

Name and Surname: Sanja Armaković
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Working Experience

- 2008 – present, University of Novi Sad, Faculty of Sciences, Department of Chemistry, Biochemistry and Environmental Protection

Duties:

- Research Assistant – Photocatalytic degradation of frequently used drugs and molecular modeling of organic molecules and nanostructures
- Teaching Assistant - Practical exercises of Instrumental Analysis, Analytical Chemistry of Environment, Practicum of Instrumental Analysis, Statistical Analysis of Results in Chemistry, Information in Chemistry, Analytical Spectrometry, Separation Techniques and Chemometrics
- Secretary of the Section for Analytical Chemistry at the Department of Chemistry, Biochemistry and Environmental Protection
- Presentation of study plans and programs in secondary schools in Vojvodina, as well as within the workshop "The colorful world of chemistry" (2013), "CSI chemical tim Novi Sad" (2014) and "Chemist in the food industry" (2015 and 2016) in the framework of "Chemistry weekend"
- 2016, Member of the organizing committee of the International Conference of Chemistry and Oxidation Technologies conference, to be held in Guangzhou in December 2016.
- 2015, Member of the Organizing Committee during "52. Serbian Chemical Society Symposium" held in Novi Sad

Education

- **PhD in Analytical and Physical Chemistry (2016)**, University of Novi Sad, Faculty of Sciences, Department of Chemistry, Biochemistry and Environmental Protection
- **Graduated Chemist (2008)**, University of Novi Sad, Faculty of Sciences, Department of Chemistry, average mark 9.67/10.00

Rewards

- **Reward for the best poster presentation at YUCOMAT 2015 conference (2015)**, organized by [Materials Research Society of Serbia](#)
- **Special Reward of Serbian Chemical Society (2010)**, for outstanding success during studies
- **I Prize of Nenad Kostic Fund (Serbia) for Chemical Sciences (2009)**, for the best Diploma work in Chemistry
- **Reward of University of Novi Sad (2009, 2008, 2006)**, for outstanding success during studies

- **II Prize at Competition of Faculties of Sciences (2005)**, Synthesis and characterization of Ni (II) complexes with S-tiosemicarbazone as ligand

Certificates and visits to other institutions

- **Research work in Szeged, Hungary**, (17–21. 01. 2011. and 4–8. 04. 2011.) within the international IPA project “Optimization of Cost Effective and Environmentally Friendly Procedures for Treatment of Regional Water Resources“ (HU-SRB/0901/121/116 OCEEFPTRWR, 2010–2011)
- **Utrecht Summer School** (16-27. 08. 2010.) course “Nanomaterials: Science and Applications”, acquired the appropriate certificate and maximum 3 ECTS points, University of Utrecht, Netherlands
- **Evaluation of Measurement Uncertainty Seminar (2008)**, organized by Association of Chemical Engineers, Belgrade, Serbia

Languages

- **English** (writing-very good, reading-very good, speech-very good)
- **German** (writing-ground level, reading-ground level, speech-ground level)
- **Slovak** (Ground level of understanding)

Computer skills

- **Molecular modeling programs and software tools:** Schrödinger Materials Science Suite (Jaguar for DFT, Desmond and MacroModel for Molecular Dynamics, Canvas for Cheminformatics and QSAR), Gaussian 03/09 with GaussView 5, GAMESS 2013 R1, Molekel, Avogadro, ChemCraft, GaussSum
- **Programs:** Origin, Mathematica, ChemOffice, MS Office, Corel Draw, Photoshop

Research Grants

1. **2015- present**, Support by Schrödinger Inc, license for Materials Science Modeling Suite
2. **2011-present**, "Development of methods for monitoring and removal of biologically active substances in order to improve the quality of the environment" of the Ministry of Science and Technological Development of the Republic of Serbia (Project Number: ON172042), Project Leader Dr. Biljana Abramović.
3. **2014-2015**, "Application of polyaniline/TiO₂ nanoparticle photocatalysts for the removal of organic pollutants from water and estimates of their toxicity," the Provincial Secretariat for Science and Technological Development (Project Number: 114-451-1504/2014-03), Project Leader Dr. Daniela Šojić.
4. **2010-2011**, International IPA project "Optimization of Cost Effective and Environmentally Friendly Procedures for Treatment of Regional Water Resources' (HU-SRB / 0901/121/116 OCEEFPTRWR), Project Leader Dr. Biljana Abramović
5. **2006-2010**, "Development of new and improvement of existing methods of monitoring and improving the quality of the environment" of the Ministry of Science and Technology of the Republic of Serbia (Project Number: ON142029), Project Leader Dr. Biljana Abramović.

