

## Dr Maja D. Kuzmanović

### Participant

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Institute of Technical Sciences of the Serbian Academy of Sciences and Arts

Knez Mihailova 35/IV, P.O.BOX 377 Belgrade

Contact person: Academician prof. dr Zoran Đurić, Director of the Institute

## BIOGRAPHY

### Personal information

Date and place of birth: 29/09/1977, Jajce, Bosnia & Herzegovina

Age: 43

Citizenship: Serbian

### Research field and area/areas

Materials for lithium batteries, chemical power sources, hydrothermal synthesis, materials structure and morphology, materials characterization

### Education

**Ph.D. in physical chemistry** (2008-2017) – Faculty of Physical Chemistry, University of Belgrade

Title of thesis: “*Morphological and electrochemical properties of LiFePO<sub>4</sub> powders synthesized in presence of different carboxylic acids*”

Corresponding fields: Physical chemistry of materials, Physical Chemistry-Electrochemistry

Ph.D. thesis supervisors: Prof. Dr Ivana Stojković Simatović Associate professor, Faculty of physical chemistry, University of Belgrade; Dr Dragana Jugović, Principal Research Fellow, Institute of Technical Sciences of the Serbian Academy of Sciences and Arts

Average grade: 8.43 (out of 10)

**MSc in physical chemistry** (2006–2007) – Faculty of physical chemistry, University of Belgrade

Title of thesis: “*Synthesis of the intercalate compound Sb<sub>2</sub>Co by the citrate process*”

Corresponding fields: Physical chemistry of materials, Physical Chemistry-Electrochemistry

Average grade: 9.00 (out of 10)

**BSc in physical chemistry** (1996-2004) – Faculty of Physical Chemistry, University of Belgrade

Title of thesis: “*Synthesis of cathode material LiZn<sub>x</sub>Mn<sub>2-x</sub>O<sub>4</sub> for lithium batteries via the glycine-nitrate method*”

Corresponding fields: Physical chemistry of materials, Physical Chemistry-Electrochemistry

Average grade: 7.81 (out of 10)

### Dates of appointments

Apr 2018-Present – Research associate

Apr 2009-Apr 2016 – Research assistant

Aug 2006-Apr 2009 – Research trainee

### Employment history

Oct 2008-Present – Institute of Technical Sciences of SASA, Belgrade, Serbia

Aug 2006-Mar 2008 – Faculty of Physical Chemistry, University of Belgrade

Dec 2005-Jun 2006 – Institute for Chemical Technology of Inorganic Materials, Graz University of Technology

### List of selected publications

1. M. Milović, D. Jugović, M. Vujković, **M. Kuzmanović**, A. Mraković, M. Mitrić, *Towards a green and cost-effective synthesis of polyanionic cathodes: comparative electrochemical behaviour of LiFePO<sub>4</sub>/C, Li<sub>2</sub>FeP<sub>2</sub>O<sub>7</sub>/C and Li<sub>2</sub>FeSiO<sub>4</sub>/C synthesized using methylcellulose matrix*. Bulletin of Materials Science 44 (2021) 144.  
[doi.org/10.1007/s12034-021-02397-3](https://doi.org/10.1007/s12034-021-02397-3)  
Impact factor and category: 1.392, M23 (2019)
2. M. J. Lukić, **M. Kuzmanović**, M. Sezen, F. Bakan, A. Egelja, L. Veselinović, *Inert atmosphere processing of hydroxyapatite in the presence of lithium iron phosphate*. Journal of the European Ceramic Society 38 (2018) 2120-2133.

[doi.org/10.1016/j.jeurceramsoc.2017.12.023](https://doi.org/10.1016/j.jeurceramsoc.2017.12.023)

Impact factor and category: 4.029, M21a (2018)

3. **M. Kuzmanović**, D. Jugović, M. Mitrić, B. Jokić, N. Cvjetičanin, D. Uskoković, *The use of various dicarboxylic acids as carbon source for the preparation of LiFePO<sub>4</sub>/C composite*, *Ceramics International*, 41 (2015) 6753-6758.  
[doi.org/10.1016/j.ceramint.2015.01.121](https://doi.org/10.1016/j.ceramint.2015.01.121)  
Impact factor and category: 2.605, M21 (2014)
4. D. Jugović, M. Mitrić, **M. Kuzmanović**, N. Cvjetičanin, S. Škapin, B. Cekić, V. Ivanovski, D. Uskoković, *Preparation of LiFePO<sub>4</sub>/C composites by co-precipitation in molten stearic acid*, *Journal of Power Sources*, 196 (2011) 4613-4618.  
[doi.org/10.1016/j.jpowsour.2011.01.072](https://doi.org/10.1016/j.jpowsour.2011.01.072)  
Impact factor and category: 4.951, M21a (2011)
5. **M. Jović**, M. Dašić, K. Holl, D. Ilić, S. Mentus, *Gel-combustion synthesis of CoSb<sub>2</sub>O<sub>6</sub> and its reduction to powdery Sb<sub>2</sub>Co alloy*, *Journal of the Serbian Chemical Society*, 74 (2009) 53-60.  
[doi.org/10.2298/JSC0901053J](https://doi.org/10.2298/JSC0901053J)  
Impact factor and category: 0.820, M23 (2009)

### Citation number (excluding self-citations)

SCOPUS: 76

WoS: 69

### Hirsch index

SCOPUS: 4

WoS: 4

### Project history

2011-2019 – national project no. III45004 “Molecular designing of nanoparticles with controlled morphological and physicochemical characteristics and functional materials based on them”, The Ministry of Education, Science and Technological Development of the Republic of Serbia, **participant**

2008-2011- national project no. 142006 “Structure of functional materials with controlled structure at the molecular and nano level”, The Ministry of Science and Environmental Protection of the Republic of Serbia, **participant**

2006-2008 – Materials for Polymer Batteries, VARTA Microbattery GmbH, **participant**

### International scientific collaboration and mobility

International scientific collaboration with:

**Dr. Meltem Sezen** and **Dr. Feray Bakan**, Sabanci University, Nanotechnology Research and Application Center, Istanbul, Turkey.

**Dr Srečo Škapin**, Institute Jožef Stefan, Ljubljana, Slovenia

**Dr Dejan Ilić**, Varta Microbattery GmbH and Institute for Chemical Technology of Inorganic Materials, Graz University of Technology

Mobility:

Dec 2005 – Institute for Chemical Technology of Inorganic Materials, Graz University of Technology

### Skills and other facts relevant to the Project

Experienced in cathode materials synthesis, characterization and cell assembly, DSC, Thermo-gravimetry/Differential thermal analysis coupled with mass spectrometry, XRD, SEM, Particle size analysis, UV-Vis spectrometry, FTIR, Electrochemical analysis

**Approved patent in the battery field:** D. Uskoković, D. Jugović, **M. Kuzmanović**, *Procedure for obtaining lithium iron phosphate (LiFePO<sub>4</sub>) and carbon composite by precipitation method in the melt of stearic acid*, Patent No 54805, Glasnik intelektualne svojine broj 5/2016, str. 38. [http://www.zis.gov.rs/upload/documents/pdf\\_sr/pdf/glasnik/GIS\\_2016/GLASNIK-5-2016.pdf](http://www.zis.gov.rs/upload/documents/pdf_sr/pdf/glasnik/GIS_2016/GLASNIK-5-2016.pdf) Category: M82

### Link to the database of researcher

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