

Nikola Cvjetićanin

Bože Jankovica 5

11000 Beograd
phone: +381 (11) 3977648
mobile: +381 (63) 1047879
e- mail: nikola.cvj@ffh.bg.ac.rs

EXPERIENCE

2017	Member of the Council of Scientific Fields of Natural Sciences of University of Belgrade
2014 to date	Full Professor Faculty of Physical Chemistry, University of Belgrade Subjects: Chemical Thermodynamics, Basic science of Materials, X-ray Powder Diffraction
2013 to date	Chief of the Department for Electrochemistry, Chemical kinetics and Materials
2009-2014	Associate professor, Faculty of Physical Chemistry, University of Belgrade
2002-2009	Assistant professor, Faculty of Physical Chemistry, University of Belgrade
1984-2002	Teaching assistant

EDUCATION

2001	Physical chemistry, PhD degree, Faculty of Physical Chemistry, University of Belgrade
1992	Physical chemistry, MSc degree, Faculty of Physical Chemistry, University of Belgrade
1983	Physical chemistry, BSc degree, Department of chemical and physicochemical sciences, University of Belgrade

LANGUAGES Serbian, English

Affiliations Society of Physical Chemists of Serbia
Electrochemical Society

PARTICIPATION IN NATIONAL PROJECTS

Participated in international projects since 1984. Latest three projects:

1. 2000-2005 project of the Ministry of science and Environment of the Republic of Serbia no. 1399 : **STRUCTURAL, THERMODYNAMIC AND ELECTROCHEMICAL PROPERTIES OF CONTEMPORARY MATERIALS FOR ENERGY CONVERSION AND ELECTRONIC COMPONENTS**
2. 2006-2010 project of the Ministry of science and Environment of the Republic of Serbia no. 142047: **THE STRUCTURE, THERMODYNAMIC AND ELECTROCHEMICAL**

PROPERTIES OF CONTEMPORARY MATERIALS FOR ENERGY CONVERSION AND NEW TECHNOLOGIES

3. 2010- Project no. III45014 **LITHIUM –ION BATTERIES AND FUEL CELL: RESEARCH AND DEVELOPMENT**, financed by Serbian Ministry of Education, Science and Technological Development

PARTICIPATION IN INTERNATIONAL PROJECTS

2006-2008 **AGREEMENT ON RESEARCH ON THE ELECTRODE MATERIALS FOR LITHIUM POLYMER BATTERIES**, Varta Microbattery GmbH / University of Belgrade – Faculty of Physical Chemistry

PARTICIPATION IN BILATERAL PROJECTS

1. Bilateral project with the Republic of Slovenia, no. 651-03-1251/2012-09/05, 2012-2013, „**Високо-енергијски ортосиликатни материјали за литијум јонске акумулаторе**“
2. Bilateral project with the Republic of Portugal (IST-ID), 2013-2014: „**Transition metal oxide-based electrode materials for lithium-ion batteries**“)

REVIEWER OF JOURNAL PAPERS

1. **Ceramics International**
2. **Electrochimica Acta**
3. **Journal of Alloys and Compounds**
4. **Physical Chemistry Chemical Physics**
5. **Materials Research Bulletin**

MENTOR OF STUDENTS WHO HAVE DEFENDED PhD THESIS

Mentor of 12 PhD thesis, defended on the Faculty of Physical Chemistry

THE TEN MOST IMPORTANT REFERENCES

1. D. Jugović, M. Mitrić, M. Milović, N. Cvjetičanin, B. Jokić, A. Umićević, D. Uskoković, “The influence of fluorine doping on structural and electrical properties of the LiFePO_4 powder”, *Ceramics International* 43(3) (2017) 3224-3230
2. Milošević Sanja, Stojković Ivana, Mitrić Miodrag, Cvjetičanin Nikola, “High performance of solvothermally prepared $\text{VO}_2(\text{B})$ as an anode for aqueous rechargeable lithium batteries”, *Journal of Serbian Chemical Society*, 80 (2015) 685-94
3. Vujković, M., Stojković, I., Mitrić, M., Mentus, S., Cvjetičanin, N., “Hydrothermal synthesis of $\text{Li}_4\text{Ti}_5\text{O}_{12}/\text{C}$ nanostructured composites: Morphology and electrochemical performance”, *Materials Research Bulletin*, 48 (2), (2013) 218-223.
4. Jugović, D., Mitrić, M., Kuzmanović, M., Cvjetičanin, N., Škapin, S., Cekić, B., Ivanovski, V., Uskoković, D., “Preparation of LiFePO_4/C composites by co-precipitation in molten stearic acid”, *Journal of Power Sources*, 196 (10) (2011) 4613-4618.
5. Stojković, I.B., Cvjetičanin, N.D., Mentus, S.V., “The improvement of the Li-ion insertion behaviour of $\text{Li}_{1.05}\text{Cr}_{0.10}\text{Mn}_{1.85}\text{O}_4$ in an aqueous medium upon addition of vinylene carbonate”, *Electrochemistry Communications*, 12 (3) (2010) 371-373.
6. Stojković, I., Cvjetičanin, N., Pašti, I., Mitrić, M., Mentus, S., “Electrochemical behaviour of V_2O_5 xerogel in aqueous LiNO_3 solution”, *Electrochemistry Communications*, 11 (7) (2009) 1512-1514.

