

## PERSONAL INFORMATION

Name and surname	Dušica Simijonović
Date and place of birth	18/03/1982, Jagodina, Serbia
Scientific title	PhD in Chemistry
E-mail	ducicachem@kg.ac.rs
Educational-scientific / educational-artistic field	Natural Sciences
University, Faculty, Organizational unit	University of Kragujevac, Institute for Information Technologies Kragujevac, Department of Science
Research field and areas	Chemistry, Organic chemistry

## EDUCATION

### BACHELOR

Year	2007
Place	Kragujevac
Institution	Faculty of Science, University of Kragujevac

### DOCTORAL DISSERTATION

Year	2014
Place	Kragujevac
Institution	Faculty of Science, University of Kragujevac
Title of doctoral dissertation	Ethanolamine derivatives as ionic liquids and precursors of biologically and catalytically active Pd(II)-complexes
Scientific title	Senior Research Associate
Research area	Chemistry

## PROFESSIONAL BIOGRAPHY – ELECTION IN RESEARCH OR SCIENTIFIC TITLE

Date	Institution	Scientific title
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28/05/2008	Faculty of Science, University of Kragujevac	Junior Research Assistant
16/02/2011	Faculty of Science, University of Kragujevac	Research Assistant
16/01/2014	Faculty of Science, University of Kragujevac	Research Assistant
29/04/2015	Faculty of Science, University of Kragujevac	Research Associate
15/09/2020	Institute for Information Technologies Kragujevac, University of Kragujevac	Senior Research Associate

### **PROFESSIONAL BIOGRAPHY - TRAINING**

Year	Institution	Duration
2016/2017	Aristotle University of Thessaloniki, Department of Chemistry, Laboratory of Organic Chemistry	6 months
2022	University of Applied Sciences Merseburg, Department of Engineering and Natural Sciences	7 days

### **ENGAGEMENT IN THE FORMATION OF SCIENTIFIC PERSONNEL**

Participation in the committee for the evaluation and defense of doctoral dissertation at the Faculty of Science, University of Kragujevac.

Participation in the preparation of a large number of graduate, final and master theses, and membership in the commissions for their defense at the Faculty of Science, University of Kragujevac.

**PARTICIPATION IN NATIONAL PROJECTS FINANCED BY MINISTRY OF EDUCATION/MINISTRY OF SCIENCE AND TECHNOLOGICAL DEVELOPMENT/SCIENCE FUND OF THE REPUBLIC OF SERBIA:**

1. Project number: (142013B) "Bioactive complexes of *p*- and *d*-metal ions with ligands of pharmacotherapeutic importance" (period of engagement 2009-2011; supervisor Prof. Dr. Predrag Đurđević);
2. Project number: (172016) "Synthesis, modeling, physico-chemical and biological properties of organic compounds and corresponding metal complexes" (period of engagement: 2011-2019; supervisor Prof. Dr. Srećko Trifunović);

### **PARTICIPATION IN INTERNATIONAL PROJECTS**

Bilateral project with the Republic of Croatia: "Examining the chemistry and antioxidant activity of a complex of polyphenolic compounds with essential metals" (engagement period 2016-2017; supervisors: Prof. Dr. Svetlana Marković and Dr. Ante Miličević);

### **MEMBERSHIP IN SCIENTIFIC AND PROFESSIONAL ASSOCIATIONS**

Member of the Serbian Chemical Society since 2009.

### **ORGANIZATION OF NATIONAL/INTERNATIONAL SCIENTIFIC MEETINGS (CONFERENCES, CONGRESSES...)**

**2021** - Member of the organizing committee –

*1st International Conference on Chemo and BioInformatics (ICCBKIG)*, Institute for Information Technologies Kragujevac, Kragujevac, Serbia, 26-27 October, 2021.

