



Osobné Informácie

Meno a priezvisko Karel Saksl
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Profesijná Prax

Od-do Septembra 1997– doteraz
Názov a adresa zamestnávateľa Ústav materiálového výskumu, Slovenská akadémia vied, Watsonova 47, 040 01 Košice, Slovensko
Oblasť činnosti alebo odvetvie vedecké pracovisko
Pracovná pozícia doktorand, vedecký pracovník, samostatný vedecký pracovník IIa.
Hlavná činnosť Príprava a charakterizácia nanoštruktúrnych materiálov a ich implementácia do praxe

Od-do Apríla 2002–Marca 2007
Názov a adresa zamestnávateľa HASYLAB at DESY, Notkestr.85, D–226 03 Hamburg, Nemecko
Oblasť činnosti alebo odvetvie národné výskumné pracovisko
Pracovná pozícia postdoktorand
Hlavná činnosť Štúdium štruktúry materiálov s vysokým stupňom vnútornej neusporiadanosti (amorfné látky, nanokryštály) a to ako pri podmienkach okolia, tak aj pri kombinácií teplota–tlak

Od-do Apríla - Decembra 2001
Názov a adresa zamestnávateľa Department of Physics, Technical University of Denmark, Building 309–307–312, DK–2800 Kongens Lyngby, Dánsko
Oblasť činnosti alebo odvetvie univerzita
Pracovná pozícia postdoktorand
Hlavná činnosť Príprava a hodnotenie amorfných, kryštalických a kvázikryštalických materiálov v nerovnovážnych podmienkach

Dňa	14. Decembra 2000
Názov a adresa organizácie, ktorá poskytla vzdelanie	Ústav materiálového výskumu, Slovenská akadémia vied, Watsonova 47, 040 01 Košice, Slovensko
Hlavná téma	obhajoba dizertačnej práce: "Vzťah štruktúrnych parametrov a mechanických vlastností nanokryštalickej sústavy Cu-MgO"
Udelený titul	PhD. (<i>Philosophiae Doctor</i> , lat.)
Od-do	Septembra 1992 - Júna 1997
Názov a adresa organizácie, ktorá poskytla vzdelanie	Technická univerzita v Košiciach, Hutnícka fakulta, Letná 9, Blok A, 042 00 Košice, Slovakia
Hlavná téma	Diplomová práca: "Korózne charakteristiky nízkoлегovaných ocelí"
Udelený titul	Ing. (<i>Ingénieur</i> , lat.)

Štúdium v Zahraničí

Od-do	Septembra - Decembra 2000
Názov a adresa organizácie, ktorá poskytla vzdelanie	MIC - Department of Micro and Nanotechnology, DTU - Building 345 East, DK-2800 Kongens Lyngby, Dánsko
Hlavná téma	Konštrukcia mikrozariadení a meranie pomocou nich

Významné Profesijné Aktivity

Členstvá ocenenia

- od 22.10.2009 člen vedeckého poradného zboru "Scientific Advisory Committee" medzinárodného projektu the European XFEL.
- od 30.10.2006 člen a vedecký tajomník Komisie pre spoluprácu s XFEL ako poradného orgánu pozorovateľa za Slovenskú republiku k vypracovaniu strategického zámeru XFEL v jeho prípravnej etape budovanej v Hamburgu.
- 23.1.2009 Čestné uznanie v rámci oceňovania Vedec roka SR 2008 za vedeckú prácu "How Metallic Fe Controls the Composition of its Native Oxide", uverejnenú v jednom z najprestížnejších svetových časopisov, venovaných fyzike tuhých látok "PHYSICAL REVIEW LETTERS".
- 14.3.2008 Čestné uznanie v rámci oceňovania Vedec roka SR 2007 za vedeckú prácu "Atomic structure of glassy Mg₆₀Cu₃₀Y₁₀ investigated with EXAFS, x-ray and neutron diffraction, and reverse Monte Carlo simulations", uverejnenú v jednom z najprestížnejších svetových časopisov, venovaných fyzike tuhých látok "PHYSICAL REVIEW B".

