

Katarina

Postolović



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Languages

Serbian (mother tongue)

English (advanced level)

Spanish (intermediate level)

Italian (basic level)

German (basic level)

Research fields

- Natural product chemistry
- Electrochemical Analysis
- Pharmaceutical bioactive compounds
- Biopolymer hydrogel
- Drug delivery

Summary

Katarina Postolović, a third-year PhD student in Chemistry at the Faculty of Science, University of Kragujevac, has been employed as a junior research assistant at the same institution since May 2022. She enrolled in basic academic studies in Chemistry at the Faculty of Science in Kragujevac in 2016, where she graduated four years later. In September 2019, she carried out some scientific research in the laboratories of the Faculty of Engineering and Science, the University of Greenwich (Medway Campus, England). She completed her master's degree in chemistry in 2021 at the Faculty of Science, University of Kragujevac, and in the same year she enrolled in doctoral studies in Analytical Chemistry, in a scientific group of Prof. Dr. Zorka Stanić. Scientific area of Katarina Postolović's expertise includes development of new carriers based on natural and synthetic polymers for the controlled release of multipurpose drugs, as well as research that includes the electrochemical characterization of unmodified and modified electrodes as sensors which are made of natural and synthetic polymers with the aim of their further application for the determination of different types of compounds.

Education

October 2021 – present

PhD of Chemical sciences, Faculty of Science, University of Kragujevac

October 2020 – July 2021

MSc in Chemistry, Faculty of Science, University of Kragujevac

July 2016 – July 2020

BSc in Chemistry, Faculty of Science, University of Kragujevac

Experience

May 2022 – present

Junior research assistant, Faculty of Science, University of Kragujevac

Publications

1. **K.S. Postolović**, Z.D. Stanić, Simultaneous determination of dopamine and folic acid using chitosan-carrageenan hydrogel/graphene oxide modified glassy carbon electrode. *Microchemical Journal* **207** (2024) 111660.

Additional information

Research fellowships:

Faculty of Engineering and Science, Medway Campus, University of Greenwich, United Kingdom (Professor Milan D. Antonijević, September – October 2019).

Seminars:

- Seminar in Chemistry, Petnica Science Center, participant (2013 – 2016)
- Seminar in Chemistry, Petnica Science Center, guest lecturer/mentor/advisor (2016 – present)

Computational skills:

MS Office
Chem Office

Memberships:

Serbian Chemical Society
Club of Young Chemists of Serbia

2. **K. Postolović**, Z. Stanić, Chitosan/TiO₂ nanoparticles modified carbon paste electrode as a sensitive voltammetric sensor for the determination of diclofenac sodium as an anti-inflammatory drug. *Materials Today Communications* **37** (2023) 107416.

3. **K.S. Postolović**, M.D. Antonijević, B. Ljujić, S. Radenković, M. Miletić Kovačević, Z. Hiezl, S. Pavlović, I. Radojević, Z. Stanić, Curcumin and diclofenac therapeutic efficacy enhancement applying transdermal hydrogel polymer films, based on carrageenan, alginate and poloxamer. *Polymers* **14** (2022) 4091.

4. **K.S. Postolović**, M.D. Antonijević, B. Ljujić, M. Miletić Kovačević, M. Gazdić Janković, Z.D. Stanić, pH-responsive hydrogel beads based on alginate, κ-carrageenan and poloxamer for enhanced curcumin, natural bioactive compound, encapsulation and controlled release efficiency. *Molecules* **27** (2022) 4045.

5. **K. Postolović**, B. Ljujić, M.M. Kovačević, S. Đorđević, S. Nikolić, S. Živanović, Z. Stanić, Optimization, characterization, and evaluation of carrageenan/alginate/poloxamer/curcumin hydrogel film as a functional wound dressing material. *Materials Today Communications* **31** (2022) 103528.

Conferences

1. **K.S. Postolović**, Z.D. Stanić, Application of modified carbon paste electrode for determination of diclofenac as an anti-inflammatory drug. *59th Meeting of the Serbian Chemical Society, Novi Sad, Serbia, June 2023.*

2. **K.S. Postolović**, Z.D. Stanić, Simultaneous determination of dopamine and folic acid using chitosan-carrageenan polyelectrolyte complex/graphene oxide modified glassy carbon electrode. *9th Conference of Young Chemists of Serbia, Novi Sad, Serbia, November 2023.*

3. **K.S. Postolović**, Z.D. Stanić, Simultaneous determination of dopamine, serotonin, ascorbic acid and nitrite ion using modified GCE. *60th Meeting of the Serbian Chemical Society, Niš, Serbia, June 2024.*

Awards

- Serbian Chemical Society Award for the success achieved during undergraduate studies (December 2022)
- Award for the success during the final year of master academic studies, Scholarship of Fund for Young Talents, Ministry of Youth and Sports, Republic of Serbia (2020/21)
- Award for the best student of the Faculty of Science, University of Kragujevac, Scholarship of University of Kragujevac (2020)
- Annual award of the Faculty of Science, University of Kragujevac for the best student of Chemistry (2018, 2019, and 2020)
- Award “Sveti Sava” for contributions to the field of education and culture, obtained by the Municipality of Svilajnac (2016)