### **LIST OF SCIENTIFIC PAPERS:**

<b>Monographs, Monographic studies, Thematic anthologies</b>	<b>Sum</b>
<b>Papers published in scientific journals of international scientific importance</b>	<b>Sum</b>
	36

1. Marko Antonijević, Edina Avdović, **Dušica Simijonović**, Žiko Milanović, Ana Amić, Zoran Marković, Radical Scavenging Activity and Pharmacokinetic Properties of Coumarin-Hydroxybenzohydrazide Hybrids, *International Journal of Molecular Science*, (2022), vol. 23, str. 490. DOI: 10.3390/ijms23010490
2. Jovica Branković, Nevena Milivojević, Vesna M. Milovanović, **Dušica Simijonović**, Zorica D. Petrović, Zoran Marković, Dragana S. Šeklić, Marko N. Živanović, Milena D. Vukić, Vladimir P. Petrović, Evaluation of antioxidant and cytotoxic properties of phenolic *N*-acylhydrazones: structure–activity relationship, *Royal Society Open Science* (2022), vol. 9, str. 211853. DOI: 10.1098/rsos.211853
3. Jovica Branković, Vesna M. Milovanović, **Dušica Simijonović**, Slađana Novaković, Zorica D. Petrović, Snežana S. Trifunović, Goran A. Bogdanović, Vladimir P. Petrović, Pyrazolone-type compounds: synthesis and *in silico* assessment of antiviral potential against key viral proteins of SARS-CoV-2, *RSC Advances* (2022), vol. 12, str. 16054. DOI: 10.1039/d2ra02542f
4. Marko R. Antonijević, **Dušica M. Simijonović**, Edina H. Avdović, Andrija Ćirić, Zorica D. Petrović, Jasmina Dimitrić Marković, Višnja Stepanić, Zoran S. Marković, Green One-Pot Synthesis of Coumarin-Hydroxybenzohydrazide Hybrids and Their Antioxidant Potency, *Antioxidants*, (2021), vol. 10, str. 1106. DOI: 10.3390/antiox10071106.
5. **Dušica Simijonović**, Evangelia-Eirini Vlachou, Konstantinos E. Litinas, Zorica D. Petrović, Vladimir P. Petrović, Synthesis, structural characterization, and molecular docking study of new phthalhydrazide-coumarin hybrids, *Journal of Molecular Structure*, (2021), vol. 1226, str. 129366. DOI: 10.1016/j.molstruc.2020.129366
6. Vesna Milovanović, Zorica D. Petrović, Slađana Novaković, Goran A. Bogdanović, **Dušica Simijonović**, Milan Mladenović, Jovica Branković, Vladimir P. Petrović, Pyrazole Derivatives of Medically Relevant Phenolic Acids: Insight into Antioxidative and Anti-LOX Activity, *Medicinal Chemistry* (2021), vol. 17, str. 807. DOI: 10.2174/1573406416666200602152643
7. Sabina Šaćirović, Jelena Đorović Jovanović, Dušan Dimić, Zorica Petrović, **Dušica Simijonović**, Nedeljko Manojlović, Mališa Antić, Zoran Marković, On the origin of the antioxidant potential of selected

- wines: combined HPLC, QSAR, and DFT study, *Monatshefte Fur Chemie*, (2021), vol. 152, str. 1173. DOI: 10.1007/s00706-021-02828-1
8. Vesna M. Milovanović, Zorica D. Petrović, Slađana Novaković, Goran A. Bogdanović, Vladimir P. Petrović, **Dušica Simijonović**, Green synthesis of benzamide-dioxoisindoline derivatives and assessment of their radical scavenging activity - Experimental and theoretical approach, *Tetrahedron* (2020), vol. 76, str. 131456. DOI: 10.1016/j.tet.2020.131456
  9. Vesna Milovanović, Zorica D. Petrović, Slađana Novaković, Goran A. Bogdanović, **Dušica Simijonović**, Vladimir P. Petrović, Structural characterization of benzoyl-1*H*-pyrazole derivatives obtained in lemon juice medium: Experimental and theoretical approach, *Journal of Molecular Structure*, (2019), vol. 1195, str. 85-94. DOI: 10.1016/j.molstruc.2019.05.095
  10. **Dušica Simijonović**, Evangelia-Eirini Vlachou, Zorica D. Petrović, Dimitra J. Hadjipavlou-Litina, Konstantinos E. Litinas, Nevena Stanković, Nezirina Mihović, Milan P. Mladenović, Dicoumarol derivatives: Green synthesis and molecular modelling studies of their anti-LOX activity, *Bioorganic Chemistry*, (2018), vol. 80, str. 741-752. DOI: 10.1016/j.bioorg.2018.07.021
  11. Vladimir P. Petrović, **Dušica Simijonović**, Vesna M. Milovanović, Zorica D. Petrović, Acetophenone Mannich bases: study of ionic liquid catalysed synthesis and antioxidative potential of products, *Royal Society Open Science*, (2018), vol. 5 str. 181232-181243. DOI: 10.1098/rsos.181232
  12. **Dušica Simijonović**, Zorica D. Petrović, Vesna M. Milovanović, Vladimir P. Petrović, Goran A. Bogdanović, A new efficient domino approach for the synthesis of pyrazolyl-phthalazine-diones. Antiradical activity of novel phenolic products, *RSC Advances*, (2018), vol. 8, str. 16663-16673. DOI: 10.1039/c8ra02702a
  13. Zorica D. Petrović, Jelena Đorović, **Dušica Simijonović**, Snežana Trifunović, Vladimir P. Petrović, *In vitro* study of iron coordination properties, anti-inflammatory potential, and cytotoxic effects of *N*-salicylidene and *N*-vanillidene anil Schiff bases, *Chemical Papers*, (2018), vol. 72, str. 2171-2180. DOI: 10.1007/s11696-018-0419-5
  14. Vladimir P. Petrović, Marko N. Živanović, **Dušica Simijonović**, Jelena Đorović, Zorica D. Petrović, Snežana D. Marković, Study of the

