

Curriculum Vitae

PERSONAL DETAILS

Name Vladimir Nikolić

Academic title Research professor

Institution Institute of General and Physical Chemistry

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Date and place of birth 20/01/1979., Požega, Serbia

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EDUCATION

- BSc in physical chemistry 2005., Faculty of Physical Chemistry, University of Belgrade.
- PhD in physical chemistry 2013., Faculty of Physical Chemistry, University of Belgrade.
- "FP7 & H2020 Master of Finance and Administration training", Europamedia.
- Certified account and finance manager.
- Certified internal auditor for laboratory testing, according to SRPS ISO/IEC 17025:2017.

PROFFESIONAL EXPERIENCE

- Institute of General and Physical Chemistry from October 2005. - January 2008., research assistant
- Vinca Institute of Nuclear Sciences from January 2008. – until March 2019., senior research assistant
 - Deputy Director of the Department for Physical Chemistry of the Vinca Institute of Nuclear Sciences (2013-2017).

- Deputy Director of the Vinca Institute of Nuclear Sciences – largest scientific institution in Balkan region comprised of 500 permanently employed researchers from multidisciplinary environment (2017 – 2019).
- Organizer of the joint CBRN postgraduate studies module at the Vinca Institute and Tor Vergata University, Rome, Italy (2016 - 2019).
- Member of the Scientific Council of the Vinca Institute (2013-2019).
- Institute of General and Physical Chemistry from March 2019. - until present, research professor

SELECTED LIST OF PROJECTS

- "Hydrogen Energy - Research and Development of New Materials: Electrolytic Hydrogen Production, Hydrogen Fuel Cells, Isotope Effects ", Ministry of education, science and technology, Republic of Serbia, Grant no. OI 172045, 2011-2018., participant
- "Lithium-ion batteries and fuel cells", Ministry of education, science and technology, Republic of Serbia, Grant no. III45014, 2011-2014., participant.
- "Hydrogen energy: Hydrogen production- Fuel cells- Isotope effects", Ministry of Science of the Republic of Serbia, Grant no. 142067, 2006-2010., participant.
- FP7 Collaboration program, JTI FCH-JU, "Efficient Use of Resources in Energy Converting Applications", European Commission, Grant no. 303024, 2012-2015., WP leader
- UNIDO, "Site investigation services related to full-sized project to implement an environmentally sound management and final disposal of PCBs in the Republic of Serbia 2018-2019, Project No. 100313., deputy project manager.
- COST Action, "Electrochemical processing methodologies and corrosion protection for device and systems miniaturization (e-MINDS)", MP1407, 2016-2019., participant.
- Removing of PAH and other organic pollutants from concrete used for construction in residential and commercial buildings hit by chemical incident at more than 30.000 sqm, Building Directorate of Serbia, "Development of methodology of decontamination and organization on decontamination work", 2013.-2017.– deputy project manager

- Analyzing Low Carbon Pathways towards an Ambitious Decarbonized Energy Sector by 2050, RER2020003 / RER2018, IAEA, 2022-2023., national coordinator.

Language: English

Research field and area: Hydrogen Energy - Electrolytic production, Fuel cells, Environmental Protection, CBRN detection and decontamination

10 MOST RELEVANT PUBLICATIONS

1. Milica P. Marceta Kaninski and **Vladimir M. Nikolic** (2019)., Advances in Alkaline Water Electrolyzer Catalysis, Metals and Metal-Based Electrocatalytic Materials for Alternative Energy Sources and Electronics, Ed.: Jasmina Stevanović, Nova Science Publishers Inc. New York, USA, pp.199-241, ISBN 9781536146639.
2. Milica P Marčeta Kaninski, Zoran V Šaponjić, Mihajlo D Mudrinić, Dubravka S Milovanović, Boris M Rajčić, Aleksandra M Radulović, **Vladimir M Nikolić**, Comparison of Pt and Pd anode catalysts supported on nanocrystalline Ru–SnO₂ for ethanol oxidation in fuel cell applications, International Journal of Hydrogen Energy 77 (2021) 38270-38280.
3. Snežana M. Brković, **Vladimir M. Nikolić**, Milica P. Marčeta Kaninski, Igor A. Pašti, Pt/C catalyst impregnated with tungsten-oxide – Hydrogen oxidation reaction vs. CO tolerance, International Journal of Hydrogen Energy 44 (2019) 13364-13372.
4. **Vladimir M. Nikolic**, Ivana M. Perovic, Nemanja M. Gavrilov, Igor A. Pašti, Milica P. Marceta Kaninski, On the tungsten carbide synthesis for PEM fuel cell application – Problems, challenges and advantages, International Journal of Hydrogen Energy 39 (2014) 11175-11185.
5. **Vladimir M. Nikolic**, Dragana L. Zugic, Ivana M. Perovic, Aleksandra B. Saponjic, Milica P. Marceta Kaninski, Investigation of tungsten carbide supported Pd or Pt as anode catalysts for PEM fuel cells, International Journal of Hydrogen Energy 38 (2013) 11340-11345.
6. **Vladimir M. Nikolic**, Sladjana Lj. Maslovara, Gvozden S. Tasic, Tanja P. Brdaric, Petar Z. Lausevic, Bojan B. Radak, Milica P. Marceta Kaninski, Kinetics of hydrogen evolution reaction in alkaline electrolysis on a Ni cathode in the presence of Ni–Co–Mo based ionic activators, Applied Catalysis B: Environmental (2015), 179, 88-94.

7. **Vladimir M. Nikolić**, Slavko D. Karić, Željka M. Nikolić, Miloš S. Tošić, Gvozden S. Tasić, Dubravka M. Milovanovic, Milica P. Marčeta Kaninski, Novel photochemical advanced oxidation process for the removal of polycyclic aromatic hydrocarbons from polluted concrete, *Chemical Engineering Journal* (2017), 312, 99-105.
8. Sladjana Lj. Maslovara, Dragana Vasić Anićijević, Mirjana Lj. Kijevcanin, Ivona R. Radovic, **Vladimir M. Nikolic**, Petar Z. Lausevic, Milica P. Marceta Kaninski, Improved HER activity of Ni and stainless steel electrodes activated by NiCoMo ionic activator – A combined DFT and experimental study, *International Journal of Hydrogen Energy* (2017), 42(8), 5072-5082.
9. **Vladimir M. Nikolić**, Dragana L. Žugić, Aleksandar D. Maksić, Djordje P. Šaponjić, Milica P. Marčeta Kaninski, Performance comparison of modified poly(vinyl alcohol) based membranes in alkaline fuel cells, *International Journal of Hydrogen Energy* 36 (2011) 11004-11010.
10. **Vladimir M. Nikolic**, Aleksandra Krkljes, Zorica Kacarevic Popovic, Zoran V.Lausevic, Scepan S.Miljanic, On the use of gamma irradiation crosslinked PVA membranes in hydrogen fuel cells, *Electrochemistry Communications* 9 (2007) 2661-2665.