

NATAŠA PEJIĆ

Employment Information:

- 2017. Full Professor, Department of Physical Chemistry and Instrumental Methods, University of Belgrade – Faculty of Pharmacy
- 2012 – 2017. Associate Professor, Department of Physical Chemistry and Instrumental Methods, University of Belgrade – Faculty of Pharmacy
- 2005 – 2012. Assistant Professor, Department of Physical Chemistry and Instrumental Methods, University of Belgrade – Faculty of Pharmacy
- 2001 – 2005. Teaching assistant, Department of Physical Chemistry, Faculty of Pharmacy, University of Belgrade
- 1998 – 2001. Associate, Department of Physical Chemistry, Faculty of Pharmacy, University of Belgrade
- 1995 – 1997. Associate, Faculty of Physical Chemistry, University of Belgrade

Education:

- 2005. Ph.D., field: Physical Chemistry
Ph.D. Dissertation entitled: “Development of quantitative analytical methods in an open reactor based on the interaction of the analyte and the Bray-Liebhafsky oscillator“, defended at the Faculty of Physical Chemistry, University of Belgrade
- 2000. M. Sc., field: Physical Chemistry
Master’s thesis entitled: “Oscillatory reaction as a matrix for determination the functional analogy of synthesized catalysts on a polymeric carrier with peroxidase“, defended at the Faculty of Physical Chemistry, University of Belgrade
- 1995. – B.Sc. field: Physical Chemistry
Graduation thesis entitled: “Bray-Liebhafsky oscillatory system under a flow reactor conditions. Procedure for estimating bifurcation points”, defended at the Faculty of Physical Chemistry, University of Belgrade

Training:

- 2017. – LC/MS/MS training for modules: Xevo TQD MS Detector, Acquity UPLC System, MassLynx 4.1 and TargetLynx Software and Quanpedia Database, 2017 (Certificate No170921-01)

Academic awards and distinctions:

- 2002. – Annual Award of Ministry of Science, Technologies and Development, Republic of Serbia for the best young scientists – Masters of Science

- 2020. – Co-author of the textbook *Instrumental Methods*, for which Martina Ristić, academic photographer and graphic designer, got the public reward for **designing the textbook** at the ULUPUDS Design Section (Belgrade)

Teaching activities:

- Integrated academic studies – Courses:
 - Instrumental Methods (study program: Pharmacy)
 - Colloid Chemistry (study programs: Pharmacy and Pharmacy – Medical Biochemistry)
 - Instrumental Methods and Colloid Chemistry (for foreign students study program: Pharmacy)
- Doctoral academic studies – module Drug analysis, Course: Spectroscopic Methods in Drug Analysis; module Pharmaceutical Technology, Course: Physico-Chemical Phenomena and Instrumental Methods
- Specialist studies required by healthcare system – Course: Instrumental Methods at study programs: Drug Testing and Control, Sanitary Chemistry and Toxicological Chemistry.
- Served as a co-mentor of:
 - one doctoral dissertation defended at Faculty of Physical Chemistry, University of Belgrade (2017)
 - two master's theses defended at Faculty of Physical Chemistry, University of Belgrade (2012 and 2007)
- Served as a mentor of 28 graduation theses and a member of 48 Committees for graduation/final theses defended at Faculty of Pharmacy as well as at Faculty of Physical Chemistry, University of Belgrade
- Served as a mentor of 8 students scientific research papers presented at the Mini-Congress for Students of Faculty of Pharmacy, University of Belgrade and the Serbian Students' Conference of Biomedical Sciences with international participation (2009 – 2015)
- Served as a member of the Committee for the defense of two doctoral dissertation at Faculty of Pharmacy (2021) and at Faculty of Physical Chemistry (2009), University of Belgrade
- Served as a member of the Commissions for review, evaluation and defense of three master's theses at Faculty of Physical Chemistry (in 2017. and 2013.) and Faculty of Mathematics (2017), University of Belgrade

Textbooks:

