Mara Aleksić

Employment Information:

- 2010. – Associate Professor, Department of Physical Chemistry and Instrumental Methods, Faculty of Pharmacy, University of Belgrade
- 2005. – 2010. Assistant Professor
- 1998. – 2005. Senior Teaching Assistent
- 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 – deffended 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 – deffended 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 – graduated at 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);
  Instrumental Methods (study program: Pharmacy - Medical Biochemistry);
  Colloid Chemistry (study programs: Pharmacy and Pharmacy - Medical Biochemistry);
- Doctoral studies – module Drug analysis, Course: Spectroscopic Methods in Drug Analysis
- Specialized studies designed for health care – Course: Instrumental Methods
- Mentor of 23 graduation thesis and a member of Committee for over 60 undergraduate theses.
- Mentor of 13 students scientific research papers (Faculty of Pharmacy-University of Belgrade and the Faculty of Physical Chemistry), 2005.-2014.

Textbooks:

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

Activities within the Faculty:

- Member of the Faculty Council (since 2010.)
- President of the Council for first year (since 2011.)
- President of the Commission for property inventory of the department of Physical Chemistry and Instrumental Methods (2011/2012)
- Committee member for report writing on the applied candidates for a vacancy for two assistant professors at Faculty of Pharmacy (2013.)
- Member of the Commission for property inventory of the department of Physical Chemistry and Instrumental Methods (2008/2009)

Activities within wider Academic Community:

- 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 one teaching assistant at Faculty of Physical Chemistry, University of Belgrade (2009.) and one research associate at Faculty of Sciences, University of Kragujevac (2011.)
- Lecturer at 2nd Regional Simposium 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.
- Plenar lecturer at 3rd Conress of Jugoslav pharmacists, Belgrade, 29. October – 2. November 2002.
- Reviewer for the papers of *International Conference on Fundamental and Applied Aspects of Physical Chemistry, Belgrade, Serbia*
- Reviewer in the numerous international journals (2005. –2014.): *Talanta, Journal of Serbian Chemical Society, Sensor letters, International Journal of Electrochemistry, Current Pharmaceutical Analysis, Electroanalysis, Croatica Chimica Acta, Chemical Industry, Food Analytical Methods*
- Member of the American Chemical Society
- Member of the Society of Serbian Chemical Society
- Member of the Society of Physical Chemistry of Serbia

Projects:

- 2011. – 2015. Synthesis, quantitative structure-activity relationships, physico-
  chemical characterization and analysis of pharmacologically active substances (Faculty of Pharmacy, University of Belgrade, grant number 172033, Ministry of Education, Science and Technological Development Republic of Serbia).
- 2006. – 2010. Synthesis, QSAR, QSPR, physical-chemical characterization and analysis of pharmacologically active substances, (Faculty of Pharmacy, University of Belgrade, grant number 142071, Ministry of Science and Environmental Protection of Serbia).
- 2002. – 2005. Molecular structures, chemical transformations, physical-chemical characterization, pharmaceutically impurity and analysis of pharmacologically active substances (Faculty of Pharmacy, University of Belgrade, grant number 1458, Ministry of Science and Environmental Protection of Serbia).
- 2002. – 2003. Research and development of radiopharmacueticals and other agents for their medical use (Vinča Institute for nuclear sciences, grant number 1980, Ministry of Science and Environmental Protection of Serbia).

- 1996. – 2000. Equilibrium in complex medium (Faculty of Physical Chemistry, University of Belgrade, Ministry of Science and Environmental Protection of Serbia).
- 1996. – 1998. Bio–pharmaceutical and chemical engineering research of medicinal substances and herbs (Faculty of Pharmacy, University of Belgrade, Ministry of Science and Environmental Protection of Serbia).

Publications:

- **M. Aleksić,** V. Kapetanović, "An overview of the optical and electrochemical methods for detection of DNA - drug interaction" ***Acta Chimica Slovenica***, 2014, 61, 555–573. (Review article).

- **M. Aleksić**, V. Radulović, D. Agbaba, V. Kapetanović, "An extensive study of electrochemical behavior of brimonidine and its determination at glassy carbon electrode" ***Electrochimica acta***, 2013, 106, 75– 81.

- V. Radulović, **M. Aleksić,** D. Agbaba, V. Kapetanović, "An Electroanalytical Approach to Brimonidine at Boron Doped Diamond Electrode Based on Its Extensive Voltammetric Study" ***Electroanalysis,*** 2013, 25(1), 230-236.

- V. Radulović, **M. Aleksić**, V. Kapetanović, "An electrochemical study of the adsorptive behaviour of Varenicline and its interaction with DNA", ***Journal of the Serbian Chemical Society,*** 2012, 77(10), 1409-1422.

- M. Živanović, **M. Aleksić,** V. Ostatná, T. Doneux, E. Paleček, "Polylysine-Catalyzed Hydrogen Evolution at Mercury Electrodes" ***Electroanalysis,*** 2010, 22(17-18), 2064-2070.

- **M. Aleksić**. V. Kapetanović, "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)

- **M. Aleksić,** V. Kapetanović, J. Atanacković, B. Jocić, M. Zečević "Simultaneous determination of cefotaxime and desacetylcefotaxime in real urine sample using voltammetric and high-performance liquid chromatographic methods" ***Talanta*** 2008, 77, 131-137.

- **M. Aleksić**, V. Savić, G. Popović, N. Burić, V. Kapetanović, „Acidity constants of cefetamet, cefotaxime, ceftriaxone; the effect of the substituent at C3 position" ***Journal of Pharmaceutical and Biomedical Analysis*** 2005, 39, 752-756.

- V. Kapetanović, **M. Aleksić**, P. Zuman, "Two step reduction of the O-methyloxime grouping in the antibiotic cefetamet", ***Journal of Electroanalytical Chemistry*** 2001, 507(1-2), 263-269.

- P. Zuman, V. Kapetanović, **M. Aleksić**, "Recent developments in electroanalytical chemistry of cephalosporins and cefamycins", ***Anallytical Letters,*** 2000, 33(14), 2821-2857. (Review article)