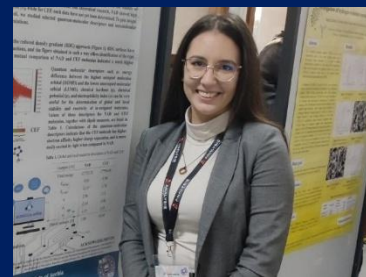


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Experience

Junior Researcher

- 2025 – today, University of Novi Sad, Faculty of Sciences, Department of Chemistry, Biochemistry and Environmental Protection
- **Teaching activities**– Environmental Analytical Chemistry, Analytics of the Environment.
- **Research activities** – Investigation in the field of analytical chemistry and environmental chemistry, hydrolysis, photolysis, and photocatalysis of organic pollutants in the aquatic environment using different types of catalysts, kinetic methods of analysis, molecular modeling.

Junior Research Assistant

- 2022 – 2025, University of Novi Sad, Faculty of Sciences, Department of Chemistry, Biochemistry and Environmental Protection

Chemistry Teacher

- September 2022 – present
Teaching students aged 12- 17
Chemistry
Clever International School Online & Onsite
- Temporary employment | March 2021.
Teaching students from 12-15 Chemistry
Primary school „Jovan Jovanović Zmaj”

Rewards

- 2024, **Second Place Award** at the International Student Conference on Environment and Sustainability in the category Beat Plastic Pollution with the work "Self-cleaning anti-microplastic filters" as part of the "BioBlanket time" team, Tongji, Sichuan, China.
- 2023, **Third Place Award** at the International Student Conference on

Environment and Sustainability in the category Circular Economy with the work "Plantable seed biofoil" as part of the "BioBlanket time" team, Tongji, Sichuan, China.

- 2022, **Third Place Award** at the International Student Conference on Environment and Sustainability in the category Smart Environment with the work "Smart Digital Water" as part of the "MAM game time" team, Tongji, Sichuan, China.
- 2019, **First Place Award** at the ScienceSlam competition within the popular science forum ScienceGram held on Zlatibor.
- 2021, **Special award of the Serbian Chemical Society for outstanding results during studies at the** Faculty of Sciences, University of Novi Sad.
- 2017, 2018, 2019 and 2020, **Faculty and University award for outstanding results during studies and award for completed studies** at the Faculty of Sciences, University of Novi Sad.

Other

- Member of Association for the International Development of Academic and Scientific Collaboration – AIDASCO (aidasco.org)
- **Training session** for Teaching in English as a Medium of Instruction (EMI), Foundation Tempus, University of Novi Sad (2024–2025)
- **Training courses:** Computational Materials Science, modul: *Computational modeling of molecules and periodic structures* (2022); Computational Materials Science, modul: *Application of Schrödinger's virtual workstation platform* (2021)

- **Workshop:** "Organic soil amendments impact on soil organic matter and nutrient characteristics and dynamics"

Education

- 2026, **PhD in Chemistry**, University of Novi Sad Faculty of Sciences, Novi Sad, Serbia
- 2021. **MSc in Chemistry**, University of Novi Sad Faculty of Sciences, Novi Sad, Serbia, average mark 10.00/10.00
- 2020. **BSc in Chemistry**, University of Novi Sad Faculty of Sciences, Novi Sad, Serbia, average mark 10.00/10.00

Scholarships

- 2019 – 2021, Scholarship of the Fund for Young Talents "Dositeja"
- 2017 – 2019, Scholarship of the Ministry of Education, Science and Technological Development of the Republic of Serbia for basic studies
- 2016 – 2017, Scholarship of the Municipality of Ruma

Languages

- English - B2
- Russian - A1
- French - A1

Skills

- Good command of tools set available on atomistica.online modeling platform
- Good command of databases (Web of Science, Scopus, ScienceDirect) gained through education
- Good command of general and professional software (Microsoft Office tools (Word, Excel and PowerPoint, Origin Lab) gained through education
- Driving license: B, active driver

Projects

- Application of photocatalytic active polymers biosynthesized on media containing industrial effluents of AP Vojvodina, Provincial Secretariat for Science and Technological Development of AP Vojvodina, Republic of Serbia (2023)
- MXene-Based Catalysts for Sustainability Chemical Challenges (MXeneCatSus), COST Action CA25132, European Cooperation in Science and Technology – COST (2026–2030)