- Mirjana Medenica, Nataša Pejić
Instrumental methods, University of Belgrade – Faculty of Pharmacy, 2018, ISBN: 978–86–6273-034-3
- Nataša Pejić, Mara Aleksić
Selected topics of Colloid Chemistry, II supplemented edition, University of Belgrade – Faculty of Pharmacy, Belgrade, 2018, ISBN 978–86–6273–055–8

- Nataša Pejić, Mara Aleksić
Selected topics of Colloid Chemistry, University of Belgrade – Faculty of Pharmacy, Belgrade, 2013, ISBN 978–86–6273–031–2
- Vesna Kuntić, Mara Aleksić, Nataša Pejić, Slavica Blagojević
Practicum in Physical Chemistry, University of Belgrade – Faculty of Pharmacy, Belgrade, 2010, ISBN 978–86–80263–72–4
- Vesna Kuntić, Mara Aleksić, Leposava Pavun, Nataša Pejić
Collection of Exercises in Physical Chemistry, University of Belgrade – Faculty of Pharmacy, Belgrade, 2003, ISBN 86–904849–0–6

Activities within the Faculty:

- President of the Committee for Report Writing on the Applied Candidates for a Vacancy for an Associate professor in the Narrow Scientific Field of Physical Chemistry at the Faculty of Pharmacy, University of Belgrade (2021)
- Committee member of Report Writing on the Applied Candidates for a Vacancy for:
 - An Associate professor in the Narrow Scientific Field of Physical Chemistry at the Faculty of Pharmacy, University of Belgrade (2021)
 - An Associate professor in the Narrow Scientific Field of Physical Chemistry at the Faculty of Pharmacy, University of Belgrade (2020)
 - An Assistant professor in the Narrow Scientific Field of Physical Chemistry at the Faculty of Pharmacy, University of Belgrade (2017)
 - An Associate professor in the Narrow Scientific Field of Physical Chemistry at the Faculty of Pharmacy, University of Belgrade (2016)
 - An Assistant professor in the Narrow Scientific Field of Physical Chemistry at the Faculty of Pharmacy, University of Belgrade ((2014)
 - An Assistant in the Narrow Scientific Field of Physical Chemistry at the Faculty of Pharmacy, University of Belgrade (2012)
 - An Assistant professor in the Narrow Scientific Field of Physical Chemistry at the Faculty of Pharmacy, University of Belgrade (2011)
 - An Assistant in the Narrow Scientific Field of Physical Chemistry at the Faculty of Pharmacy, University of Belgrade (2010)
 - An Assistant in the Narrow Scientific Field of Physical Chemistry at the Faculty of Pharmacy, University of Belgrade (2009)
- Member of the working group for accreditation of the Faculty of Pharmacy, University of Belgrade (2017)
- Member of the Committee for Monitoring and Improving the Quality of Teaching at the Faculty of Pharmacy (since 2016.)
- Member of the Committee for Organizing and Conducting the Student Evaluation Procedure of the Faculty of Pharmacy, University of Belgrade (2013–2019.)
- Member of the Publishing Committee of the Faculty of Pharmacy, University of Belgrade (2010.–2013.)

- Served as a Person responsible for students safety at the first year of integrated academic studies (since 2015)
- President of the Central Committee for Inventory of Assets and Liabilities of the Faculty of Pharmacy, University of Belgrade (2019. and 2014.)
- President of the Council for second study year Faculty of Pharmacy, University of Belgrade (2012 – 2016)
- Member of the Expert Committee for the Evaluation of Scientific Research Papers Submitted by the Students of the Faculty of Pharmacy, 7th Student's Mini-Congress, April 14–16, 2014, University of Belgrade – Faculty of Pharmacy (2014)
- President of the Committee for Property Inventory of:
 - the Bookstore at Faculty of Pharmacy (2010)
 - the Department of Physical Chemistry and Instrumental Methods (2011., 2009. and 2008.)
- Member of the Enrollment Committee at the Faculty of Pharmacy, University of Belgrade (2007)

Activities within wider Academic Community:

- Committee member of Report Writing on the Applied Candidates for a Vacancy for a teaching assistant in the Narrow Scientific Field of Physical Chemistry at the Faculty of Physical Chemistry, University of Belgrade (2018)
- Committee member for adopting procedures for awarding a scientific degree:
 - Research associate at Faculty of Physical Chemistry, University of Belgrade (2017. and 2013)
- Member of Organizing Committee of 14th International Conference on Fundamental and Applied Aspects of Physical Chemistry “PHYSICAL CHEMISTRY 2018”, September 24–28 2018, Belgrade) (2018)
- Member of International Organizing Committee of 13th International Conference on Fundamental and Applied Aspects of Physical Chemistry, “PHYSICAL CHEMISTRY 2016”, September 26–30 2016, Belgrade, Serbia (2016)
- Member of Local Executive Committee of 8th, 9th and 10th International Conference on Fundamental and Applied Aspects of Physical Chemistry (2010, 2008 and 2006.), as well as of 7th International Conference in Nonlinear Sciences “Selforganization in Nonequilibrium Systems”, Belgrade, Serbia (2004)
- Oral section lecture organized by the Society of Physical Chemists of Serbia (Section for Nonlinear Phenomena and Complex Systems and Section for Catalysis)
 - “Bray-Liebafsky oscillatory reaction as matrix for analysis of piroxicam antioxidant activity“, Faculty of Physical Chemistry, University of Belgrade (2015)
 - “Application of pulse perturbation technique using chemical oscillator as a matrix for quantitative determination of substances in pharmaceutical dosage forms“, Hemofarm, Vršac (2005)

- Lecturer at 8th Serbian Symposium in Area of Non-linear Sciences, SNDMIA, 2012, October 1-5 2012, Belgrade, Serbia, “Analysis of real samples by perturbation of non-equilibrium states in an oscillatory reaction”
- Chairperson for Section of Nonlinear Dynamic on 11th and 9th *International Conference on Fundamental and Applied Aspects of Physical Chemistry*–Physical Chemistry, Belgrade, Serbia, 2012. and 2008.
- Reviewer for:
 - international journals (2006 – 2021. god.): *Journal of Industrial and Engineering Chemistry, Surfaces and Interfaces, Colloids and Surfaces A: Physicochemical and Engineering Aspects, Current Pharmaceutical Analysis, Phytochemical Analysis, Russian Journal of Physical Chemistry, Reaction Kinetics Mechanisms and Catalysis, Current Physical Chemistry, Macedonian Journal of Chemistry and Chemical Engineering, Electrochimica Acta, Journal of Applied Electrochemistry, International Journal of Electrochemistry, Portugaliae Electrochimica Acta, Journal of Serbian Chemical Society, Central European Journal of Chemistry, International Journal of Environmental Analytical Chemistry, Chemical Industry*, etc.
 - the papers of *International Conference on Fundamental and Applied Aspects of Physical Chemistry "Physical Chemistry"*, Belgrade, Serbia (since 2010.)
- Reviewer of Monograph (Uskoković Marković, S. Methods of great importance for examining heteropoly of Kegin-type compounds, Zadužbina Andrejević, Belgrade, 2019 (in Serbian))
- Member of the Society of Physical Chemists of Serbia

Projects:

- Dynamics of nonlinear physicochemical and biochemical systems with modeling and predicting of their behavior under nonequilibrium conditions (Faculty of Physical Chemistry, University of Belgrade, grant number 172015 – engagement 8 months), Ministry of Education, Science and Technological Development Republic of Serbia, 2011–2019.
- Emergence and Evolution of Complex Chemical Systems – Chemistry and Molecular Sciences and Technologies, COST Action CM1304 (European Project in the framework of COST), 2013 – 2017.
- Physical Chemistry of Dynamic States and Structures of Non-linear Systems – from Monotonic to Oscillatory Evolution and Chaos (Faculty of Physical Chemistry, University of Belgrade, grant number 142025 – engagement 8 months), Ministry of Science and Environmental Protection of the Republic of Serbia), 2006 – 2010.
- Physical Chemistry of Dynamic States and Structures of Non–equilibrium Systems, Selforganization, Multistability and Oscillatory (Faculty of Physical Chemistry, University of Belgrade, grant number 1448 – engagement 8 months), Ministry of Sciences and Environmental Protection Republic of Serbia, 2002 – 2005.