Publications

Top 5 publications:

1. S. Armaković, **S.J. Armaković**, Slawomir Koziel, Optoelectronic properties of curved carbon systems, *Carbon* 111 (2017) 371-379.
2. S. Armaković, **S. J. Armaković**, S. Pelemiš, D. Mirjanić, Influence of sumanene modifications with boron and nitrogen atoms to its hydrogen adsorption properties, *Phys. Chem. Chem. Phys.* 18 (2016) 2859-2870.
3. **S. J. Armaković**, S. Armaković, N.L. Finčur, F. Šibul, D. Vione, J.P. Šetrajčić, B.F. Abramović, Influence of electron acceptors on the kinetics of metoprolol photocatalytic degradation in TiO₂ suspension. A combined experimental and theoretical study, *RSC Adv.* 5 (2015) 54589-54604.
4. S. Armaković, **S. J. Armaković**, J.P. Šetrajčić, Hydrogen storage properties of sumanene, *Int. J. Hydrogen Energ.* 38 (2013), 12190-12198.
5. B. Abramović, **S. J. Kler**, D. Šojić, M. Laušević, T. Radović, D. Vione, Photocatalytic degradation of metoprolol tartrate in suspensions of two TiO₂-based photocatalysts with different surface area. Identification of intermediates and proposal of degradation pathways, *J. Hazard. Mater.* 198 (2011) 123-132.

Other publications:

1. R.R. Pillai, V.V. Menon, S.Y. Mary, C.Y. Panicker, S. Armaković, **S.J. Armaković**, Vibrational spectroscopic investigations, molecular dynamic simulations and molecular docking studies of N'-diphenylmethylidene-5-methyl-1h-pyrazole-3-carbohydrazide, *J. Molec. Struct.* 1130 (2017) 208-222.
2. V.V. Menon, E. Foto, Y.S. Mary, E. Haratas, C.Y. Panicker, G. Yalcin, S. Armaković, **S.J. Armaković**, C. Van Alsenoy, I. Yildiz, Vibrational spectroscopic analysis, molecular dynamics simulations and molecular docking study of 5-nitro-2-phenoxymethyl benzimidazole, *J. Molec. Struct.* 1129 (2017) 86-97.
3. J.A. War, K. Jalaja, Y.S. Mary, C.Y. Panicker, S. Armaković, **S.J. Armaković**, S.K. Srivastava, C. Van Alsenoy, Spectroscopic characterization of 1-[3-(1h-imidazol-1-yl)propyl]-3-phenylthiourea and assessment of reactive and optoelectronic properties employing DFT calculations and molecular dynamics simulations, *J. Mol. Struct.* 1129 (2017) 72-85.
4. Y.S. Mary, N.Z. Alzoman, V.V. Menon, E.S. Al-Abdullah, A.A. El-Emam, C. Y. Panicker, O. Temiz-Arpaci, S. Armaković, **S.J. Armaković**, C. Van Alsenoy, Reactive, spectroscopic and antimicrobial assessments of 5-[(4-methylphenyl) acetamido]-2-(4-tert-butylphenyl)benzoxazole: Combined experimental and computational study, *J. Mol. Struct.* 1128 (2017) 694-706.
5. D.A. Zainuri, S. Arshad, N.C. Khalib, I.A. Razak, R.R. Pillai, S.F. Sulaiman, N.S. Hashim, K.L. Ooi, S. Armaković, **S.J. Armaković**, C.Y. Panicker, C. Van Alsenoy, Synthesis, XRD crystal structure, spectroscopic characterization (FT-IR, ¹H and ¹³C NMR), DFT studies, chemical reactivity and bond dissociation energy studies using molecular dynamics simulations and evaluation of antimicrobial and antioxidant activities of a novel chalcone derivative, (E)-1-(4-bromophenyl)-3-(4-iodophenyl)prop-2-en-1-one, *J. Mol. Struct.* 1128 (2017) 520-533.
6. K. Jalaja, Y.S. Mary, C.Y. Panicker, S. Armaković, **S.J. Armaković**, B.K. Sagar, M. Girisha, H.S. Yathirajan, C. Van Alsenoy, Spectroscopic characterization of 4-[2-(5-Ethylpyridin-2-yl)ethoxy] benzaldehyde oxime and investigation of its reactive

