

PERSONAL INFORMATION

Marija Ristić



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 Radoja Domanovića 12, 34000 Kragujevac, Serbia

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mjeremic@kg.ac.rs

Sex Female | Date of birth 15/09/1984 | Nationality Serbian

WORK EXPERIENCE

(2020- currently)

Research Associate

Department of Chemistry, Faculty of Science, University of Kragujevac, Serbia
<https://www.pmf.kg.ac.rs/?id=342>

(2013-2019)

Research Assistant

Department of Chemistry, Faculty of Science, University of Kragujevac, Serbia
<https://www.pmf.kg.ac.rs/?id=342>

(2011-2013)

Junior Research Assistant

Department of Chemistry, Faculty of Science, University of Kragujevac, Serbia
<https://www.pmf.kg.ac.rs/?id=342>

Research interests:

Synthesis and characterization of complexes of rhodium (III), chromium (III) and nickel (II) with polyaminopolycarboxylate type ligands, structural and computational studies, examination of biological activity of ligands and rhodium (III) complexes. Synthesis of rhodium(II) and ruthenium(II)-*p*-cymene complexes with heterocyclic ligands of imidazole, thiazole and isothiazole type, structural and computational research, characterization of synthesized complexes using X-Ray analysis, NMR, UV-Vis and IR spectra, testing of biological activity of ligands and complexes as well as their interactions with DNA and HSA molecules. Mechanochemical synthesis.

Educational work:

Researching and educational performance of exercises with students on the first and third year of chemistry, first and third year of biology and ecology, and master students of chemistry.

Doktoral and postdoctoral fellowship:

Research fellow (c/o. Professor Peter Comba): Anorganisch-Chemisches Institut, Heidelberg University, Heidelberg, Germany, October 2013 – April 2014.
 Research fellow (c/o. Professor Milica Kosović Perutović): Faculty of Metallurgy and Technology, University of Montenegro, Podgorica, Montenegro, April 2024 – October 2024

Professional societies:

Member of the Serbian Chemical Society

Professional society committees:

Member of the Organizing Committee, 27th Conference of the Serbian Crystallographic Society, Kragujevac 2021, September 16-17, 2021, Serbia.
 Member of the Organizing Committee, 2nd International Conference on Chemo and Bioinformatics (ICCBIG 2023), Kragujevac, September 28-29, 2023, Serbia

EDUCATION

- (2010-2019) **PhD in chemistry – Inorganic chemistry**
 Department of Chemistry, Faculty of Science, University of Kragujevac, Serbia
<https://www.pmf.kg.ac.rs/?id=342>
 Thesis title: "Synthesis and biological activity of Rh(III) complexes with polyaminopolycarboxylate-type ligands"
- (2004-2010) **BSc degree in chemistry**
 Department of Chemistry, Faculty of Science, University of Kragujevac, Serbia
<https://www.pmf.kg.ac.rs/?id=342>

 PERSONAL SKILLS

- Mother tongue(s) Serbian
 Other language(s) English, Russian
- Communication skills • Good communication skills gained through my collaboration with colleagues and through my work with students at almost every level of studies (undergraduate/master studies).
- Computer skills • Excellent command of Microsoft Office™ tools
 • Good command of Chemistry software

