

# CURRICULUM VITAE

## Anna Kityk

831 03 Bratislava, Slovak Republic  
Československých Parašutistov 29  
Tel.: +421951268515  
E-mail: [kitykanna7@gmail.com](mailto:kitykanna7@gmail.com)

[https://www.researchgate.net/profile/Anna\\_Kityk](https://www.researchgate.net/profile/Anna_Kityk)  
<https://orcid.org/0000-0002-0559-7710>  
<https://scholar.google.com.ua/citations?user=rkV7sOIAAAAJ&hl=ru>  
<https://www.scopus.com/authid/detail.uri?authorId=53363564700>

[Scopus Author ID: 53363564700](#)

**42 documents by author in Scopus database**

**483 total citations of publications in Scopus by 293 documents**

<https://www.scopus.com/authid/detail.uri?authorId=53363564700>

**h-index 13**

**Date of birth: 25/08/1987 | Nationality: Ukrainian**

**Affiliation and official address** Centre for Advanced Materials Application Slovak Academy of Sciences (**CEMEA SAS**), Dúbravská st. 5807/9, 845 11 Bratislava, Slovak Republic; Institute of Inorganic Chemistry Slovak Academy of Sciences (**IIC SAS**), Dúbravská st. 9, 845 36 Bratislava 45, Slovak Republic.

**Scientific interests:** Main fields: electrochemistry; physical chemistry; colloidal chemistry; and technologies related to the development of catalytic, functional, and/or bio-inspired materials.

Specific fields: investigation of kinetics and mechanisms of electrochemical processes using liner and cyclic voltammetry, electrochemical impedance spectroscopy; electrodeposition of Cr, Ni, their alloys and composites; corrosion and corrosion protection of metals; “green” electropolishing; utilization of ionic liquids (deep eutectic solvents); electrochemical production of hydrogen from water-based electrolytes; electrochemical surface treatment of bio-medical metals and alloys.

## Education

**20/06/2019** Assignment of the scientific title of associate professor (Assoc. Prof.) by the Ministry of Education and Science of Ukraine (Department of Physical Chemistry. Ukrainian State University of Chemical Technology. Dnipro, Ukraine).  
**25/04/2013** Candidate of science (CSc., PhD equivalent), Electrochemistry, Ukrainian State University of Chemical Technology (Dnipro, Ukraine).  
**30/06/2009** Magister, Chemistry, Oles Honchar Dnipro National University (Dnipro, Ukraine).  
**30/06/2008** Bachelor, Chemistry, Oles Honchar Dnipro National University (Dnipro, Ukraine).

## Membership in scientific communities

Since **2011** year a member of the International Society of Electrochemistry (ISE).  
Since **2022** year a member of the Royal Society of Chemistry.

## Participation in international experience exchange programs

**15/04/2018 – 15/06/2018** Working period in Institute of Inorganic Chemistry, Slovak Academy of Sciences supported by the National Scholarship Program (NSP) of the Slovak Republic.



**01/09/2019 – 30/04/2020** Cooperation work with the Institute of Inorganic Chemistry, Institute of Physics, and Institute of Molecular Biology of the Slovak Academy of Sciences supported by the National Scholarship Program of the Slovak Republic.

### **Current positions**

**Since 15/12/2022 to the present** Independent Researcher in the Centre of Excellence for Advanced Materials Application Slovak Academy of Sciences (CEMEA SAS. Bratislava, Slovak Republic).

**Since 1/05/2020 to the 15/12/2022** Researcher in the Centre of Excellence for Advanced Materials Application Slovak Academy of Sciences (CEMEA SAS. Bratislava, Slovak Republic).

**Since 1/11/2021 to the present** Researcher in the Ceramic Department of the Institute of Inorganic Chemistry Slovak Academy of Sciences (IIC SAS. Bratislava, Slovak Republic).

