Olivera Marković

Research Associate

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Education

- **2014-2022.** University of Belgrade–Faculty of Chemistry, doctoral academic studies title: PhD in Chemistry
- **2013-2014.** University of Belgrade–Faculty of Chemistry, graduate academic studies title: MSc in Chemistry
- **2009-2013.** University of Belgrade–Faculty of Chemistry, basic academic studies title: BSc in Chemistry

Research Ranks

Since 2022. Research Associate / University of Belgrade – Institute of Chemistry, Technology and Metallurgy – National Institute of the Republic of Serbia, Department of Chemistry

2019–2022. Research Assistant / University of Belgrade – Institute of Chemistry, Technology and Metallurgy – National Institute of the Republic of Serbia, Department of Chemistry

2016-2019. Junior Research Assistant / University of Belgrade – Institute of Chemistry, Technology and Metallurgy – National Institute of the Republic of Serbia, Department of Chemistry

Memberships

2022- member of the Club of Young Chemists of Serbia

- 2015- member of the International Association of Physical Chemists IAPC
- 2014- member of the Serbian Chemical Society

Professional Experience

Since 2016. University of Belgrade – Institute of Chemistry, Technology and Metallurgy – National Institute of the Republic of Serbia, Department of Chemistry

Since 2017. University of Belgrade – Faculty of Chemistry, Department of Analytical chemistry, engaged as a part-time teaching assistant for the following subjects: Analytical chemistry 2 (302H1, 302B1, 302B2), Bioanalytical chemistry (341B1), Selected chapters of analytical chemistry (349A1, 349A2), Selected methods of instrumental analysis (351H1, 351H2), Analytical Methods in Drug Design and Development (356H2).

Awards and merits

2023: A charter of gratitude by "Positron" Students' Magazine (University of Belgrade – Faculty of Chemistry) for support and successful collaboration in the past decade

2015: Scholarship for PhD students (Ministry of Education, Science and Technological Development of the Republic of Serbia)

Research Interests

Analytical chemistry, Physico-chemical methods in drug discovery and development, ADMET, Ionic equilibrium, Graphene quantum dots

Language Skills

Serbian and English Language

Projects

2020-2022: Synthesis and application of new chemotherapeutics based on natural products and metal complexes, Serbian Academy of Science and Arts, project leader: Bogdan Šolaja

2015-2019: Rational Design and Synthesis of Bioactive and Coordination Compounds and Functional Materials Relevant for (bio)Nanotechnology, Ministry of Science and Technological Development of Serbia (Pr No 172035), project leader: Aleksandar Nikolić

Publications

1. Sladjana Dorontic, Aurelio Bonasera, Michelangelo Scopelliti, Marija Mojsin, Milena Stevanovic, **Olivera Marković**, Svetlana Jovanović, Blue luminescent amino-functionalized graphene quantum dots as a responsive material for potential detection of metal ions and malathion, *Journal of Luminescence*, 252, 119311 (2022). <u>https://doi.org/10.1016/j.jlumin.2022.119311</u>

2. Sladjana Dorontic, Aurelio Bonasera, Michelangelo Scopelliti, **Olivera Marković**, Danica Bajuk Bogdanović, Gabriele Ciasca, Sabrina Romanò, Ivica Dimkić, Milica Budimir, Dragana Marinković, Svetlana Jovanovic, Gamma-ray-induced structural transformation of GQDs towards the improvement of their optical properties, monitoring of selected toxic compounds, and photo-induced effect on bacterial strains, *Nanomaterials*, 12, 2714, (2022). <u>https://doi.org/10.3390/nano12152714</u>

3. **Olivera S. Marković**, Nirali G. Patel, Abu T. M. Serajuddin, Alex Avdeef, Tatjana Ž. Verbić, Nortriptyline hydrochloride solubility-pH profiles in a saline phosphate buffer: drug-phosphate complexes and multiple pH_{max} domains with a Gibbs phase rule "soft" constraints, *Molecular Pharmaceutics*, 19, 710–719, (2022). <u>https://doi.org/10.1021/acs.molpharmaceut.1c00919</u>

