MARA ALEKSIĆ

Employment Information:

• 2015.	Full Professor, Department of Physical Chemistry and Instrumental Methods, Faculty of Pharmacy, University of Belgrade
• 2010. – 2015.	Associate Professor
• 2005. – 2010.	Assistant Professor
• 1998. – 2005.	Senior Teaching Assistant
• 1994. – 1998.	Teaching assistant
• 1993. – 1994.	Research Assistant
• 1992. – 1994.	Research Assistant, Faculty of Physical Chemistry, University of Belgrade

Education:

- 2003. – Ph.D. Physical Chemistry – defended Ph.D. thesis entitled: "*Electrochemical Behavior and Determination of Cephalosporin Antibiotic Cefetamet in Alcohol - Water Mixture"*, Faculty of Physical Chemistry, University of Belgrade.
- 1998. – M. Sc. Physical Chemistry – defended Master thesis entitled: "*Determination of Protonation Constants and Electrochemical Behavior of Cefetamet-Na"*, Faculty of Physical Chemistry, University of Belgrade.
- 1992. – B. Sc. Physical Chemistry – Faculty of Physical Chemistry, University of Belgrade.

Training:

- October 2008. – January 2009. – Training in Department of Biophysical Chemistry and Molecular Oncology, Institute of Biophysics, Czech Academy of Science, Brno, Czech Republic.
- January 2010. – Invited visit in Department of Biophysical Chemistry and Molecular Oncology, Institute of Biophysics, Czech Academy of Science, Brno, Czech Republic.

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.
- 2005. – Mentor for the research awarded with the First prize award of the University of Belgrade for the best student scientific research paper.

Teaching activities:

- Integrated academic studies – Courses:
  - Physical Chemistry (study programs: Pharmacy and Pharmacy - Medical Biochemistry);
  - Physical Chemistry (for foreign students study program: Pharmacy)
  - Instrumental Methods (study program: Pharmacy - Medical Biochemistry);
  - Colloid Chemistry (study programs: Pharmacy and Pharmacy - Medical Biochemistry);
  - Colloid Chemistry (for foreign students study program: Pharmacy)
- Doctoral 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.
- Member of the Committee for the defense of one doctoral dissertation at Faculty of Pharmacy, University of Belgrade (2017)
- Mentor of 26 graduation thesis and a member of 76 Committees for undergraduate theses at Faculty of Pharmacy and Faculty of Physical Chemistry, University of Belgrade
- Mentor/co-mentor of 16 students scientific research papers presented at Student congress of biomedical sciences of Serbia, with international participation (2005 – 2021)

Textbooks:

- Vesna Kuntić, Slavica Blagojević, **Mara Aleksić**, Aleksandra Janošević Ležaić, Leposava Pavun, Svetlana Mićić,
  Instrumental methods – Practicum with examples, for students at study program: Pharmacy – Medical Biochemistry, University of Belgrade – Faculty of Pharmacy, Belgrade, 2018, ISBN 978–86–6273–052–7
- 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:

- Member of the Faculty Council 2010 – 2012, 2012 – 2014, and since 2018.
- President of the Student Disciplinary Committee, Faculty of Pharmacy, University of Belgrade (since 2020)
- President of the Council for first study year Faculty of Pharmacy, University of Belgrade (2011 – 2016)
- President of the Commission for property inventory of the:
  - bookstore at Faculty of Pharmacy (2018)
  - receivables and liabilities of the Faculty of Pharmacy (2014)
  - Department of Physical Chemistry and Instrumental Methods (2008, 2011 and 2020).
- President of the Commission for report writing on the applied candidates for a vacancy for:
  - one teaching assistant for scientific area Physical Chemistry at Faculty of Pharmacy, University of Belgrade (2021)
  - one associate professor for scientific area Physical Chemistry at Faculty of Pharmacy, University of Belgrade (2020)
- Committee member for report writing on the applied candidates for a vacancy for
  - one associate professor for scientific area Physical Chemistry at Faculty of Pharmacy, University of Belgrade (2021)
  - one associate professor for scientific area Analytical Chemistry at Faculty of Pharmacy, University of Belgrade (2017)
  - one full professor for scientific area Physical Chemistry at Faculty of Pharmacy, University of Belgrade (2016)
  - one teaching assistant for scientific area Physical Chemistry at Faculty of Pharmacy, University of Belgrade (2016)
  - two assistant professors for scientific area Physical Chemistry at Faculty of Pharmacy, University of Belgrade (2013)
- Person responsible for students safety at the first year of integrated academic studies (since 2015)