Publications

Published in international journals with IF

1. Bilić, A., Armaković, S.J., Armaković, S. Photocatalytic Degradation of an Aromatic Pharmaceutical over TiO₂: Experimental and Computational Insights into Inhibition Effects of Natural Organic Acids. *Molecules*, **31** (2026) 794.
2. Savanović, M.M., Vojnović, Đ., Bilić, A., Ilin, Ž.M., Savić, I., Gajo, T., Armaković, S., Armaković, S. J. Understanding How Physicochemical Properties of Mancozeb and Metalaxyl Shape Onion (*Allium cepa* L.) Production Outcomes: Experimental Stability Studies and Molecular Modeling. *Sustainability (Switzerland)Open source preview*, **18** (2026) 4591.
3. Armaković, S.J., Perić, M., Bilić, A., Šćepanović, M., Grujić-Brojčin, M., Toković, I., Srdić, V., Tamindžić, G., Nikolić, Z., Armaković, S. Green synthesis and atomistic insights into starch-assisted stabilization of ZnO nanoparticles for efficient photocatalytic degradation. *Green Processing and Synthesis*, **15**(1) (2026)

20250187. <https://doi.org/10.1515/gps-2025-0187>

4. Krunic, D., Armaković, S., Yang, Y., Bilić, A., Pelemiš, S., Armaković, S.J. Multiscale atomistic insights into interactions between PMMA and environmentally relevant β -blockers in an aqueous environment. *Molecular Simulation*, **52** (2026) 646–661.
5. Armaković, S.J., Bilić, A., Savanović, M.M., Kalajdžić, M., Savić, A., Kartalović, B., Brkić, B., Božović, P., Ivanišević, D., Armaković, S. Environmental chemistry of 6-benzyladenine and α -naphthaleneacetic acid: stability and ecotoxicological implications. *Journal of the Indian Chemical Society*, **102** (2025) 102271.
6. Armaković, S.J., Armaković, S., Savanović, M.M., Bilić, A. ZnO-Based Photocatalysts: Synergistic Effects of Material Modifications and Machine Learning Optimization. *Catalysts*, **15** (2025) 793.
7. Perić, M., Bilić, A., Kartalović, B., Brkić, B., Šćepanović, M., Grujić-Brojčin, M., Srđenović-Čonić, B., Kladar, N., Armaković, S., Savanović, M.M., Armaković, S.J. Eco-friendly zeolite/PMMA thin films for efficient phthalate removal from natural waters: a computational and experimental study. *Environmental Science: Nano*, **12** (2025) 3761–3771. <https://doi.org/10.1039/d5en00455a>
8. Krunic, D., Armaković, S., Bilić, A., Armaković, S. J., Gavanski, L. Understanding the interactions between PMMA polymer and common industrial gasses: a computational xTB, DFT, SAPT and MD study. *Molecular Physics*, **123** (2025) e2456108.

<https://doi.org/10.1080/00268976.2025.2456108>

9. Pelemiš, S., Bilić, A., Krunic, D., Armaković, S. J., Armaković, S. Theoretical Assessment of PMMA's Potential to Remove Beta Blockers from the Aquatic Environment Using Atomistic Calculations. *Engineering Proceedings*, **99**(1) (2025) 13. <https://doi.org/10.3390/engproc2025099013>
10. Bilić, A., Armaković, S. J., Šiljegović, M. V., Kisić, M., Šćepanović, M., Grujić-Brojčin, M., Simić, N., Gavanski, L., Armaković, S., Savanović, M. M. Effect of Plasma Treatment on Self-Cleaning Features of Acrylic Paint/TiO₂-Coated Surfaces for Environmental Pollutant Removal. *Catalysts*, **14** (2024) 799. <https://doi.org/10.3390/catal14110799>
11. Bilić, A., Armaković S.J., Savanović M.M., Zahović, I., Dodić, J., Trivunović, Z., Savić, I., Gajo, T., Armaković S. Photocatalytic application of bacterial-derived biopolymer in removing pharmaceutical contaminants from water. *Catalysis Communications*, **186** (2024) 106821. <https://doi.org/10.1016/j.catcom.2023.106821>
12. Armaković, S.J., Perić, M., Bilić, A., Brkić, B., Šćepanović, M., Grujić-Brojčin, M., Srđenović Čonić, B., Kladar, N., Armaković, S. Cu-TiO₂/zeolite/PMMA tablets for efficient dye removal: a study of photocatalytic water purification. *Catalysts*, **14** (2024), 746. <https://doi.org/10.3390/catal14110746>
13. Perić, M., Savanović, M.M., Bilić, A., Armaković, S.J., Armaković, S. Comparative analysis and validation of analytical techniques for quantification active component in pharmaceuticals: green approach. *Journal of the Indian Chemical Society*, **101** (2024) 101173. <https://doi.org/10.1016/j.jics.2024.101173>

