E. - MAJKA, Z. - MARTINEZ-DUVALOS, A. - MENCHACA-ROCHA, A. - NEBBIA, G. - PRETE, G. - RIZZI, V. - RUANGMA, A. - SHETTY, D.V. - SOULIOTIS, G. - STASZEL, P. - VESELSKÝ, Martin - VIESTI, G. - WINCHESTER, E.M. - YENNELLO, S.J. - ZIPPER, W. - ONO, A. Tracing the evolution of temperature in near Fermi energy heavy ion collisions. In Physical Review C, 2005, vol. 72, no. 2, 024603. (3.125 - IF2004). (2005 - Current Contents, WOS, SCOPUS). ISSN 0556-2813.
- Citácie:
1. [1.1] LIU, T. X. - LYNCH, W. G. - SHOWALTER, R. H. - TSANG, M. B. - LIU, X. D. - TAN, W. P. - VAN GOETHEM, M. J. - VERDE, G. - WAGNER, A. - XI, H. F. - XU, H. S. - FAMIANO, M. A. - DE SOUZA, R. T. - VIOLA, V. E. - CHARITY, R. J. - SOBOTKA, L. G. *Isospin observables from fragment energy spectra. In PHYSICAL REVIEW C. ISSN 0556-2813, 2012, vol. 86, no. 2, 024605., WOS*
- ADCA553 WEIS, Martin Jr. - GMUCOVÁ, Katarína - NÁDAŽDY, Vojtech - MAJKOVÁ, Eva - HAŠKO, D. - TAGUCHI, D. - MANAKA, T. - IWAMOTO, M. Grain boundary effect on charge transport in pentacene thin films. In Japanese Journal of Applied Physics, 2011, vol. 50, 04DK03. (1.018 - IF2010). (2011 - Current Contents). ISSN 0021-4922.
- Citácie:
1. [1.1] KIMURA, Tomoharu - MIYATO, Yuji - KOBAYASHI, Kei - YAMADA, Hirofumi - MATSUSHIGE, Kazumi. *Investigations of Local Electrical Characteristics of a Pentacene Thin Film by Point-Contact Current Imaging Atomic Force Microscopy. In JAPANESE JOURNAL OF APPLIED PHYSICS. ISSN 0021-4922, 2012, vol. 51, no. 8, 08KB05., WOS*
2. [1.1] SALAS-VILLASENOR, A. L. - MEJIA, I. - SOTELO-LERMA, M. - GNADE, B. E. - QUEVEDO-LOPEZ, M. A. *Performance and stability of solution-based cadmium sulfide thin film transistors: Role of CdS cluster size and film composition. In APPLIED PHYSICS LETTERS. ISSN 0003-6951, 2012, vol. 101, no. 26, 262103., WOS*
- ADCA554 WEIS, Martin Jr. - GMUCOVÁ, Katarína - NÁDAŽDY, Vojtech - CAPEK, Ignác - ŠATKA, A. - KOPÁNI, M. - CIRÁK, Július - MAJKOVÁ, Eva. Control of single-electron charging of metallic nanoparticles onto amorphous silicon surface. In Journal of Nanoscience and Nanotechnology, 2008, vol. 8, p. 5684 - 5689. (1.987 - IF2007). (2008 - Current Contents, SCOPUS). ISSN 1533-4880.
- Citácie:
1. [3] SUDHEESH, S. - AHMAD, J. - SINGH, G. S. *Hysteresis of isotherms of mixed monolayers of N-octadecyl-N'-phenylthiourea and stearic acid at air/water interface. In ISRN PHYSICAL CHEMISTRY, 2012, art.no. 835397, p.6*
- ADCA555 WEIS, Martin Jr. - LIN, J. - TAGUCHI, D. - MANAKA, T. - IWAMOTO, M. Insight into the contact resistance problem by direct probing of the potential drop in organic field-effect transistors. In Applied Physics Letters, 2010, vol. 97, 263304. (3.554 - IF2009). (2010 - Current Contents, SCOPUS). ISSN 0003-6951.
- Citácie:
1. [1.1] NATALI, Dario - CAIRONI, Mario. *Charge Injection in Solution-Processed Organic Field-Effect Transistors: Physics, Models and Characterization Methods. In ADVANCED MATERIALS. ISSN 0935-9648, 2012, vol. 24, no. 11, pp. 1357., WOS*
2. [1.1] SCHEINERT, S. - GROBOSCH, M. - PAASCH, G. - HOERSELMANN, I.

- *KNUPFER, M. - BARTSCH, J. Contact characterization by photoemission and device performance in P3HT based organic transistors. In JOURNAL OF APPLIED PHYSICS. ISSN 0021-8979, 2012, vol. 111, no. 6, 064502., WOS*
- ADCA556 WIDOM, M. - MIHALKOVIČ, Marek. Stability of Fe-based alloys with structure type C6Cr23. In Journal of Materials Research, 2005, vol. 20, no. 1, p. 237-242. ISSN 0884-2914.
- Citácie:
- [1.1] ANDE, Chaitanya Krishna - SLUITER, Marcel H. F. First-Principles Calculations on Stabilization of Iron Carbides ( $\text{Fe}_3\text{C}$ ,  $\text{Fe}_5\text{C}_2$ , and  $\eta\text{-Fe}_2\text{C}$ ) in Steels by Common Alloying Elements. In METALLURGICAL AND MATERIALS TRANSACTIONS A-PHYSICAL METALLURGY AND MATERIALS SCIENCE. ISSN 1073-5623, 2012, vol. 43A, no. 11, pp. 4436., WOS
  - [1.1] DEGRAEF, M - MCHENRY, ME. Structure of Materials: An Introduction to Crystallography, Diffraction and Symmetry, 2nd Edition. In STRUCTURE OF MATERIALS: AN INTRODUCTION TO CRYSTALLOGRAPHY, DIFFRACTION AND SYMMETRY, 2ND EDITION, 2012, pp. 1., WOS
  - [1.1] GUMENIUK, Roman - SCHNELLE, Walter - BURKHARDT, Ulrich - ROSNER, Helge - LEITHE-JASPER, Andreas. Influence of the transition-metal substitution on the physical properties of  $\text{Lu}_{2-x}\text{Ni}_2\text{B}_6$  From Pauli-paramagnetism to weak ferromagnetism. In INTERMETALLICS. ISSN 0966-9795, 2012, vol. 20, no. 1, pp. 104., WOS
  - [1.1] HOPKINS, Adam B. - STILLINGER, Frank H. - TORQUATO, Salvatore. Densest binary sphere packings. In PHYSICAL REVIEW E. ISSN 1539-3755, 2012, vol. 85, no. 2, 021130., WOS
  - [1.1] SLUITER, M. H. F. - PERELOMA, E - EDMONDS, DV. First principles in modelling phase transformations in steels. In PHASE TRANSFORMATIONS IN STEELS, VOL 2: DIFFUSIONLESS TRANSFORMATIONS, HIGH STRENGTH STEELS, MODELLING AND ADVANCED ANALYTICAL TECHNIQUES, 2012, pp. 365., WOS
- ADCA557 WIDOM, M. - GANESH, P. - KAZIMIROV, S. - LOUCA, D. - MIHALKOVIČ, Marek. First-principles simulation of supercooled liquid alloys. In Journal of Physics: Condensed Matter, 2008, vol. 20, no. 11, 114114. (1.886 - IF2007). (2008 - Current Contents, WOS, SCOPUS). ISSN 0953-8984.
- Citácie:
- [1.1] KIM, Jaegil - STRAUB, John E. - KEYES, Tom. Replica Exchange Statistical Temperature Molecular Dynamics Algorithm. In JOURNAL OF PHYSICAL CHEMISTRY B. ISSN 1520-6106, 2012, vol. 116, no. 29, pp. 8646., WOS
  - [1.1] WANG, H. P. - YANG, S. J. - WEI, B. Molecular dynamics prediction of density for metastable liquid noble metals. In CHEMICAL PHYSICS LETTERS. ISSN 0009-2614, 2012, vol. 539, pp. 30., WOS
- ADCA558 WIDOM, M. - MIHALKOVIČ, Marek. Symmetry-broken crystal structure of elemental boron at low temperature. In Physical Review B, 2008, vol. 77, no. 6, 064113. (3.172 - IF2007). (2008 - Current Contents, WOS, SCOPUS). ISSN 1098-0121.
- Citácie:
- [1.1] CHKHARTISHVILI, Levan - MURUSIDZE, Ivane - DARCHIASHVILI, Maguli - TSAGAREISHVILI, Otar - GABUNIA, Domenti. Metal impurities in crystallographic voids of beta-rhombohedral boron lattice: Binding energies and electron levels. In SOLID STATE SCIENCES. ISSN 1293-2558, 2012, vol. 14, no. 11-12, pp. 1673., WOS
  - [1.1] HYODO, H. - NEZU, A. - SOGA, K. - KIMURA, K. Self-compensation