structure, prooxidative, and cytotoxic activity of some chelate copper(II) complexes, *Chemical Papers*, (2017), vol. 71, str. 2075-2083. DOI: 10.1007/s11696-017-0200-1

15. Jelena Đorović, Zoran Marković, Zorica D. Petrović, **Duška Simijonović**, Vladimir P. Petrović, Theoretical analysis of the experimental UV-Vis absorption spectra of some phenolic Schiff bases, *Molecular Physics*, (2017), vol. 115, str. 2460-2468. DOI: 10.1080/00268976.2017.1324183
16. Zorica D. Petrović, **Duška Simijonović**, Jelena Đorović, Vesna Milovanović, Zoran Marković, Vladimir P. Petrović, One-pot synthesis of tetrahydropyridine derivatives: liquid salt catalyst vs glycolic acid promoter. Structure and antiradical activity of the new products, *ChemistrySelect*, (2017), vol. 2, str. 11187-11194. DOI: 10.1002/slct.201701873
17. Vladimir P. Petrović, Marko N. Živanović, **Duška Simijonović**, Jelena Đorović, Zorica D. Petrović, Snežana D. Marković, Chelate *N,O*-palladium(II) complexes: synthesis, characterization and biological activity, *RSC Advances*, (2015), vol. 5, str. 86274-86281. DOI: 10.1039/c5ra10204a
18. Zorica D. Petrović, Jelena Đorović, **Duška Simijonović**, Vladimir P. Petrović, Zoran Marković, Experimental and theoretical study of antioxidative properties of some salicylaldehyde and vanillic Schiff bases, *RSC Advances*, (2015), vol. 5, str. 24094-24100. DOI: 10.1039/c5ra02134k
19. Zoran Marković, Jelena Đorović, Zorica D. Petrović, Vladimir P. Petrović, **Duška Simijonović**, Investigation of the antioxidant and radical scavenging activities of some phenolic Schiff bases with different free radicals, *Journal of Molecular Modeling*, (2015), vol. 21, str. 293. DOI: 10.1007/s00894-015-2840-9
20. Vladimir P. Petrović, **Duška Simijonović**, Zorica D. Petrović, Svetlana Marković, Formation of a vanillic Mannich base – theoretical study, *Chemical Papers*, (2015), vol. 69, str. 1244-1252. DOI: 10.1515/chempap-2015-0123
21. Vladimir P. Petrović, **Duška Simijonović**, Slađana B. Novaković, Goran A. Bogdanović, Svetlana Marković, Zorica D. Petrović, Structural characterisation of some vanillic Mannich bases:

- Experimental and theoretical study, *Journal of Molecular Structure*, (2015), vol. 1098, str. 34-40. DOI: 10.1016/j.molstruc.2015.05.040
22. Vladimir P. Petrović, **Dušica Simijonović**, Marko N. Živanović, Jelena V. Košarić, Zorica D. Petrović, Svetlana Marković, Snežana D. Marković, Vanillic Mannich bases: synthesis and screening of biological activity. Mechanistic insight into the reaction with 4-chloroaniline, *RSC Advances*, (2014), vol. 4, str. 24635-24644. DOI: 10.1039/c4ra03909b
23. Vladimir P. Petrović, **Dušica Simijonović**, Zorica D. Petrović, Use of diethanolammonium–tetrachloridopalladate(II) complex in bioorganic modelling as artificial metallopeptidase in the reaction with *N*-acetylated L-methionylglycine dipeptide. NMR and DFT study of the hydrolytic reaction, *Journal of Molecular Structure*, (2014), vol. 1060, str. 38-41. DOI: 10.1016/j.molstruc.2013.12.026
24. **Dušica Simijonović**, Zorica D. Petrović, Vladimir P. Petrović, Some physico-chemical properties of ethanolamine ionic liquids: Behavior indifferent solvents, *Journal of Molecular Liquids*, (2013), vol. 179, str. 98-103. DOI: 10.1016/j.molliq.2012.12.020
25. Ivana Radojević, Zorica D. Petrović, Ljiljana Čomić, **Dušica Simijonović**, Vladimir P. Petrović, Biological evaluation of mechlorethamine-Pt(II) complex, part II: Antimicrobial screening and LOX study of the complex and its ligand, *Medicinal Chemistry*, (2012), vol. 8, str. 947-952. DOI: 1573-4064/12 \$58.00+.00
26. Tanja Perić, Vladimir Lj. Jakovljević, Vladimir Zivković, Jelena Krkeljić, Zorica D. Petrović, **Dušica Simijonović**, Slobodan Novokmet, Dragan M. Djurić, Slobodan M. Janković, Toxic Effects of Palladium Compounds on the Isolated Rat Heart, *Medicinal Chemistry*, (2012), vol. 8, str. 9-13. DOI: 1875-6638/12 \$58.00+.00
27. Zorica D. Petrović, Vladimir P. Petrović, **Dušica Simijonović**, Svetlana Marković, Stereoselective homogeneous catalytic arylation of methyl methacrylate: Experimental and computational study, *Journal of Molecular Catalysis A: Chemical*, (2012), vol. 356, str. 144-151. DOI: 10.1016/j.molcata.2012.01.007
28. Zorica D. Petrović, Svetlana Marković, Vladimir P. Petrović, **Dušica Simijonović**, Triethanolammonium acetate as a multifunctional ionic liquid in the palladium-catalyzed green Heck reaction, *Journal of*

Molecular Modeling, (2012), vol. 18, str. 433-440. DOI 10.1007/s00894-011-1052-1

29. Zorica D. Petrović, Ljiljana Čomić, Olgica Stevanović, **Duška Simijonović**, Vladimir P. Petrović, Antimicrobial activity of the ionic liquids triethanolamine acetate and diethanolamine chloride, and their corresponding Pd(II) complexes, *Journal of Molecular Liquids*, (2012), vol. 170, str. 61-65. DOI: 10.1016/j.molliq.2012.03.009
30. Zorica D. Petrović, Vladimir P. Petrović, **Duška Simijonović**, Svetlana Marković, Insight into hydrolytic reaction of *N*-acetylated L-histidylglycine dipeptide with novel mechlorethamine platinum(II) complex. NMR and DFT study of the hydrolytic reaction, *Dalton Transactions*, (2011), vol. 40, str. 9284-9288. DOI: 10.1039/c1dt10593k
31. Alexandru T. Balaban, Ivan Gutman, Svetlana Marković, **Duška Simijonović**, Local aromaticity in benzo- and benzocyclobutadieno-annelated anthracenes, *Monatshefte Fur Chemie*, (2011), vol. 142, str. 797-800. DOI 10.1007/s00706-011-0531-5
32. Alexandru T. Balaban, Ivan Gutman, Svetlana Marković, **Duška Simijonović**, Jelena Đurđević, Local Aromaticity in Benzo and Benzocyclobutadieno-Annelated Phenanthrenes, *Polycyclic Aromatic Compounds*, (2011), vol. 31, str. 339-349. DOI: 10.1080/10406638.2011.614179
33. Zorica D. Petrović, **Duška Simijonović**, Vladimir P. Petrović, Svetlana Marković, Diethanolamine and *N,N*-diethylethanolamine ionic liquids as precatalyst precursors and reaction media in green Heck reaction protocol, *Journal of Molecular Catalysis A: Chemical*, (2010), vol. 327, str. 45-50. DOI: 10.1016/j.molcata.2010.05.010
34. Zorica D. Petrović, Vladimir P. Petrović, **Duška Simijonović**, Svetlana Marković, Mechanistic pathways for oxidative addition of aryl iodides to the low-ligated diethanolamine palladium(0) complex in phosphine-free Heck reactions, *Journal of Organometallic Chemistry*, (2009), vol. 694, str. 3852-3858. DOI:10.1016/j.jorganchem.2009.07.043
35. Zorica D. Petrović, Dimitra Hadjipavlou-Litina, Eleni Pontiki, **Duška Simijonović**, Vladimir P. Petrović, Diethanolamine Pd(II) complexes in bioorganic modeling as model systems of metallopeptidases and soybean lipoxygenase inhibitors, *Bioorganic Chemistry*, (2009), vol. 37, str. 162-166. DOI: 10.1016/j.bioorg.2009.07.003