Activities within wider Academic Community:

- Member of the Professional scientific areas board for natural sciences, University of Belgrade (since 2019)
- Co-author of Equipment Catalogue, Faculty of Pharmacy University of Belgrade (2013)
- Committee member for report writing on the applied candidates for a vacancy for
  - two teaching assistants with PhD for scientific area Physical Chemistry at Faculty of Physical Chemistry, University of Belgrade (2018)
  - one research associate at Faculty of Sciences, University of Kragujevac (2011)
  - one teaching assistant at Faculty of Physical Chemistry, University of Belgrade (2009)
- Lecturer at 2nd Regional Symposium on Electrochemistry South-East Europe, 6-10 June 2010, Belgrade, “Polylysine-catalyzed hydrogen evolution at mercury electrodes”

- Lecturer at Petnica Science Center during the autumn chemistry course "Application of Polarography and Voltammetry in Bioelectrochemistry" (2010)
- Author of the publication "Electrochemical behavior and determination of cefetamet", Zadužbina Andejević, Editio Disertatio, Beograd, 2005, ISBN 86-7244-492-2.
- Section lecturer at 3rd Congress of Jugoslav pharmacists, Belgrade, 29. October – 2. November 2002.
- Invited reviewer for the papers of *International Conference on Fundamental and Applied Aspects of Physical Chemistry, Belgrade, Serbia*
- Invited reviewer in the numerous international journals (2005 –2021): *Talanta, Journal of Serbian Chemical Society, Sensor letters, International Journal of Electrochemistry, Current Pharmaceutical Analysis, Electroanalysis, Croatica Chimica Acta, Chemical Industry, Food Analytical Methods, International Journal of Environmental Analytical Chemistry, Journal of Molecular Liquids.*
- Member of the Serbian Chemical Society
- Member of the Society of Physical Chemists of Serbia

Projects:

- Scientific research project - The Program IDEAS „Utilization of interplay between inflammation and cancer in the development of compounds with anticancer activity" (project manager dr Vladimir Dobričić assoc. prof., University of Belgrade – Faculty of Pharmacy, grant number 7739840), Science Fund of the Republic of Serbia (since 2021)
- Member of the research team of the Faculty of Pharmacy, research topic: Quantitative structure-activity relationships, synthesis physico-chemical characterization and analysis of pharmacologically active compounds (project manager dr Katarina Nikolić assoc. prof., University of Belgrade – Faculty of Pharmacy, (Contract number :451-03-68/2020-14/200161) (since 2020)
- Synthesis, quantitative structure-activity relationships, physico-chemical characterization and analysis of pharmacologically active substances (University of Belgrade – Faculty of Pharmacy, grant number 172033, Ministry of Education, Science and Technological Development Republic of Serbia), 2011. – 2019.
- Synthesis, QSAR, QSPR, physical-chemical characterization and analysis of pharmacologically active substances, (University of Belgrade – Faculty of Pharmacy, grant number 142071, Ministry of Science and Environmental Protection of Serbia), 2006. – 2010.
- Molecular structures, chemical transformations, physical-chemical characterization, pharmaceutically impurity and analysis of pharmacologically active substances (University of Belgrade – Faculty of Pharmacy, grant number 1458, Ministry of Science and Environmental Protection of Serbia), 2002. – 2005.
- Research and development of radiopharmaceuticals and other agents for their medical use (Vinča Institute for nuclear sciences, grant number 1980, Ministry of Science and Environmental Protection of Serbia), 2002. – 2003.
- Equilibrium in complex medium (University of Belgrade – Faculty of Pharmacy, Ministry of Science and Environmental Protection of Serbia), 1996. – 2000.