### **Previous positions**

**2019 – 2020** Leading Scientific Specialist of the Research Institute of Galvanochemistry (Dnipro, Ukraine).

**2016 – 2019** Senior researcher of the Research Institute of Galvanochemistry (Dnipro, Ukraine).

**2014 – 2016** Research assistant of the Research Institute of Galvanochemistry (Dnipro, Ukraine).

**2012 – 2014** Junior researcher of the Research Institute of Galvanochemistry (Dnipro, Ukraine).

**2010 – 2012** Engineer chemist of the Research Institute of Galvanochemistry (Dnipro, Ukraine).

### **Fellowships and awards**

**2023** Top three finalists in the competition “Technology Transfer in Slovak Republic 2023” in category “innovator”.

**2022** Finalist in the competition of research projects IMPULZ, Slovak Academy of Sciences.

**2020** Participant of the competition of Marie Skłodowska-Curie Individual Fellowships, Horizon 2020 - Research and Innovation Framework Programme (NGETMA project with evaluation result: 71.00% from 100%).

**2019-2020** The winner of the National scholarship program of the Slovak Republic, Institute of Inorganic Chemistry, Slovak Academy of Sciences.

**2018 – 2020** The winner of the scholarship of the Cabinet of Ministers of Ukraine 2018 - 2020.

**2019** Finalist in the start-up competition “InnoDnipro 2019” with a project “Highly efficient processing of metals and alloys in environmentally friendly electrolytes of a new generation” (Dnipro, Ukraine).

**2018** The winner of the competition for young scientists with funding from the Ministry of Education and Science of Ukraine (22/12/2018).

**15/04/2018 – 15/06/2018** National scholarship program of the Slovak Republic, Institute of Inorganic Chemistry, Slovak Academy of Sciences.

**28/09/2018** Diploma of the Department of Education and Science of the Dnipro Regional State Administration for significant success in research and teaching activities.

- 2016** Certificate of honour for high performance in work, Ukrainian State University of Chemical Technology (Dnipro, Ukraine).
- 2016** Diploma of the winner in the competition of the best teacher of 2016 year in the Ukrainian State University of Chemical Technology (Dnipro, Ukraine).

### **Scientific projects**

- **Key researcher** in the project APVV - 20-0322 “Nanostructured, functionally graded, and bioinspired 3D Ti-based implants”, Slovak Republic, 2021-2025.
- **Senior researcher** in the project Building-up Centre for advanced materials application of the Slovak Academy of Sciences, ITMS project code 313021T081 supported by Research & Innovation Operational Programme funded by the ERDF, 2020-2023.
- **Leader (supervisor) of the project** № 0119U002001 “Highly effective anodic treatment of bio-resistant alloys for the medical application using eco-friendly ionic liquids of the new generation” financed by the Ministry of Education and Science of Ukraine, 2019-2021.
- **Senior researcher** in the project “Fundamental principles of electrode processes of precipitation and treatment of metals in electrolytes based on deep eutectic solvents” financed by the Ministry of Education and Science of Ukraine, 2018.
- **Leader (supervisor) of the project** № 0116U006897 “Electrochemical corrosion and protection against corrosion of a series of construction steels in new types of ionic liquids” financed by the Ministry of Education and Science of Ukraine, 2016-2018.
- **Senior researcher** in the project “Electrochemical synthesis of multicomponent nano-structured coatings: New procedures and plating baths, electrode kinetics, properties, and application prospects” financed by the Ministry of Education and Science of Ukraine, 2015-2017.
- **Senior researcher** in the project “Complex composite catalysts in flow systems for application in zones of local conflicts” financed by the Ministry of Education and Science of Ukraine, 2016-2018.

### **Teaching activities**

- 2012 – 2020** Teacher of Physical and Colloidal Chemistry, Department of Physical Chemistry in Ukrainian State University of Chemical Technology (Dnipro, Ukraine).
- 2012 – 2020** Teacher of chemistry in the “School of Young Chemists” in Ukrainian State University of Chemical Technology (Dnipro, Ukraine).

### **Organisation of scientific meetings**

- 2013 – 2020** Member of the collective of organizers of Olympiads for students and scholars in the field of chemistry; scientific symposia, and congresses (Ukrainian State University of Chemical Technology, Dnipro, Ukraine).

### **Institutional responsibilities**

- 2015 – 2020** Responsible person for distance education at the Department of Physical Chemistry (Ukrainian State University of Chemical Technology, Dnipro, Ukraine).
- 2018 – 2020** Organizer of the regional and international seminars and meetings (Ukrainian State University of Chemical Technology, Dnipro, Ukraine).