36. Zorica D. Petrović, Svetlana Marković, **Dušica Simijonović**, Vladimir Petrović, Mechanistic insight into preactivation of a modern palladium catalyst precursor in phosphine-free Heck reactions, *Monatshefte Fur Chemie*, (2009), vol. 140, str. 371-374. DOI: 10.1007/s00706-008-0035-0

**Proceedings of international scientific conferences**

**Sum**

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1. Marko Antonijević, Žiko Milanović, Edina Avdović, **Dušica Simijonović**, Zoran Marković, Application of artificial intelligence in the design of warfarin derivatives to overcome vkr1 mutation induced warfarin resistance, 1<sup>st</sup> Serbian International Conference on Applied Artificial Intelligence (SICAAI), Kragujevac, Serbia, 2022.
2. Zoran S. Marković, Dejan Milenković, **Dušica Simijonović**, Dušan Dimić, Edina Avdović, Spectroscopic characterization (Nuclear magnetic resonance and Infrared) and quantum mechanical studies of 5-(4-hydroxy-3-methoxybenzylidene)pyrimidine 2,4,6(1H,3H,5H)-trione, 14<sup>th</sup> Conference of the Society of Physicists of Macedonia, Book of abstracts p. 42, Ohrid, Makedonija, 15–18. September 2022.
3. Marko Antonijević, Žiko Milanović, **Dušica Simijonović**, Jelena Đorović Jovanović, Zoran S. Marković, Application of density functional theory for structural and quantum chemical investigation of coumarin-hydroxybenzo-hydrazide hybrids, 14<sup>th</sup> Conference of the Society of Physicists of Macedonia, Book of abstracts p. 44, Ohrid, Makedonia, 15–18. September 2022.
4. **Dušica M. Simijonović**, Marko R. Antonijević, Edina H. Avdović, Zorica D. Petrović, Zoran S. Marković, Inhibitory effect of coumarin benzoylhydrazones on MCL-1 protein, 1<sup>st</sup> International Conference on Chemo and Bioinformatics, Book of abstracts p. 442, Kragujevac, Serbia, 2021.
5. Marko R. Antonijević, Žiko B. Milanović, **Dušica M. Simijonović**, Zoran S. Marković, Snežana Bogosavljević-Bošković, Antioxidative potency and radical scavenging activity of selected coumarin-hybrids, 1<sup>st</sup> International Conference on Chemo and Bioinformatics, Book of abstracts p. 458, Kragujevac, Serbia, 2021.
6. Marko R. Antonijević, **Dušica M. Simijonović**, Dejan Milenković, Zoran S. Marković, Molecular docking study of coumarin-

hydroxybenzohydrazide hybrid as an inhibitor of carbonic anhydrases IX and XII, The 21<sup>th</sup> IEEE International Conference on BioInformatics and BioEngineering, Kragujevac, Serbia, 2021, DOI: 10.1109/BIBE52308.2021.9635373.