- property of beta-rhombohedral boron doped with high Li concentration. In SOLID STATE SCIENCES. ISSN 1293-2558, 2012, vol. 14, no. 11-12, pp. 1578., WOS*
3. [1.1] OGITSU, Tadashi - SCHWEGLER, Eric. The alpha-beta phase boundary of elemental boron. In SOLID STATE SCIENCES. ISSN 1293-2558, 2012, vol. 14, no. 11-12, pp. 1598., WOS
4. [1.1] PUTZ, Mihai V. Valence atom with bohmian quantum potential: the golden ratio approach. In CHEMISTRY CENTRAL JOURNAL. ISSN 1752-153X, 2012, vol. 6, 135., WOS
5. [1.1] SAENGDEEJING, Arkapol - SAAL, James E. - MANGA, Venkateswara Rao - LIU, Zi-Kui. Defects in boron carbide: First-principles calculations and CALPHAD modeling. In ACTA MATERIALIA. ISSN 1359-6454, 2012, vol. 60, no. 20, pp. 7207., WOS
6. [1.1] SHIRAI, Koun - UEMURA, Naoki. Why does a metal get an insulator? Consequences of unfilled bands on boron crystals. In SOLID STATE SCIENCES. ISSN 1293-2558, 2012, vol. 14, no. 11-12, pp. 1609., WOS
- ADCA559 WILSON GORDON, A.D. - BUŽEK, Vladimír - KNIGHT, P.L. Statistical and phase properties of displaced kerr states. In Physical Review A, 1991, vol. 44, no. 11, p. 7647-7656. ISSN 1050-2947.
- Citácie:
1. [1.1] HONARASA, G. R. - TAVASSOLY, M.K. Generalized deformed Kerr states and their physical properties. In PHYSICA SCRIPTA. ISSN 0031-8949, 2012, vol. 86, no. 3, 035401., WOS
2. [1.1] PENNINI, Flavia - PLASTINO, Angelo - FERRI, Gustavo L. Temperature Effects, Frieden-Hawkins's Order-Measure, and Wehrl Entropy. In ENTROPY. ISSN 1099-4300, 2012, vol. 14, no. 11, pp. 2081., WOS
- ADCA560 WINDISCH, M. - KRAJČÍ, Marián - HAFNER, J. Electronic-structure in icosahedral alculi quasi-crystals nad approximant crystals. In Journal of Physics: Condensed Matter, 1994, vol. 6, no. 35, p. 6977-6995. (1.654 - IF1993). (1994 - Current Contents). ISSN 0953-8984.
- Citácie:
1. [1.1] MIZUTANI, U. In CHEMICAL SOCIETY REVIEWS, vol. 41, 2012, p. 6799., WOS
- ADCA561 WOCJAN, P. - CHIANG, Chen-Fu - ABEYESINGHE, A. - NAGAJ, Daniel. Quantum algorithm for approximating partition functions. In Physical Review A, 2009, vol. 80, 022340. ISSN 1050-2947.
- Citácie:
1. [1.1] AHMADI, Hamed - CHIANG, Chen-Fu. QUANTUM PHASE ESTIMATION WITH ARBITRARY CONSTANT-PRECISION PHASE SHIFT OPERATORS. In QUANTUM INFORMATION & COMPUTATION. ISSN 1533-7146, 2012, vol. 12, no. 9-10, pp. 864., WOS
2. [1.1] REICHARDT, Ben W. SYSTEMATIC DISTILLATION OF COMPOSITE FIBONACCI ANYONS USING ONE MOBILE QUASIPARTICLE. In QUANTUM INFORMATION & COMPUTATION. ISSN 1533-7146, 2012, vol. 12, no. 9-10, pp. 876., WOS
3. [1.1] ZHAO, Lian-Jie - LI, Yan-Song - HAO, Liang - ZHOU, Tao - LONG, Gui Lu. Geometric pictures for quantum search algorithms. In QUANTUM INFORMATION PROCESSING. ISSN 1570-0755, 2012, vol. 11, no. 2, pp. 325., WOS
- ADCA562 WUNSCHÉ, A. - BUŽEK, Vladimír. Reconstruction of quantum states from propensities. In Quantum and Semiclassical Optics, 1997, vol. 9, no. 4, p. 631-653. ISSN 1355-5111.

Citácie:

1. [1.2] FILIPPOV, S.N. - MANKO, V.I. *Star product and ordered moments of photon creation and annihilation operators. In Journal of Physics A: Mathematical and Theoretical*, 2012, 45, 1., SCOPUS
2. [1.2] KIUKAS, J. - LAHTI, P. - SCHULTZ, J. - WERNER, R.F. *Characterization of informational completeness for covariant phase space observables. In Journal of Mathematical Physics*, 2012, 53, 10, 102103., SCOPUS

ADCA563 YUNG, M.H. - NAGAJ, Daniel - WHITFIELD, J.D. - ASPURU\_GUZI, A. Simulation of classical thermal states on a quantum computer: A transfer-matrix approach. In *Physical Review A*, 2010, vol. 82, no. 6, 060302. (2.866 - IF2009). (2010 - Current Contents). ISSN 1050-2947.

Citácie:

1. [1.1] RIERA, Arnau - GOGOLIN, Christian - EISERT, Jens. *Thermalization in Nature and on a Quantum Computer. In PHYSICAL REVIEW LETTERS*. ISSN 0031-9007, 2012, vol. 108, no. 8, 080402., WOS
2. [1.1] YUNG, Man-Hong - ASPURU-GUZI, Alan. *A quantum-quantum Metropolis algorithm. In PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*. ISSN 0027-8424, 2012, vol. 109, no. 3, pp. 754., WOS
3. [1.1] ZHANG, Jingfu - YUNG, Man-Hong - LAFLAMME, Raymond - ASPURU-GUZI, Alan - BAUGH, Jonathan. *Digital quantum simulation of the statistical mechanics of a frustrated magnet. In NATURE COMMUNICATIONS*. ISSN 2041-1723, 2012, vol. 3., WOS
4. [1.1] ZUNIGA-HANSEN, Nayeli - CHI, Yu-Chieh - BYRD, Mark S. *Effects of noise, correlations, and errors in the preparation of initial states in quantum simulations. In PHYSICAL REVIEW A*. ISSN 1050-2947, 2012, vol. 86, no. 4., WOS

ADCA564 YUSHANKHAI, V.Y. - PLAKIDA, M. - KALINAY, Pavol. Superconducting pairing in the mean-field approximation for the t-j model- numerical analysis. In *Physica C*, 1991, vol. 174, no. 4-6, p. 401-408. (1991 - Current Contents). ISSN 0921-4534.

Citácie:

1. [1.1] MAKAROV, I. A. - OVCHINNIKOV, S. G. - SHNEIDER, E. I. *Dependence of the critical temperature of high-temperature cuprate superconductors on hoppings and spin correlations between CuO<sub>2</sub> planes. In JOURNAL OF EXPERIMENTAL AND THEORETICAL PHYSICS*. ISSN 1063-7761, 2012, vol. 114, no. 2, pp. 329., WOS
2. [1.1] SHNEYDER, E. I. - OVCHINNIKOV, S. G. - KORSHUNOV, M. M. - NIKOLAEV, S. V. *Electronic structure and properties of high-T<sub>c</sub> superconducting cuprates in the normal and superconducting phases within the LDA+GTB approach. In JETP LETTERS*. ISSN 0021-3640, 2012, vol. 96, no. 5, pp. 349., WOS

ADCA565 ZHU, S.J. - HAMILTON, J.H. - RAMAYYA, A.V. - JONES, E.F. - HWANG, J.K. - WANG, M.G. - ZHANG, X.Q. - GORE, P.M. - PEKER, L.K. - DRAFTA, G. - BABU, B.R.S. - MA, W.C. - LONG, G.L. - ZHU, L.Y. - GAN, C.Y. - YANG, L.M. - SAKHAEI, M. - LI, H. - DENG, J.K. - GINTER, T.N. - BEYER, C.J. - KORMICKI, J. - COLE, J.D. - ARYAEINEJAD, R. - DRIGERT, M.W. - RASMUSSEN, J.O. - ASZTALOS, S. - LEE, I.Y. - MACCHIAVELLI, A.O. - CHU, S.Y. - GREFORICH, K.E. - MOHAR, M.F. - TER-AKOPIAN, G.M. - DANIEL, A.V. - OGANESSIAN, Y.T. - DONANGELO, R. - STOYER, M.A. - LOUGHEED, R.W. - MOODY, K.J. - WILD, J.F. - PRUSSIN, S.G. - KLIMAN, Ján



- GRIFFIN, H.C. Octupole correlations in neutron-rich Ba-143, Ba-145 and a type of superdeformed band in Ba-145. In *Physical review C : nuclear physics*, 1999, vol. 60, no. 5, 051304. (1999 - Current Contents, SCOPUS). ISSN 0556-2813.

Citácie:

1. [1.1] BROWNE, E. - TULI, J. K. *Nuclear Data Sheets for A=143. In NUCLEAR DATA SHEETS*. ISSN 0090-3752, 2012, vol. 113, no. 3, pp. 715., WOS

2. [1.1] MUKHOPADHYAY, S. - DANU, L. S. - BISWAS, D. C. - GOSWAMI, A. - PRASHANTH, P. N. - KINAGE, L. A. - CHATTERJEE, A. - CHOUDHURY, R. K. *Prompt gamma spectroscopic studies of fragment nuclei in thermal neutron induced fission of U-235. In PHYSICAL REVIEW C*. ISSN 0556-2813, 2012, vol. 85, no. 6, 064321., WOS

3. [1.1] RZACA-URBAN, T. - URBAN, W. - PINSTON, J. A. - SIMPSON, G. S. - SMITH, A. G. - AHMAD, I. *Reflection symmetry of the near-yrast excitations in Ba-145. In PHYSICAL REVIEW C*. ISSN 0556-2813, 2012, vol. 86, no. 4, 044324., WOS

4. [1.1] URBAN, W. - RZACA-URBAN, T. - SYNTFELD-KAZUCH, A. - SMITH, A. G. - AHMAD, I. *Band structure of Ce-149. In PHYSICAL REVIEW C*. ISSN 0556-2813, 2012, vol. 86, no. 1, 017301., WOS

ADCA566 ZIEGLER, K. - KOGAN, E. - MAJERNÍKOVÁ, Eva - SHPYRKO, S. Ising instability of a Holstein phonon mode in graphene. In *Physical Review B*, 2011, vol. 84, no. 7, 073407. (3.774 - IF2010). (2011 - Current Contents, WOS, SCOPUS). ISSN 1098-0121.

Citácie:

1. [1.1] DE JUAN, F. - FERTIG, H. A. *Power law Kohn anomalies and the excitonic transition in graphene. In SOLID STATE COMMUNICATIONS*. ISSN 0038-1098, 2012, vol. 152, no. 15, pp. 1460., WOS

ADCA567 ZIJLSTRA, E.S. - KORTUS, J. - KRAJČÍ, Marián - STADNIK, Z.M. - BOSE, S.K. Structure, electronic density of states and electric field gradients of icosahedral AlCuFe: An ab initio study of the original and a modified Cockayne model. In *Physical Review B*, 2004, vol. 69, no. 9, 094206. (2.962 - IF2003). (2004 - Current Contents, WOS, SCOPUS). ISSN 1098-0121.