### **Reviewing activities**

- 2023** Guest reviewer of Journals: Materials Today Communications (CiteScore: 4.1, Impact Factor: 3.8), Journal of Molecular Liquids (CiteScore: 9.7,

- Impact Factor: 6.0), Journal of Electroanalytical Chemistry (CiteScore: 7.5, Impact Factor: 4.5).
- 2022** Guest reviewer of the Journal of Molecular Liquids (CiteScore: 9.7, Impact Factor: 6.0).
- 2022** Guest reviewer of the Journal of Electroanalytical Chemistry (CiteScore: 7.5, Impact Factor: 4.5).
- 2018** Guest reviewer of the Journal of the Taiwan Institute of Chemical Engineers (CiteScore: 9.6, Impact Factor: 5.7).
- 2015 – 2020** Guest reviewer of the Journal “Issues of Chemistry and Chemical Technology” (ISSN: 0321-4095E-ISSN:2413-7987. CiteScore: 1.1).

### Major collaborations

- 1/01/2018** – **31/12/2022** Miroslav Boca, “Electrochemical study of non-aqueous systems”, department of molten systems, Institute of Inorganic Chemistry (IIC) Slovak Academy of Sciences, Bratislava, Slovak Republic (Collaboration agreement between the home university and IIC SAS is available and valid to the present moment).
- 1/05/2020** – **up to now** Eva Majkova, Miroslav Hnatko, “Development of multifunctional materials for various purposes”, Centre of Excellence for Advanced Materials Application (CEMEA) Slovak Academy of Sciences, Bratislava, Slovak Republic (Collaboration agreement between the home university and CEMEA SAS is available and valid to the present moment).

### Language skills

- English (speak and read, B2 Upper Intermediate – EF SET Certificate).
- Russian and Ukrainian native.
- Slovak a confident user.

### Certificates

- EF SET Certificate (B2 Upper Intermediate English).
- Researcher Academy ELSEVIER Certificate of Completion “Successful research grant applications – getting it right”.
- Researcher Academy ELSEVIER Certificate of Completion “Funding Hacks for Researchers”.
- Researcher Academy ELSEVIER Certificate of Completion “Discover how metrics can boost funding and networking opportunities”.
- Researcher Academy ELSEVIER Certificate of Excellence “Funding”.
- Researcher Academy ELSEVIER Certificate of Completion “Creating a good research data management plan”.
- European Academy of Sciences and Research “On being scientist course”.
- European Academy of Sciences and Research “Research design: Inquiry and discovery course”.

### Patents and patent applications

- 🚧 **UA patent** entitled “Electropolishing of stainless steel in an electrolyte based on deep eutectic solvent Ethaline” with identification number UA 150890 U was published 5.05.2022.
- 🚧 **European patent application** entitled "Method for electrochemical surface treatment of biomedical products made of titanium or Ti-based alloys" was registered under the number 22193733.7 (2.09.2022).
- 🚧 **European patent application** entitled “A method for electrochemical surface treatment of biomedical products made of titanium or Ti-based alloys” was registered under the number 22204696.3 (31.10.2022).

✚ **International patent application** entitled “A method for electrochemical surface treatment of biomedical products made of titanium or Ti-based alloys” was registered under the number PCT/SK2023/050006 (12.04.2023).