7. Dragana Jugović, Miodrag Mitrić, Nikola Cvjetičanin, Boštjan Jančar, Slavko Mentus, Dragan Uskoković, "Synthesis and characterization of LiFePO₄/C composite obtained by sonochemical method", *Solid State Ionics* 179 (2008) 847-415-419
8. Nikola Cvjetičanin, Ivana Stojković, Miodrag Mitrić, Slavko Mentus, "Cyclic voltammetry of LiCr_{0.15}Mn_{1.85}O₄ in an aqueous LiNO₃ solution", *Journal of Power Sources* 174(2) (2007) 1117-1120
9. D. Jugović, N. Cvjetičanin, V. Kusigerski, M. Mitrić, M. Miljković, D. Makovec, and D. Uskoković, "Structural and magnetic characterization of Li_{1.825}Cr_{0.175}O₄ spinel obtained by ultrasonic spray pyrolysis", *Materials Research Bulletin*, 42(3) (2007) 515-522
10. Stojković, A. Hosseinmardi, D. Jugović, M. Mitrić, N. Cvjetičanin, "Rapid synthesis of LiCr_{0.15}Mn_{1.85}O₄ by glycine-nitrate method", *Solid State Ionics* 177(9-10) (2006) 847-850

LIST OF SCIENTIFIC RESULTS IN THE PREVIOUS 5 YEARS (Start with the most recent and proceed to the oldest)

Journal papers

1. D. Jugović, M. Mitrić, M. Milović, N. Cvjetičanin, B. Jokić, A. Umičević, D. Uskoković, "The influence of fluorine doping on structural and electrical properties of the LiFePO₄ powder", *Ceramics International* 43(3) (2017) 3224-3230
2. V. N. Nikolić, M. Tadić, M. Panjan, L. Kopanja, N. Cvjetičanin, V. Spasojević, "Influence of annealing treatment on magnetic properties of Fe₂O₃/SiO₂ and formation of ϵ -Fe₂O₃ phase", *Ceramics International* 43(3) (2017) 3147-3155
3. Barudžija Tanja, Kusigerski Vladan, Cvjetičanin Nikola, Šorgić Saša, Perović Marija, Mitrić Miodrag, "Structural and magnetic properties of hydrothermally synthesized β -MnO₂ and α -K_xMnO₂ nanorods", *Journal of Alloys and Compounds* 665(2016) 261-70
4. Milošević Sanja, Stojković Ivana, Mitrić Miodrag, Cvjetičanin Nikola, "High performance of solvothermally prepared VO₂(B) as an anode for aqueous rechargeable lithium batteries", *Journal of Serbian Chemical Society*, 80 (2015) 685-94
5. Vujković, M., Stojković, I., Mitrić, M., Mentus, S., Cvjetičanin, N., "Hydrothermal synthesis of Li₄Ti₅O₁₂/C nanostructured composites: Morphology and electrochemical performance", *Materials Research Bulletin*, 48 (2), (2013) 218-223
6. Milošević, S., Rašković-Lovre, Ž., Kurko, S., Vujasin, R., Cvjetičanin, N., Matović, L., Grbović Novaković, J., "Influence of VO₂ nanostructured ceramics on hydrogen desorption properties from magnesium hydride", *Ceramics International*, 39 (1) (2013) 51-56
7. Vujković, M., Jugović, D., Mitrić, M., Stojković, I., Cvjetičanin, N., Mentus, S., "The LiFe_{1-x}V_xPO₄/C composite synthesized by gel-combustion method, with improved rate capability and cycle life in aerated aqueous solutions", *Electrochimica Acta*, 109 (2013) 835-842.
8. Vujković, M., Stojković, I., Cvjetičanin, N., Mentus, S., "Gel-combustion synthesis of LiFePO₄/C composite with improved capacity retention in aerated aqueous electrolyte solution", *Electrochimica Acta*, 92, (2013) 248-256
9. Milović, M., Jugović, D., Cvjetičanin, N., Uskoković, D., Milošević, A.S., Popović, Z.S., Vukajlović, F.R., "Crystal structure analysis and first principle investigation of F doping in LiFePO₄", *Journal of Power Sources*, 241, (2013) pp. 70-79.
10. Jović, N., Cvjetičanin, N., Babić-Stojić, B., Makovec, D., Jokanović, V., "Synthesis of hematite and iron oxyhydroxide nanocrystals by precipitation of Fe³⁺ ions inside oleic acid micelles", *Ceramics International*, 39(5) (2013) 5659-5665.
11. Milošević, S., Stojković, I., Kurko, S., Novaković, J.G., Cvjetičanin, N., "The simple one-step solvothermal synthesis of nanostructured VO₂(B)", *Ceramics International*, 38 (3), (2012) 2313-2317.
12. Jugović, D., Mitrić, M., Kuzmanović, M., Cvjetičanin, N., Marković, S., Škapin, S., Uskoković, D., "Rapid crystallization of LiFePO₄ particles by facile emulsion-mediated solvothermal synthesis", *Powder Technology*, 219 (2012) 128-134.

