## **GORDANA POPOVIC**

#### **Employment Information:**

- 2006 Professor
- 2001 Associate professor
- 1996 Assistant professor
- 1991 Teaching assistant
- 1987 Assistant trainee
- 1984 Teaching associate
- 1984– Department of General and Inorganic Chemistry, Faculty of Pharmacy, University of Belgrade
- 1982–1984 Pharmacist, Pharmacy Belgrade

## **Education:**

- 1994 Defense of doctoral dissertation, Faculty of Chemistry, University of Belgrade Topic: Protolytic equilibria of 1,4-benzodiazepines.
- 1987–1990 Master's studies, Faculty of Chemistry, University of Belgrade

Topic: Study of homogeneous and heterogeneous acid-base balance of some1,4-benzodiazepines.

- 1983 Professional exam
- 1982 Undergraduate studies, Faculty of Pharmacy, University of Belgrade

## Academic awards and distinctions:

1995 ICN Galenika Award for doctoral dissertation in the field of chemistry. 1991 ICN Galenika Award for Master's Thesis in Chemistry.

## **Teaching activities:**

## Courses in which she participates

General and Inorganic Chemistry (IAS) Solution Chemistry (IAS) Protolytic Equilibria (DAS)

## Final / graduate theses

Mentor of 230 final / graduate theses Member of the committees for defense of over 400 final / graduate theses

# Master's theses – mentor

Tatjana Damjanović. Study of protolytic equilibria and hydrolysis of bromazepam. University of Belgrade - Faculty of Chemistry, December 28, 2001.

Mirjana Vojić. Study of protolytic equilibria of metronidazole and ketoconazole and spectrophotometric determination of ketoconazole in pharmaceutical formulations. University of Belgrade - Faculty of Chemistry, March 21, 2001.

Violeta Stefanović. Application of derivative spectrophotometry for the study of protolytic equilibria and determination of pharmacologically active substances from the class of 1,4-benzodiazepines. University of Belgrade - Faculty of Chemistry, April 17, 2000.

#### Master's theses – membership in committees

Aleksandar Lolić. Determination of microquantities of arsenic and chloride by flow-injection methods using an amperometric detector. University of Belgrade - Faculty of Chemistry, April 20, 2006.

Jelena Mutić. Determination of iodide and bromide by flow-injection analysis with amperometric detection. University of Belgrade - Faculty of Chemistry, July 28, 2005.

Olivera Grozdanović. Stability and determination of pentoxifylline synthesis intermediates by high performance liquid chromatography and high performance methods. University of Belgrade - Faculty of Pharmacy, May 20, 2005.

Branka Dražić. Determination of  $pK_a$  values of some di- and tricarboxylic unsaturated and epoxy acids and their correlation with atomic charges of the carboxyl group. University of Belgrade - Faculty of Chemistry, May 22, 2003.

Milka Kostić. Determination of acid constants of p-substituted (*E*)-4-phenyl-4oxo-2-butenoic acids, *trans*-2,3-epoxy-4-phenyl-4-oxo butanoic acids and their correlation with structure. University of Belgrade - Faculty of Chemistry, July 25, 1999.

## **Doctoral dissertations – mentor**

Maja Grujić. Investigation of the influence of surfactant micelles of different charges on protolytic equilibria and sartan solubility. University of Belgrade - Faculty of Pharmacy, September 27, 2020.

Marija Popović. Influence of surfactants on protolytic equilibria and isomerization of ACE inhibitors. University of Belgrade - Faculty of Pharmacy, September 3, 2015.

Branka Dražić. Study of protolytic equilibria of biologically active complexes of Fe(III), Zn(II) and Ru(II). University of Belgrade - Faculty of Chemistry, October 21, 2011.

Tatjana Verbić. Study of protolytic equilibria and correlations of structure and properties of 4-aryl-2-4-dioxobutanoic acids. University of Belgrade - Faculty of Chemistry, November 19, 2010.

## Doctoral dissertations – membership in committees

Marija Dimitrijević. Comparative study of element content and antioxidant activity of selected fungal species: a chemometric approach. Faculty of Science, Department of Chemistry, University of Nis, October 14, 2021. Stefan Stojanović. Investigation of tigecycline binding to human serum albumin and interaction with metal ions and fluoroquinolones - an in vitro study. Defended at the Faculty of Medicine, University of Kragujevac. November 30, 2018.