 ADDITIONAL INFORMATIONS

- Projects:
- (2011-2019) Participant in the projects entitled "Preclinical testing of bioactive substances" No. III 41010, funded by the Ministry of Education, Science and Technological Development of the Republic of Serbia
 - (2016-2019) Participant in ERASMUS + project ("NetChem :: ICT Networking for Overcoming Technical and Social Barriers in Instrumental Analytical Chemistry education")
 - (2010-2013) Participant in the TEMPUS project: "Modernisation of Post Graduate Studies in Chemistry and Chemistry Related Programmes, 511044-TEMPUS-1-2010-1-UK-TEMPUS-JPCR"
- Papers:
- Nenad Joksimović, Jelena Petronijević, Dušan Čočić, **Marija Ristić**, Kristina Mihajlović, Nenad Janković, Emilija Milović, Olivera Klisurić, Nevena Petrović, Marijana Kosanić
 Synthesis, characterization, and biological evaluation of novel cobalt(II) complexes with β -diketonates: crystal structure determination, BSA binding properties and molecular docking study.
Journal of Biological Inorganic Chemistry (2024), vol. 29, 541–553; DOI: 10.1007/s00775-024-02069-7. ISSN: 1432-1327; **M21**.
 - Marina Mitrović, Maja B. Djukić, Milena Vukić, Ivana Nikolić, Marko D. Radovanović, Jovan Luković, Ignjat P. Filipović, Sanja Matić, Tijana Marković, Olivera R. Klisurić, Suzana Popović, Zoran D. Matović, **Marija S. Ristić**
 Search for new biologically active compounds: *In vitro* studies of antitumor and antimicrobial activity of dirhodium(II,II) paddlewheel complexes.
Dalton Transactions (2024), vol. 53, 9330-9349; DOI: 10.1039/D4DT01082E. ISSN: 1477-9226; **M21**.
 - Milena D. Vukić, Jovica Branković, **Marija S. Ristić**
 GC, GC/MS analysis, and biological effects of *Citrus aurantium amara* essential oil.
Acta Horticulturae et Regiotecturae (2023), vol. 26, 21-27; DOI: 10.2478/ahr-2023-0004. ISSN: 1335-2563; **M24**.
 - Marko D. Radovanović, **Marija S. Ristić**, Matija Zlatar, Frank W. Heinemann, Zoran D. Matović
 New rhodium(III)–ED3AP complex: Crystal structure, characterization and computational chemistry.
Journal of the Serbian Chemical Society (2022), vol. 87(5), 561–573. DOI: 10.2298/JSC211230003R; ISSN: 0352-5139; **M23**.