Vzdelávanie

- 2009 – doteraz vedúci PhD. práce Ing. Lenky Fusovej
- 2008 – doteraz vedúci PhD. práce Mgr.Ing. Pawla Rokického
- 2008 – doteraz vedúci PhD. práce Ing. Zdenka Spotza
- 2007 – doteraz konzultant PhD. práce Mgr.Štefana Michalíka
- 2007 – doteraz konzultant PhD. práce Ing.Mgr.Vladimíra Kolesára
- 2004 – 2007 vedúci diplomovej práce Štefana Michalíka
- 2004 – 2007 konzultant diplomovej práce Vladimíra Kolesára

Účasť na vedeckých projektoch

- 2008 – doteraz 7.RP EÚ PITN–GA–2008–211536, "Macro, Micro and Nano Aspects of Machining" – scientist in charge
- 2001 – 2004 5.RP EÚ G5RD–CT 2000 - 00341, "High efficiency forming technology of light weight MMC components for automotive and household application"
- 1997 – 1999 INCO–Copernicus CT– 96 0750, "Formability modelling of aluminium base PM alloys"
- 1997 – doteraz účasť na domácich vedeckých grantových projektoch: VEGA, APVV

Vyzvané prednášky

25. Október 2005 vyzvaný seminár na pracovisku Institut für Physik, TU Chemnitz, "Atomic structure of Al-based metallic glasses"

Prednášky

- 12–14. Októbra 2005 ALUMINIUM 2005, "Atomic Structure of $Al_{88}Y_7Fe_5$ Metallic Glass"

Iné

- 2004-2006 zodpovedný za vedecký program (merania) na troch synchrotronných stanovištiach pracoviska Hasylab.
- 2002-2006 adaptácia špeciálneho lisu na experimentálnych stanovištiach Petra II. Zariadenie umožňuje (in-situ) štúdium materiálov pri vysokých tlakoch a teplotách.

Znalosti a schopnosti

Jazykové Slovensky (materinský)
Anglicky (plynulo), Česky (plynulo), Rusky (stredne pokročilý), Nemecky (stredne pokročilý)

Spoločenské organizačné schopnosť, tímová kooperácia, komunikačné a prezentačné schopnosti

Počítačové znalosť mnohých WindowsTM aplikácií
vedeckých programov: Microcal OriginTM, Maple, PDFgetX2, RMCA, GSAS atd.
programovacích jazykov: PASCAL, $\LaTeX$, IDL, HTML

Odborné meranie a komplexne hodnotenie štruktúry, štruktúrnych transformácií pomocou metód RTG difrakcie a absorbčnej spektroskopie

štúdium fázových zmien, teplotných vlastností materiálov metodikami diferenčnej scanovacej kalorimetrie (DSC)

Počítačové modelovanie (rekonštrukcia) atomárnych štruktúr metódou Reverse Monte Carlo (RMC)

príprava amorfných a nanokryštalických materiálov mechanickým zlievaním.

