

## PERSONAL INFORMATION

## Violeta Marković



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Sex Female | Date of birth 02/07/1985 | Nationality Serbian

## STUDIES APPLIED FOR

## The Erasmus Mundus Scholarship under Green-Tech-WB project

## WORK EXPERIENCE

July 2013 - present

**Research Associate**

Faculty of Science, University of Kragujevac, Serbia; [www.pmf.kg.ac.rs](http://www.pmf.kg.ac.rs)

- Teaching: organic synthesis, organic chemistry, industrial chemistry, environmental chemistry
- Researching: synthesis, structural characterization and mechanistic studies of new heterocyclic, anthraquinone and adamantyl derivatives applying different spectroscopic techniques and DFT studies. Investigation of cytotoxic activity of newly synthesized compounds against human cancer cells. Total synthesis of natural compounds, as well as their corresponding synthetic analogues further used for the biological essays.

October 2008 - July 2013

**Research Assistant**

Faculty of Science, University of Kragujevac, Serbia; [www.pmf.kg.ac.rs](http://www.pmf.kg.ac.rs)

## EDUCATION

2013 - 2014

**Postdoctoral study**

Sapienza, University of Rome, Department of Chemistry and Technology of Drug, Faculty of Pharmacy, supervised by professor Dr. Bruno Botta

2011 - 2012

**PhD exchange program**

Sapienza, University of Rome, Department of Chemistry and Technology of Drug, Faculty of Pharmacy, supervised by professor Dr. Bruno Botta

2008 - 2012

**PhD in Chemistry – Organic chemistry**

Doctoral studies at Faculty of Science, University of Kragujevac, Serbia

- Thesis title: "Synthesis, spectral characterization and mechanistic studies of new pyrazole and pyrazolone derivatives", supervised by professor Dr. Milan D. Joksović

2004 - 2008

**BSc degree in Chemistry**

Studies of chemistry at Faculty of Science, University of Kragujevac, Serbia

2000 - 2004

**First Grammar School of Kragujevac, Serbia**

## PERSONAL SKILLS

Mother tongue(s)

Serbian

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	B2	B2	B2	B2	B2

- Communicational / organisational skills**
- good communication and organisation skills gained through the experience as teaching assistant and researcher
  - initiative, persistent, communicative, willing to teamwork, competitive, friendly sociable, responsible, reliable, well-organized
- Job-related skills**
- good command of general synthetic techniques (including microwave synthesis, preparative chromatography)
  - good command of spectroscopic techniques (IR, NMR)
- Computer skills**
- MS Office
  - ChemBioOffice
  - SciFinder
- Driving licence**
- B

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**ADDITIONAL INFORMATION**

- Projects**
- National research projects:
- New Electrochemical and Chemical Methods in the Synthesis of Organic Molecules (12/2008 – 12/2010);
  - Synthesis, modelling, physicochemical and biological properties of some organic compounds and corresponding metal complexes (01/2011 - );
- Referees**
- Professor Dr. Milan D. Joksović**  
Associate Professor at  
Department of Chemistry, Organic Chemistry  
Faculty of Science  
University of Kragujevac  
Radoja Domanovića 12  
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- Professor Dr. Bruno Botta**  
Full Professor at  
Dipartimento di Chimica e Tecnologie del Farmaco  
Sapienza, Università di Roma  
P.le Aldo Moro, 5  
00185 Roma (Italy)  
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Fax: +3906-4991-2780  
E-mail: [bruno.botta@uniroma1.it](mailto:bruno.botta@uniroma1.it)
- Awards**
- Award from the Serbian Chemical Society for extraordinary success during the studies of chemistry.

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**ANNEXES**

- Publications;
- International Conferences;
- National Conferences.

