

CURRICULUM VITAE

Mladen Zdravkovic

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INTERESTS

Electrochemistry:

- Electrochemical synthesis of iron compounds, special interest in ferrate(VI) (FeO_4^{2-})
- Electrodeposition of alloys
- Development of batteries

Environmental engineering:

- Water treatment, removal of pollutants with ferrate(VI)
- Development of strong and environmentally friendly oxidizing and reducing agents
- Development of silver based agents for disinfection

WORKPLACE

IHIS SCIENCE & TECHNOLOGY PARK ZEMUN

Belgrade, Serbia

Address: Batajnicki put 23

Phone: +381 11 6195 700 (Main Office)

<http://www.ihis.co.rs/>

Position: **Research Associate, Head of Laboratory for Electrochemistry**

IHIS MAGNETS 2015 d.o.o.

Belgrade, Serbia

Address: Batajnicki put 23

Phone: +381 11 3070609 (Main Office)

<http://www.magneti-feriti.co.rs>

E-mail: vladan@magneti-feriti.co.rs, dobrila@magneti-feriti.co.rs

Position: **External Associate**

EDUCATION

UNIVERSITY OF NIS FACULTY OF OCCUPATIONAL SAFETY

Nis, Serbia
Address: Carnojevica 10a
<http://www.znrfak.ni.ac.rs/>

Department: Environmental Engineering
Graduation date: March 15, 2011.
Academic qualification: **M.Sc. in Environmental Engineering**
Thesis: *Exposure of People on UV radiation and UV index calculation*

SECONDARY VOCATIONAL SCHOOL OF MECHANICAL AND ELECTRICAL ENGINEERING IN BOR

Bor, Serbia
Address: Zeleni Bulevar 34

Department: Production and Distribution of Electrical Energy
Graduation date: June 22, 2004.
Acquired calcification: **Electrical Technician for Power Industry**
Thesis: *Calculation for a 10/0.4 kV transformer sub-station*

PARTICIPATION IN SCIENTIFIC AND INNOVATION PROJECTS

Project number: TR 34025

Project name: *Development of Environmentally Friendly Methods for Treatment of Harmful Substances using Ferrate(VI) and Electrochemical Oxidation or Reduction*

Project manager: PhD Milan Cekerevac, IHIS Science & Technology Park Zemun

Project activity: Jan. 2011 -

Project is financed by Ministry of Education, Science and Technological Development of Republic of Serbia

Project number: III 46010

Project name: *The Development of New Encapsulation and Enzyme Technologies for The Production of Biocatalysts and Biologically Active Food Components in Order to Increase Its Competitiveness, Quality and Safety*

Project manager: PhD Branko Bugarski, University of Belgrade, Faculty of Technology and Metallurgy

Project activity: Jan. 2011 -

Project is financed by Ministry of Education, Science and Technological Development of Republic of Serbia

Project type: Innovation project

Project name: *Development of a Method and Apparatus for Removing Arsenic and Organic Matter from The Raw Water Drinking Using Ferrate(VI)*

Project manager: PhD Ljiljana Nikolic-Bujanovic, IHIS Science & Technology Park Zemun

Project activity: June 2014 - June 2015

Project is financed by Foundation for Innovation of Republic of Serbia and IHIS Science & Technology Park Zemun

Project type: Innovation project

Project name: *The New Environmentally Sustainable Technologies for Biogas Production from Agro-waste*

Project manager: PhD Mirko Komatina, University of Belgrade, Faculty of Mechanical Engineering

Project activity: June 2014 - June 2015

Project is financed by Foundation for Innovation of Republic of Serbia

PUBLICATIONS

[1] Lj. N. Nikolić-Bujanovic, M. Čekerevac, M. M. Tomić, M. Z. Zdravković, Ibuprofen Removal from Aqueous Solution by In Situ Electrochemically-generated Ferrate(VI): Proof-of-Principle, *Water Science and Technology*, DOI: 10.2166/wst.2015, ISSN 0273-1223

[2] Lj. N. Nikolić-Bujanovic, M. Čekerevac, M. M. Tomić, M. Z. Zdravković, Possible applications of ferrate(VI) in the treatment of industrial wastewater effluent in the laboratory, *Hemijska industrija*, DOI: 10.2298/HEMIND131001017N

[3] Lj. N. Nikolić-Bujanovic, M. Čekerevac, M. M. Tomić, M. Z. Zdravković, M. Simičić, Applying the BDD electrode in the process of removing pharmaceuticals by electrochemical oxidation, *Acta Tehnica Corviniensis – Bulletin of Engineering*, Tome VIII, Fascicule 2, ISSN: 2067 – 3809

[3] Ljiljana Nikolić Bujanović, Milan Čekerevac, Milena Tomić, Mladen Zdravković, M. Stamenkovic Djokovic , Pilot plant for treatment of raw drinking water with high content of arsenic using ferrate(VI), *V International Conference Industrial Engineering And Environmental Protection 2015 (IIZS 2015)* ,p.322-327, October 15th, 2015, Zrenjanin, Serbia