- Maja B. Đukić, **Marija S. Jeremić**, Ignjat P. Filipović, Olivera R. Klisurić, Vesna V. Kojić, Dimitar S. Jakimov, Ratomir M. Jelić, Valentina Onnis, Zoran D. Matović
Synthesis, characterization, HSA/DNA interactions and antitumor activity of new $[\text{Ru}(\eta^6\text{-}p\text{-cymene})\text{Cl}_2(\text{L})]$ complexes.
Journal of Inorganic Biochemistry (2020), vol. 213, Article number 111256. DOI: 10.1016/j.jinorgbio.2020.111256; ISSN: 0162-0134; **M21**.
 - Maja B. Djukić, **Marija S. Jeremić**, Ignjat P. Filipović, Olivera R. Klisurić, Ratomir M. Jelić, Suzana Popović, Sanja Matić, Valentina Onnis, Zoran D. Matović
Ruthenium(II) complexes of isothiazole ligands: Crystal structure, HSA/DNA interactions, cytotoxic activity and molecular docking simulations.
Chemistry Select (2020) vol. 5, 11489-11502; DOI: 10.1002/slct.202002670; ISSN: 2365-6549; **M23**.
 - **Marija S. Jeremić**, Marko D. Radovanović, Olivera R. Klisurić, Svetlana K. Belošević, Zoran D. Matović
Synthesis and characterization of the *trans*(O_6) isomer Ni(II) complex containing symmetrical edta-type ligand with mixed carboxylate and diamine rings: Quantum-mechanical evaluation of different isomers.
Inorganica Chimica Acta (2019), vol. 495, Article number 118954. DOI: 10.1016/j.ica.2019.118954; ISSN: 0020-1693; **M22**.
 - **Marija S. Jeremić**, Marko D. Radovanović, Frank W. Heinemann, Miorad M. Vasojević, Zoran D. Matović
Structural and theoretical investigations of the Rh(III) and Co(III) complexes containing symmetrical edta-type ligands with mixed carboxylate and diamine rings: Quantum-mechanical/NBO insight into stability of geometrical isomers.
Polyhedron (2019), vol. 169, 89-101. DOI: 10.1016/j.poly.2019.04.053; ISSN: 0277-5387; **M22**.
 - Maja Djukić, **Marija S. Jeremić**, Ratomir Jelić, Olivera Klisurić, Vesna Kojić, Dimitar Jakimov, Predrag Djurdjević, Zoran D. Matović
Further insights into ruthenium(II) piano-stool complexes with N-alkyl imidazoles.
Inorganica Chimica Acta (2018), vol. 483, 359-370. DOI: 10.1016/j.ica.2018.08.031; ISSN: 0020-1693; **M22**.
 - **Marija S. Jeremić**, Marko D. Radovanović, Franco Bisceglie, Vesna V. Kojić, Ratomir Jelić, Zoran D. Matović
Rhodium(III) in a cage of the 1,3-propanediamine-*N,N,N'*-triacetate chelate: X-ray structure, solution equilibria, computational study and biological behavior.
Polyhedron (2018), vol. 156, 19-30. DOI: 10.1016/j.poly.2018.08.075; ISSN: 0277-5387; **M22**.
 - **Marija S. Jeremić**, Hubert Wadepohl, Vesna V. Kojić, Dimitar S. Jakimov, Ratomir Jelić, Suzana Popović, Zoran D. Matović, Peter Comba
Synthesis, structural analysis, solution equilibria and biological activity of rhodium(III) complexes with a quinquedentate polyaminopolycarboxylate.
RSC Advances (2017) vol. 7, 5282-5296. DOI: 10.1039/c6ra26199j; ISSN: 2046-2069; **M21**.
 - Svetlana Belošević, Miorad M. Vasojević, **Marija S. Jeremić**, Auke Meetsma, Zoran D. Matović
Preparation, configurational and DFT-NBO analysis of nickel(II) complexes with edta-type ligands containing six-membered backbone ring: Crystal structure of $[\text{Ni}(\text{H}_2\text{O})_6][\text{Ni}(1,3\text{-pdta})] \cdot 2\text{H}_2\text{O}$.
Journal of Coordination Chemistry (2013), vol. 66, 1730-1745. DOI: 10.1080/00958972.2013.789104; ISSN: 0095-8972; **M22**.
 - Zoran D. Matović, **Marija S. Jeremić**, Ratomir M. Jelić, Matija Zlatar, Ivan Ž. Jakovljević
Configurational, LFDFT and NBO analysis of chromium(III) complexes of edta-type ligands.
Polyhedron (2013), vol. 55, 131-143. DOI: 10.1016/j.poly.2013.02.079; ISSN: 0277-5387; **M22**
- Conferences:
- M. Kosović Perutović, S. Kovačević, **M. Ristić**, J. Mišurović, Z. Leka
Mechanochemical Synthesis of Cu(II) dithiocarbamate complex: Advantages Over Traditional Solution-Based Methods.
27th Congress of the Society of Chemists and Technologists of Macedonia (SCTM), Ohrid, N. Macedonia 2024, p. 107. ISBN: 978-9989-760-20-4. **M34**