- [1] B. Nagler, U. Zastrau, R.R. Fäustlin, S.M Vinko, T. Whitcher, A.J. Nelson, R. Sobierajski, J. Krzywinski, J. Chalupsky, E. Abreu, S. Bajt, T. Bornath, T. Burian, H. Chapman, J. Cihelka, T. Döppner, S. Düsterer, T. Dzelzainis, M. Fajardo, E. Förster, C. Fortmann, E. Galtier, S.H. Glenzer, S. Göde, G. Gregori, V. Hajkova, P. Heimann, L. Juha, M. Jurek, F.Y. Khattak, A.R. Khorsand, D. Klinger, M. Kozlova, T. Laarmann, H.J. Lee, R.W. Lee, K.-H. Meiwes-Broer, P. Mercere, W.J. Murphy, A. Przystawik, R. Redmer, H. Reinholz, D. Riley, G. Röpke, F. Rosmej, **K. SaksI**, R. Schott, R. Thiele, J. Tiggesbäumker, S. Toleikis, T. Tschentscher, I. Uschmann, H.J. Vollmer, and J.S. Wark. Turning solid aluminium transparent by intense soft X-ray photoionization. *Nature Physics*, 5(9):693–696, 2009.
- [2] A.J. Nelson, S. Toleikis, H. Chapman, S. Bajt, J. Krzywinski, J. Chalupsky, L. Juha, J. Cihelka, V. Hajkova, L. Vysin, T. Burian, M. Kozlova, R.R. Fäustlin, B. Nagler, S.M. Vinko, T. Whitcher, T. Dzelzainis, O. Renner, **K. SaksI**, A.R. Khorsand, P.A. Heimann, R. Sobierajski, D. Klinger, M. Jurek, J. Pelka, B. Iwan, J. Andreasson, N. Timneanu, M. Fajardo, J.S. Wark, D. Riley, T. Tschentscher, J. Hajdu, and R.W. Lee. Soft x-ray free electron laser microfocus for exploring matter under extreme conditions. *Optics Express*, 17(20):18271–18278, 2009.
- [3] S. Michalik, **K. SaksI**, P. Sovák, K. Csach, and J.Z. Jiang. Crystallization of $Zr_{60}Fe_{20}Cu_{20}$ amorphous alloy. *Journal of Alloys and Compounds*, 478(1–2):441–446, 2009.
- [4] S. Couet, K. Schlage, **K. SaksI**, and R Rohlsberger. Morphology of the interfaces between transition metals and their native oxides: Role of interdiffusion processes. *Physical Review B*, 79:085417 1–6, 2009.
- [5] J. Bednarčík, **K. SaksI**, R. Nicula, S. Roth, and H. Franz. Influence of cryomilling on structure of CoFeZrB alloy. *Journal of Non-Crystalline Solids*, 351(47–51):5117–5119, 2008.
- [6] S. Couet, K. Schlage, **K. SaksI**, and R Rohlsberger. How metallic Fe controls the composition of its native oxide. *Physical Review Letters*, 101(5):056101, 2008.
- [7] **K. SaksI**, D. Vojtěch, and J. Ďurišin. In-situ XRD studies on Al-Ni and Al-Ni-Sr alloys prepared by rapid solidification. *Journal of Alloys and Compounds*, 464(1–2):95–100, 2008.
- [8] M. Orolínová, J. Ďurišin, K. Ďurišinová, M. Besterici, and **K. SaksI**. Structural analyses on AlSi26Ni8 rapidly solidified alloys. *High Temperature Materials and Processes*, 27(1):61–72, 2008.
- [9] R. Kanász, J. Bednarčík, **K. SaksI**, R. Nicula, M. Stir, and C. Lathe. In situ energy dispersive X-ray diffraction analysis of the temperature-pressure stability of Co-Fe-(Ta,W)-B alloys. *Acta Physica Polonica A*, 113(1):79–82, 2008.
- [10] P. Pouloupoulos, S. Baskoutas, L.F Kiss, L. Bujdosó, T. Kemény, F. Wilhelm, A. Rogalev, V. Kapaklis, C. Politis, M. Angelakeris, and **K. SaksI**. Magnetic moments of Fe and Y in the FeBY glass forming system. *Journal of Non-Crystalline Solids*, 354(2–9):587–591, 2008.
- [11] L. Yang, J. Z. Jiang, **K. SaksI**, and H. Franz. Origin of the pre-peak in $Zr_{70}Cu_{29}Pd_1$ metallic glass. *Journal of Physics: Condensed Matter*, 19(47):476217 (6pp), 2007.
- [12] L. Yang, S. Yin, X. D. Wang, Q. P. Cao, J. Z. Jiang, **K. SaksI**, and H. Franz. Atomic structure in $Zr_{70}Ni_{30}$ metallic glass. *Journal of Applied Physics*, 102(8):083512, 2007.
- [13] X. D. Wang, J. Bednarčík, **K. SaksI**, H. Franz, Q.P. Cao, and J.Z. Jiang. Tensile behavior of bulk metallic glasses by in situ x-ray diffraction. *Applied Physics Letters*, 91(8):081913 1–3, 2007.
- [14] P. Zetterström, R. Delaplane, Y. D. Wang, P. K. Liaw, H. Choo, **K. SaksI**, H. F. Zhang, and Y. Ren. Nanoscale defect clusters in metallic glasses. *J. Phys.: Condens. Matter*, 19(37):1–8, 2007.