7. Žiko B. Milanović, Edina H. Avdović, **Dušica M. Simijonović**, Zoran S. Marković, Estimation of antiradical properties of series of 4,7-dihydroxycoumarin derivatives towards DPPH radical-experimental and DFT study, The 21<sup>th</sup> IEEE International Conference on BioInformatics and BioEngineering, Kragujevac, Serbia, 2021, DOI: 10.1109/BIBE52308.2021.9635257.
8. **Dušica Simijonović**, Zorica D. Petrović, Ivana D. Radojević, Ljiljana R. Čomić, Vladimir P. Petrović, Vesna Milovanović, Antimicrobial activity of substituted pyrazoles, ISER International Conference on Science, Health and Medicine (ICSHM), Book of abstracts pp. 19-23, Florence, Italy, 19-20 July, 2019.
9. Vesna M. Milovanović, Zorica D. Petrović, **Dušica Simijonović**, Vladimir P. Petrović, Jovica Branković, Antioxidant activity of chromeno-pyrimidine fused heterocycles obtained in green reaction, ISER International Conference on Science, Health and Medicine (ICSHM), Book of abstracts pp. 15-18, Florence, Italy, 19-20 July 2019.
10. Jelena Đorović, Zoran Marković, Zorica Petrović, **Dušica Simijonović**, Vladimir Petrović, Examination of antioxidant activity of phenolic functionalized piperidine, The 29<sup>th</sup> International Course and Conference on the Interfaces among Mathematics, Chemistry and Computer Sciences (Math/Chem/Comp, MC2-29), Dubrovnik, Croatia, 17-24. Jun 2017.
11. Vesna Milovanović, Zorica D. Petrović, **Dušica Simijonović**, Vladimir P. Petrović, Green synthesis, structure and antioxidative activity of the highly functionalized tetrahydropyridines, International Meeting on Medicinal and Bio(in)organic Chemistry, Vrnjačka Banja, Serbia, 26-31. August 2017, Book of Abstracts p. 24.
12. **Dušica Simijonović**, Konstantinos E. Litinas, Dimitra J. Hadjipavlou-Litina, Multicomponent reactions of phthalhydrazide, 4-hydroxycoumarin and aldehydes under microwaves. Biological study of the received products, 22<sup>th</sup> Panel. Chem. Congr., Greece, 2-4. December 2016, Book of Abstracts, pp. 253-253.

13. Vladimir P. Petrović, **Duška Simijonović**, Zorica D. Petrović, Milena Lukić, Antioxidant activity of some vanillic Mannich bases, International Conference on Hydrogen Atom Transfer iCHAT, Rome, Italy, June 22-26, 2014, Book of abstracts P26, p. 88.
14. **Duška Simijonović**, Vladimir P. Petrović, Zorica D. Petrović, Ljiljana Čomić, Olgica Stefanović, Biological activity of the diethanolamine and triethanolamine ionic liquids and its corresponding palladium(II) complexes, 15h Hellenic Symposium on Medicinal Chemistry, Athens, Greece, May 25-27, 2012, Book of abstracts, p. 123.
15. Vladimir P. Petrović, **Duška Simijonović**, Ana Petrović, Mechlorethamine platinum(II) complex as an artificial metallopeptidase, 15h Hellenic Symposium on Medicinal Chemistry, Athens, Greece, May 25-27, 2012, Book of abstracts, p. 119.
16. Zorica D. Petrović, Vladimir P. Petrović, Svetlana Marković, **Duška Simijonović**, Dimitra Hadjipavlou-Litina, Classical and non-classical alkylating agent in one. Novel Pt(II) - mechlorethamine complex as artificial metallopeptidase and soybean lipoxygenase inhibitor, 12th Tetrahedron Symposium: Challenges in Organic and Bioorganic Chemistry, Sitges, Spain, 2011, June 21-24, Book of abstracts, P1.142.
17. Zorica D. Petrović, Dimitra Hadjipavlou-Litina, Eleni Pontiki, **Duška Simijonović**, Vladimir Petrović, Mechlorethamine Pd(II) and Pt(II) complexes as inhibitors of soybean lipoxygenase and their antiradical activity, 14h Hellenic Symposium on Medicinal Chemistry, Thessaloniki, Greece, April 23-25, 2010, Book of abstracts, p. 85.
18. Zorica Petrović, **Duška Simijonović**, Vladimir Petrović, Diethanolammonium acetate as ionic liquid and ligand precursor in green Heck reaction protocol, Second Humboldt conference on noncovalent interactions, Vršac, Serbia, October 22-25, 2009, Book of abstracts, p. 50.
19. Vladimir P. Petrović, Zorica D. Petrović, **Duška Simijonović**, Svetlana Marković, New diethanolamine palladium(II) complex as artificial metallopeptidase and free radical scavenger, 10th International Symposium on Applied Bioinorganic Chemistry, Debrecen, Hungary, September 25-28, Book of Abstracts, p. 114. ISBN: 978-963-473-307-2