Slavica Filipić. Quantitative relations of structure, activity and retention properties of ligands of imidazoline and alpha2 adrenergic receptors. University of Belgrade - Faculty of Pharmacy. March 21, 2013.

Vesna Stankov-Jovanović. Spectrophotometric kinetic determination of pancuronium bromide and propranolol in biological samples and pharmaceutical formulations. University of Belgrade - Faculty of Chemistry, June 15, 2007.

Violeta Mitic. Application of trimethylarylmethane dye Victoria blue 4-R as indicator substances for kinetic determination of As(III), Sb(III), iodine, hydrazine and phenylhydrazine. University of Belgrade - Faculty of Chemistry, December 28, 2005.

Sofija Rančić. Optimization of kinetic spectrophotometric methods for determination of toxic elements (Cd, Co, Bi, Sn, As, Ag, Pd and Au). University of Belgrade - Faculty of Chemistry, October 7, 2005.

Jasmina Brborić. Halogenated iminodiacetic acid derivatives labeled with hechnecium-99m for hepatobiliary scintigraphy: design, synthesis, physicochemical and biological properties. University of Belgrade - Faculty of Pharmacy, July 7, 2005.

## **Textbooks:**

M. Čakar, G. Popović, S. Tanasković, B. Dražić, T. Jovanović. Praktikum iz opšte i neorganske hemije. Farmaceutski fakultet, Beograd, 2016.

M. Čakar, G. Popović, T. Jovanović, Z. Korićanac, V. Savić, Z. Tokić-Vujošević. Zbirka zadataka iz hemije za pripremu prijemnog ispita, Farmaceutski fakultet, Beograd, 2007.

M. Čakar, G. Popović. Opšta hemija I. Farmaceutski fakultet, Beograd, 2004.

T. Jovanović, M. Čakar, G. Popović, S. Tanasković. Zbirka zadataka iz opšte hemije. Farmaceutski fakultet, Beograd, 2004.

Z. Korićanac, T. Jovanović, G. Popović, M. Čakar. Praktikum iz opšte i neorganske hemije. Farmaceutski fakultet, Beograd, 1999.

M. Bresjanac, A. Stefanović, M. Blagojević, T. Jovanović, M. Čakar, G. Popović. Zbirka zadataka iz opšte hemije, Farmaceutski fakultet, Beograd, 1994.

#### Activities within the Faculty:

- 2019 President of the committee for conducting the reaccreditation procedure Faculty of Pharmacy as a scientific research organization
- 2018–2020 The person responsible for implementing the integrity plan at Faculty of Pharmacy
- 2016–2019 Head of the Department of general and inorganic chemistry

2016–2019	Member of the committee for monitoring and improving the quality of teaching
2014–2019	Member of the quality team for the application of the SRPS ISO 9001 standard
2012-2016	Member of the Faculty council
2009–2011	President of the commission for making the schedule of classes at the
	level Faculty
2007-2010	Head of the Department of Chemistry
2006	Member of the Accreditation committee of the Faculty of scientific research
1997–2000	Member of the Faculty council
1991–	Member of the working group for the preparation of the entrance exam

# Activities within wider Academic Community:

- 2017– Member of the Board of the Foundation "Mr ph Ljubica Vojteh Dragićević and ing father Nikola Dragićević ".
- 2011–2012 Member of the expert team for the development of educational standards for the end of general secondary and secondary vocational education in the Republic of Serbia for the subject Chemistry

# Teaching and research cooperation

Faculty of Chemistry, University of Belgrade

Faculty of Medicine, University of Kragujevac

Faculty of Medicine, University of Nis

Faculty of Science, University of Nis

National Institute of Chemistry, Ljubljana

# Review activities of teaching literature

- 2019 Praktikuma iz opšte hemije. N. Milić, N. Milošević, M. Milanović. Medicinski fakultet, Univerzitet u Novom Sadu.
- 2017 Praktikum iz organske hemije. V. Savić, M. Simić, M. Petković, G. Tasić, P. Jovanović, Z. Tokić-Vujošević, S. Dilber. Farmaceutski fakultet Univerziteta u Beogradu.
- 2017 Neorganska hemija. N. Milić, N. Milošević. Medicinski fakultet, Univerzitet u Novom Sadu.
- 2014 Praktikim neorganske hemije za studente farmacije. N. Milić, N. Milošević. Medicinski fakultet, Univerzitet u Novom Sadu.
- 2012 Praktikim opšte hemije za studente farmacije. N. Milić, N. Milošević. Medicinski fakultet, Univerzitet u Novom Sadu.