4. Matija Krunić, Biljana Ristić, Mihajlo Bošnjak, Verica Paunović, Gordana Tovilović-Kovačević, Nevena Zagović, Aleksandar Mirčić, Zoran Marković, Biljana Todorović-Marković, Svetlana Jovanović, Duška Kleut, Miloš Mojović, Đura Nakarada, **Olivera Marković**, Irena Vuković, Ljubica Harhaji-Trajković, Vladimir Trajković, Graphene quantum dot antioxidant and proautophagic actions protect SH-SY5Y neuroblastoma cells from oxidative stress-mediated apoptotic death, *Free Radical Biology and Medicine*, 177, 167–180, (2021). <u>https://doi.org/10.1016/j.freeradbiomed.2021.10.025</u>

5. Gorana S. Mrđan, Gyöngyi Gy Vastag, Dušan Đ. Škorić, Mirjana M. Radanović, Tatjana Ž. Verbić, Miloš K. Milčić, Ivana N. Stojiljković, **Olivera S. Marković**, Borko M. Matijević, Synthesis, physicochemical characterization, and TD–DFT calculations of monothiocarbohydrazone derivatives, *Structural Chemistry*, 32, 1231–1245, (2021). <u>https://doi.org/10.1007/s11224-020-01700-y</u>

6. Svetlana Jovanović, Slađana Dorontić, Dragana Jovanović, Gabriele Ciasca, Milica Budimir, Aurelio Bonasera, Michelangelo Scopelliti, **Olivera Marković**, Biljana Todorović Marković, Gamma irradiation of graphene quantum dots with ethylenediamine: Antioxidant for ion sensing, *Ceramics International*, 46, 23611–23622, (2020). <u>https://doi.org/10.1016/j.ceramint.2020.06.133</u>

7. **Olivera S. Marković**, Miloš P. Pešić, Ankita V. Shah, Abu T. M. Serajuddin, Tatjana Ž. Verbić, Alex Avdeef, Solubility-pH profile of desipramine hydrochloride in saline phosphate buffer: Enhanced solubility due to drug-buffer aggregates, *European Journal of Pharmaceutical Sciences*, 133, 264–274, (2019). <u>https://doi.org/10.1016/j.ejps.2019.03.014</u>

8. Olivera S. Marković, Ilija N. Cvijetić, Mario V. Zlatović, Igor M. Opsenica, Jelena M. Konstantinović, Nataša V. Terzić Jovanović, Bogdan A. Šolaja, Tatjana Ž. Verbić, Human serum albumin binding of certain antimalarials, *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy*, 192, 128–139, (2018). <u>https://doi.org/10.1016/j.saa.2017.10.061</u>

Other activities

Member of the Local Organizing Committee of "10th IAPC Meeting: 10th World Conference on Physico-Chemical Methods in Drug Discovery & 6th World Conference on ADMET and DMPK" September 4–6, 2023, Belgrade, Serbia

organized by: University of Belgrade – Faculty of Chemistry and International Association of Physical Chemists

Member of the Local Organizing Committee of "6th European Summer School on Drug Development" September 2–3, 2023, Belgrade, Serbia organized by: University of Belgrade – Faculty of Chemistry and International Association of Physical Chemists

Lecturer at promotion "Where science begins"

March 28–29, 2015, Belgrade, Serbia lecture: Buffers – composition, chemical properties and significance organized by: University of Belgrade – Faculty of Chemistry and "Open Laboratories"

Volunteer at the exhibition "Laboratory of the outstanding – the heritage of Serbian chemistry"

November 5 – December 3, 2013, Belgrade, Serbia organized by: Gallery of science and technology Serbian Academy of Sciences and Arts, University of Belgrade – Faculty of Chemistry and Serbian Chemical Society