- [15]P. Jívári, **K. SaksI**, N. Pryds, B. Lebech, N. Bailey, A. Møllergård, R. G. Delaplane, and H. Franz. Atomic structure of glassy $\text{Mg}_{60}\text{Cu}_{30}\text{Y}_{10}$. *Physical Review B*, 76(5):054208 1–8, 2007.
- [16]Q.K. Jiang, G.Q. Zhang, L. Yang, X.D. Wang, **K. SaksI**, H. Franz, R. Wunderlich, H. Fecht, and J.Z. Jiang. La-based bulk metallic glasses with critical diameter up to 30 mm. *Acta Materialia*, 55(13):4409–4418, 2007.
- [17]B. Yang, J. Jiang, Y. Zhuang, **K. SaksI**, and G. Chen. Crystallization of $\text{Pd}_{40}\text{Cu}_{30}\text{Ni}_{10}\text{P}_{20}$ bulk metallic glass with and without pressure. *Journal of University of Science and Technology Beijing: Mineral Metallurgy Materials (Eng Ed)*, 14(4):356–360, 2007.
- [18]X.D. Wang, L. Yang, J.Z. Jiang, **K. SaksI**, H. Franz, H. Fecht, Y.G. Liu, and H.S. Xian. Enhancement of plasticity in Zr-based bulk metallic glasses. *Journal of Materials Research*, 22(9):2454–2459, 2007.
- [19]A. B. Abrahamsen, J.-C. Grivel, N. H. Andersen, J. Homeyer, and **K. SaksI**. Kinetics of MgB_2 Formation Studied by in-situ Synchrotron X-Ray Powder Diffraction. *IEEE Transactions on Applied Superconductivity*, 17(2):2757 – 2760, 2007.
- [20]**K. SaksI**, J. Bednarčík, R. Nicula, E. Burkel, and H. Franz. The influence of short time ball milling on the stability of amorphous CoFeB alloys. *Journal of Physics: Condensed Matter*, 19(17):176215, 2007.
- [21]**K. SaksI**, D. Vojtěch, and H. Franz. Qasicrystal-crystal structural transformation in Al-5 wt.% Mn alloy. *Journal of Materials Science*, 42(17):7198–7201, 2007.
- [22]L. Medvecký, M. Kmecová, and **K. SaksI**. Study of $\text{PbZr}_{0.53}\text{Ti}_{0.47}\text{O}_3$ solid solution formation by interaction of perovskite phases. *Journal of the European Ceramic Society*, 27(4):2031–2037, 2007.
- [23]**K. SaksI**, P. Jívári, H. Franz, Q. S. Zeng, J. F. Liu, and J. Z. Jiang. Atomic structure of $\text{Al}_{89}\text{La}_6\text{Ni}_5$ metallic glass. *Journal of Physics: Condensed Matter*, 18(32):7579–7592, 2006.
- [24]J. Bednarčík, E. Burkel, **K. SaksI**, P. Kollár, and S. Roth. Mechanically induced crystallization of an amorphous CoFeZrB alloy. *Journal of Applied Physics*, 100(1):014903, 2006.
- [25]D. Vojtěch, **K. SaksI**, J. Verner, and B. BártoVá. Structural evolution of rapidly solidified Al-Mn and Al-Mn-Sr alloys. *Materials Science and Engineering A*, 428(1-2):188–195, 2006.
- [26]L. Yang, J. H. Xia, Q. Wang, C. Dong, L. Y. Chen, X. Ou, J. F. Liu, J. Z. Jiang, K. Klementiev, **K. SaksI**, H. Franz, J. R. Schneider, and L. Gerward. Design of Cu_8Zr_5 -based bulk metallic glasses. *Applied Physics Letters*, 88(24):241913, 2006.
- [27]D. Vojtěch, J. Verner, B. BártoVá, and **K. SaksI**. Rapid solids hold hope for strong aluminium alloys. *Metal Powder Report*, 61(6):32–35, 2006.
- [28]Y. Wang, Y. Z. Fang, T. Kikegawa, C. Lathe, **K. SaksI**, H. Franz, J. R. Schneider, L. Gerward, F. M. Wu, J. F. Liu, and J. Z. Jiang. Amorphouslike Diffraction Pattern in Solid Metallic Titanium. *Physical Review Letters*, 95(15):155501, 2005.
- [29]**K. SaksI**, P. Jívári, H. Franz, and J. Z. Jiang. Atomic structure of $\text{Al}_{88}\text{Y}_7\text{Fe}_5$ metallic glass. *Journal of Applied Physics*, 97(11):113507, 2005.
- [30]**K. SaksI**, J. Ďurišin, M. Orolínová, K. Ďurišinová, and P. Lazár. Structural study on Al-26 mass% Si-8 mass% Ni powder. *Journal of Materials Science*, 40(8):1975–1978, 2005.
- [31]J. Ďurišin, K. Ďurišinová, M. Orolínová, and **K. SaksI**. Preparation and microstructure evolution of nanocomposite powder copper. *International Journal of Materials and Product Technology*, 23(1-2):42–68, 2005.