## Publications

1. I. Gutman, B. Furtula, B. Glišić, **V. Marković**, A. Vesel, Estrada index of acyclic molecules, *Indian Journal of Chemistry. Section A: Inorganic, physical, theoretical and analytical chemistry*, **46** (2007) 723-728.
2. I. Gutman, B. Furtula, **V. Marković**, B. Glišić, Alkanes with greatest Estrada index, *Zeitschrift fur naturforschung section A: Journal of physical sciences*, **62** (2007), 495-498.
3. M. D. Joksović, **V. Marković**, Z. D. Juranić, T. Stanojković, Lj. S. Jovanović, I. S. Damljanović, K. Meszaros Szecsenyi, N. Todorović, S. Trifunović, R. D. Vukicević, Synthesis, characterization and antitumor activity of novel N-substituted  $\alpha$ -amino acids containing ferrocenyl pyrazole-moiety, *Journal of Organometallic Chemistry*, **694**, (2009), 3935-3942.
4. M. D. Joksović, G. Bogdanović, V. Kojić, K. Meszaros Szecsenyi, V. M. Leovac, D. Jakimov, S. Trifunović, **V. Marković**, Lj. Joksović, Synthesis, cytotoxic activity, and thermal studies of novel N-[(1,3-Diphenylpyrazol-4-yl)methyl]  $\alpha$ -amino acids, *Journal of Heterocyclic Chemistry* **47** (2010) 850-856.
5. S. Marković, M. D. Joksović, P. Bombicz, V. M. Leovac, **V. Marković**, Lj. Joksović, Theoretical study on structural and mechanistic aspects of synthesis of a 3-aminopyrazole derivative, *Tetrahedron*, **66**, (2010), 6205-6211.
6. **V. Marković**, S. Erić, Z. D. Juranić, T. Stanojković, Lj. Joksović, B. Ranković, M. Kosanić, M. D. Joksović, Synthesis, antitumor activity and QSAR studies of some 4-aminomethylidene derivatives of edaravone, *Bioorganic Chemistry*, **39**, (2011), 18-27.
7. **V. Marković**, S. Erić, T. Stanojković, N. Gligorijević, S. Arandelović, N. Todorović, S. Trifunović, N. Manojlović, R. Jelić, M. D. Joksović, Antiproliferative activity and QSAR studies of a series of new 4-aminomethylidene derivatives of some pyrazol-5-ones, *Bioorganic & Medicinal Chemistry Letters*, **21**, (2011), 4416-4421.
8. V. M. Leovac, G. A. Bogdanović, Lj. S. Jovanović, Lj. Joksović, **V. Marković**, M. D. Joksović, S. Misirlić Denčić, A. Isaković, I. Marković, F. W. Heinemann, S. Trifunović, I. Đalović, Synthesis, characterization and antitumor activity of polymeric copper(II) complexes with thiosemicarbazones of 3-methyl-5-oxo-1-phenyl-3-pyrazolin-4-carboxaldehyde and 5-oxo-3-phenyl-3-pyrazolin-4-carboxaldehyde, *Journal of Inorganic Biochemistry*, **105(11)**, (2011), 1413-1421.
9. **V. Marković**, S. Markovic, A. Janicijevic, M. V. Rodic, V. M. Leovac, N. Todorovic, S. Trifunovic, M. D. Joksovic, Mechanistic investigation and DFT calculation of the new reaction between S-methylisothiosemicarbazide and methyl acetoacetate, *Structural Chemistry*, **24**, (2013), 2127-2136.
10. **V. Marković**, A. Janičijević, T. Stanojković, B. Kolundžija, D. Sladić, M. Vujčić, B. Janović, Lj. Joksović, P. T. Djurdjević, N. Todorović, S. Trifunović, M. D. Joksović, Synthesis, cytotoxic activity and DNA-interaction studies of novel anthraquinone–thiosemicarbazones with tautomerizable methylene group, *European Journal of Medicinal Chemistry*, **64**, (2013), 228-238.
11. S. Marković, **V. Marković**, M. D. Joksović, N. Todorović, Lj. Joksović, V. Divjaković, S. Trifunović, Debromination of *endo*(+)-3-bromocamphor with primary amines, *Journal of the Brazilian Chemical Society*, **24(7)**, (2013), 1099-1108.
12. **V. Marković**, M. D. Joksović, S. Marković, I. Jakovljević, Influence of anthraquinone scaffold on *E/Z* isomer distribution of two thiosemicarbazone derivatives. 2D NMR and DFT studies, *Journal of Molecular Structure*, 1058, (2014), 291-297.
13. B. Kolundžija, **V. Marković**, T. Stanojković, Lj. Joksović, I. Matić, N. Todorović, M. Nikolić, M. D. Joksović, Novel anthraquinone based chalcone analogues containing an imine fragment: Synthesis, cytotoxicity and anti-angiogenic activity, *Bioorganic & Medicinal Chemistry Letters*, **24(1)**, (2014), 65-71.
14. **V. Marković**, N. Debeljak, T. Stanojković, B. Kolundžija, D. Sladić, M. Vujčić, B. Janović, N. Tanić, M. Perović, V. Tešić, J. Antić, M. D. Joksović, Anthraquinone-chalcone hybrids: Synthesis, preliminary antiproliferative evaluation and DNA-interaction studies, *European Journal of Medicinal Chemistry*, **89**, (2015), 401-410.
15. V.M. Leovac, M.V. Rodić, Lj.S. Jovanović, M.D. Joksović, T.P. Stanojković, M.T. Vujčić, D.M. Sladić, **V. Marković**, Lj.S. Vojinović-Ješić, Transition metal complexes with 1-adamantoyl hydrazones - cytotoxic copper(II) complexes of tri- and tetradentate pyridine chelators containing an adamantane ring system, *European Journal of Inorganic Chemistry*, **5**, (2015), 882-895.
16. **V. Marković**, M.D. Joksović, "On water" synthesis of N-unsubstituted pyrazoles: semicarbazide hydrochloride as an alternative to hydrazine for preparation of pyrazole-3-carboxylate derivatives and 3,5-disubstituted pyrazoles, *Green Chemistry*, **17**, (2015), 842-847.
17. M.V. Rodić, V.M. Leovac, Lj.S. Jovanović, V. Spasojević, M.D. Joksović, T. Stanojković, I.Z. Matić, Lj.S. Vojinović-Ješić, **V. Marković**, Synthesis, characterization, cytotoxicity and antiangiogenic activity of copper(II) complexes with 1-adamantoyl hydrazone bearing pyridine rings, *European Journal of Medicinal Chemistry*, **115**, (2016), 75-81.
18. C. Ingallina, I. D'Acquarica, G. Delle Monache, F. Ghirga, D. Quaglio, P. Ghirga, S. Berardozzi, **V. Markovic**, B. Botta, The Pictet-Spengler reaction still on stage, *Current Pharmaceutical Design*, **22**, (2016), 1808-1850.
19. N. Ivanovic, Lj. Jovanovic, Z. Markovic, **V. Markovic**, M. D. Joksovic, D. Milenkovic, P. T. Djurdjevic, A. Ciric, Lj. Joksovic, Potent 1,2,4-triazole-3-thione radical scavengers derived from phenolic acids: synthesis, electrochemistry, and theoretical study, *ChemistrySelect*, **1**, (2016), 3870 – 3878.
20. M. Z. Milošev, K. Jakovljević, M. D. Joksović, T. Stanojković, I. Z. Matić, M. Perović, V. Tešić, S. Kanazir, M. Mladenović, M. V. Rodić, V. M. Leovac, S. Trifunović, **V. Marković**, Mannich bases of 1,2,4-triazole-3-thione containing adamantane moiety: synthesis, preliminary anticancer evaluation, and molecular modeling studies, *Chemical Biology & Drug Design*, **89**, (2017), 943 – 952.