# Reviewer of the monograph:

2005 Elektrohemijsko ponašanje i određivanje cefalosporinskog antibiotika cefetameta u smeši alkohola i vode. M. Aleksić. Farmaceutski fakultet Univerziteta u Beogradu.

## Review activities in international and national journals:

Journal of Pharmaceutical and Biomedical Analysis, Acta Chromatographica, Spectroscopy Letters, Journal of Coordination Chemistry, Acta Chimica Slovenica, Chemical Engineering Communications, Journal of the Serbian Chemical Society, Archives of Pharmacy, Monatshefte für Chemie - Chemical Monthly, Colloids and Surfaces A: Physicochemical and Engineering Aspects

# **Projects:**

## National projects

- 2020– Research of MPNTR of the Republic of Serbia, Research group of Dr. Katarina Nikolić.
- 2011–2019 Synthesis, quantitative structure/properties and activity relationship, physical-chemical characterization and analysis of pharmacologically active substances (#172033).
- 2006–2010 Synthesis, quantitative relationships between properties and activities, physicochemical characterization and analysis of pharmacologically active substances.
- 2002–2005 Molecular structures, chemical transformations, physico-chemical characterization, pharmaceutical purity and analysis of pharmacologically active substances.
- 2002–2005 Synthesis, characterization and biological activity of metal complexes with synthetic and natural organic ligands.
- 1991–2001 Complex systems in chemistry.

# International projects - bilateral Serbia-Slovenia

- 2008–2010 Determination of active substances in dietary supplements.
- 2006–2007 Application of chemometry in drug analysis and testing quantitative structure relations, retention parameters, properties and activities (QSRR, QSPR and QSAR) of drugs.
- 2004–2005 Chromatographic methods in the analysis of pharmacologically active compounds, QSPR and QSAR research.

# **Publications:**

M. Popović-Nikolić, G. Popović, K. Stojilković, M. Dobrosavljević, D. Agbaba. Acidbase equilibria of rupatadine fumarate in aqueous media. J Chem Eng Data (2018), 63(8), 3150-6.

M. Popović-Nikolić, G. Popović, D. Agbaba. The effect of nonionic surfactant Brij 35 on solubility and acid-base equilibria of verapamil. J Chem Engin Data (2017), 62, 1776–1781.

M. Grujić, M. Popović, G. Popović, K. Nikolić, D. Agbaba, Protolytic equilibria of sartans in micellar solutions of differently charged surfactants. J Pharm Sci (2016), 105, 2444-2452.

M. Popović, G. Popović, S. Filipić, K. Nikolić, D. Agbaba. The effects of micelles of differently charged surfactants on the equilibrium between (Z)- and (E)-diastereomers of five ACE inhibitors in aqueous media. Monatsh Chem/Chem Monthly (2015), 146, 913-921.

M. Popović, G. Popović, D. Agbaba. The effects of anionic, cationic, and nonionic surfactants on acid–base equilibria of ACE Inhibitors. J Chem Engin Data (2013), 58, 2567-2573.

I. Vovk, G. Popović, B. Simonovska, A. Albreht, D. Agbaba. Ultra-thin-layer chromatography mass spectrometry and thin-layer chromatography mass spectrometry of single peptides of angiotensin-converting enzyme inhibitors. J Chromatogr A (2011), 1218, 3089-3094.

G. Popović, M. Čakar, D. Agbaba. Acid-base equilibria and solubility of loratadine and desloratadine in water and micellar media. J Pharm Biomed Anal (2009), 49, 42-47.

M. Aleksić, V. Savić, G. Popović, N. Burić, V. Kapetanović. Acidity constants of cefetamet, cefotaxime and ceftriaxone; the effect of the supstituent at C3 position. J Pharm Biomed Anal (2005), 39, 752.

G. Popović, D. Sladić, V. Stefanović, L. Pfendt. Study on protolytic equilibria of lorazepam and oxazepam by UV and NMR spectroscopy. J Pharm Biomed Anal (2003), 31, 693.

G. Popović, L. Pfendt, V. Moskovljević. Derivative spectrophotometric method for determination of acidity constants of single step acid-base equilibria. Talanta (2001), 55, 363.