## LIST OF PUBLICATIONS

### Authorship of books

1. **Kityk A.A.**, Protsenko V.S., Danilov F.I. Temperature responses in linear voltammetry. Voltammetry: Theory, Types and Applications. – New York: Nova Science Publishers Inc., 2014. – P.318-336 (ISBN: 978-1-62948-058-9).
2. Bobrova L.S., Shaiderov D.A., **Kityk A.A.**, Protsenko V.S., Danilov F.I. Effect of water addition on physicochemical properties of electrochemical systems based on deep eutectic solvents. Promising materials and processes in technical electrochemistry. Monograph. – Kyiv : KNUTD, 2016. – P. 204. (ISBN 978-966-7972-61-5).
3. Protsenko V.S., **Kityk A.A.**, Bobrova L.S., Shaiderov D.A., Danilov F.I. Physicochemical and electrochemical properties of deep eutectic solvents containing dissolved Ni(II) and Cr(III) salts: The effects of water content. Ionic Liquids: Electrochemistry, Uses and Challenges (2017). – New York: Nova Science Publishers Inc., 2017. – P. 1-34. (ISBN 978-1-53612-689-1, e-ISBN 978-1-53612-690-7).
4. **Kityk A.A.**, Rublova Y.D., Bannyk N.G., Protsenko V.S., Danilov F.I. Voltammetric study of corrosion of mild steel in deep eutectic solvents. Promising materials and processes in applied electrochemistry. Monograph. – Kyiv : KNUTD, 2017. – P. 135-142. (ISBN 978-966-7972-61-5).
5. Protsenko V.S., **Kityk A.A.**, Vasil'eva E.A., Tsurkan A.V., Danilov F.I. Electrodeposition of Composite Coatings as a Method for Immobilizing TiO<sub>2</sub> Photocatalyst. Part of the Environmental Chemistry for a Sustainable World. Book series ECSW. – Vol. 29. Nanophotocatalysis and Environmental Applications. – 2019. – P. 263-301.
6. **A.A. Kityk**, N.G. Bannik, O.V. Kyn. High-efficient anodic treatment of stainless steel AISI 304 for medical purpose in deep eutectic solvent Ethaline. Promising materials and processes in applied electrochemistry. Monograph. – Kyiv : KNUTD, 2019. – P. 239-245. (ISBN 978-617-7506-48-4).
7. Protsenko V., **Kityk A.**, Danilov F., Pavlik V., Boča M. Chapter 2: Electropolishing of metals and alloys using electrochemical systems based on environmentally safe deep eutectic solvents. Environmentally Friendly Technologies: Advances in Research and Future Directions (2020). – New York: Nova Science Publishers Inc., 2020. – P. 101-133.

### Papers

1. **Kityk A.A.**, Protsenko V.S., Danilov F.I. Electroreduction of trivalent chromium ions from a methanesulfonate electrolyte on the lead electrode // *Issues of chemistry and chemical technology*. – 2010. – Vol. 5. – P. 133-137.
2. **Kityk A.A.**, Protsenko V.S., Danilov F.I. Interrelation of electrochemical and spectral characteristics of various Cr(III) complexes in aqueous solutions // *Issues of chemistry and chemical technology*. – 2010. – Vol. 6. – P. 135-137.
3. Protsenko V.S., **Kityk A.A.**, Danilov F.I. Voltammetry study of Cr(III)/Cr(II) system in aqueous methanesulfonate solutions // *Journal of Electroanalytical Chemistry*. – 2011. – Vol. 661. – P. 213-218.
4. **Kityk A.A.**, Artyushenko S.A. Electroreduction of Cr<sup>3+</sup> ions in methanesulfonate electrolytes // *Issues of chemistry and chemical technology*. – 2011. – Vol. 1, № 4. – P. 232-234.
5. Protsenko V.S., **Kityk A.A.**, Danilov F.I. Effect of temperature on the kinetics of electrochemical reactions in the Cr(III) system - methanesulfonic acid // *Issues of chemistry and chemical technology*. – 2011. – Vol. 2, № 4. – P. 152-155.
6. Protsenko V.S., **Kityk A.A.**, Danilov F.I. Electroreduction of Cr(III) Ions in Methanesulphonate Solution on Pb Electrode // *E-Journal of Chemistry*. – 2011. – Vol. 8. – P. 1714-1719.
7. Danilov F.I., **Kityk A.A.**, Protsenko V.S. Parameters of a double electric layer and adsorption of n-butanol on lead in methanesulfonate solutions // *Electrochemistry*. – 2012. – Vol. 48, № 9. – P. 1026-1030.
8. **Kityk A.A.**, Protsenko V.S., Danilov F.I. Voltammetry study of Cr(III)/Cr(II) system in methanesulfonate and sulfate solutions: Temperature dependences // *Journal of Electroanalytical Chemistry*. – 2013. – V. 689. – P. 269-275.
9. **Kityk A.A.**, Protsenko V.S., Danilov F.I. Evaluation of the protective ability of chromium coatings deposited from sulfate and methanesulfonate electrolytes based on Cr (III) // *Physicochemistry of the surface and protection of materials*. – 2014. – Vol. 50, № 5. – P. 1-8.