- [32]J. Ďurišin, K. Ďurišinová, M. Orolínová, and **K. SaksI**. Effect of the MgO particles on the nanocrystalline copper grain stability. *Materials Letters*, 58(29):3796–3801, 2004.
- [33]J. Z. Jiang and **K. SaksI**. Structural stability of Pd₄₀Cu₃₀Ni₁₀P₂₀ metallic glass in supercooled liquid region. *Materials Science and Engineering A*, 375-377(1-2):733–737, 2004.
- [34]L. Yang, Y. Chao, **K. SaksI**, H. Franz, L. L. Sun, W. K. Wang, N. P. Jiang, X. J. Wu, and J. Z. Jiang. Short-range structure of Zr₄₁Ti₁₄Cu_{12.5}Ni₁₀Be_{22.5} glass prepared by shock wave. *Applied Physics Letters*, 84(24):4998–5000, 2004.
- [35]H. Bruncková, L. Medvecký, J. Briančin, and **K. SaksI**. Influence of hydrolysis conditions of the acetate sol-gel process on the stoichiometry of PZT powders. *Ceramics International*, 30(3):453–460, 2004.
- [36]**K. SaksI**, H. Franz, P. Jovari, K. Klementiev, E. Welter, A. Ehnes, J. Saida, A. Inoue, and J. Z. Jiang. Evidence of icosahedral short-range order in Zr₇₀Cu₃₀ and Zr₇₀Cu₂₉Pd₁ metallic glasses. *Applied Physics Letters*, 83(19):3924–3926, 2003.
- [37]J. Z. Jiang, H. Kato, T. Ohsuna, J. Saida, A. Inoue, **K. SaksI**, H. Franz, and K. Sthl. Origin of nondetectable X-ray diffraction peaks in nanocomposite CuTiZr alloys. *Applied Physics Letters*, 83(16):3299–3301, 2003.
- [38]V. Koval', C. Alemany, J. Briančin, H. Bruncková, and **K. SaksI**. Effect of PMn modification on structure and electrical response of xPMN- (1- x)PZT ceramic systems. *Journal of the European Ceramic Society*, 23(7):1157–1166, 2004.
- [39]J. Z. Jiang, B. Yang, **K. SaksI**, H. Franz, and N. Pryds. Crystallization of Cu₆₀Ti₂₀Zr₂₀ metallic glass with and without pressure. *Journal of Materials Research*, 18(4):895–898, 2003.
- [40]J. Z. Jiang, **K. SaksI**, N. Nishiyama, and A. Inoue. Crystallization in Pd₄₀Ni₄₀P₂₀ glass. *Journal of Applied Physics*, 92(7):3651–3656, 2002.
- [41]J. Z. Jiang, **K. SaksI**, J. Saida, A. Inoue, H. Franz, K. Messel, and C. Lathe. Evidence of polymorphous amorphous-to-quasicrystalline phase transformation in Zr_{66.7}Pd_{33.3} metallic glass. *Applied Physics Letters*, 80(5):781–783, 2002.
- [42]J. Z. Jiang, **K. SaksI**, H. Rasmussen, T. Watanuki, N. Ishimatsu, and O. Shimomara. High-pressure X-ray diffraction of icosahedral Zr–Al–Ni–Cu–Ag quasicrystals. *Applied Physics Letters*, 79(8):1112–1114, 2001.
- [43]**K. SaksI**, L. Medvecký, and J. Ďurišin. Preparation of nanocrystalline Cu–xMgO mixture. *Journal of Materials Science*, 36(15):3675–3678, 2001.