- S. Kovačević, **M. Ristić**, J. Mišurović, Z. Leka, M. Kosović Perutović
Efficient Solvent-Free Synthesis of Ni(II)-Dithiocarbamate Complexes using Mechanochemistry.
27th Congress of the Society of Chemists and Technologists of Macedonia (SCTM), Ohrid, N. Macedonia 2024, p. 108. ISBN: 978-9989-760-20-4. **M34**
- **M. S. Ristić**, M. B. Đukić, M. Kosović Perutović
DNA Interactions of Palladium (II) Complex Containing a Thioamide-Type Ligand.
27th Congress of the Society of Chemists and Technologists of Macedonia (SCTM), Ohrid, N. Macedonia 2024, p. 157. ISBN: 978-9989-760-20-4. **M34**
- S. Kovačević, M. Kosović Perutović, **M. Ristić**, J. Mišurović, Z. Leka
Mechanochemical Synthesis of Ammonium-Iminodiacetato-Dithiocarbamate: An Environmentally Friendly Approach.
25th YUCOMAT 2024 & XIII WRTCS, Herceg Novi, Montenegro 2024, p. 53. ISBN: 978-86-919111-9-5. **M34**
- M. B. Đukić, J. M. Petronijević, **M.S. Ristić**, S. B. Novaković
Synthesis and crystal structure of [Ru-p-cymene-L] complex.
XXIX Konferencija SKD - 29th Conference of the Serbian Crystallographic Society, Ruma 2024, Serbia, p. 64-65. ISBN: 978-86-912959-7-4. **M64**
- S. K. Belošević, J. S. Belošević, M. B. Đukić, **M. S. Ristić**, D. Lj. Stojković
Pollutant particles in the air on the territory of Kosovska Mitrovica. 3th International Conference on Advances in Science and Technology, COAST 2024, Herceg Novi, Montenegro 2024. p. 1058-1063. ISBN: 978-9940-611-07-1. **M33**
- M. B. Đukić, **M. S. Ristić**, D. Lj. Stojković, I. P. Filipović, M. D. Radovanović, I. Ž. Jakovljević, Z. D. Matović
Synthesis, characterization and HSA interactions of new [PdL₂CL₂] complex. 3th International Conference on Advances in Science and Technology, COAST 2024, Herceg Novi, Montenegro 2024. p. 384-389. ISBN: 978-9940-611-07-1. **M33**
- M. B. Đukić, **M. S. Ristić**, M. S. Ćendić Serafinović, I. Ž. Jakovljević, D. Lj. Stojković
Synthesis and characterization of new Pd(II) complex and its HSA binding study.
4th International Conference on Innovative Academic Studies - ICIAS 2024, March 12-13, 2024, Konya, Turkey, p. 144. ISBN 978-625-6530-92-8. **M34**
- I. Jakovljević, Lj. Joksović, N. Mihailović, **M. Jeremic**
Influence of Montelukast on speciation of essential metal ions in blood plasma. The Second Serbian Molecular Medicine Congress, Foča, October 6-8. 2023, BiH, p. 34-35. ISBN 978-86-904000-2-7. **M64**
- S. Belošević, M. Đukić, **M. Ristić**, Lj. Milentijević, S. Jovanović, K. Mačenovski Gagnon, J. Danilović
Analysis of heavy metals in the soil in the Ibar river valley in the district of Kosovska Mitrovica. 2nd International Conference on Chemo and Bioinformatics, September 28-29, 2023. Kragujevac, Serbia, p. 225-228. ISBN 978-86-82172-02-4. **M33**
- S. Belošević, M. Đukić, **M. Ristić**, Lj. Milentijević, S. Jovanović, K. Mačenovski Gagnon, J. Danilović
Water quality analysis in the district of Kosovska Mitrovica.
2nd International Conference on Chemo and Bioinformatics, September 28-29, 2023. Kragujevac, Serbia, p. 229-231. ISBN 978-86-82172-02-4. **M33**
- M. Radovanović, I. Filipović, M. Đukić, **M. Ristić**, I. Jakovljević, Z.D. Matović
Molecular docking study of ruthenium-p-cymene complexes with isothiazole derivatives as SARS-CoV-2 main protease inhibitors.
2nd International Conference on Chemo and Bioinformatics, September 28-29, 2023. Kragujevac, Serbia, p. 387-390. ISBN 978-86-82172-02-4. **M33**
- D. Stojković, M. Đukić, **M. Ristić**, M. Ćendić Serafinović, S. Belošević, E. Mrkalić, I. Jakovljević
Synthesis, characterization and HSA interactions of a new piano-stool ruthenium(II) complex containing a thioamide-type ligand.