10. **Kityk A.A.**, Protsenko V.S., Shaiderov D.A., Danilov F.I. Effect of water content on physicochemical properties and electrochemical behavior of ionic liquids containing choline chloride, ethylene glycol and hydrated nickel chloride // *Journal of Molecular Liquids*. – 2015. – Vol. 212. – P. 716-722.
11. **Kityk A.A.**, Shaiderov D.A., Protsenko V.S., Danilov F.I. Properties of a mixture of low-temperature eutectics on the basis of choline chloride and ethylene glycol with nickel (II) chloride // *Issues of chemistry and chemical technology*. – 2015. – Vol. 5. – P. 31-36.
12. **Kityk A.A.**, Tsurcan A.V., Vasil'eva O. et al. Electrochemical Synthesis and Properties of Fe/TiO<sub>2</sub> Coatings Modified with Cerium Dioxide // *Issues of chemistry and chemical technology*. – 2016. – Vol. 4 (108). – P. 25-31.
13. **Kityk A.A.**, Shaiderov D.A., Protsenko V.S. et al. The use of an electrolyte based on a low-temperature eutectic mixture for electrodepositing of solid nickel coatings // *Issues of chemistry and chemical technology*. – 2016. – Vol. 3 (107). – P. 31-35.
14. **Kityk A.A.**, Rubleva Y.D., Vasil'eva O., Bannik N.G. Physicochemical properties and corrosion activity of low-temperature eutectic mixtures of Ethaline and Reline in relation to low-carbon steel // *Issues of chemistry and chemical technology*. – 2016. – Vol. 5 (109). – P. 4-10.
15. **Kityk A.A.**, Rublova Y.D., Bannyk N.G., Shcherbakova K.M., Malaya V.V. Electrochemical impedance study of the effect of water additives on the rate of mild steel corrosion in deep eutectic solvent Ethaline // *Issues of chemistry and chemical technology*. – 2017. – Vol. 6. – P. 11-16.
16. Protsenko V.S., Vasil'eva E.A., Tsurkan A.V., **Kityk A.A.**, Korniy, S.A., Danilov, F.I. Fe/TiO<sub>2</sub> composite coatings modified by ceria layer: Electrochemical synthesis using environmentally friendly methanesulfonate electrolytes and application as photocatalysts for organic dyes degradation // *Journal of Environmental Chemical Engineering*. – 2017. – Vol. 5 (1). – P. 135-146.
17. Protsenko V.S., **Kityk A.A.**, Danilov F.I. Choline chloride based ionic liquids containing nickel chloride: Physicochemical properties and kinetics of Ni(II) electroreduction // *Electrochimica Acta*. – 2017. – Vol. 245. – P. 133-145.
18. Danilov F.I., Protsenko V.S., **Kityk A.A.**, Shaiderov D.A., Vasil'eva E.A., Kumar U.P., Kennady C.J. Electrodeposition of Nanocrystalline Nickel Coatings from a Deep Eutectic Solvent with Water Addition // *Protection of Metals and Physical Chemistry of Surfaces*. – 2017. – Vol. 53 (6). – P. 1131-1138.
19. **Kityk A.A.**, Rublova Y.D., Bannyk N.G., Bogdanov D., Protsenko V.S., Danilov F.I. Features of corrosion of mild steel in a new type of ionic liquids - low-temperature eutectic solvents // *Physico-chemical mechanics of materials*. – 2018. – Special Iss. 12. – P. 5-8.
20. Protsenko V., Bobrova L., Holubtsov D., Korniy S., **Kityk A.**, Danylov F. Protective chromium coatings deposited from an electrolyte on the basis of a deep eutectic solvent // *Physico-chemical mechanics of materials*. – 2018. – Special Iss. 12. – P. 79-84.
21. Danilov F.I., Protsenko V.S., **Kityk A.A.**, Bogdanov D.A., Baskevich A.S. Electrodeposition of nanocrystalline nickel-titania composites from an electrolyte on the basis of deep eutectic Solvent, Ethaline // *Issues of chemistry and chemical technology*. – 2018. – Vol. 3. – P. 18-24.
22. **Kityk A.A.**, Rublova Y.D., Kelm A.M., Malyshev V.V., Bannyk N.G., Flis-Kabulska I. Kinetics and mechanism of corrosion of mild steel in new types of ionic liquids // *Journal of Electroanalytical Chemistry*. – 2018. – Vol. 823. – P. 234-244.
23. **Kityk A.A.**, Rublova Y.D., Bannyk N.G., Protsenko V.S., Danilov F.I. Effect of preliminary electropolishing on corrosion resistance of mild steel in a deep eutectic solvent Ethaline // *Issues of chemistry and chemical technology*. – 2018. – Vol. 4. – P. 14-18.
24. Danilov F.I., **Kityk A.A.**, Scheiderov D.A., Bogdanov D.A., Korniy S.A., Protsenko V.S. Electrodeposition of Ni – TiO<sub>2</sub> composite coatings using an electrolyte based on a deep eutectic solvent // *Electronic Processing of Materials*. – 2018. – Vol. 54 (3). – P. 21-33.
25. Protsenko V.S., Bobrova L.S., Korniy S.A., **Kityk A.A.**, Danilov F.I. Corrosion resistance and protective properties of chromium coatings electrodeposited from an electrolyte based on deep eutectic solvent // *Functional Materials*. – 2018. – Vol. 25 (3). – P. 539-545.
26. Rublova Y.D., **Kityk A.A.**, Bannyk N.G., Protsenko V.S., Danilov F.I. The influence of various factors on corrosion of mild steel in deep eutectic solvents // *Materials Today: Proceedings*. – 2019. – Vol. 6. – P. 232-236.
27. Danilov F.I., **Kityk A.A.**, Shaiderov D.A., Bogdanov D.A., Korniy S.A., Protsenko V.S. Electrodeposition of Ni–TiO<sub>2</sub> Composite Coatings Using Electrolyte Based on a Deep Eutectic Solvent // *Surface Engineering and Applied Electrochemistry*. – 2019. – Vol. 55 (2). – P. 138-149.
28. **Kityk A.**, Protsenko V., Pavlik V., Boča M. Corrosion resistance of AISI 304 and AISI 316 stainless steels in a solar salt used in concentrated solar power plants: the effect of NaCl impurities // *Issues of chemistry and chemical technology*. – 2019, Vol. 3. – P. 123-131.