20. **Dušica Simijonović**, Zorica D. Petrović, Marija Vukašinović, Vesna Kaljević, Vladimir P. Petrović, Nenad Vuković, Chemical view on walnuts from country-side of Kragujevac, Euro Analysis, Innsbruck, Austria, September 6-10, 2009, Book of abstracts P070-A2.
21. Svetlana Marković, Zorica D. Petrović, Vladimir P. Petrović, **Dušica Simijonović**, Mechanism of the preactivation process of trans[PdCl<sub>2</sub>(DEA)<sub>2</sub>] in phosphine-free Heck reaction, Physical Chemistry, Beograd, Serbia, 2008, Book of abstracts C-18-O, p. 187.
22. Zorica D. Petrović, **Dušica Simijonović**, Vladimir P. Petrović, Diethanolamine: a useful ligand, base and reaction medium for phosphine-free Pd-catalyzed Heck reactions, 20th Congress of the Society of Chemists and Technologists of Macedonia, Ohrid, Macedonia, September 17-20, 2008, Book of Abstracts, SOSC-23-E, p. 334. ISBN: 978-9989-760-06-8

**Proceedings of national scientific conferences**

**Sum**  
**12**

1. **Dušica Simijonović**, Zoran Marković, Инхибиција липоксигеназе дикумаролским и пиразолским дериватима – молекуларна докинг студија, Treći kongres biologa Srbije, Zlatibor, Serbia, 2022.
2. Marko Antonijević, **Dušica Simijonović**, Ana Kesić, Edina Avdović, Zoran Marković, Antiradikalni kapacitet Another look at the biological roles of a plant alkaloid berberine, XXVII Savetovanja o biotehnologiji, Book of abstract p. 455, Čačak, Serbia, 2022, ISBN 978-86-87611-86-3.
3. Marko Antonijević, Žiko Milanović, Dejan Milenković, **Dušica Simijonović**, Zoran Marković, Inhibitorna aktivnost prirodnih i sintetičkih derivata kumarina prema  $\alpha$ -glukozidazi, Treći kongres biologa Srbije, Zlatibor, Serbia, 2022.
4. Marko Antonijević, **Dušica Simijonović**, Ana Kesić, Edina Avdović, Zoran Marković, Antiradikalni kapacitet (*E*)-*N'*-1-(2,4-diokso-2H-hromen3(4H)-ilidene)etil)-4-hidroksi-3-metoksi- benzohidrazida, XXVI Savetovanja o biotehnologiji, 12-13. marta 2021. godine u on line formatu.
5. Slađana B. Novaković, Goran A. Bogdanović, Zorica D. Petrović, **Dušica Simijonović**, Vesna M. Milovanović, Jovica Branković,

Vladimir P. Petrović, Crystal structure of two methoxybenzene-pyrazolone derivatives, 27<sup>th</sup> Conference of the serbian crystallographic society, Book of Abstracts p. 79, Kragujevac, Serbia, 2021, ISBN 978-86-6009-085-2.

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<b>Monographs of national importance</b>	<b>Sum</b>
<b>Scientific papers in national journals</b>	<b>Sum</b>
	<b>4</b>
<b>Technical solutions</b>	<b>Sum</b>
<b>Patents</b>	<b>Sum</b>

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## **CITATION OF SCIENTIFIC PAPERS**

Total citations – 351

Citations exclude self citations of all authors – 287

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## **BRIEF DESCRIPTION OF RESEARCH IN THE PREVIOUS PERIOD**

The scientific research in the previous period was focused on the synthesis of potentially biologically active coumarin and nitrogen heterocyclic derivatives, as well as on the examination of their antioxidant and anti-inflammatory properties.

## **BRIEF DESCRIPTION OF PLANNED RESEARCH IN THE NEXT PERIOD**

In the following period, the synthesis of some new nitrogen heterocyclic compounds and chromeno derivatives is planned, as well as the examination of their antioxidant and anticoagulant activity using various *in vitro* tests.