[4] Milan Čekerevac, Ljiljana Nikolic - Bujanovic, Ljiljana Karanovic, Aleksandar Matkovic, Mladen Zdravkovic, Bojana Laban, Milena Tomic, Encapsulation of the micro-sized barium ferrate(VI) crystallites in the paraffin wax, *47'th International October Conference on Mining and Metallurgy*, Conference proceedings, p. 175-178, October 04-06, 2015, Bor, Serbia

[5] Ljiljana Nikolic-Bujanovic, Milan Čekerevac, Milena Tomic, Mladen Zdravkovic, Cyclic voltammetric study of transpassive dissolution of iron and its alloys in alkaline solution, *47'th International October Conference on Mining and Metallurgy*, Conference proceedings, p. 178-184, October 04-06, 2015, Bor, Serbia

[6] M. Čekerevac, Lj. Nikolić-Bujanović, M. Tomić, M. Zdravković, N. Popovic, The Sucrose oxidation on boron-doped diamond in the brine water – Cyclic voltammetry, *ECOLOGICAL TRUTH, ECO-IST'15*, p. 253-259, June 17-20, 2015, Kopaonik, Serbia

- [5] M. Čekerevac, Lj. Nikolić-Bujanović, M. Zdravković, M. Tomić, M. Stamenkovic Djokovic, M. Simicic, The Sucrose oxidation on boron-doped diamond in the brine water – Potentiostatic electrolysis, *ECOLOGICAL TRUTH, ECO-IST'15*, p. 260-266, June 17-20, 2015, Kopaonik, Serbia
- [6] Lj. Nikolić-Bujanović, M. Čekerevac, M. Tomić, M. Zdravković, V. Jeftić, M. Stamenković-Đoković, Possibility of arsenic removal by Ferrate(VI) in the treatment of raw drinking water, *ECOLOGICAL TRUTH, ECO-IST'15*, p. 590-596, June 17-20, 2015, Kopaonik, Serbia
- [7] Lj. Nikolić-Bujanović, M. Čekerevac, M. Tomić, M. Zdravković, M. Stamenković-Đoković, Possibility of Removal of Ibuprofen from Aqueous Systems by Ferrate(VI), *ECOLOGICAL TRUTH, ECO-IST'14*, p. 86-92, June 10-13, 2014, Bor, Serbia
- [8] M. Čekerevac, Lj. Nikolić-Bujanović, M. Tomić, M. Zdravković, Electrochemical Generation of Ferrate(VI) on Diamond Electrode in Perchloric Acid Solution, *ECOLOGICAL TRUTH, ECO-IST'14*, p. 86-92, June 10-13, 2014, Bor, Serbia
- [9] Ljiljana Nikolić Bujanović, Milan Čekerevac, Milena Tomić, Mladen Zdravković, Miloš Simičić, Applying the BDD electrode in the process of removing pharmaceuticals by electrochemical oxidation, *IV International Conference Industrial Engineering And Environmental Protection 2014 (IIZS 2014)*, p.322-327, October 15th, 2014, Zrenjanin, Serbia
- [10] Milan I. Čekerevac, Ljiljana N. Nikolić – Bujanović, Mladen Z. Zdravković, Milena M. Tomić, Sanja Bugarinović, Miloš V. Simičić, Arsenic Remediation in industrial wastewaters using ferrate(VI) and ferrous ions, *46'th International October Conference on Mining and Metallurgy*, Conference proceedings, p. 224-228, October 01-04, 2014, Bor, Serbia
- [11] M. Čekerevac, Lj. Nikolić-Bujanović, M. Zdravković, M. Tomić, A. Radenković, Oxidation of copper sulphide and chalcopyrite with ferrate(VI), *45'h International October Conference on Mining and Metallurgy*, Conference proceedings, p. 365-368, October 16-19, 2013, Bor, Serbia

Technological Solutions and Improvements

- [12] Lj. Nikolić-Bujanović, M. Čekerevac, , M. Zdravkovic, M. Tomić, *Laboratorijski pilot uređaj i postupak za uklanjanje arsena i organskih materija iz sirove vode za piće primenom ferata(VI)*, Participant CST d.o.o.
- [13] M. Čekerevac, Lj. Nikolić-Bujanović, M. Zdravkovic, M. Tomić, *Hidrometalurški postupak izdvajanja bakra iz bakarsulfidnih ruda uz primenu ferata(VI)*, Participant IHIS Materijali d.o.o.
- [14] M. Čekerevac, S. Bugarinović, M. Zdravković, Lj. Nikolić -Bujanović, V. Gardić, *Postupak uklanjanja jona teških metala iz otpadnih voda elektrolitičke rafinacije bakra primenom ferata(VI)*, Participant IHIS Materijali d.o.o.