14. Armaković, S.J., Bilić, A., Savanović, M.M., Četojević-Simin, D.D., Srđenović Čonić B., Kladar N. and Armaković S. Experimental and theoretical insights into the photoinduced degradation of nadolol in the Danube River through catalytic oxidation with radical species, **181** (2023) 106729.
15. Savanović, M.M., Armaković, S.J., Bilić, A., Kalajdžić, M., Kalajdžić, J., Ivanišević, D., Srđenović Čonić, B., Kladar, N., Savić, I., Gajo, T., Armaković, S. Exploring the influence of structural characteristics on the stability of bioregulators in natural environmental conditions. *Journal of Molecular Structure*, **1289** (2023) 135908. <https://doi.org/10.1016/j.molstruc.2023.135908>
16. Bilić A., Savanović M.M., Armaković S., Četojević-Simin D.D., Srđenović Čonić B., Kladar N. and Armaković S.J. Exploring the influence of free radicals on photolytic removal of nadolol from water: Mechanism of degradation and toxicity of intermediates. *Frontiers in Environmental Science*, **11** (2023) 1119944.
17. Armaković, S.J., Jovanoski Kostić, A., Bilić, A., Savanović, M.M., Tomić, N., Kremenović, A., Šćepanović, M., Grujić-Brojčin, M., Ćirković, J., Armaković, S. Photocatalytic Activity of the V₂O₅ Catalyst toward Selected Pharmaceuticals and Their Mixture: Influence of the Molecular Structure on the Efficiency of the Process. *Molecules*, **28** (2023) 655.
18. Rakanović, M., Vukojević, A., Savanović, M.M., Armaković, S., Pelemiš, S., Živić, F., Sladojević, S., Armaković, S.J. Zeolites as adsorbents and photocatalysts for removal of dyes

from the aqueous environment. *Molecules*, **27** (2022) 6582.

Published at scientific conferences

1. Bilić, A., Armaković, S.J., Pelemiš, S., Savanović, M.M., Armaković, S. Exploring the adsorption potential of carbon nanotubes as efficient adsorbents for drug molecules, *Contemporary Materials*, **15**, No 2, (2024) 125–132. <https://doi.org/10.7251/COMEN2402125B>
2. Savanović, M.M., Armaković, S., Bilić, A., Pelemiš, S., Armaković, S.J. Environmental efficiency of UV-activated TiO₂-modified acrylic self-cleaning surfaces, *Contemporary Materials*, **15**, No 2, (2024) 133–138. <https://doi.org/10.7251/COMEN2402133S>
3. Armaković, S.J., Savanović, M.M., Bilić, A., Pelemiš, S., Armaković, S. Green synthesis of superhydrophobic TiO₂-surfaces for self-cleaning applications, *Proceedings of International Conference "XV Conference of Chemists, Technologists and Environmentalists of Republic of Srpska"*, Banja Luka, Bosnia and Herzegovina, October 37–42, 2024. ISBN: 978-99976-14-09-4
4. Savanović, M.M., Vojnović, Đ., Bilić, A., Armaković, S., Savić, I., Gajo, T., Pelemiš, S., Armaković, S.J. Advancing the impact of biostimulants on sustainable agriculture through stability studies, *Proceedings of International Conference "XV Conference of Chemists, Technologists and Environmentalists of Republic of Srpska"*, Banja Luka, Bosnia and Herzegovina,