VEDECKÉ PRÁCE UVEREJNENÉ V ZBORNÍKOV Z KONFERENCIÍ

- [1] J. Cihelka, L. Juha, J. Chalupský, F.B. Rosmej, O. O. Renner, **K. SaksI**, V. Hájkov'a, L. Višín, E. Galtier, R. Schott, A.R. Khorsand, D. Riley, T. Dzelzainis, A.J. Nelson, R.W. Lee, P.A. Heimann, B. Nagler, S. Vinko, J. Wark, T. Whitcher, S. Toleikis, T. Tschentscher, R. Fäustlin, H. Wabnitz, S. Bajt, H. Chapman, J. Krzywinski, R. Sobierajski, D. Klinger, M. Jurek, J. Pelka, S. Hau-Riege, R.A. London, J. Kuba, N. Stojanovic, K. Sokolowski-Tinten, A.J. Gleeson, M. Störmer, J. Andreasson, J. Hajdu, B. Iwan, and N. Timneanu. Optical emission spectroscopy of various materials irradiated by soft x-ray free-electron laser. *Proceedings of SPIE - The International Society for Optical Engineering*, 7361, 2009.
- [2] J. Bednarčík, R. Nicula, **K. SaksI**, M. Stir, and E. Burkel. Microstructure evolution during thermal processing: Insight from in-situ time-resolved synchrotron radiation experiments. *Materials Science Forum*, 550:607–612, 2008.