Selected publications:

- Kolar-Anić, Lj., Anić, S., Čupić, Ž., Ivanović-Šašić, A., Pejić, N., Blagojević, S., Vukojević, V. Oscillating reactions, in *Encyclopedia of Physical Organic Chemistry, 6 volume Set, Volume 2, Part 2 Organic Reactions and Mechanisms*, Wang, Z., Wille, U., Juaristi, E. (Eds.), USA, New York, NY: John Wiley&Sons, 2017; 1127–1222. DOI:10.1002/9781118468586. Print ISBN: 9781118470459. Online ISBN: 9781118468586
- Blagojević, S.N., Blagojević, S.M., Pejić, N. Performance and efficiency of anionic dishwashing liquids with amphoteric and nonionic surfactants. *J. Surf. Deterg.* 2016; 19(2): 363–372. DOI: 10.1007/s11743-015-1784-5. ISSN: 1097-3958
- Goronja, J., Pejić, N., Janošević, Ležaić A., Stanisavljev, D., Malenović, A. Using a Combination of Experimental and Mathematical Method to Explore Critical Micelle Concentration of a Cationic Surfactant. *J. Chem. Educ.* 2016; 93(7): 1277–1281. DOI: 10.1021/acs.jchemed.5b00913. ISSN: 0021-9584
- Stanković, B., Čupić, Ž., Maćešić, S. Pejić, N., Kolar-Anić, Lj. Complex bifurcations in the oscillatory reaction model. *Chaos Soliton. Fract.* 2016; 87: 84–91. DOI: 10.1016/j.chaos.2016.03.013. ISSN: 0960-0779
- Blagojević, S., Anić, S., Čupić, Z., Pejić, N., Kolar–Anić, Lj. Malonic acid concentration as a control parameter in the kinetic analysis of the Belousov–Zhabotinsky reaction under batch conditions. *Phys. Chem. Chem. Phys.* 2008; 10(44): 6658–6664. DOI: 10.1039/b804919j. ISSN: 1463-9076
- Pejić, N., Blagojević, S., Anić, S., Vukojević, V., Mijatović, M., Ćirić, J., Marković, Z., Marković, S., Kolar–Anić Lj. Kinetic determination of morphine by means of Bray–Liebhafsky oscillatory reaction system using analyte pulse perturbation technique. *Anal. Chim. Acta* 2007; 582(2): 367–374. DOI:10.1016/j.aca.2006.09.026. ISSN: 0003-2670
- Pejić, N., Blagojević, S., Anić, S., Kolar–Anić, Lj. Determination of ascorbic acid in pharmaceutical dosage forms and urine by means of an oscillatory reaction system using the pulse perturbation technique. *Anal. Bioanal. Chem.* 2007; 389(6): 2009–2017. DOI: 10.1007/s00216-007-1585-4. ISSN: 1618-2642
- Kuntić, V., Pejić, N., Ivković, B., Vujić, Z., Ilić, K., Mičić, S., Vukojević, V. Isocratic RP–HPLC method for rutin determination in solid oral dosage forms. *J. Pharm. Biomed. Anal.* 2007; 43: 718–721. DOI: 10.1016/j.jpba.2006.07.019. ISSN: 0731-7085
- Pejić, N., Kolar-Anić, Lj., Anić, S., Stanisavljev, D. Determination of paracetamol in pure and pharmaceutical dosage forms by pulse perturbation technique. *J. Pharm. Biomed. Anal.* 2006; 41: 610–615. DOI: 10.1016/j.jpba.2005.11.043. ISSN: 0731-7085
- Vukojević, V., Pejić, N., Stanisavljev, D., Anić, S., Kolar–Anić, Lj. Determination of Cl^- , Br^- , I^- , Mn^{2+} , malonic acid and quercetin by perturbation of a non-equilibrium stationary state in the Bray–Liebhafsky reaction. *Analyst*

1999; 124: 147–152. DOI: 10.1039/a807608a. ISSN: 0003-2654
<https://doi.org/10.1039/A807608A>