- properties by DFT calculations and molecular dynamics simulations, *J. Mol. Struct.* 1128 (2017) 245-256.
7. F.A.M. Al-Omary, Y.S. Mary, S. Beegum, C.Y. Panicker, M.M. Al-Shehri, A.A. El-Emam, S. Armaković, **S.J. Armaković**, C. Van Alsenoy, Molecular conformational analysis, reactivity, vibrational spectral analysis and molecular dynamics and docking studies of 6-chloro-5-isopropylpyrimidine-2,4(1H,3H)-dione, a potential precursor to bioactive agent, *J. Mol. Struct.* 1127 (2017) 427-436.
 8. V.V. Menon, E. Fazal, Y.S. Mary, C.Y. Panicker, S. Armaković, **S.J. Armaković**, S. Nagarajan, C. Van Alsenoy, FT-IR, FT-Raman and NMR characterization of 2-isopropyl-5-methylcyclohexyl quinoline-2-carboxylate and investigation of its reactive and optoelectronic properties by molecular dynamics simulations and DFT calculations, *J. Mol. Struct.* 1127 (2017) 124-137
 9. B. Barta Holló, J. Magyari, S. Armaković, G.A. Bogdanović, M.V. Rodić, **S.J. Armaković**, J. Molnár, G. Spengler, V.M. Leovac, K. Mészáros Szécsényi, Synthesis, structural and thermal characterization, reactivity assessment by DFT computations and biological evaluation of a hydrazone derivative and its coordination compounds with Co(III), Ni(II), Cu(II) and Zn(II), *New J Chem.* 40 (2016) 5885-5895.
 10. S. Armaković, **S.J. Armaković**, B.F. Abramović, Theoretical investigation of loratadine reactivity in order to understand its degradation properties: DFT and MD study, *J. Mol. Model.* 22 (2016) 240-253.
 11. S. Armaković, **S.J. Armaković**, M. Vraneš, A. Tot, S. Gadžurić, Determination of reactive properties of 1-butyl-3-methylimidazolium taurate ionic liquid employing DFT calculations, *J. Mol. Liq.* 222 (2016) 796-803.
 12. S. Armaković, **S.J. Armaković**, Investigation of boron modified graphene nanostructures; optoelectronic properties of graphene nanoparticles and transport properties of graphene nanosheets, *J. Phys. Chem. Solids.* 98 (2016) 156-166.
 13. S. Armaković, **S. J. Armaković**, V. Holodkov, S. Pelemiš, Optoelectronic properties of higher acenes, their BN analogue and substituted derivatives, *Mater. Chem. Phys.* 170 (2016) 210-217.
 14. M. Vraneš, A. Tot, S. Armaković, **S. J. Armaković**, S. Gadžurić, Structure making properties of 1-(2-hydroxyethyl)-3-methylimidazolium chloride ionic liquid, *J. Chem. Thermodyn.* 95 (2016) 174-179.
 15. A. Tot, S. Armaković, **S. J. Armaković**, S. Gadžurić, M. Vraneš, Kosmotropism of newly synthesized 1-butyl-3-methylimidazolium taurate ionic liquid: Experimental and computational study, *J. Chem. Thermodyn.* 94 (2016) 85-95.
 16. M. Vraneš, S. Armaković, A. Tot, S. Papović, N. Zec, **S. J. Armaković**, N. Banić, B. Abramović, S. Gadžurić, Structuring of water in the new generation ionic liquid – comparative experimental and theoretical study, *J. Chem. Thermodyn.* 93 (2016) 164-171.
 17. S. Armaković, **S. J. Armaković**, M. Vraneš, A. Tot, S. Gadžurić, DFT study of 1-butyl-3-methylimidazolium salicylate: a third-generation ionic liquid, *J. Mol. Model.* 21 (2015) 246-256.
 18. S. Armaković, **S. J. Armaković**, S. Pelemiš, J.P. Šetrajčić, Optoelectronic and charge carrier hopping properties of ultra-thin boron nitride nanotubes, *Superlattice. Microst.* 79 (2015) 79-85.
 19. S. Armaković, **S. J. Armaković**, J.P. Šetrajčić, V. Holodkov, Aromaticity, response, and nonlinear optical properties of sumanene modified with boron and nitrogen atoms, *J. Mol. Model.* 20 (2014) 2538-2551.
 20. S. Armaković, **S. J. Armaković**, J.P. Šetrajčić, S.K. Jaćimovski, V. Holodkov, Sumanene and its adsorption properties towards CO, CO₂ and NH₃ molecules, *J. Mol. Model.* 20 (2014) 2170-2184.