Citácie:

1. [1.1] NAYAK, J. - MANIRAJ, M. - RAI, Abhishek - SINGH, Sanjay - RAJPUT, Parasmani - GLOSKOVSKII, A. - ZEGENHAGEN, J. - SCHLAGEL, D. L. - LOGRASSO, T. A. - HORN, K. - BARMAN, S. R. *Bulk Electronic Structure of Quasicrystals. In PHYSICAL REVIEW LETTERS*. ISSN 0031-9007, 2012, vol. 109, no. 21, 216403., WOS

ADCA568 ZIMAN, Mário - ŠTELMACHOVIČ, Peter - BUŽEK, Vladimír. On the local unitary equivalence of states of multi-partite systems. In *Fortschritte der Physik*, 2001, vol. 49, p. 1123-1131.

Citácie:

1. [1.1] JING, Naihuan. *On Classes of Local Unitary Transformations. In ALGEBRA COLLOQUIUM*. ISSN 1005-3867, 2012, vol. 19, no. 2, pp. 283., WOS

ADCA569 ZIMAN, Mário - ŠTELMACHOVIČ, Peter - BUŽEK, Vladimír. Saturation of Coffman-Kundu-Wootters inequalities via quantum homogenization. In *Journal of Optics B*, 2003, vol. 5, no. 3, p. S439-S441. ISSN 1464-4266.

Citácie:

1. [1.1] GIOVANNETTI, V. - PALMA, G. M. *Master Equations for Correlated Quantum Channels. In PHYSICAL REVIEW LETTERS*. ISSN 0031-9007, 2012, vol. 108, no. 4, 040401., WOS

2. [1.1] GIOVANNETTI, V. - PALMA, G. M. *Master equation for cascade quantum channels: a collisional approach. In JOURNAL OF PHYSICS*

- B-ATOMIC MOLECULAR AND OPTICAL PHYSICS. ISSN 0953-4075, 2012, vol. 45, no. 15, 154003., WOS*
- ADCA570 ZIMAN, Mário - BUŽEK, Vladimír. Entanglement-induced state ordering under local operations. In *Physical Review A*, 2006, vol. 73, no. 1, 012312. (2006 - Current Contents, SCOPUS). ISSN 1050-2947.
- Citácie:
- [1.1] *HOU, Xi-Wen - WAN, Ming-Fang - MA, Zhong-Qi. Tripartite entanglement dynamics for mixed states in the Tavis-Cummings model with intrinsic decoherence. In EUROPEAN PHYSICAL JOURNAL D. ISSN 1434-6060, 2012, vol. 66, no. 6, 152., WOS*
  - [1.1] *OKRASA, M. - WALCZAK, Z. On two-qubit states ordering with quantum discords. In EPL. ISSN 0295-5075, 2012, vol. 98, no. 4, 40003., WOS*
- ADCA571 ZIMAN, Mário - PLESCH, Martin - BUŽEK, Vladimír - ŠTELMACHOVIČ, Peter. Process reconstruction: From unphysical to physical maps via maximum likelihood. In *Physical Review A*, 2005, vol. 72, 022106. ISSN 1050-2947.
- Citácie:
- [1.1] *RUPPERT, Laszlo - VIROSZTEK, Daniel - HANGOS, Katalin. Optimal parameter estimation of Pauli channels. In JOURNAL OF PHYSICS A-MATHEMATICAL AND THEORETICAL. ISSN 1751-8113, 2012, vol. 45, no. 26, 265305., WOS*
- ADCA572 ZIMAN, Mário - BUŽEK, Vladimír. All (qubit) decoherences: Complete characterization and physical implementation. In *Physical Review A*, 2005, vol. 72, no. 2, 022110. ISSN 1050-2947.
- Citácie:
- [1.1] *GIOVANNETTI, V. - PALMA, G. M. Master Equations for Correlated Quantum Channels. In PHYSICAL REVIEW LETTERS. ISSN 0031-9007, 2012, vol. 108, no. 4, 040401., WOS*
  - [1.1] *GIOVANNETTI, V. - PALMA, G. M. Master equation for cascade quantum channels: a collisional approach. In JOURNAL OF PHYSICS B-ATOMIC MOLECULAR AND OPTICAL PHYSICS. ISSN 0953-4075, 2012, vol. 45, no. 15, 154003., WOS*
- ADCA573 ZIMAN, Mário - SEDLÁK, Michal. Single-shot discrimination of quantum unitary processes. In *Journal of Modern Optics*, 2010, vol. 57, no. 3, p. 253-259. (0.942 - IF2009). (2010 - Current Contents). ISSN 0950-0340.
- Citácie:
- [1.1] *MISHRA, Devendra Kumar. Unambiguous discrimination of two squeezed states using probabilistic quantum cloning. In OPTICS COMMUNICATIONS. ISSN 0030-4018, 2012, vol. 285, no. 6, pp. 1560., WOS*
- ADCA574 ZIMAN, Mário. Process positive-operator-valued measure : A mathematical framework for the description of process tomography experiments. In *Physical Review A*, 2008, vol. 77, no. 6, 062112. (2.893 - IF2007). (2008 - Current Contents). ISSN 1050-2947.
- Citácie:
- [1.1] *JENCOVA, Anna. Extremality conditions for generalized channels. In JOURNAL OF MATHEMATICAL PHYSICS. ISSN 0022-2488, 2012, vol. 53, no. 12, 122203., WOS*
  - [1.1] *JENCOVA, Anna. Generalized channels: Channels for convex subsets of the state space. In JOURNAL OF MATHEMATICAL PHYSICS. ISSN 0022-2488, 2012, vol. 53, no. 1, 012201., WOS*
  - [1.1] *LU, Cheng - CHEN, Jianxin - DUAN, Runyao. SOME BOUNDS ON THE MINIMUM NUMBER OF QUERIES REQUIRED FOR QUANTUM CHANNEL PERFECT DISCRIMINATION. In QUANTUM INFORMATION &*

- COMPUTATION. ISSN 1533-7146, 2012, vol. 12, no. 1-2, pp. 138., WOS*
- ADCA575 ŽIVOTSKÝ, O. - POSTAVA, K. - KRAUS, L. - MALÁTEK, M. - JANIČKOVIČ, Dušan - CIPRIAN, D. - LUŇÁČEK, J. - PIŠTORA, J. Surface crystallized Co<sub>66</sub>Fe<sub>4</sub>B<sub>15</sub>Si<sub>15</sub> amorphous ribbons studied using magneto-optical magnetometry. In Journal of Magnetism and Magnetic Materials, 2005, vol. 290, pp. 625-628. (1.031 - IF2004). (2005 - Current Contents, WOS, SCOPUS). ISSN 0304-8853.
- Citácie:
1. [1.1] BUTVINOVA, B. - BUTVIN, P. - KADLECIKOVA, M. - MALINOVSKY, L.; Raman spectroscopy used to inspect relationship between surface and magnetic properties of Fe-Nb-Cu-B-Si(4.5) nanocrystalline ribbons. In KOVOVE MATERIALY-METALLIC MATERIALS. ISSN 0023-432X, 2012, vol. 50, no. 3, pp. 145., WOS
- ADCA576 ŽIVOTSKÝ, O. - POSTAVA, K. - KRAUS, L. - JIRÁSKOVÁ, Y. - JURASZEK, J. - TEILLET, J. - BARČOVÁ, K. - ŠVEC, Peter - JANIČKOVIČ, Dušan - PIŠTORA, J. Surface and bulk magnetic properties of as-quenched FeNbB ribbons. In Journal of Magnetism and Magnetic Materials, 2008, vol. 320, no. 8, p. 1535-1540. (1.704 - IF2007). (2008 - Current Contents, SCOPUS). ISSN 0304-8853.
- Citácie:
1. [1.1] HUANG KAI-KAI - LI NAN - LU XUAN-HUI. A High Sensitivity Laser-Pumped Cesium Magnetometer. In CHINESE PHYSICS LETTERS. ISSN 0256-307X, 2012, vol. 29, no. 10, 100701., WOS
- ADDA Vedecké práce v domácich karentovaných časopisoch impaktovaných**
- ADDA01 BOHÁČ, Vlastimil - DIEŠKA, P. - VRETENÁR, Viliam - GREIF, V. Model for cuboid shape samples and its analysis used for measurements of thermophysical properties of sandstone. In Measurement Science Review, 2011, vol. 11, no. 6, 10.2478. (0.400 - IF2010). (2011 - WOS, SCOPUS, Copernicus International). ISSN 1335-8871.
- Citácie:
1. [3] MALINARIČ, S. - KRUPA, P. Modification of the dynamic plane source method. In THERMOPHYSICS 2012- CONFERENCE PROCEEDINGS. Ed. O. Zmeškal. ISSN 978-80-214-4599-4. Brno: University of Technology, 2012, p. 84.
- ADDA02 BUŽEK, Vladimír - HILLERY, M. - BEDNIK, R. Controlling the flow of information in quantum cloners: Asymmetric cloning. In Acta Physica Slovaca, 1998, vol. 48, no. 3, p. 177-184. (1998 - Current Contents, WOS, SCOPUS). ISSN 0323-0465.
- Citácie:
1. [1.1] WU, Fei - WU, Xiaohua. Designing the optimal quantum cloning machine for qubit case. In QUANTUM INFORMATION PROCESSING. ISSN 1570-0755, 2012, vol. 11, no. 1, pp. 1-21., WOS
- ADDA03 GENDIAR, Andrej - NISHINO, T. - DERIAN, René. Estimation of the magnetic critical exponent by tensor product variational approach. In Acta Physica Slovaca : journal for experimental and theoretical physics, 2005, vol. 55, no. 2, p. 141-148. (0.513 - IF2004). (2005 - Current Contents, SCOPUS). ISSN 0323-0465.
- Citácie:
1. [1.1] PHIEN, H.N. - VIDAL, G. - MCCULLOCH, I.P. In PHYSICAL REVIEW B. DEC 10 2012, vol. 86, no. 24., WOS
- ADDA04 HAMILTON, J.H. - RAMAYYA, A.V. - HWANG, J.K. - GREIENR, W. - ZHU, S.J. - SANDULESCU, A. - FLORESCU, A. - KORMICKI, J. - TER-AKOPIAN, G. - OGANESSIAN, Y. - DANIEL, A.V. - POPEKO, G.S. - KLIMAN, Ján - MORHÁČ, Miroslav - COLE, J.D. - ARYAEINEJAD, R. - DRIGERT, M.W. -

COLLINS, W.E. - MA, W.C. - JONES, E.F. - PEKER, L.K. - GORE, P.M. - DRAFTA, G. - BABU, B.R.S. - WANG, G. - DENG, J.K. Cold spontaneous fission processes of Cf-252 and the structure of neutron rich Ba and La nuclei. In Acta Physica Slovaca, 1999, vol. 49, no. 1, p. 31-42. (1999 - Current Contents). ISSN 0323-0465.