30. Protsenko V.S., Bogdanov D.A., Korniy S.A., **Kityk A.A.**, Baskevich A.S., Danilov F.I. Application of a deep eutectic solvent to prepare nanocrystalline Ni and Ni/TiO<sub>2</sub> coatings as electrocatalysts for the hydrogen evolution reaction // *International Journal of Hydrogen Energy*. – 2019. – Vol. 44 (45). – P. 24604-24616.
31. **Kityk A.A.**, Protsenko V.S., Danilov F.I., Kun, O.V., Korniy S.A. Electropolishing of aluminium in a deep eutectic solvent // *Surface and Coatings Technology*. – 2019. – Vol. 375. – P. 143-149.
32. Rublova Y., **Kityk A.**, Danilov F., Protsenko V. Mechanistic Study on Surface Tension of Binary and Ternary Mixtures Containing Choline Chloride, Ethylene Glycol and Water (Components of Aqueous Solutions of a Deep Eutectic Solvent, Ethaline) // *Zeitschrift fur Physikalische Chemie*. – 2020. – Vol. 234 (3). – P. 399-413.
33. Protsenko V.S., Bobrova L.S., **Kityk A.A.**, Danilov F.I. Kinetics of Cr(III) ions discharge in solutions based on a deep eutectic solvent (ethaline): Effect of water addition // *Journal of Electroanalytical Chemistry*. – 2020. – Vol. 864, 114086.
34. **Kityk A.A.**, Danilov F.I., Protsenko V.S., Pavlik V., Boča M., Halahovets Y. Electropolishing of two kinds of bronze in a deep eutectic solvent (Ethaline). *Surface and Coatings Technology*. – 2020. – Vol. 397. 126060.
35. **Kityk A.**, Hnatko M., Pavlik V., Boča M. Electropolishing of WCu composite in a deep eutectic solvent. *Chemical Papers*. – 2021. – Vol. 75 (4). – P. 1767-1771.
36. **Kityk A.**, Protsenko V., Danilov F., Pavlik V., Hnatko M., Šoltys J. Enhancement of the surface characteristics of Ti-based biomedical alloy by electropolishing in environmentally friendly deep eutectic solvent (Ethaline). *Colloids and Surfaces A: Physicochemical and Engineering Aspects*. – 2021. – Vol. 613. 126125.
37. **Kityk A.**, Hnatko M., Pavlik V., Boča M. Electrochemical surface treatment of manganese stainless steel using several types of deep eutectic solvents. *Materials Research Bulletin*. – 2021. – Vol. 141. 111348.
38. **Kityk A.A.**, Protsenko V.S., Danilov F.I., Pavlik V., Boča M. Effect of Electropolishing of Metals and Alloys in a Deep Eutectic Solvent on Their Corrosion Characteristics. *Materials Science*. – 2021. – Vol. 56(5). – P. 629–633.
39. **Kityk A.**, Protsenko V., Danilov F., Bobrova L., Hnatko M., Pavlik V., Šoltys J., Labudová M., Rusková M., Pangallo D. Design of Ti-6Al-4V alloy surface properties by galvanostatic electrochemical treatment in a deep eutectic solvent Ethaline. *Surface and Coatings Technology*. – 2022. – Vol. 429. 127936.
40. Pavlík V., Boča M., **Kityk A.** Accelerated corrosion testing in molten fluoride salts: Effect of additives and the crucible material. *Corrosion Science*. – 2022. – Vol. 195. 110011.
41. **Kityk A.**, Švec P., Šoltys J., Pavlik V., Hnatko M. Deep inside of the mechanism of electrochemical surface etching of  $\alpha + \beta$  Ti6Al4V alloy in room-temperature deep eutectic solvent Ethaline. *Journal of Molecular Liquids*. – 2023. – Vol. 375. 121316.
42. **Kityk A.**, Pavlik V., Hnatko M. Exploring deep eutectic solvents for the electrochemical and chemical synthesis of photo- and electrocatalysts for hydrogen evolution. *International Journal of Hydrogen Energy* (IF=7.2) 48, 100 (2023) 39823-39853. <https://doi.org/10.1016/j.ijhydene.2023.07.158>.
43. **Kityk A.**, Pavlik V., Hnatko M. Green electropolishing using choline chloride-based deep eutectic solvents: A review. *Journal of Molecular Liquids* (IF=6) 392 (2023) 123519. <https://doi.org/10.1016/j.molliq.2023.123519>.
44. **Kityk A.**, Hnatko M., Pavlik V., Balog M., Šoltys J., Labudova M. Advancing Biomedical Substrate Engineering: An Eco-Friendly Route for Synthesizing Micro- and Nanotextures on 3d Printed Ti-6Al-4V. Available at SSRN: <https://ssrn.com/abstract=4525360> or <http://dx.doi.org/10.2139/ssrn.4525360>.