- [3] A.B. Abrahamsen, J.-C. Grivel, N.H. Andersen, M. Herrmann, W. Hasler, B. Birajdar, O. Eibl, and **K. Saksli**. In-situ synchrotron x-ray study of MgB₂ formation when doped by SiC. *Journal of Physics: Conference Series*, 97(1):012315, 2008.
- [4] J.-C. Grivel A.B. Abrahamsen, N.H. Andersen, and **K. Saksli**. Manufacture of (Bi,Pb)₂Sr₂Ca₂Cu₃O₁₀-based tapes with a composite sheath. *Journal of Physics: Conference Series*, 97(1):012033, 2008.
- [5] X. Ou, W. Roseker, **K. Saksli**, H. Franz, L. Gerward, X. Xu, G. Q. Zhang, and L. N. Wang. Microstructure and crystallization in Cu₅₀Zr₄₅Al₅ metallic glass. In *Proceedings of the International Symposium on Metastable Mechanically Alloyed and Nanocrystalline Materials*, volume 441, pages 185–188. Journal of Alloys and Compounds, Paris, France, 2007.
- [6] J. Bednarčík, R. Nicula, **K. Saksli**, M. Stir, and E. Burkel. Microstructure Evolution During Thermal Processing : Insight from In-Situ Time-Resolved Synchrotron Radiation Experiments. In *Proceedings of the International Symposium held to coincide with the retirement of Professor John Humphreys in Manchester, UK, September 2006*, volume 550, pages 607– 612. Materials Science Forum, Trans Tech Publications, Switzerland, 2007.
- [7] D. Vojtěch, J. Verner, B. Bártoová, and **K. Saksli**. Thermal Stability of Rapidly Solidified Alloys of Aluminium with Transition Metals. In *Proceedings of the 10th International Conference on Aluminum Alloys, Materials Science Forum*, volume 519–521, pages 389–395. Materials Science Forum, Vancouver, Canada, 2006.
- [8] D. Vojtěch, J. Verner, B. Bártoová, and **K. Saksli**. Microstructure and Properties of Rapidly Solidified Al–TMs Alloys. In *Proceedings of the EURO PM2005*, volume II, pages 205–210. EPMA, Prague, 2005.
- [9] D. Vojtěch, J. Verner, B. Bártoová, and **K. Saksli**. Microstructural features of rapidly solidified Al–TM (transition metals) based alloys. In H. Danninger L. Parilák, editor, *Proceedings of the Int. Conf. DF PM 2005: Deformation and Fracture in structural PM materials*, pages 91–99. Institute of Materials Research of the Slovak Academy of Sciences in Košice, Stará Lesná, 2005.
- [10] J. Verner, D. Vojtěch, B. Bártoová, and **K. Saksli**. Microstructure and thermal stability of rapidly solidified Al–Mn–Sr alloys. In *Proceedings of the Int. conf. Juniormat 05*, pages 131–134. VÚT Brno, Brno, 2005.
- [11] J. Verner, D. Vojtěch, B. Bártoová, and **K. Saksli**. Structural evolution of rapidly solidified Al–Mn and Al–Mn–Sr alloys. In *Proceedings of the Int. conf. Nano 05*, page 88. VÚT Brno, Brno, 2005.
- [12] D. Vojtěch, J. Verner, B. Bártoová, and **K. Saksli**. Vlastnosti rychle ztuhých slitin Al–Mn a Al–Mn–Sr. In *Proceedings of the METAL 2005*, page 82. Tanger, Hradec nad Moravicí, 2005.
- [13] **K. Saksli**, P. Jóvári, H. Franz, and J. Z. Jiang. Atomic structure of Al₈₈Y₇Fe₅ metallic glass. In *Proceedings of the 4th Int. Conf. On Aluminium Alloys*, pages 250–254. Alcan Děčín Extrusion, Děčín, 2005.
- [14] J. Ďurišin, K. Ďurišinová, M. Orolínová, and **K. Saksli**. Influence of Reduction Conditions on Powder Copper Microstructural Characteristics. In H. Danninger L. Parilák, editor, *Proceedings of the Int. Conf. DF PM 2002: Deformation and Fracture in structural PM materials*, volume I, pages 234–240. Institute of Materials Research of the Slovak Academy of Sciences in Košice, Stará Lesná, 2002.
- [15] **K. Saksli** and J. Ďurišin. Relationship between Structure Parameters and Mechanical Properties of Nanostructural Dispersion System Cu–MgO. In H. Danninger L. Parilák, editor, *Proceedings of the Int. Conf. DF PM 1999: Deformation and Fracture in structural PM materials*, volume II, pages 88–92. Institute of Materials Research of the Slovak Academy of Sciences in Košice, Piešťany, 1999.

[16] **K. SaksI**. Röntgenovo-difrakčná analýza nanokryštalickej práškovej sústavy CuO–MgO. In *Proceedings of the Int. Conf. Metallurgy Junior 99*, pages 46–53. Technical University of Košice, Košice, 1999.

VÝSKUMNÉ ŠTÚDIE A SPRÁVY (HASYLAB A ESRF)