Citácie:

1. [1.1] BROWNE, E. - TULLI, J. K. Nuclear Data Sheets for A=143. In NUCLEAR DATA SHEETS. ISSN 0090-3752, 2012, vol. 113, no. 3, pp. 715., WOS

ADDA05

HARTMANOVÁ, Mária - KUNDRACIK, F. - SCHNEIDER, J. - ORESHNIKOVA, T.V. Electrical response of doped yttria stabilized zirconia. In Acta Physica Slovaca, 1999, vol. 49, no. 3, p. 419-428. (1999 - Current Contents). ISSN 0323-0465.

Citácie:

1. [1.2] RAMESH, B. - RAMESH, S. - KUMAR, R. Vijaya - RAO, M. Lakshmipathi. AC impedance studies on LiFe<sub>5</sub>-xMnxO<sub>8</sub> ferrites. In JOURNAL OF ALLOYS AND COMPOUNDS. ISSN 0925-8388, 2012, vol. 513, pp. 289., WOS

ADDA06

HEINOSAARI, Teiko - ZIMAN, Mário. Guide to mathematical concepts of quantum theory. In Acta Physica Slovaca, 2008, vol. 58, no. 4, p. 487-674. (0.625 - IF2007). (2008 - SCOPUS). ISSN 0323-0465.

Citácie:

1. [1.1] MISZCZAK, Jaroslaw Adam. Generating and using truly random quantum states in Mathematica. In COMPUTER PHYSICS COMMUNICATIONS. ISSN 0010-4655, 2012, vol. 183, no. 1, pp. 118., WOS

2. [1.1] PARIS, M. G. A. The modern tools of quantum mechanics A tutorial on quantum states, measurements, and operations. In EUROPEAN PHYSICAL JOURNAL-SPECIAL TOPICS. ISSN 1951-6355, 2012, vol. 203, no. 1, pp. 61., WOS

ADDA07

MARKOŠ, Peter. Numerical analysis of the Anderson localization. In Acta Physica Slovaca, 2006, vol. 56, no. 5, p. 561-685.

Citácie:

1. [1.1] CHEN, Liang - LV, Cheng - JIANG, Xunya. A re-formulation of the transfer matrix method for calculating wave-functions in higher dimensional disordered open systems. In COMPUTER PHYSICS COMMUNICATIONS. ISSN 0010-4655, 2012, vol. 183, no. 12, pp. 2513., WOS

2. [1.1] HAMADA, Shimpei - TAKEDA, Seiji - VIKTOROVITCH, Pierre - OBARA, Minoru - ADIBI, A - LIN, SY - SCHERER, A. Theoretical analysis of the modal behavior of 2D random photonic crystals. In PHOTONIC AND PHONONIC PROPERTIES OF ENGINEERED NANOSTRUCTURES II. ISSN 0277-786X, 2012, vol. 8269, 826924., WOS

3. [1.1] LEE, A.T. Transport properties of carbon nanotubes. In JOURNAL OF PHYSICAL CHEMISTRY C, 2012, vol. 116, pp. 1179-1184., WOS

4. [1.1] SLANINA, F. Localization of eigenvectors in random graphs. In EUROPEAN PHYSICAL JOURNAL B. ISSN 1434-6028, 2012, vol. 85, no. 11, 361., WOS

5. [1.1] SUSLOV, I. M. Conductance of finite systems and scaling in localization theory. In JOURNAL OF EXPERIMENTAL AND THEORETICAL PHYSICS. ISSN 1063-7761, 2012, vol. 115, no. 5, pp. 897., WOS

6. [1.1] SUSLOV, I. M. Finite-Size Scaling from the Self-Consistent Theory of Localization. In JOURNAL OF EXPERIMENTAL AND THEORETICAL PHYSICS. ISSN 1063-7761, 2012, vol. 114, no. 1, pp. 107., WOS

ADDA08

SEDLÁK, Michal. Quantum theory of unambiguous measurements. In Acta Physica



Slovaca, 2009, vol. 59, no. 6, p. 653-792. (0.724 - IF2008). (2009 - WOS, SCOPUS). ISSN 0323-0465.

**Citácie:**

1. [1.1] ANDERSSON, Erika. *Optimal minimum-cost quantum measurements for imperfect detection*. In *PHYSICAL REVIEW A*. ISSN 1050-2947, 2012, vol. 86, no. 1, 012120., WOS
2. [1.1] DALL'ARNO, Michele - BISIO, Alessandro - D'ARIANO, Giacomo Mauro - MIKOVA, Martina - JEZEK, Miroslav - DUSEK, Miloslav. *Experimental implementation of unambiguous quantum reading*. In *PHYSICAL REVIEW A*. ISSN 1050-2947, 2012, vol. 85, no. 1, 012308., WOS
3. [1.1] DALL'ARNO, Michele - BISIO, Alessandro - D'ARIANO, Giacomo Mauro. *IDEAL QUANTUM READING OF OPTICAL MEMORIES*. In *INTERNATIONAL JOURNAL OF QUANTUM INFORMATION*. ISSN 0219-7499, 2012, vol. 10, no. 8, 1241010., WOS
4. [1.1] FILIPPOV, Sergey N. - ZIMAN, Mario. *Probability-based comparison of quantum states*. In *PHYSICAL REVIEW A*. ISSN 1050-2947, 2012, vol. 85, no. 6, 062301., WOS
5. [1.1] MISHRA, Devendra Kumar. *Unambiguous discrimination of two squeezed states using probabilistic quantum cloning*. In *OPTICS COMMUNICATIONS*. ISSN 0030-4018, 2012, vol. 285, no. 6, pp. 1560., WOS
6. [1.1] ZHANG WEN-HAI - YU LONG-BAO - CAO ZHUO-LIANG - YE LIU. *Minimax Strategy of Optimal Unambiguous State Discrimination*. In *COMMUNICATIONS IN THEORETICAL PHYSICS*. ISSN 0253-6102, 2012, vol. 58, no. 2, pp. 209., WOS
7. [1.1] ZHANG WENHAI - YU LONGBAO - YANG MING - CAO ZHUOLIANG. *Multicopy quantum state discrimination*. In *SCIENCE CHINA-PHYSICS MECHANICS & ASTRONOMY*. ISSN 1674-7348, 2012, vol. 55, no. 1, pp. 60., WOS

**ADEA Vedecké práce v zahraničných nekarentovaných časopisoch impaktovaných**

- ADEA01 DEL DEBBIO, L. - FABER, M. - GREENSITE, J. - OLEJNÍK, Štefan. Some cautionary remarks on Abelian projection and Abelian dominance. In *Nuclear Physics - Proceedings Supplements*, 1997, vol. 53, p. 141-147. ISSN 0920-5632.

**Citácie:**

1. [1.1] CARDOSO, N. - CARDOSO, M. - BICUDO, P. *Colour field flux tubes and Casimir scaling for various SU(3) representations*. In *PHYSICS LETTERS B*. ISSN 0370-2693, 2012, vol. 710, no. 2, pp. 343-348., WOS

- ADEA02 MARKOŠ, Peter - SOUKOULIS, C.M. Transmission properties and effective electromagnetic parameters of double negative metamaterials. In *Optics Express*, 2003, vol. 11, no. 7, p. 649-661.

**Citácie:**

1. [1.1] HASAR, U. C. - BARROSO, J. J. - ERTUGRUL, M. - SABAH, C. - CAVUSOGLU, B. *APPLICATION OF A USEFUL UNCERTAINTY ANALYSIS AS A METRIC TOOL FOR ASSESSING THE PERFORMANCE OF ELECTROMAGNETIC PROPERTIES RETRIEVAL METHODS OF BIANISOTROPIC METAMATERIALS*. In *PROGRESS IN ELECTROMAGNETICS RESEARCH-PIER*. ISSN 1559-8985, 2012, vol. 128, pp. 365., WOS
2. [1.1] HASAR, U. C. - BARROSO, J. J. - SABAH, C. - OZBEK, I. Y. - KAYA, Y. - DAL, D. - AYDIN, T. *RETRIEVAL OF EFFECTIVE ELECTROMAGNETIC PARAMETERS OF ISOTROPIC METAMATERIALS USING*