21. M. Grujić-Brojčin, **S. J. Armaković**, N. Tomić, B. Abramović, A. Golubović, B. Stojadinović, A. Kremenović, B. Babić, Z. Dohčević-Mitrović, M. Šćepanović, Surface modification of sol–gel synthesized TiO₂ nanoparticles induced by La-doping, *Mater. Character.* 88 (2014), 30-41.
22. D.D. Četojević-Simin, **S. J. Armaković**, D.V. Šojić, B.F. Abramović, Toxicity assessment of metoprolol and its photodegradation mixtures obtained by using different type of TiO₂ catalysts in the mammalian cell lines, *Sci. Total Environ.* 463-464 (2013).
23. A. Golubović, B. Abramović, M. Šćepanović, M. Grujić-Brojčin, **S. Armaković**, I. Veljković, B. Babić, Z. Dohčević-Mitrović, Z.V. Popović, Improved efficiency of sol–gel synthesized mesoporous anatase nanopowders in photocatalytic degradation of metoprolol, *Mater. Res. Bull.* 48 (2013), 1363-1371.
24. S. Armaković, **S. J. Armaković**, J.P. Šetrajić, L.D. Džambas, Specificities of boron disubstituted sumanenes, *J. Mol. Model.* 19 (2013), 1153-1166.
25. S. Armaković, **S. J. Armaković**, J.P. Šetrajić, I.J. Šetrajić, Optical and bowl-to-bowl inversion properties of sumanene substituted on its benzylic positions; A DFT/TD-DFT study, *Chem. Phys. Lett.* 578 (2013), 156-161.
26. S. Armaković, **S. J. Armaković**, J.P. Šetrajić, I.J. Šetrajić, Active components of frequently used β -blockers from the aspect of computational study, *J. Mol. Model.* 18 (2012) 4491-4501.
27. M. Šćepanović, B. Abramović, A. Golubović, **S. J. Kler**, M. Grujić-Brojčin, Z. Dohčević-Mitrović, B. Babić, B. Matović, Z. V. Popović, Photocatalytic degradation of metoprolol in water suspension of TiO₂ nanopowders prepared using sol–gel route, *J. Sol-Gel Sci. Technol.* 61 (2012) 390-402.
28. D. Šojić, V. Despotović, D. Orčić, E. Szabó, E. Arany, **S. J. Armaković**, E. Illés, K. Gajda-Schranz, A. Dombi, T. Alapi, E. Sajben-Nagy, A. Palágyi, Cs. Vágvölgyi, L. Manczinger, L. Bjelica, B. Abramović, Degradation of thiamethoxam and metoprolol by UV, O₃ and UV/O₃ hybrid processes: Kinetics, degradation intermediates and toxicity, *J. Hydrol.* 472 (2012) 314-327.
29. V.N. Despotović, B.F. Abramović, D.V. Šojić, **S. J. Kler**, M.B. Dalmacija, L.J. Bjelica, Photocatalytic degradation of herbicide quinmerac in various types of natural water, *Water Air Soil Poll.* 223 (2012) 3009-3020.

Citations

	Google Scholar	Scopus
Total number	248	151
h-index	9	8

Reviews

Verified reviewer at Publons - <https://publons.com/author/836249/dr-sanja-armakovic#profile>

- Reviewed for journals:
 - RSC Advances
 - Materials Chemistry and Physics
 - Journal of Molecular Liquids
 - Journal of Solution Chemistry
 - Arabian Journal of Chemistry
 - International Conference of Chemistry and Oxidation Technologies

Other

- Member of the Serbian Chemical Society - Chemical Society of Vojvodina
- Member of the Materials Research Society of Serbia
- Member of Tendoryu Aikido club "Seiunkan" from Novi Sad
- Driving license B category, active driver
- Hobby: Painting and decoupage
- She is married to Stevan with whom she has a son Philip