

# Jana Mišurović

**Date of birth:** June 2, 1992

**E-mail:** [janam@ucg.ac.me](mailto:janam@ucg.ac.me)

**Address:** Faculty of Metallurgy and Technology,  
University of Montenegro  
Cetinjski put bb,  
81000 Podgorica, Montenegro

**Room:** Technical Faculties Building, 6<sup>th</sup> floor, room 607.

## WORK EXPERIENCE

---

• **Since September 2022 – engaged for lectures on several courses under the supervision of full professors:**

- **Physicochemical processes in environmental protection** – undergraduate studies of Environmental protection
- **Chemical Kinetics and Catalysis, Energy storage and conversion** – master studies of Chemical Technology

• **Since September 2018 – University of Montenegro, Faculty of Metallurgy and Technology**

Position: **Teaching Assistant in the field of Physical Chemistry** (laboratory and computational exercises with students) for the subjects:

- **Chemical Thermodynamics, Physical Chemistry I, Physical Chemistry II, Electrochemistry, Mass and Heat transfer engineering** – undergraduate studies of Chemical Technology
- **Physical Chemistry with Electrochemistry** – undergraduate studies of Metallurgy and materials
- **Physicochemical processes in environmental protection** – undergraduate studies of Environmental protection
- **Physical Chemistry, Colloidal and surface chemistry** – Faculty of Medicine, undergraduate studies of Pharmacy
- **Chemical Kinetics and Catalysis, Energy storage and conversion, Protective coatings** – master studies of Chemical Technology
- **Alternative energy sources**, master studies of Environmental protection

• **15.01.2015. – 15.10.2015. University of Montenegro, Faculty of Metallurgy and Technology**

Internship within the program of professional training of persons with higher education, realized by the Government of Montenegro for the academic 2014/2015 year

Position: Lab technician at the Laboratory for Analytical Chemistry and Instrumental Methods

## EDUCATION AND TRAINING

---

**Ph.D. Physical Chemistry** (October 2016 – December 2021)

PhD studies of Physical Chemistry

Faculty of Physical Chemistry, University of Belgrade, Serbia

Ph.D. thesis: "Synthesis of polyaniline and other poly(arylamines) using Fe<sub>3</sub>O<sub>4</sub> nanoparticles as a catalyst"

**MSc Physical Chemistry** (October 2015 – September 2016)

Master studies of Physical Chemistry

Faculty of Physical Chemistry, University of Belgrade, Serbia

Master thesis: "Synthesis and characterization of nanofibrous polyaniline"

**Spec. Sci. Inorganic Chemical technology** (September 2014 – June 2015)

Postgraduate Specialist Studies of Inorganic Chemical technology

Faculty of Metallurgy and Technology, University of Montenegro, Montenegro

Specialist thesis: "The influence of the content of alkaline activator and binder on the properties of fly ash and red mud based geopolymers".

**BSc Chemical technology** (September 2011 – September 2014)

Undergraduate studies of Chemical Technology

Faculty of Metallurgy and Technology, University of Montenegro, Montenegro

## RESEARCH INTEREST

---

Physical Chemistry of materials, Material characterization, Electrochemistry, Electroconductive polymers, Biomass derived carbon materials, Energy storage and conversion systems.

## SCIENTIFIC PROJECTS

---

- **2021-2024 – SUPERCAR "Carbon-based Batteries and Supercapacitors"** G5836, funded by NATO Science for Peace and Security (SPS) Programme. Project between Slovenia, Serbia and Montenegro. (NPD Prof. Robert Dominko, National Institute for Chemistry, Ljubljana, Slovenia; PPD Milica Vujković, PhD, Faculty of Physical Chemistry, University of Belgrade, Belgrade, Serbia; Co-Director Prof. Veselinka Grudić, Faculty of Metallurgy and Technology, University of Montenegro, Podgorica, Montenegro), role: participant, young researcher
- **2020-2022 – BIOUGALJ "Green chemistry for sustainable energy: Biomass-derived carbon as electrode for energy storage"**, Ministry of Science of Montenegro, PI Prof. Veselinka Grudić, role: participant, young researcher
- **2020-2022 – "Preparation of the end-of-waste criteria for concluding the status of waste"** Ministry of Science of Montenegro, PI Prof. Mira Vukčević, role: participant, young researcher
- **2020-2023 – "Evaluation of red mud tailings in the region of South East Europe, RIS-RESTORE"**, European Institute of Innovation and Technology, PI Prof. Mira Vukčević, role: participant
- **2019-2023 – COST Action CA18224 – Green Chemical Engineering Network towards upscaling sustainable processes**
- **November-December 2019 – "Materials for energy storage"**, Ministry of Science of Montenegro, PI Prof. Veselinka Grudić, role: participant
- **2018-2019 – "Electroconductive and redox-active polymers and oligomers: synthesis, structure, properties and application"** Ministry of Education and Science, Republic of Serbia, PI Prof. Gordana Ćirić-Marjanović, role: participant, PhD student