- REFERENCE-PLANE INVARIANT EXPRESSIONS. In PROGRESS IN ELECTROMAGNETICS RESEARCH-PIER. ISSN 1559-8985, 2012, vol. 132, pp. 425., WOS*
3. [1.1] HASAR, Ugur Cem - BARROSO, Joaquim J. - SABAH, Cumali - KAYA, Yunus - ERTUGRUL, Mehmet. Differential uncertainty analysis for evaluating the accuracy of S-parameter retrieval methods for electromagnetic properties of metamaterial slabs. In OPTICS EXPRESS. ISSN 1094-4087, 2012, vol. 20, no. 27, pp. 29002., WOS
4. [1.1] HSIEH, Feng-Ju - WANG, Wei-Chih - VARADAN, VK. Determination of effective boundaries and material properties of SRR-rod and fishnet metamaterials. In NANOSENSORS, BIOSENSORS, AND INFO-TECH SENSORS AND SYSTEMS 2012. ISSN 0277-786X, 2012, vol. 8344, 8344D., WOS
5. [1.1] HSIEH, Feng-Ju - WANG, Wei-Chih. Full extraction methods to retrieve effective refractive index and parameters of a bianisotropic metamaterial based on material dispersion models. In JOURNAL OF APPLIED PHYSICS. ISSN 0021-8979, 2012, vol. 112, no. 6, 064907., WOS
6. [1.1] HWANG, Ruey-Bing - HSU, Neng-Chieh - CHIN, Cheng-Yuan. A Spatial Beam Splitter Consisting of a Near-Zero Refractive Index Medium. In IEEE TRANSACTIONS ON ANTENNAS AND PROPAGATION. ISSN 0018-926X, 2012, vol. 60, no. 1, pp. 417., WOS
7. [1.1] KARAMANOS, Theodosios D. - DIMITRIADIS, Alexandros I. - KANTARTZIS, Nikolaos V. Compact Double-Negative Metamaterials Based on Electric and Magnetic Resonators. In IEEE ANTENNAS AND WIRELESS PROPAGATION LETTERS. ISSN 1536-1225, 2012, vol. 11, pp. 480., WOS
8. [1.1] SABAH, C. Microwave response of octagon-shaped parallel plates: Low-loss metamaterial. In OPTICS COMMUNICATIONS. ISSN 0030-4018, 2012, vol. 285, no. 21-22, pp. 4549., WOS

#### ADEB Vedecké práce v zahraničných nekarentovaných časopisoch neimpaktovaných

- ADEB01 MAJERNÍK, Vladimír - CHARVOT, R. - MAJERNÍKOVÁ, Eva. The momentum entropy of the infinite potential well. In Journal of Physics A, 1999, vol. 32, s. 2207-2216. ISSN 0305-4470.

Citácie:

1. [1.1] APTEKAREV, A. I. - DEHESA, J. S. - SANCHEZ-MORENO, P. - TULYAKOV, D. N. Renyi entropy of the infinite well potential in momentum space and Dirichlet-like trigonometric functionals. In JOURNAL OF MATHEMATICAL CHEMISTRY. ISSN 0259-9791, 2012, vol. 50, no. 5, pp. 1079-1090., WOS
2. [1.1] CORZO, H. H. - LAGUNA, H. G. - SAGAR, R. P. Localization-delocalization phenomena in a cyclic box. In JOURNAL OF MATHEMATICAL CHEMISTRY. ISSN 0259-9791, 2012, vol. 50, no. 1, pp. 233-248., WOS

#### AFC Publikované príspevky na zahraničných vedeckých konferenciách

- AFC01 CHANG, I.T.H. - ŠVEC, Peter - GOGEBAKAN, M. - CANTOR, B. Rapidly solidified Al<sub>85</sub>Ni<sub>15-x</sub>Y<sub>x</sub> (x=5,8,10) alloys. In Materials Science Forum. Vol. 225: Metastable, mechanically alloyed and nanocrystalline materials. Proceedings of the Int. Symposium, ISMANAM-95. Editor R.Schulz. - Trans Tech Publ., 1996, p. 335-340. ISBN 978-0-87849-738-6.

Citácie:

1. [1.1] LAY, M. D. H. - HILL, A. J. - SAKSIDA, P. G. - GIBSON, M. A. -



- BASTOW, T. J. Al-27 NMR measurement of fcc Al configurations in as-quenched Al<sub>85</sub>Ni<sub>11</sub>Y<sub>4</sub> metallic glass and crystallization kinetics of Al nanocrystals. In ACTA MATERIALIA. ISSN 1359-6454, 2012, vol. 60, no. 1, pp. 79., WOS*  
*2. [1.1] THOSS, Franziska - GIEBELER, Lars - OSWALD, Steffen - EHRENBERG, Helmut - ECKERT, Juergen. Study on the reversible Li-insertion of amorphous and partially crystalline Al<sub>86</sub>Ni<sub>8</sub>La<sub>6</sub> and Al<sub>86</sub>Ni<sub>8</sub>Y<sub>6</sub> alloys as anode materials for Li-ion batteries. In ELECTROCHIMICA ACTA. ISSN 0013-4686, 2012, vol. 60, pp. 85-94., WOS*
- AFC02 GREENSITE, J. - OLEJNÍK, Štefan. Gluon chains and the quark-antiquark potential. In Proceedings of the XXVII International Symposium on Lattice Theory-LAT2009, July 26-31, 2009, Beijing, China. Proceedings of Science 240 (LAT2009). - Beijing : Peking University, 2009., p. 1-8.  
 Citácie:  
*1. [1.2] BOUCAUD, Ph. at all. The infrared behaviour of the pure Yang-Mills Green functions. In FEW BODY SYSTEMS, 2012, vol. 53, p. 387-436., SCOPUS*
- AFC03 KOPÁNI, M. - JERGEL, Matej - KOBAYASHI, H. - TAKAHASHI, M. - MIKULA, M. - IMAMURA, K. - JUREČKA, S. - PINČÍK, Emil. On determination of properties of ultrathin and very thin silicon oxide layers by FTIR and X-ray reflectivity. In Materials Research Society Symposium Proceedings : MRS Proceedings. Vol. 1066. - Warrendale : Materials Research Society, 2008, p. 199-204.  
 Citácie:  
*1. [1.1] KULSHRESHTHA, P. K. - YOON, YoHan - YOUSSEF, K. M. - GOOD, E. A. - ROZGONYI, G. Oxygen Precipitation Related Stress-Modified Crack Propagation in High Growth Rate Czochralski Silicon Wafers. In JOURNAL OF THE ELECTROCHEMICAL SOCIETY. ISSN 0013-4651, 2012, vol. 159, no. 2, pp. H125., WOS*
- AFC04 LUBY, Štefan - MAJKOVÁ, Eva - LUCHES, A. Diffusion in multilayers. In Physics and Technology of Thin Films : Proceedings of the International Workshop (IWTF 2003), February 22-March 6, 2003, Teheran, Iran. - World Scientific Pub, 2004, p. 180-186. ISBN 13:9789812387707, 10:9812387706.  
 Citácie:  
*1. [1.1] LOCH, R. A. - SOBIERAJSKI, R. - LOUIS, E. - BOSGRA, J. - BIJKERK, F. Modelling single shot damage thresholds of multilayer optics for high-intensity short-wavelength radiation sources. In OPTICS EXPRESS. ISSN 1094-4087, 2012, vol. 20, no. 27, pp. 28200., WOS*
- AFC05 MARKOŠ, Peter. Conductance Statistics near the Anderson Transition. In Anderson Localization and Its Ramifications. Proc. of B. Kramer 60th Birthday Conf., Hamburg, Sept. 4-6, 2002. - Berlin Heidelberg : Springer Verlag, 2003. ISBN 3-540-40785-5.  
 Citácie:  
*1. [1.1] NASH, M. Making Postmodern Mothers: Pregnant Embodiment, Baby Bumps and Body Image. In MAKING POSTMODERN MOTHERS: PREGNANT EMBODIMENT, BABY BUMPS AND BODY IMAGE, 2012, pp. 1-247., WOS*  
*2. [1.1] NASH, Meredith. 'Working out' for two: performances of 'fitness' and femininity in Australian prenatal aerobics classes. In GENDER PLACE AND CULTURE. ISSN 0966-369X, 2012, vol. 19, no. 4, pp. 449., WOS*
- AFC06 WIDOM, M. - MIHALKOVIČ, Marek. Relative stability of alpha and beta boron. In Journal of Physics: Conference Series, 2009, vol. 176, 012024. (2009 - WOS, SCOPUS). ISSN 1742-6588.  
 Citácie:

1. [1.1] CHKHARTISHVILI, Levan - MURUSIDZE, Ivane - DARCHIASHVILI, Maguli - TSAGAREISHVILI, Otari - GABUNIA, Domenti. Metal impurities in crystallographic voids of beta-rhombohedral boron lattice: Binding energies and electron levels. In *SOLID STATE SCIENCES*. ISSN 1293-2558, 2012, vol. 14, no. 11-12, pp. 1673., WOS
2. [1.1] LETSOALO, T. E. - LOWTHER, J. E. Elastic and Thermodynamic Properties of Potentially Superhard Carbon Boride Materials. In *JOURNAL OF SUPERHARD MATERIALS*. ISSN 1063-4576, 2012, vol. 34, no. 1, pp. 28., WOS
3. [1.1] WERHEIT, Helmut - KUHLMANN, Udo. Is the established structure of alpha-rhombohedral boron correct? Comparative study of IR-active phonons with B<sub>6</sub>O, B<sub>4</sub>C and beta-rhombohedral boron. In *JOURNAL OF PHYSICS-CONDENSED MATTER*. ISSN 0953-8984, 2012, vol. 24, no. 30, 305401., WOS

#### AFD Príspevky na domácich vedeckých konferenciách

- AFD01 FABER, Manfred - GREENSITE, Jeff - OLEJNÍK, Štefan. Status of center dominance in various center gauges. In GREENSITE, Jeff - OLEJNÍK, Štefan. Confinement, Topology and Other Non-Perturbative Aspects of QCD. Proceedings of the NATO Advanced Research Workshop, Stara Lesna, Slovakia, 21-27 Jan., 2002. Eds.: Jeff Greensite, Štefan Olejník. - Dordrecht/Boston/London : Kluwer Academic Publ., 2002, p. 117-127. ISBN 1-4020-0874-0.
- Citácie:
1. [3] ZUBKOV, M.A. In *PREPRINT DOCTORAL THESIS (ITEP, Moscow)*, HEP-PH/ 1207.4619, 2012.