October 112–118, 2024. ISBN: 978-99976-14-09-4

5. Savanović M., Perić M., Bilić A., Armaković S., Armaković S.J. Use of data explorer online for data processing in the determination of active components of active components of drug, *Proceedings of International Conference "Sinteza 2024 – International Scientific Conference on Information Technology, Computer Science, and Data Science"*, Beograd, Srbija, 16 maj, 2024, 135–140. <https://doi.org/10.15308/Sinteza-2024-135-140>
6. Bilić A., Savanović, M.M., Armaković, S., Pelemiš, S., Armaković, S.J. Advancing environmental sustainability: enhanced photocatalytic degradation of cefoperazone using ZnO and H₂O₂ under different radiation sources, *Contemporary Materials*, **14**, No 2, (2023) 116–121. <https://doi.org/10.7251/COMEN2302116B>
7. Vukojević, A., Savanović, M.M., Armaković, S., Pelemiš, S., Armaković, S.J. Photolysis of nadolol in the aquatic environment: Insights into the effect of bicarbonates, *Proceedings of International Conference "XIV Conference of Chemists, Technologists and Environmentalists of Republic of Srpska"*, Banja Luka, Bosnia and Herzegovina, October 21–22, 2022. ISBN: 978–99938–54–98–2
8. Savanović, M.M., Kostić, A.J., Vukojević, A., Armaković, S., Kalajdžić, J., Milić, B., Kalajdžić, M., Pelemiš, S., Armaković, S.J. Solar stability of commercial pesticides that contribute to the quality of grapes and fruits, *Proceedings of International Conference "XIV Conference of*

Chemists, Technologists and Environmentalists of Republic of Srpska", Banja Luka, Bosnia and Herzegovina, October 21–22, 2022. ISBN: 978–99938–54–98–2

9. Vukojević, A., Savanović, M.M., Tomić, N., Armaković, S., Pelemiš, S., Armaković, S.J., Removal of nadolol using coupled nanomaterials based on titanium and carbon, *Contemporary Materials*, **13**, No 2 (2022) 127–132. <https://doi.org/10.7251/COMEN2202127V>
10. Savanović, M.M., Vukojević, A., Marković, D., Armaković, S., Pelemiš, S., Armaković, S.J., Photocatalytic activity of ZnO and TiO₂ towards effective degradation of cefoperazone, *Contemporary Materials*, **13**, No 2, (2022) 133–139. <https://doi.org/10.7251/COMEN2202133S>
11. Krunic, D., Bilić, A., Pelemiš, S., Armaković, S.J., Armaković, S. Understanding the interaction of the drug carvedilol and –COOH functionalized carbon nanocone: A DFT study. *Contemporary Materials*, Banja Luka, Bosnia and Herzegovina, September 11–12, 2025.
12. Bilić, A., Perić, M., Armaković, S.J., Armaković, S. Efficient photocatalytic degradation of nadolol using silver-modified PMMA/TiO₂, *3th International Electronic Conference on Catalysis Sciences*, April 23–25, 2025, 78.
13. Pelemiš, S., Bilić, A., Krunic, D., Armaković, S.J., Armaković, S. Theoretical assessment of PMMA's potential to remove beta-blockers from the aquatic environment using atomistic calculations, *IX International Congress "Engineering, Environment and Materials in Process Industry"*, Bijeljina, Bosnia and Herzegovina, April 2–4, 2025, 69. ISBN: 978–99955–81–52–7