## PERSONAL SKILLS AND COMPETENCES

---

**Languages:** English – C1, Spanish – B2, Italian – B2

**Digital skills:** OriginLab, ChemDraw, Microsoft Office, photo editing software, AutoCAD, MatLab.

### Instrumental techniques:

- Fourier-transform infrared spectroscopy (FTIR)
- UV-Vis-NIR spectroscopy
- Electrochemical methods: Cyclic Voltammetry, Chronopotentiometry, Galvanostatic Charge/Discharge
- X-ray Powder Diffractometry
- Atomic Absorption Spectroscopy (AAS)

### Honours and awards:

- **Award for the best doctoral dissertation in the field of materials** defended in the period between the two conferences of the Materials Research Society of Serbia – awarded at 23<sup>rd</sup> YUCOMAT conference, Aug 29 – Sept 2, 2022.
- **The best oral presentation award** at The 16<sup>th</sup> Young Researchers' Conference Materials Sciences and Engineering, December 6-8, 2017, Belgrade, Serbia.
- **Montenegrin Ministry of Education scholarship for the best students** in 2013/2014 academic year.

### Trainings and mobility:

- **Visiting researcher – Laboratory for Modern Battery Systems, National Institute of Chemistry, Ljubljana, Slovenia** (Head of Laboratory Prof. Robert Dominko). **June 30 - July 29, 2022** – training related to the development of hard carbon anodes for Na-ion batteries realized within NATO SPS project Carbon-based Batteries and Supercapacitors, G5836.
- **Teaching in English Workshop for University of Montenegro Lecturers, February – March, 2022** English language programs, supported by the Embassy of the United States of America.
- **ERASMUS + ICM teaching mobility – Keele University, United Kingdom** (School of Chemical and Physical Sciences, Lennard-Jones Building), **December 3-7, 2018**.
- **IUPAC Postgraduate Summer School on Green Chemistry, July 7-13, 2018**, Venice, Italy. (*L'Oreal stipend recipient*) The main topics: renewable and green energy, green materials, reaction media, chemistry beyond chlorine, new reaction

pathways, exploitation of renewable resources and green chemistry for cultural heritage restoration. The summer school received the endorsement of the European Year of Cultural Heritage 2018.

- **CONTACT Workshop – CERIC-CEI, June 26–27, 2017, Trieste, Italy. Training in advanced material characterization in Large Scale Research Infrastructures, CERIC Headquarters.** The programme of the workshop focused on both theoretical lectures on synchrotron, ion beam and magnetic resonance spectroscopy based techniques, and practical tutorials on synchrotron beamlines at the Italian CERIC facility, Elettra Sincrotrone Trieste.

#### Other activities:

- **Member of the organizational team and lecturer at the summer school** for students "Methods for physicochemical characterization of energy storage materials" - September 19-25<sup>th</sup>, 2022.
- **Invited lecture** "Comparison of charge storage ability of polyaniline and poly(p-aminodiphenylamine)", COIN2022, Belgrade, June 1-2, 2022, Serbian Academy of Sciences and Arts, Belgrade.
- **Technical Committee member** – COIN2022 Contemporary batteries and supercapacitors, International Symposium Belgrade, June 1-2, 2022, Serbian Academy of Sciences and Arts, Belgrade ([www.coin2022.org](http://www.coin2022.org)).
- Part of the team in charge of **preparing Montenegrin competitors for the International Chemistry Olympiad 2022** – responsible for the field of Physical Chemistry

## BIBLIOGRAPHY

---

### Publications

1. Aleksandra Gezović<sup>1</sup>, **Jana Mišurović<sup>1</sup>**, Branislav Milovanović, Mihajlo Etinski, Jugoslav Krstić, Veselinka Grudić, Robert Dominko, Slavko Mentus, Milica J. Vujković, High Al-ion storage of vine shoots-derived activated carbon: New concept for affordable and sustainable supercapacitors, Journal of Power Sources, 538 (2022) 231561.  
<https://doi.org/10.1016/j.jpowsour.2022.231561>
2. **Jana Mišurović**, Miloš Mojović, Budimir Marjanović, Predrag Vulić, Gordana Ćirić-Marjanović, Magnetite nanoparticles-catalysed synthesis of conductive poly(p-aminodiphenylamine), Synthetic Metals, 269 (2020) 116577.  
<https://doi.org/10.1016/j.synthmet.2020.116577>
3. **Jana Mišurović**, Miloš Mojović, Budimir Marjanović, Predrag Vulić, Gordana Ćirić-Marjanović, Magnetite nanoparticles-catalysed synthesis of conductive polyaniline, Synthetic Metals, 257 (2019) 116174.  
<https://doi.org/10.1016/j.synthmet.2019.116174>
4. **Jana Mišurović**, Gordana Ćirić-Marjanović, Synthesis and Structural Characterization of Nanofibrous Polyaniline, Technique-New Materials, 73 (4) (2018) 463-469.  
<http://dx.doi.org/10.5937/tehnika1804463M>