#### AFDA Publikované príspevky na medzinárodných vedeckých konferenciách poriadaných v SR

- AFDA01 ILLEKOVÁ, Emília. A generalized-model of structural relaxation in metallic and chalcogenide glasses. In Amorphous Metallic Materials: AMM III : 3rd International Conf on Amorphous Metallic Materials (AMM 3), Sept. 7-11, 1992, Topolčianky. - 1993, p. 541-548.
- Citácie:
1. [1.1] KOZMIDIS-PETROVIC, Ana - SESTAK, Jaroslav. Forty years of the Hruby glass-forming coefficient via DTA when comparing other criteria in relation to the glass stability and vitrification ability. In *JOURNAL OF THERMAL ANALYSIS AND CALORIMETRY*. ISSN 1388-6150, 2012, vol. 110, no. 2, pp. 997., WOS

#### GII Rôzne publikácie a dokumenty, ktoré nemožno zaradiť do žiadnej z predchádzajúcich kategórií

- GII01 BĚTÁK, Emil - OBLOŽINSKÝ, Pavol. PEGAS: Pre-equilibrium gamma- and spin code. In Report INDC (SLK), 1993, 001. Vienna: IAEA. Report.
- Citácie:
1. [1.1] AL-ABYAD, M. In *APPL. RAD. ISOT.*, 2012, vol. 70, pp. 257., WOS
  2. [1.1] AL-ABYAD, M. In *APPL. RAD. ISOT.*, 2012, vol. 70, pp. 257., WOS
  3. [1.1] BHIKE, M. In *NUCLEAR SCI. ENGINEERING*, 2012, vol. 170, pp. 44., WOS
  4. [1.1] KORNILOV, N.V.-GRIMES, S.M.-VOINOV, A. In *NUCLEAR SCI. ENGINEERING*, 2012, vol. 172, pp. 278., WOS

5. [1.1] SADEGHI, M. In *ANN. NUCL. ENG.*, 2012, vol. 41, pp. 97., WOS

6. [1.1] SADEGHI, M. In *PHYSICAL REVIEW C*, 2012, vol. 85, 034605., WOS

## ***Príloha D***

### **Údaje o pedagogickej činnosti organizácie**

#### Semestrálne prednášky:

Doc. RNDr. Emil Běťák, DrSc.

Názov semestr. predmetu: Statistická fyzika a kinetika

Počet hodín za semester: 24

Názov katedry a vysokej školy: Filozoficko-přírodovědecká fakulta, Slezská univerzita v Opavě, ČR, Ústav fyziky

Doc. RNDr. Emil Běťák, DrSc.

Názov semestr. predmetu: Termodynamika a statistická fyzika

Počet hodín za semester: 24

Názov katedry a vysokej školy: Filozoficko-přírodovědecká fakulta, Slezská univerzita v Opavě, ČR, Ústav fyziky

Ing. Matej Jergel, DrSc.

Názov semestr. predmetu: Nanotechnológie

Počet hodín za semester: 2

Názov katedry a vysokej školy: Fakulta elektrotechniky a informatiky STU, Ústav jadrového a fyzikálneho inžinierstva

Mgr. Kristian Petřík, PhD.

Názov semestr. predmetu: Kurz z fyziky pre zahraničných študentov

Počet hodín za semester: 60

Názov katedry a vysokej školy: Ústav jazykovej a odbornej prípravy zahraničných študentov UK, Centrum ďalšieho vzdelávania UK, ÚJOP

RNDr. Martin Plesch, PhD.

Názov semestr. predmetu: Úvod do kvantovej teórie informácie

Počet hodín za semester: 24

Názov katedry a vysokej školy: Univerzita Komenského v Bratislave, FMFI

Dr.Rer.Nat. Peter Šiffalovič, PhD.

Názov semestr. predmetu: Fyzika ultraráychlych dejov

Počet hodín za semester: 24

Názov katedry a vysokej školy: Univerzita Komenského v Bratislave, Katedra Fyziky

Doc. Mgr. Mário Ziman, PhD

Názov semestr. predmetu: Mathematical structures of quantum theory

Počet hodín za semester: 26

Názov katedry a vysokej školy: Fakulta matematiky, fyziky a informatiky UK, Katedra teoretickej fyziky

Doc. Mgr. Mário Ziman, PhD

Názov semestr. predmetu: Selected chapters from quantum mechanics

Počet hodín za semester: 26

Názov katedry a vysokej školy: Fakulta Informatiky, Masarykova Univerzita, Katedra teoretickej informatiky

Doc. Mgr. Mário Ziman, PhD

Názov semestr. predmetu: Selected topics from quantum information theory

Počet hodín za semester: 39

Názov katedry a vysokej školy: Fakulta matematiky, fyziky a informatiky UK, Katedra teoretickej fyziky

Doc. Mgr. Mário Ziman, PhD

Názov semestr. predmetu: Uvod do kvantovej teorie informacie

Počet hodín za semester: 26

Názov katedry a vysokej školy: Fakulta matematiky, fyziky a informatiky UK, Katedra jadrovej fyziky

#### Semestrálne cvičenia:

Ing. Vojtech Nádaždy, CSc.

Názov semestr. predmetu: Nanotechnológie

Počet hodín za semester: 2

Názov katedry a vysokej školy: Slovenská technická univerzita v Bratislave, Ústav jadrového a fyzikálneho inžinierstva

RNDr. Daniel Reitzner, PhD.

Názov semestr. predmetu: Analysis 2

Počet hodín za semester: 26

Názov katedry a vysokej školy: Zentrum Mathematik der Technischen Universität München, Nemecko, M5 Mathematische Physik

Mgr. Michal Sedlák, PhD.

Názov semestr. predmetu: Koherenční a statistická optika

Počet hodín za semester: 11

Názov katedry a vysokej školy: Přírodovědecká fakulta Palackého univerzity, Olomouc, Česká republika, Katedra optiky

Mgr. Michal Sedlák, PhD.

Názov semestr. predmetu: Kvantová optika II

Počet hodín za semester: 11

Názov katedry a vysokej školy: Přírodovědecká fakulta Palackého univerzity, Olomouc, Česká republika, Katedra optiky

Mgr. Michal Sedlák, PhD.

Názov semestr. predmetu: Rovnice matematické fyziky

Počet hodín za semester: 13

Názov katedry a vysokej školy: Přírodovědecká fakulta Palackého univerzity, Olomouc, Česká republika, Katedra optiky

#### Semináre:

RNDr. Martin Plesch, PhD.

Názov semestr. predmetu: Quantum seminar

Počet hodín za semester: 26

Názov katedry a vysokej školy: Masarykova univerzita Brno, ČR, Fakulta informatiky

RNDr. Daniel Reitzner, PhD.

Názov semestr. predmetu: Uncertainty Relations

Počet hodín za semester: 10

Názov katedry a vysokej školy: Zentrum Mathematik der Technischen Universität München, Nemecko, M5 Mathematische Physik

Mgr. Michal Sedlák, PhD.

Názov semestr. predmetu: Kvantová komunikace a zpracování informace 1

Počet hodín za semester: 13

Názov katedry a vysokej školy: Přírodovědecká fakulta Palackého univerzity, Olomouc, Česká republika, Katedra optiky

Doc. Mgr. Mário Ziman, PhD

Názov semestr. predmetu: Quantum seminar

Počet hodín za semester: 26

Názov katedry a vysokej školy: Fakulta Informatiky, Masarykova Univerzita, Katedra teoretickej informatiky

Doc. Mgr. Mário Ziman, PhD

Názov semestr. predmetu: Quantum seminar

Počet hodín za semester: 28

Názov katedry a vysokej školy: Fakulta Informatiky, Masarykova Univerzita, Katedra teoretickej informatiky

#### Terénne cvičenia:

#### Individuálne prednášky:

Mgr. Andrej Gendiar, PhD.

Názov semestr. predmetu: Quantum Many-body Theory

Počet hodín za semester: 1

Názov katedry a vysokej školy: Universität Wien, Rakúsko, Quantum Nanophysics and Quantum Information

Mgr. Andrej Gendiar, PhD.

Názov semestr. predmetu: Quantum Many-body Theory

Počet hodín za semester: 2

Názov katedry a vysokej školy: Universität Wien, Rakúsko, Quantum Nanophysics and Quantum Information



**Príloha E****Medzinárodná mobilita organizácie****(A) Vyslanie vedeckých pracovníkov do zahraničia na základe dohôd:**

Krajina	D r u h d o h o d y					
	MAD, KD, VTS		Medziústavná		Ostatné	
	Meno pracovníka	Počet dní	Meno pracovníka	Počet dní	Meno pracovníka	Počet dní
Belgicko	Dušan Janičkovič	3			Emil Běták	6
	Štefan Luby	2			Vladimír Bužek	4
	Eva Majková	2			Vladimír Bužek	6
	Eva Majková	1			Vladimír Bužek	1
					Vladimír Bužek	4
					Matej Jergel	4
					Peter Švec	3
					Lukas Theussl	1
					Lukas Theussl	1
					Mário Ziman	2
					Mário Ziman	2
Česko	Stanislav Hlaváč	5			Silvia Bačová	1
					Monika Benkovičová	4
					Pavol Butvin	4
					Beata Butvinová	4
					Libor Caha	3
					René Derian	2
					Peter Filip	2
					Peter Filip	3
					Yuriy Halahovets	1
					Matej Jergel	1
					Matej Jergel	2
					Igor Maťko	1
					Igor Maťko	2
					Igor Maťko	2
					Igor Maťko	3
					Štefan Olejník	2
					Štefan Olejník	1
					Peter Rapčan	1