### Conference materials

1. **Kityk A.A.**, Shaiderov D.A., Bobrova L.S., Pugach V., Protsenko V.S. Electrodeposition of chromium and nickel from low-temperature organic melts // *Modern problems of electrochemistry: education, science, production: a collection of scientific works*. – Kharkiv: NTU "KhPI", 2015. – P. 105.
2. **Kityk A.A.**, Tsurcan A.V., Vasilieva O.O. Photocatalytic properties of Fe-TiO<sub>2</sub> composite coatings // *XIII Ukr. Confer. young scientists and students with actual issues of modern chemistry with international participation: Theses of Papers*. (Dnipro, May 19-21, 2015). – Dnipro, 2015. – P. 42.
3. **Kityk A.A.**, Tsurcan A.V., Vasilieva O.O., Protsenko V.S. Electrodeposition of functional composite coatings on the basis of iron // *Chemistry and modern technologies: theses of papers. VII International scientific and technical confer. for students, graduate students and young scientists* (Dnipro, April 27-29, 2015). – Dnipro, 2015. – P. 60.

4. **Kityk A.A.**, Vasileva O.O. Electrodeposition of chromium from solutions of ionic liquids containing Cr(III) // Chemistry and advanced technologies: abstracts of papers. *VII International scientific and technical confer. for students, graduate students and young scientists* (Dnipro, April 27-29, 2015). – Dnipro, 2015. – P. 61.
5. **Kityk A.A.**, Protsenko V.S., Shaiderov D.A., Danilov F.I. Effect of water addition on some physicochemical properties of deep eutectic solvents containing NiCl<sub>2</sub>·6H<sub>2</sub>O, ethyleneglycol and cholinechloride // *Modern Problems of Inorganic Substances and Resource Conservation: Abstracts of Papers. VII International scientific and practical. conf.* (Dnipro, September 30 - October 2, 2015). – Dnipro, 2015. – P. 42.
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