21. N. Mihailovic, **V. Marković**, I. Z. Matic, N. S. Stanisavljevic, Z. S. Jovanovic, S. Trifunovic, Lj. Joksovic, Synthesis and antioxidant activity of 1,3,4-oxadiazoles and their diacylhydrazine precursors derived from phenolic acids, *RSC Advances*, **7**, (2017), 8550-8560.
22. K. Jakovljević, I. Z. Matić, T. Stanojković, A. Krivokuća, **V. Marković**, M. D. Joksović, N. Mihailović, M. Nićiforović, Lj. Joksović, Synthesis, antioxidant and antiproliferative activities of 1,3,4-thiadiazoles derived from phenolic acids, *Bioorganic & Medicinal Chemistry Letters*, **27**, (2017), 3709-3715.

#### International Conferences

1. **V. Marković**, S. Erić, T. Stanojković, M. Joksović, Synthesis, antitumor activity and QSAR studies of 4-aminomethylidene derivatives of some pyrazol-5-ones, *Preclinical testing of active substances and cancer research, Kragujevac, Serbia, March 16-18, 2011, Book of Abstracts P1, p. 53.*
2. K. Jakovljević, **V. Marković**, M. D. Joksović, I. Z. Matić, T. Stanojković, Synthesis and biological activity of 1,3,4-thiadiazoles derived from phenolic acids, *International Meeting on Medicinal and Bio(in)organic Chemistry, Vrnjačka Banja, Serbia, August 26-31, 2017, Book of Abstracts p. 18.*

#### National Conferences

1. **V. Marković**, M.D. Joksović, Synthesis of a novel anthrone derivative containing 6-azathiouracyl moiety, *52<sup>nd</sup> Meeting of the Serbian Chemical Society, Novi Sad, Serbia, May 29 and 30, 2015, Book of Abstracts OH P 23 p. 137.*
2. K. Jakovljević, **V. R. Marković**, M. D. Joksović, T. Stanojković, Synthesis, characterization and cytotoxicity of novel anthraquinone amides, *53<sup>rd</sup> Meeting of the Serbian Chemical Society, Kragujevac, Serbia, June 10-11, 2016, Book of Abstracts OH P10 p. 108.*
3. **V. R. Marković**, K. Jakovljević, M. D. Joksović, I. Matić, Synthesis and biological screening of novel triazole Mannich bases, *53<sup>rd</sup> Meeting of the Serbian Chemical Society, Kragujevac, Serbia, June 10-11, 2016, Book of Abstracts OH O1 p. 94.*