				Peter Švec	1
				Peter Švec, Jr.	1
				Andrej Vojtko	2
				Andrej Vojtko	1
				Mário Ziman	2
				Mário Ziman	1
				Peter Zitto	1
				Peter Zitto	1
Čína				Emil Pinčík	9
				Emil Pinčík	4
				Daniel Reitzner	9
				Martin Veselský	4
Fínsko				Daniel Klč	11
				Vladislav Matoušek	11
				Jana Strišovská	8
				Martin Venhart	6
				Martin Venhart	16
				Mário Ziman	9
Francúzsko	Ladislav Šamaj	62		Lubomir Martinovič	15
	Ladislav Šamaj	60		Marek Mihalkovič	7
				Marek Mihalkovič	12
Grécko				Martin Veselský	5
Japonsko				Andrej Gendiar	17
				Marek Mihalkovič	32
				Emil Pinčík	45
				Ivan Štich	11
Kanada				Vladimír Bužek	8
Litva				Martin Plesch	3
Maďarsko				Vladimír Bužek	1
				Ladislav Šamaj	3
Nemecko	Peter Mrafko	19		Štefan Lányi	4
				Marek Mihalkovič	5

				Sergey Phillippov	4
				Daniel Reitzner	5
				Peter Staňo	10
				Peter Šiffalovič	3
				Ivan Štich	3
				Peter Švec	2
Poľsko	Pavol Butvin	4		Pavol Butvin	1
	Beata Butvinová	4		Beata Butvinová	1
				Štefan Luby	6
				Marek Mihalkovič	6
				Marek Mihalkovič	20
				Martin Plesch	5
Portugalsko				Vladimír Bužek	3
Rakúsko				Vladimír Bužek	1
				Vladimír Bužek	2
				Andrej Gendiar	6
				Andrej Gendiar	2
				Andrej Gendiar	1
				Andrej Gendiar	1
				Andrej Gendiar	4
				Andrej Gendiar	1
				Jozef Genzor	2
				Martin Hodas	1
				Jozef Hoško	1
				Marián Krajčí	1
				Marián Krajčí	1
				Marián Krajčí	1
				Marián Krajčí	1
				Igor Maťko	6
				Igor Maťko	20
				Igor Maťko	6
				Igor Maťko	6
				Štefan Olejník	1
				Jaroslav Rusnák	1

				Peter Šiffalovič	1
				Peter Šiffalovič	1
				Mário Ziman	1
Rumunsko				Štefan Luby	4
Rusko	Stanislav Hlaváč	8		Stanislav Dubnička	10
	Ján Kliman	15		Stanislav Dubnička	5
	Ján Kliman	39		Stanislav Dubnička	8
	Vladislav Matoušek	19		Stanislav Dubnička	5
	Vladislav Matoušek	19		Štefan Gmuca	7
	Ivan Turzo	19		Andrej Liptaj	88
	Ivan Turzo	19		Martin Veselský	5
	Martin Veselský	71			
Španielsko				Martin Plesch	17
Švajčiarsko	Martin Venhart	7		Cyril Adamuščín	14
	Martin Veselský	7		Erik Bartoš	21
	Martin Veselský	2		Stanislav Dubnička	10
				Stanislav Dubnička	14
				Peter Filip	16
				Daniel Klč	56
				Štefan Lányi	3
				Andrej Liptaj	19
				Kristian Petrik	20
Taiwan				Monika Benkovičová	12
				Matej Jergel	8
				Eva Majková	12
				Peter Šiffalovič	12
Taliansko	Štefan Lányi	11		Martina Zemanová	3
				Mário Ziman	3
				Mário Ziman	2
Ukrajina	Juraj Boháčik	7			
USA				Emil Běták	14
				Vladimír Bužek	44
				Vladimír	24

					Bužek	
					Peter Filip	20
					Stanislav Hlaváč	17
					Marek Mihalkovič	23
					Peter Staňo	29
					Jana Strišovská	9
Veľká Británia					Vladimír Bužek	1
					Martin Plesch	7
					Martin Venhart	9
<b>Počet vyslaní spolu</b>	<b>23</b>	<b>405</b>			<b>134</b>	<b>1047</b>

**(B) Prijatie vedeckých pracovníkov zo zahraničia na základe dohôd:**

Krajina	D r u h d o h o d y					
	MAD, KD, VTS		Medziústavná		Ostatné	
	Meno pracovníka	Počet dní	Meno pracovníka	Počet dní	Meno pracovníka	Počet dní
Česko	Dr. Ollexandr Stupakov	4			Dr. J. Buršík	1
	Olexandr Stupakov, PhD.	4			Dr. Pavel Jelínek	2
					Dr. Tomáš Žák	2
					Dr. Yvonna Jirásková	2
					Dr. Yvonna Jirásková	1
					Ing. Mattia Butta	7
					Ing. Jan Vyhnánek	2
					Ing. Jan Vyhnánek	3
					Ing. Mattia Butta	3
					Ing. Michal Janošek	2
					Ing. Michal Janošek	4
					Mgr. František Lukáč	5
					Mgr. Marián Vlček	5
					Prof. RNDr.	3

				Václav Janiš, DrSc.	
				Prof. RNDr. Václav Janiš, DrSc.	3
Fínsko				Teiko Heinosaari	6
Francúzsko				Dr. Emilie Lebrun	13
Grécko				Dr. D.M. Kepaptsoglou	5
				Prof. Evangelou Hristoforou	7
Maďarsko				Zoltan Zimboras	5
Nemecko				David Reeb	5
Poľsko				Malgorzata Zubaszewska	13
				Mgr. Dorota Jankiewicz	7
				Mgr. Michal Nowicki	7
Portugalsko				Leonardo Novo	3
Rakúsko				Mateus Santos	1
				Prof. Manfred Faber	1
				Prof. Manfred Faber	1
				Prof. Manfred Faber	1
				Prof. Manfred Faber	1
				Yuju Lee	7
				Yuju Lee	11
Rusko	Prof. A.I. Malachov	15		Alexey Melnikov	6
	Prof. Y.S. Anisimov	15		Dr. S.V. Afanasiev	3
Španielsko				Andres Gomez Ruiz	47
				Andres Ruiz Gomez	123
				David Rodriqus	169



					Barruso	
Taiwan					Ching-Shon Ku	5
					Hsin Yi Lee	5
Ukrajina	Dr. Oleg Borisenko	7			Dr. Oleg Borisenko	7
					Dr. Taras Kavetsky	120
USA					Dr. Redmond Brubecker	2
					Prof. Chris Henley	26
<b>Počet prijatí spolu</b>	<b>5</b>	<b>45</b>			<b>43</b>	<b>652</b>

**(C) Účast' pracovníkov pracoviska na konferenciách v zahraničí (nezahrnutých v "A"):**

<b>Krajina</b>	<b>Názov konferencie</b>	<b>Meno pracovníka</b>	<b>Počet dní</b>
Bahamy	Zasadnutie John Templeton Foundation v Nassau	Vladimír Bužek	4
Brazília	CNR 2013	Emil Běták	7
	World Science Forum	Eva Majková	7
Česko	4th Joint Czech-Hungarian-Polish-Slovak Thermoanal	Emília Illeková	4
	CEQIP 2013	Andrej Gendiar	5
		Jozef Genzor	5
		Sergey Phillippov	5
		Martin Plesch	5
		Peter Rapčan	5
		Mário Ziman	5
	IC-MAST2013	Ján Ivančo	6
	ICPE 2013	Martin Plesch	2
	Mikroskopie 2013	Jozef Hoško	2
		Igor Maťko	2
		Peter Švec	2
	NZEE 2013	Róbert Brunner	3
		Emil Pinčík	3
	QPQI 2013	Sergey Phillippov	5
	QPQI 2013	Peter Rapčan	5
	QPQI 2013	Mário Ziman	5
	Seminár o metódach blízkeho poľa	Štefan Lányi	3
	Struktura 2013	Matej Jergel	4
	Worksho SPM	Igor Maťko	1
Čína	ACAT 2013	Vladislav Matoušek	9
	AM 2013	Emil Pinčík	4
	AnalytiX-2013	Eva Majková	6
	Konferencia QIP 2013	Libor Čaha	10
	Nano Science and Technolog Meeting	Peter Šiffalovič	7

	2013		
	Nuclear Reactions Symposium 2013	Martin Veselský	7
	The 3rd New Energy Forum-2013	Emil Pinčík	6
Fínsko	Physics boat workshop 2013	Ivan Štich	5
Francúzsko	12th Workshop on non-perturbative Quantum Chromo-D	Peter Filip	7
	COST MPI203	Martin Hodas	3
		Matej Jergel	3
	EuropaCat13	Marián Krajčí	8
	ISPM 2013	Štefan Lányi	5
	IVC 19	Štefan Luby	5
	QSC Workshop	Libor Caha	4
	Quantitative Electron Microscopy 2013	Peter Švec, Jr.	13
Grécko	HNPS 2013	Martin Veselský	5
	ISFOE13	Ján Ivančo	7
		Vojtech Nádaždy	7
	Light Cone	Lubomir Martinovič	8
Chorvátsko	Konferencia Society and Technology, Dr- Juraj Plen	Štefan Luby	5
Írsko	COST MP1213	Matej Jergel	4
	MP1203	Peter Šiffalovič	4
	NATO ASI	Štefan Luby	6
Japonsko	5th JCS International Symposium on Theoretical Che	Ivan Štich	5
JAR	Workshop SWG	Martin Venhart	13
Kanada	2013 CMOSSET	Peter Staňo	6
	CCEM Summer School on Electron Microscopy	Peter Švec, Jr.	8
	Cosmological Frontiers in Fundamental Physics	Vladimír Bužek	5
	Workshop on Mathematical Methods of Qantum Tomogr	Peter Rapčan	7
		Mário Ziman	9
Kórejská republika	ATPC 2013	Vlastimil Boháč	9
Maďarsko	SMM21	Beata Butvinová	4
Nemecko	44th IFF Spring School	Jozef Genzor	14
	5th International SAXS User Meeting	Peter Šiffalovič	5
	GISAXS 2013	Martin Hodas	5
		Peter Šiffalovič	5
	ICSSUR 2013	Sergey Phillippov	6
	Lattice 2013	Štefan Olejník	6
	Workshop in IQM	Mário Ziman	5