Conference papers

1. Nikola Cvjetičanin, Milan Bratić, Dragana Jugović, Miodrag Mitrić
Surface Contribution to Lithium Storage in Anatase TiO₂ Nanotube Arrays, Smart and Green Interface Conference, Athens, Greece COST 2016
2. Dragana Jugović, Miodrag Mitrić, Miloš Milović, Nikola Cvjetičanin, Bojan Jokić, Ana Umičević, Dragan Uskoković, The influence of fluorine doping on the structural and the electrical properties of LiFePO₄ powder, Eighteenth Annual Conference YUCOMAT 2016, Program and the Book of Abstracts, p.35, Herceg Novi, Montenegro, 2016. oral
3. Dragana Jugović, Miloš Milović, Miodrag Mitrić, Nikola Cvjetičanin, Max Avdeev, Bojan Jokić, Dragan Uskoković, Fluorine doping of layered Na_xCoO₂ structure, Seventeenth Annual Conference YUCOMAT 2015, Program and the Book of Abstracts, p.12, Herceg Novi, Montenegro, 2015. Oral
4. M. Kuzmanović, D. Jugović, M. Mitrić, B. Jokić, N. Cvjetičanin, D. Uskoković, Synthesis of LiFePO₄/C composites from cellulose gel, Sixteen Annual Conference YUCOMAT 2014, Program and the Book of Abstracts, p.66, Herceg Novi, Montenegro, 2014. Poster
5. M. Milović, D. Jugović, M. Mitrić, N. Cvjetičanin, A. Mraković, M. Senna, D. Uskoković, Synthesis of LiFePO₄ by mechanical stressing and thermal annealing, Sixteen Annual Conference YUCOMAT 2014, Program and the Book of Abstracts, p.62, Herceg Novi, Montenegro, 2014. Poster
6. M. Vujković, D. Jugović, M. Mitrić, I. Stojković Simatović, N. Cvjetičanin, S. Mentus, The incorporation of vanadium into olivine LiFePO₄/C: improvement of lithium intercalation from both organic and aqueous electrolyte, Fifteenth Annual Conference YUCOMAT 2013, Program and the Book of Abstracts, p.101, Herceg Novi, Montenegro, 2013.
7. M. Kuzmanović, D. Jugović, M. Mitrić, B. Jokić, N. Cvjetičanin, D. Uskoković, Carbon coated LiFePO₄ cathode material obtained by freeze-drying method, Fifteenth Annual Conference YUCOMAT 2013, Program and the Book of Abstracts, p.76, Herceg Novi, Montenegro, 2013.
8. M. Milović, F.R. Vukajlović, D. Jugović, M. Mitrić, B. Jokić, N. Cvjetičanin, A.S. Milošević, Z.S. Popović, D. Uskoković, SYNTHESIS OF F-DOPED LiFePO₄ VIA PRECIPITATION METHOD, Fifteenth Annual Conference YUCOMAT 2013, Program and the Book of Abstracts, p.75, Herceg Novi, Montenegro, 2013.

Patents

Ivana Stojković, Igor Pašti, Nikola Cvjetičanin, Slavko Mentus, **Litijum-jonska baterija tipa LiMn₂O₄ / H₂O, LiNO₃ / V₂O₅ sa vodenim elektrolitičkim rastvorom**, broj prijave P-2008/0486

(Lithium-ion battery of the type LiMn₂O₄/H₂O, LiNO₃/V₂O₅ with aqueous electrolyte solution)

2. Ivana Stojković, Nikola Cvjetičanin, Slavko Mentus, **Vodena litijum-jonska baterija tipa Li_{1.05}Cr_{0.10}Mn_{1.85}O₄ / LiNO₃ / V₂O₅ sa dodatkom aditiva vinilen karbonata (VC)**, broj prijave P-2009/0274

(Aqueous lithium-ions battery of the type Li_{1.05}Cr_{0.10}Mn_{1.85}O₄/ LiNO₃/V₂O₅ with addition of additive vinylene carbonate (VC))

3 Ivana Stojković, Nikola Cvjetičanin, Slavko Mentus, **Litijum-jonska baterija LiMn₂O₄/H₂O, LiNO₃/Li_{1.2}V₃O₈ sa vodenim elektrolitičkim rastvorom**, broj prijave P-2011/0105

(Lithium-ion battery of the type LiMn₂O₄/H₂O, LiNO₃/V₂O₅ with aqueous electrolyte solution)

У последњих пет година:

4. Milica Vujković, Ivana Stojković-Simatović, Nikola Cvjetičanin, Slavko Mentus, **Kompozit LiFe_{0.95}V_{0.05}PO₄/C kao elektrodni materijal za sekundarne litijum- jonske baterije sa vodenim elektrolitičkim rastvorom**, broj prijave P-2012/0243

(LiFe_{0.95}V_{0.05}PO₄/C composite as electrode material for secundar rechargeable Li-ions batteries with aqueous electrolytic solutions)