- Bio–pharmaceutical and chemical engineering research of medicinal substances and herbs (University of Belgrade – Faculty of Pharmacy, Ministry of Science and Environmental Protection of Serbia), 1996. – 1998.

Selected publications:

1. Rupar, J., **Aleksić**, M., Dobričić, V., Brborić, J., Čudina O.: An electrochemical study of 9-chloroacridine redox behavior and its interaction with double-stranded DNA. *Bioelectrochemistry.* 2020; 135: 107579.
   DOI: 10.1016/j.bioelechem.2020.107579. ISSN: 1567-5394
2. Rupar, J., Dobričić, V., Grahovac, J., Radulović, S., Skok, Ž., Ilaš, J., **Aleksić, M.**, Brborić J., Čudina O.: Synthesis and evaluation of anticancer activity of new 9-acridinyl amino acid derivatives. *RSC Med. Chem.* 2020; 11(3): 378–386.
   DOI: 10.1039/C9MD00597H. ISSN: 2632-8682
3. Radulović, V., **Aleksić, M.**, Kapetanović, V., Karljiković Rajić, K., Jovanović, M., Marjanović, I., Stojković, M., Agbaba, D.: The evaluation of short- and long-term stability studies for brimonidine in aqueous humor by DPV/BDDE method – possible application for direct assay in native samples. *Anal. Bioanal. Chem*. 2019; 411: 5755–5763.
   DOI: 10.1007/s00216-019-01955-3. ISSN: 1618-2642
4. Rupar, J., **Aleksić**, M., Nikolić, K., Popović Nikolić, M.: Comparative electrochemical studies of kinetic and thermodynamic parameters of Quinoxaline and Brimonidine redox process. *Electrochimica acta.* 2018; 278: 220–231.
   DOI: 10.1016/j.electacta.2018.03.114 ISSN: 0013-4686
5. **Aleksić**, M., Radulović, V., Agbaba, D., Kapetanović, V.: An extensive study of electrochemical behavior of brimonidine and its determination at glassy carbon electrode. *Electrochimica acta.* 2013; 106: 75–81.
   DOI: 10.1016/j.electacta.2013.05.053. ISSN: 0013-4686
6. Radulović, V., **Aleksić**, M., Agbaba, D., Kapetanović, V.: An electroanalytical approach to brimonidine at boron doped diamond electrode based on its extensive voltammetric study. *Electroanalysis.* 2013; 25(1): 230–236.
   DOI: 10.1002/elan.201200400. ISSN: 1040-0397
7. Živanović, M., A**leksić**, M., Ostatná, V., Doneux, T., Paleček, E.: Polylysine-catalyzed hydrogen evolution at mercury electrodes. *Electroanalysis* 2010; 22(17-18): 2064–2070.
   DOI: 10.1002/elan.201000088. ISSN: 1040-0397
8. **Aleksić**, M., Kapetanović, V.: Application of adsorptive stripping voltammetry for the determination of selected methoxyimino cephalosporins in urine samples. *Combinarial Chemistry & High Throughput Screening* 2010; 13(8): 758–763 (Review article).
   DOI: 10.2174/138620710791920310. ISSN: 1386-2073
9. **Aleksić, M.**, Kapetanović, V., Atanacković, J., Jocić B., Zečević, M.: Simultaneous determination of cefotaxime and desacetylcefotaxime in real urine sample using voltammetric and high-performance liquid chromatographic methods. *Talanta.* 2008; 77(1): 131–137
   DOI: 10.1016/j.talanta.2008.05.047. ISSN: 0039-9140

10. Zuman, P., Kapetanović, V., **Aleksić, M.**: Recent developments in electroanalytical chemistry of cephalosporins and cefamycins. *Anallytical Letters.* 2000; 33(14): 2821–2857 (Review article)
DOI: 10.1080/00032710008543225. ISSN: 0003-2719