	Worshop QED 2013	Mário Ziman	4
Nórsko	4. workshop o hustotách hladín a gama silových funk	Emil Běták	10
Poľsko	41st Polish Seminar on Positron Annihilation	Ondrej Šauša	7
	8th SSP	Róbert Brunner	5
		Emil Pinčík	5
	Conference AUTOMATION 2013	Peter Švec	4
		Peter Švec, Jr.	4
	ENSAR	Martin Venhart	3
	ICQ12	Marek Mihalkovič	7
	IPSEC IX	Peter Filip	5
Portugalsko	TEMPMEKO 2013	Vlastimil Boháč	7
		Viliam Vretenár	7
Rakúsko	C-CMAC workshop 2013	Marek Mihalkovič	1
	CQS Summer School 2013	Jozef Genzor	5
	EGU General Assenbly 2013	Ľudovít Kubičár	1
	ESI Anniversary - Two Decades at the Interface of	Peter Rapčan	1
	Fall School "Phase Transition in Random Discrete S	Libor Caha	10
	GIF School - Europe	Igor Matko	5
	Quantum Physics and Nature of Reality	Vladimír Bužek	3
		Vladimír Bužek	4
	SOA: COST Symposium on Practice, Opportunities and	Vladimír Bužek	2
Rumunsko	Konferencia Dunajských AV	Štefan Luby	3
Rusko	CCP 2013	Robert Turanský	7
	DSPIN-2013	Peter Filip	7
Slovinsko	C-MAC Days 2013	Marián Krajčí	4
		Marek Mihalkovič	4
Srbsko	Contemporary Materials 2013	Peter Šiffalovič	4
Švédsko	HEP 2013	Cyril Adamuščin	9
		Erik Bartoš	9
		Stanislav Dubníčka	8
		Andrej Liptaj	7
Taliansko	ICTP	Lucia Horváthová	4
	ICTP Trieste	René Derian	4
	International School of Atomic and Molecular	Andrej Vojtko	16

	Spect		
	International Workshop QCD-TNT-III	Štefan Olejník	6
	ISMANAM 2013	Jozef Hoško	6
		Irena Janotová	6
		Igor Maľko	6
		Peter Švec	6
		Peter Švec, Jr.	6
	NI&C@QS	Daniel Reitzner	7
	QIPC 2013	Sergey Phillippov	7
		Mário Zíman	3
	QSQW 2013	Daniel Reitzner	5
USA	2013 March Meeting of the APS	Ivan Štich	10
	CPOD 2013	Peter Filip	2
	GTC 2013	Peter Filip	5
	NC-AFM 2013	Ivan Štich	8
	ND2013	Emil Běták	6
		Stanislav Hlaváč	5
	Symposium in Honor of Hans Georg Ritter	Peter Filip	2
	WSF in NYC	Vladimír Bužek	6
Veľká Británia	28. Európsky kryštalografický míting	Matej Jergel	5
	Shape Co-existence Across the Chart of the Nuclide	Martin Venhart	2
<b>Spolu</b>	<b>91</b>	<b>117</b>	<b>650</b>

Vysvetlivky: MAD - medziakademické dohody, KD - kultúrne dohody, VTS - vedecko-technická spolupráca v rámci vládnych dohôd

#### Skratky použité v tabuľke C:

12th Workshop on non-perturbative Quantum Chromo-D - 12th Workshop on non-perturbative Quantum Chromo-Dynamics  
 2013 CMOSET - 2013 CMOSET Research Symposium in Whistler  
 2013 March Meeting of the APS - 2013 March Meeting of the APS  
 28. Európsky kryštalografický míting - 28. Európsky kryštalografický míting  
 4.workshop o hustotách hladín a gama silových funk - 4.workshop o hustotách hladín a gama silových funkciách  
 41st Polish Seminar on Positron Annihilation - 41st Polish Seminar on Positron Annihilation  
 44th IFF Spring School - 44th IFF Spring School "Quantum Information Preprocessing"  
 4th Joint Czech-Hungarian-Polish-Slovak Thermoanal - 4th Joint Czech-Hungarian-Polish-Slovak Thermoanalytical Conference  
 5th International SAXS User Meeting - 5th International SAXS User Meeting  
 5th JCS International Symposium on Theoretical Che - 5th JCS International Symposium on Theoretical Chemistry  
 8th SSP - VIII International Workshop on Semiconductor Surface Passivation  
 ACAT 2013 - 15th International Workshop on Advanced Computing and Analysis Techniques in Physics Research  
 AM 2013 - 2nd International Congress on Advanced Materials  
 AnalytiX-2013 - AnalytiX-2013  
 ATPC 2013 - 10th Asian Thermophysical Properties Conference  
 C-CMAC workshop 2013 - C-CMAC workshop 2013, Vienna  
 C-MAC Days 2013 - C-MAC Days 2013  
 CCEM Summer School on Electron Microscopy - CCEM Summer School on Electron Microscopy  
 CCP 2013 - XXV IUPAP Conference on Computational Physics

CEQIP 2013 - CEQIP 2013

CEQIP 2013 - 10th Central European Quantum Information Processing Workshop

CNR 2013 - The 4th International Workshop on Compound-Nuclear Reactions and Related Topics

Conference AUTOMATION 2013 - Conference AUTOMATION 2013

Contemporary Materials 2013 - Contemporary Materials 2013

Cosmological Frontiers in Fundamental Physics - Cosmological Frontiers in Fundamental Physics

COST MP1213 - Workshop COST MP1213

COST MPI203 - COST MPI203

CPOD 2013 - 8th International Workshop in Critical Point and Onset of Deconfinement

CQS Summer School 2013 - Complex Quantum Systems Summer School 2013

DSPIN-2013 - XV Workshop on High Energy SP

EGU General Assenbly 2013 - EGU General Assenbly 2013

ENSAR - ENSAR

ESI Anniversary - Two Decades at the Interface of - ESI Anniversary - Two Decades at the Interface of Mathematics and Physics

EuropaCat13 - XI th European Congress on Catalysis

Fall School "Phase Transition in Random Discrete S - Fall School"Phase Transition in Random Discrete Structures", Graz

GIF School - Europe - GIF School - Europe, Graz

GISAXS 2013 - GISAXS 2013

GTC 2013 - GTC 2013

HEP 2013 - The 2013 European Physical Society Conference on High Energy Physics

HNPS 2013 - HNPS 2013

IC-MAST2013 - International Conference on Materials and Applications for Sensors and Transducers

ICPE 2013 - ICPE 2013

ICQ12 - International Conference on Quasicrystals

ICSSUR 2013 - XII International Conference on Squeezed States and Uncertainty Relations

ICTP - XVI International Workshop on Computational Physics and Materials Science: Total Energy and force Methods, Trieste

ICTP Trieste - XVI International Workshop on Computational Physics and Materials Science: Total Energy and force Methods, Trieste

International School of Atomic and Molecular Spect - International School of Atomic and Molecular Spectroscopy

International Workshop QCD-TNT-III - International Workshop QCD-TNT-III

IPSEC IX - Informal Physical Societies Exchange Conference

ISFOE13 - 6th International Symposium on Flexible Organic Electronics

ISMANAM 2013 - 20th International Symposium on Metastable and Nano Materials

ISPM 2013 - International Scanning Probe Microscopy Conference Dijon

IVC 19 - IVC 19

Konferencia Dunajských AV - Konferencia Dunajských AV

Konferencia QIP 2013 - Konferencia QIP 2013 - 16th Workshop Quantum Information Processing

Konferencia Society and Technology, Dr- Juraj Plen - Konferencia Society and Technology, Dr- Juraj Plenkovič

Lattice 2013 - The 31st International Symposium on Lattice Field Theory

Light Cone - Light Cone

Mikroskopie 2013 - Mikroskopie 2013

MP1203 - COST Action MP1213

Nano Science and Technolog Meeting 2013 - Nano Science and Technolog Meeting 2013

NATO ASI - Nanomaterials and Nanostuctures

NC-AFM 2013 - 16th International Conference on Non-Contact Atomic Force Microscopy

ND2013 - 2013 International Conference on Nuclear Data for Science and Technology

ND2013 - Medzinárodná konferencia o jadrových údajoch pre vedu a techniku

NI&C@QS - Noise Information & Complexity @ Quantum Scale

Nuclear Reactions Symposium 2013 - Nuclear Reactions Symposium 2013

NZEE 2013 - NZEE 2013

Physics boat workshop 2013 - Atomic structure of nanosystemf from first-principles simulations and microscopy experiments

QIPC 2013 - Quantum Information processing conference, Florence, Italy

QPQI 2013 - Summer school on Quantum Physics and Quantum Information

QSC Workshop - Quantum Safe Crypto Workshop

QSQW 2013 - Quantum simulations and quantum walks 2013

Quantitative Electron Microscopy 2013 - Quantitative Electron Microscopy 2013

Quantum Physics and Nature of Reality - Quantum Physics and Nature of Reality

Seminár o metódach blízkeho poľa - Seminár o metódach blízkeho poľa

Shape Co-existence Across the Chart of the Nuclide - Shape Co-existence Across the Chart of the Nuclides

SMM21 - The 21th Soft Magnetic Materials Conference

SOA: COST Symposium on Practice, Opportunities and - A Symposium Open Access: COST Symposium on Practice, Opportunities and Challenges

Struktura 2013 - Struktura 2013

Symposium in Honor of Hans Georg Ritter - Symposium in Honor of Hans Georg Ritter

TEMPMEKO 2013 - 10th Temperature Measurement Conference

The 3rd New Energy Forum-2013 - The 3rd New Energy Forum-2013

Worksho SPM - Letní škola SPM mikroskopie

Workshop in IQM - Workshop on Incompatible Quantum Measurements

Workshop on Mathematical Methods of Qantum Tomogr - Workshop on Mathematical Methods of Qantum Tomography

Workshop SWG - Workshop SWG

World Science Forum - World Science Forum

Worshop QED 2013 - Worshop QED 2013

WSF in NYC - World Science Festival in NYC

Zasadnutie John Templeton Foundation v Nassau - Zasadnutie John Templeton Foundation v Nassau