2nd International Conference on Chemo and Bioinformatics, September 28-29, 2023. Kragujevac, Serbia, p. 507-510. ISBN 978-86-82172-02-4. **M33**

- M. D. Radovanović, I. Filipović, M. Đukić, **M. Ristić**, M. Zlatar, Z.D. Matović
Relativistic DFT calculation and their effect on the accuracy of results.
2nd International Conference on Chemo and Bioinformatics, September 28-29, 2023. Kragujevac, Serbia, p. 653-656. ISBN 978-86-82172-02-4. **M33**
- I. P. Filipović, M. D. Radovanović, M. B. Đukić, O. R. Klisurić, D. Lj. Stojković, **M. S. Ristić**, Z. D. Matović
Synthesis and crystal structure of $[Rh_2(CH_3COO)_4(N-Bulm)]$ complex.
XXVIII Konferencija SKD - 28th Conference of the Serbian Crystallographic Society, Čačak 2023, Serbia, p. 32-33. ISBN: 978-86-912959-6-7. **M64**
- **M. S. Ristić**, M. B. Djukić, I. P. Filipović, M. D. Radovanović, Z. D. Matović
Synthesis, characterization and HSA/DNA interactions of new $[Rh_2(CH_3COO)_4L_2]$ complex.
2nd International Conference on advances in science and technology, COAST 2023, Herceg Novi, Montenegro 2023. p. 359-369. ISBN: 978-9940-611-05-7. **M33**
- M. B. Đukić, **M. S. Ristić**, I. P. Filipović, M. D. Radovanović
Synthesis and characterization of new $[Ru(\eta^6-p\text{-cymene})Cl_2(L)]$ complex.
8. Konferencija mladih hemicara Srbije - 8th Conference of Young Chemists of Serbia, Belgrade 2022, Serbia, p. 74. ISBN: 978-86-7132-080-1. **M64**
- I. P. Filipović, M. D. Radovanović, M. B. Đukić, **M. S. Ristić**
Molecular docking of porphyrin-like complexes to SARS-CoV-2 main protease
8. Konferencija mladih hemicara Srbije - 8th Conference of Young Chemists of Serbia, Belgrade 2022, Serbia, p. 140. ISBN: 978-86-7132-080-1. **M64**
- M. Radovanović, **M. Ristić**, M. Đukić, I. Filipović, F. W. Heinemann, Z. Matović
Synthesis and crystal structure of *cis*-equatorial- $Na[Rh(Hed3ap)Cl] \cdot 2.22H_2O$ complex.
XXVII Konferencija SKD - 27th Conference of the Serbian Crystallographic Society, Kragujevac 2021, Serbia, p. 50-51. ISBN: 978-86-6009-085-2. **M64**
- **M. Jeremić**, Z. Matović, E. Mrkalić, P. Comba, H. Wadepohl
Synthesis and crystal structure of *cis*-equatorial-aquaethylenediamine-*N,N,N'*-triacetatorhodium(III) monohydrate, $[Rh(ed3a)H_2O] \cdot xH_2O$
XXII Konferencija SKD – 22nd Conference of the Serbian Crystallographic Society, 2015, Smederevo, Serbia, p. 52-53. ISBN: 978-86-912959-2-9. **M64**
- **M. S. Jeremić**, P. Comba, H. Wadepohl
Synthesis and crystal structure of *cis*-equatorial-sodium(ethylenediamine-*N,N,N'*-triacetato)chloridorhodate(III) monohydrate, $Na[RhCl(ed3a)] \cdot H_2O$
XXI Konferencija SKD - 21st Conference of the Serbian Crystallographic Society, 2014, Užice, Serbia, p. 76-77. ISBN: 978-86-912959-1-2. **M64**
- M. Ćendić, M. B. Đukić, E. M. Mrkalić, **M. S. Jeremić**, Z. D. Matović
Management of municipal and industrial waste in the city of Kragujevac.
The 6th symposium of chemistry and environmental protection – ENVIROCHEM 2013, Vršac, Serbia, p.154-155. ISBN: 978-86-7132-052-8. **M34**