

## BIOGRAPHY

Jelena Molnar Jazić was born on 13.08.1984. in Sombor, Republic of Serbia. She graduated in 2007, and after that enrolled in the PhD studies at the University of Novi Sad, Faculty of Sciences, Department of Chemistry, Biochemistry and Environmental Protection, Chair for Chemical Technology and Environmental Protection. Her PhD thesis entitled “The effects of selected advanced oxidation processes and coagulation on natural organic matter content in water” was defended in 2011.

Since 2013 she has been an assistant professor in teaching at the Department of Chemistry, Biochemistry and Environmental Protection in Novi Sad. As an assistant professor, Jelena is in charge of teaching the following courses in bachelor and master study programs: UV/VIS and IR spectroscopy in the environmental analysis, Seminar – Environment and Waste, Ecotoxicology, Project – Analysis of the Effect on the Environment, Water Pollution, Advanced Oxidation Processes, Control of Emission of Industrial Waste Gas Flows, Toxicology of Aquatic Ecosystems. Through these courses she educates students on all aspects of environmental problems, raising awareness of their prevention and solving environmental problems using analytical instruments and implementation of treatment technologies.

Her scientific research covers the field of chemistry and environmental protection, and specific area of investigation is drinking water treatment. Her scientific work is devoted to the investigation of different advanced oxidation processes of the change of natural organic matter structure and the formation of by-products of oxidation/disinfection in water. Special emphasis was put on ozone based advanced oxidation processes, including ozonation under different pH, peroxone process, combination of catalyst with ozone and H<sub>2</sub>O<sub>2</sub> and Fenton process. After her PhD studies were completed, hers research scope broadened to the specific pollutants removal using photochemical advanced oxidation processes that are used in water treatment, such as UV/H<sub>2</sub>O<sub>2</sub> process. Additionally, special emphasis is placed on the investigation of natural organic matter impact on the target pollutants removal.

A special area of interest is the usage of gas chromatography in the analysis of the environment. Since 2011 she has been working as an analyst with the specific area of gas chromatography in the Laboratory for Chemical Analysis of the Environment “Dr Milena Dalmacija”. As a member of the accredited Laboratory Jelena took part in the method development and validation of organic pollutant analysis, such as volatiles, polycyclic aromatic hydrocarbons, pesticide, total hydrocarbons, organic screening analysis relevant for water and sediment quality using gas chromatography.

As an associate she has participated in several national scientific projects financed by the Ministry of Education, Science and Technological Development, two international scientific projects, FP6 and IPA project, as well as selected projects for the needs of industry.

As a result of her scientific work she authored/co-authored 22 scientific papers which were published in international journals such as: Science of the Total Environment, Environmental Science and Pollution Research, Journal of Environmental Management, Chemical Engineering Journal, Agricultural Water Management, Journal of Hazardous Materials, RSC Advances, International Journal of Environmental Research, Journal of Advanced Oxidation Technologies, Journal of Environmental Engineering, Chemical Industry, Journal of Serbian Chemical Society, Desalination and Water Treatment, Water Science & Technology: Water Supply. She also authored/co-authored over 50 papers presented at national and international conferences.

She is a member of the following professional associations: IWA – International Water Association, Serbian Chemical Society and Serbian Society for Water Protection.

She was awarded by the Serbian Chemical Society for the success achieved during her studies. She was the winner of the first prize of “Dr Milena Dalmacija i Renato Vukovic” Foundation for the best PhD thesis in the field of environmental protection.

#### List of the most important references

1. **Molnar, J.**, Agbaba, J., Dalmacija, B., Klašnja, M., Dalmacija, M., Kragulj, M. (2012) A comparative study of the effects of ozonation and TiO<sub>2</sub>-catalyzed ozonation on the selected chlorine disinfection by-product precursors content and structure, *Science of the Total Environment*, 425, 169-175.
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4. **Molnar, J.**, Agbaba, J., Dalmacija, B., Tubić, A., Krčmar, D., Maletić, S., Tomašević, D. (2013) The effects of matrices and ozone dose on changes in the characteristics of natural organic matter, *Chemical Engineering Journal*, 222, 435-443.
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#### Participation in projects (selected projects)

1. *Reinforcement of the laboratory for environmental protection at the faculty of science of the University of Novi Sad as a centre of excellence for environmental chemistry and risk assessment*, FP6 project, in cooperation with Fraunhofer-Gesellschaft - Germany, University of Oxford, Department of Earth Sciences - UK i Clausthaler Umwelttechnik-Institut GmbH – Germany (043741), the duration of the project: 2007-2009. year, Project Leader: Prof. dr Božo Dalmacija.
2. *Arsenic and ammonium in drinking water: implementation of a cross-border platform for safe water – ARSENICPLATFORM*, Hungary-Serbia IPA Cross border Co-operation Programme, No. of project: HUSRB/1002/121/075. the duration of the project: 1.11.2011.-31.10.2013. Project Leader: Dr Zoltán Melicz for Hungary, Eötvös József Koledž (Baja), and Prof. dr Jasmina Agbaba for R. Serbia.
3. *Influence of the water matrix and physico-chemical properties of the relevant organic xenobiotics on ecotoxicity and behavior in selected water treatment processes*, Project of Ministry of Education, Science and Technological Development (No. ON172028), the duration of the project: 2011-2016. year, Project Leader: Prof. dr Ivana Ivancev-Tumbas.

4. *Improving remediation technologies and developing methods for the risk assessment of contaminated sites*, Project of Ministry of Education, Science and Technological Development (No. III43005), the duration of the project: 2011-2016. year, Project Leader: Prof. dr Božo Dalmacija.