### Scientific announcements

1. **Jana Mišurović**, Gordana Ćirić-Marjanović, New directions of arylamines oxidation with H<sub>2</sub>O<sub>2</sub>: polymerization of aniline in the presence of para-aminodiphenylamine (*poster presentation*), YUCOMAT 2022 & XII WRTCS, August 29 - September 2, 2022 Herceg Novi, Montenegro, The Book of Abstracts, p. 107.
2. **Jana Mišurović**, Aleksandra Gezović, Jugoslav Krstić, Branislav Milovanović, Veselinka Grudić, Slavko Mentus, Milica Vujković, Comparative study of biomass-derived carbon interfacial processes in Aluminum-based and conventional acidic electrolyte (*poster presentation*), YUCOMAT 2022 & XII WRTCS, August 29 - September 2, 2022 Herceg Novi, Montenegro, The Book of Abstracts, p. 91.
3. **Jana Mišurović**, Gordana Ćirić-Marjanović, Comparison of charge storage ability of polyaniline and poly(p-aminodiphenylamine) (*invited lecture*), Contemporary batteries and supercapacitors, COIN2022 International Symposium Belgrade, June 1-2, 2022, Serbian Academy of Sciences and Arts, Belgrade, Serbia, The Book of Abstracts, p.12.
4. Aleksandra Gezović, **Jana Mišurović**, Jugoslav Krstić, Veselinka Grudić, Slavko Mentus, Milica Vujković, Al-ion charge storage ability of vine shoots-derived carbon (*poster presentation*), Contemporary batteries and supercapacitors, COIN2022 International Symposium Belgrade, June 1-2, 2022, Serbian Academy of Sciences and Arts, Belgrade, Serbia, The Book of Abstracts, p.35.
5. **Jana Mišurović**, Budimir Marjanović, Gordana Ćirić-Marjanović, Spectroscopic characterization and redox behaviour of electroconducting poly(p-ADPA) synthesized by simple and eco-friendly method using magnetite nanoparticles as a catalyst (*poster presentation*), YUCOMAT 2021, August 30 – September 3, 2021, Herceg Novi, Montenegro, The Book of Abstracts, p.95.

6. Veselinka Grudić, Aleksandra Gezović, **Jana Mišurović**, Jugoslav Krstić, Milica Vujković, Activated Carbon Derived from Vine Shoots as Electrode Material for High-Performance Supercapacitors (*poster presentation*), YUCOMAT 2021, August 30 – September 3, 2021, Herceg Novi, Montenegro, The Book of Abstracts, p.100.
7. **Jana Mišurović**, Gordana Ćirić-Marjanović, Danica Bajuk-Bogdanović, Investigation of Aniline and p-aminodiphenylamine Oxidation Products formed using Fe<sub>3</sub>O<sub>4</sub> NPs/H<sub>2</sub>O<sub>2</sub> system: Structure and Electrochemical Behaviour, 71<sup>st</sup> Annual Meeting of the International Society of Electrochemistry, 30 August - 4 September 2020, Belgrade, Serbia. (*poster presentation* in an online event due to the current circumstances regarding COVID-19)
8. **Jana Mišurović**, Gordana Ćirić-Marjanović, Novel, eco-friendly approach for the oxidative polymerization of aniline using Fe<sub>3</sub>O<sub>4</sub> nanoparticles/H<sub>2</sub>O<sub>2</sub> catalytic system (*oral presentation*), The 18<sup>th</sup> Young Researchers' Conference Materials Sciences and Engineering, December 4-6, 2019, Belgrade, Serbia, The Book of Abstracts, p.47.
9. **Jana Mišurović**, Gordana Ćirić-Marjanović, Nanofibrous polyaniline preparation by the oxidative polymerization of aniline with the oxidant in excess: Raman and FTIR spectroscopy study (*poster presentation*), Twentieth Annual Conference YUCOMAT 2018, September 3-7, 2018, Herceg Novi, Montenegro, The Book of Abstracts, p.115.
10. **Jana Mišurović**, Gordana Ćirić-Marjanović, Fe<sub>3</sub>O<sub>4</sub>-assisted oxidative polymerization of aniline (*poster presentation*), IUPAC Postgraduate Summer School on Green Chemistry, July 7-13, 2018, Venice, Italy, The Book of Abstracts, p.62.
11. **Jana Mišurović**, Gordana Ćirić Marjanović, Synthesis and characterization of nanofibrous polyaniline (*oral presentation*), The 16<sup>th</sup> Young Researchers' Conference Materials Sciences and Engineering, December 6-8, 2017, Belgrade, Serbia, The Book of Abstracts, p.46.
12. **Jana Mišurović**, The influence of operating parameters on the compressive strength of fly ash and red mud based geopolymers (*oral presentation*), Second International Student Environmental Conference – FISEC16, May 18-22, 2016, Belgrade, Serbia, The Book of Abstracts, p.32.