- [1] **K. SaksI**, D. Zajac, H. Franz, Š. Michalík, and J. Z. Jiang. Comparisons Between XAFS Signals Measured in Transmission and Total Electron Yield Mode. In *HASYLAB Annual Report 2006*, volume I. HASYLAB at DESY, Hamburg, 2006.
- [2] S. Couet, T. Diederich, R. Röhlberger, E. Welter, **K. SaksI**, and O. Seeck. X-ray Absorption and reflectivity studies of Iron/native oxide multilayers. In *HASYLAB Annual Report 2006*, volume I. HASYLAB at DESY, Hamburg, 2006.
- [3] C. Paulmann, R. Peters, **K. SaksI**, K. Petermann, and U. Bismayer. Characterisation of disorder-induced scattering in $\text{NaGd}(\text{WO}_4)_2 \cdot \text{Yb}^{3+}$ crystals. In *HASYLAB Annual Report 2006*, volume I. HASYLAB at DESY, Hamburg, 2006.
- [4] J. Bednarčík, **K. SaksI**, R. Nicula, and E. Burkel. Influence of cryomilling on structure of CoFeZrB alloy. In *HASYLAB Annual Report 2006*, volume I. HASYLAB at DESY, Hamburg, 2006.
- [5] D. Oleksaková, J. Fuzer, J. Bednarčík, and **K. SaksI**. The influence of mechanical milling and alloying on structure of NiFe alloys. In *HASYLAB Annual Report 2006*, volume I. HASYLAB at DESY, Hamburg, 2006.
- [6] **K. SaksI**, A. Ehnes, H. Franz, Š. Michalík, and V. Kolesár. Multi-channel collimator, a tool for high-pressure angular-dispersive XRD experiments. In *HASYLAB Annual Report 2005*, volume I, pages 46–53. HASYLAB at DESY, Hamburg, 2005.
- [7] **K. SaksI** and D. Vojtěch. In-situ high temperature XRD study on rapidly solidified Al–17 wt.% Ni and Al–17 wt.% Ni 2–wt.% Sr alloys. In *HASYLAB Annual Report 2005*, volume I, pages 387–388. HASYLAB at DESY, Hamburg, 2005.
- [8] **K. SaksI**, H. Franz, and J. Z. Jiang. Structural study of $\text{Zr}_{70}\text{Ni}_{29}\text{Pd}_1$ amorphous alloy. In *HASYLAB Annual Report 2004*, volume I. HASYLAB at DESY, Hamburg, 2004.
- [9] G. Wellenreuther, T. Asthalter, H. Franz, I. Sergueev, U. van Buerck, **K. SaksI**, and A. Chumakov. Dynamics of a glass-forming binary liquid confined in mesoporous silicon. In *ESRF Report 2004*. ESRF, Grenoble, 2004.
- [10] **K. SaksI**, P. Jóvári, H. Franz, and J. Z. Jiang. Structural study of bulk amorphous NdNiAl. In *HASYLAB Annual Report 2003*, volume I. HASYLAB at DESY, Hamburg, 2003.
- [11] A. Ehnes, **K. SaksI**, P. Jóvári, and H. Franz. A Mirror Furnace for High Temperature Applications. In *HASYLAB Annual Report 2003*, volume I. HASYLAB at DESY, Hamburg, 2003.
- [12] **K. SaksI**, H. Franz, A. Ehnes, J. Koch-Bodes, and J. Ďurišin. Paris–Edinburgh Large-volume Cell for Structural Studies at High Pressure and High Temperature. In *HASYLAB Annual Report 2003*, volume I. HASYLAB at DESY, Hamburg, 2003.
- [13] **K. SaksI**, H. Franz, J. Z. Jiang, and A. Ehnes. In situ crystallisation of bulk-glass forming $\text{Cu}_{60}\text{Zr}_{20}\text{Ti}_{20}$ alloy. In *HASYLAB Annual Report 2002*, volume I. HASYLAB at DESY, Hamburg, 2002.
- [14] **K. SaksI**, H. Franz, J. Z. Jiang, and A. Ehnes. EXAFS and XRD study of $\text{Al}_{89}\text{La}_6\text{Ni}_5$ amorphous alloy. In *HASYLAB Annual Report 2002*, volume I. HASYLAB at DESY, Hamburg, 2002.
- [15] H. Franz, A. Ehnes, A. Roggenbuck, **K. SaksI**, and G. Wellenreuther. Status of PETRA beamlines. In *HASYLAB Annual Report 2002*, volume I. HASYLAB at DESY, Hamburg, 2002.

- [1] **K. Saksl.** Zdroj žiarenia budúcnosti. *vedecko populárny časopis Quark*, (9):16–17, September 2005.