14. Pelemiš, S., Bilić, A., Krunić, D., Armaković, S.J., Armaković, S. Organic nanocone structures as sensors for metmorfin detection, *IX International Congress "Engineering, Environment and Materials in Process Industry"*, Bijeljina, Bosnia and Herzegovina, April 2–4, 2025, 70. ISBN: 978–99955–81–52–7
15. Bilić, A., Perić, M., Armaković, S., Armaković, S.J. Copper-doped and zeolite-combined TiO₂ on polymer carrier for advanced dye removal, *4th International Student Conference*, December 5–6, 2024, 37. ISBN: 978–86–6022–715–9
16. Bilić, A., Krunić, D., Armaković, S.J., Pelemiš, S., Armaković, S. Computational Insights into UV Spectrophotometric Behavior of PMMA in the Presence of Pharmaceutical Pollutants through Atomistic Calculations, *XII International Symposium "OPTICS and Its Applications"*, Yerevan, Armenia, October 15–19, 2024, 92.
17. Bilić, A., Savanović, M.M., Armaković, S., Kalajdžić, M., Božović, P., Ivanišević, D., Armaković, S. Impact of the environmental conditions on the resilience of bioregulators in the aquatic environment, *21st IUPAC International Symposium on Solubility Phenomena and Related Equilibrium Processes (ISSP21)*, Novi Sad, Serbia, September 9–13, 2024, 38. ISBN: 978–86–7031–667–6
18. Bilić, A., Savanović, M.M., Armaković, S., Kalajdžić, M., Božić, P., Ivanišević, D., Armaković, S.J. Exploring the resilience of bioregulatory compounds in aqueous environments, *Young Investigators' Seminar on Analytical Chemistry (YISAC)*, Split, Croatia, June 17–20, 2024, 28. ISBN: 978–953–7803–22–3
19. Bilić, A., Armaković, S., Savanović, M.M., Brankica Kartalović, Boris Brkić, Armaković, S.J. The reactivity of a growth regulator elucidated by comprehensive computer investigation, *Royal Society of Chemistry's 2024 #RSCPoster Conference*, online, 5–6. mart, 2024.
20. Savanović, M.M., Bilić, A., Armaković, Perić, M., S., Pelemiš, S., Armaković, S.J., Photocatalytic degradation of metoprolol commercial formulation: Validation of the RP–HPLC method, *Contemporary Materials*, Banja Luka, Bosnia and Herzegovina, September 7–8, 2023, 54.
21. Bilić, A., Savanović, M.M., Armaković, S.J. Nitrate-induced photodegradation of nadolol in water solution, *38th International Conference on Solution Chemistry*, Beograd, Serbia, July 9–14, 2023, 125. ISBN: 978–86–7031–624–9
22. Bilić, A., Armaković, S., Savanović, M.M., Armaković, S.J. Understanding the interactions between nadolol and hydroxyl radical: A computational study, *Young Investigators' Seminar on Analytical Chemistry (YISAC)*, Belgrade, Serbia, June 25–28, 2023, 63. ISBN: 97886–7220–121–5
23. Tomić, J., Savanović, M.M., Vojnović, Đ., Ilin, Ž., Bilić, A., Armaković, S., Armaković, S.J. Influence of the selected biostimulators on the prolonged action and stability of imidacloprid, *Young Investigators' Seminar on Analytical Chemistry (YISAC)*, Belgrade, Serbia, June 25–28, 2023, 51. ISBN: 97886–7220–121–5
24. Armaković S., Savanović M.M., Bilić A., Kalajdzic M., Kalajdžić J., Ivanišević D., Savić I., Gajo T., Armaković S. Application of grape biostimulators and their stability under solar light in rainwater, *VIII International Congress "Engineering, Environment and Materials in Process Industry"*, Jahorina, Bosnia and Herzegovina, March 20–23, 2023, 184. ISBN: 978–99955–81–44–2
25. Vojnović, Đ., Savanović, M.M., Bilić, A., Adamović, B., Ilin, Ž., Armaković, S., Savić, I., Gajo, T., Armaković, S., Pelemiš,

S. Influence of humic and fulvic acids on stability of Lobo® and its prolonged activity in onion production, *International Congress "Engineering, Environment and Materials in Process Industry"*, Jahorina, Bosnia and Herzegovina, March 15–17, 2023, 56. ISBN: 978–99955–81–44–2

26. Savanović, M.M., Bilić, A., Kostić, A.J., Armaković, A., Tomić, N., Šćepanović, M.J., Grujić-Brojčin, M., Kremenović, A., Armaković, A.J. Application of single-crystal V_2O_5 in photodegradation of selected pharmaceutical products, *5th Edition of Nanotechnology and Nanomaterials Virtual*, December 9–10, 2022.
27. Vukojević, A., Armaković, S.J. Stability and photochemical fate of nadolol in water, *65th International Conference for Students of Physics and Natural Sciences "Open Readings 2022"*, Vilnius, Lithuania, March 15–18, 2022, 394. ISBN: 978–609–07–0722–7
28. Bilić, A., Armaković, S., Armaković, S.J., Comparative exploration of the stability of cefoperazone and nadolol through atomistic calculations, *9th Conference of Young Chemists of Serbia*, Novi Sad, Serbia, October 4, 2023, 109. ISBN: 978–86–7132–084–9
29. Bilić, A., Četojević-Simin, D.D., Savanović, M.M., Armaković, S.J. Toxicity assessment of nadolol and its photodegradation mixtures using mammalian cell lines, *8th Conference of Young Chemists of Serbia*, Belgrade, Serbia, October 29, 2022, 29. ISBN: 978–86–7132–080–1