

CURRICULUM VITAE

PERSONAL INFORMATION

Name and Surname:

Snežana Rajković (born Milinković)

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Date of birth:

02.01.1972.

Marital status:

Married (two children)

Citizenship:

Serbia

Nationality:

Serb

EDUCATION

Diploma in Chemistry:

University of Kragujevac, Faculty of Science, Serbia, 1994.

M. S. Degree in Chemistry:

University of Kragujevac, Faculty of Science, Serbia, 1997.

Ph. D. in Chemistry

University of Kragujevac, Faculty of Science, Serbia, 2004.

Post-doc. fellowship:

Department of Inorganic and Analytical Chemistri, Faculty of science and Technology, University of Debrecen, Hungary
2006-2007.

LANGUAGES

(a) Mother tongue:

Serbian

(b) Other languages:

English, Russian

EMPLOYMENT

Assistant:

University of Kragujevac, Faculty of Science, Department of Chemistry, Serbia; 1995 – 2008.

Assistant professor:

University of Kragujevac, Faculty of Science, Department of Chemistry, Serbia; 1998 – 2014.

Associate professor:

University of Kragujevac, Faculty of Science, Department of Chemistry, Serbia; 2014 – 2021.

Full professor:

University of Kragujevac, Faculty of Science, Department of Chemistry, Serbia; 2021-.

EXPERIENCE

Inorganic Chemistry, Coordination Chemistry, Bioinorganic chemistry, Medicinal inorganic chemistry, Synthesis compounds of Pt(II), Pd(II), and Au(III).

List of Selected Publications:

1. S. U. **Milinković**, M. I. Djuran
Selective Displacement of *S*-bound L-Methionine on Platinum by Histidine Containing Ligands
Gazz. Chim. Ital., **127** (1997) 69-71.
2. S. U. **Milinković**, T. N. Parac, M. I. Djuran, N. M. Kostić
Dependence of hydrolytic cleavage of histidine-containing peptides by palladium(II) aqua complexes on the coordination modes of the peptides
J. Chem. Soc. Dalton Trans., (1997) 2771-2776.
<https://doi.org/10.1039/A701491K>
3. M. I. Djuran, S. U. **Milinković**, Ž. D. Bugarčić
¹H NMR Investigations of the Competitive Binding of Sulfur-Containing Peptides and Guanosine 5'-Monophosphate to a Monofunctional Platinum(II) Complex
J. Coord. Chem., **44** (1998) 289-297.
<https://doi.org/10.1080/00958979808023081>
4. M. I. Djuran, S. U. **Milinković**
Hydrolysis of amide bond in histidine-containing peptides promoted by chelated amino acid palladium(II) complexes: dependence of hydrolytic pathway on the coordination modes of the peptides
Polyhedron, **18** (1999) 3611-3616.
[https://doi.org/10.1016/S0277-5387\(99\)00290-9](https://doi.org/10.1016/S0277-5387(99)00290-9)
5. M. I. Djuran, S. U. **Milinković**
NMR Study of the Interaction of Palladium(II) Complexes with Some Histidine-Containing Peptides. Effects of the Mode of Coordination on Hydrolytic Reaction
Chem. Month., **130** (1999) 613-622.
<https://doi.org/10.1007/PL00010242>
6. M. I. Djuran, S. U. **Milinković**
Selective hydrolysis of unactivated peptide bond in *N*-acetylated L-histidylglycine catalyzed by various palladium(II) complexes: dependence of the hydrolysis rate on the steric bulk of the catalyst
Polyhedron, **19** (2000) 959-963.
[https://doi.org/10.1016/S0277-5387\(00\)00342-9](https://doi.org/10.1016/S0277-5387(00)00342-9)
7. M. I. Djuran, S. U. **Milinković**
¹H N.M.R. Investigations of the Selective Intramolecular Migration of a Platinum(II) Complex from Methionine Sulfur to Imidazole *N1* in *N*-Acetylated L-Methionyl-L-Histidine
Aust. J. Chem., **53** (2000) 645-649.
8. M. I. Djuran, D. P. Dimitrijević, S. U. **Milinković**, Ž. D. Bugarčić
Reactions of platinum(II) complexes with sulfur- and histidine-containing peptides: a model for selective platination of peptides and proteins
Trans. Metal Chem., **27** (2002) 155-158.
<https://doi.org/10.1023/A:1013965520783>
9. M. I. Djuran, S. U. **Milinković**, A. Habtemariam, S. Parsons, P. J. Sadler
Crystal packing and hydrogen bonding in platinum(II) nucleotide complexes: X-ray crystal structure of (Pt(MeSCH₂CH₂SMe)(5'-GMP-*N7*)₂)]·6H₂O
J. Inorg. Biochem., **88** (2002) 268-273.
[https://doi.org/10.1016/S0162-0134\(01\)00351-8](https://doi.org/10.1016/S0162-0134(01)00351-8)
10. D. P. Ašanin, S. **Rajković**, D. Molnar-Gabor, M. I. Djuran

Hidrolisis of the Peptid Bond in N-Acetylated L-Methionylglycine Catalyzed by Various Palladium(II) Complexes: Dependence of the Hydrolytic Reactions on the Nature of the Chelate Ligand in *cis*-[Pd(L)(H₂O)₂]²⁺ Complexes
Chem. Month., **135** (2004) 1445-1453.
<https://doi.org/10.1007/s00706-004-0232-4>

- 11.** Z. D. Petrović, M. I. Djuran, F. W. Heinemann, **S. Rajković**, S. R. Trifunović
Synthesis, structure, and hydrolytic reactions of trans-dichlorobis(diethanolamine-N)palladium(II) with N-acetylated L-histidylglycine dipeptide
Bioorg. Chem., **34** (2006) 225-234.
<https://doi.org/10.1016/j.bioorg.2006.06.003>
- 12.** M. D. Živković, **S. Rajković**, U. Rychlewska, B. Warzajtis, M. I. Djuran
A study of the reactions of methionine- and histidine-containing peptides with palladium(II) complexes: The key role of steric crowding on the palladium(II) in the selective cleavage of the peptide bond
Polyhedron, **26** (2007) 1541-1549.
<https://doi.org/10.1016/j.poly.2006.11.048>
- 13.** M. D. Živković, **S. Rajković**, M. I. Djuran
Reaction of [Pt(Gly-Gly-N,N',O)]⁻ with the N-acetylated dipeptide L-methionyl-L-histidine: Selective platination of the histidine side chain by intramolecular migration of the platinum(II) complex
Bioorg. Chem., **36(3)** (2008) 161-164.
<https://doi.org/10.1016/j.bioorg.2008.02.005>
- 14.** U. Rychlewska, B. Warzajtis, M. I. Djuran, D. D. Radanović, M. Dj. Dimitrijević, **S. Rajković**
Coordination behaviour and two-dimensional-network formation in poly[[μ-aqua-diaqua(μ-5-propane-1,3-diylidinitrilotetraacetato)dilithium(I)cobalt(II)] dihydrate]: the first example of an MII-1,3-pdta complex with a monovalent metal counter-ion
Acta Crystallog. C: Crystal Structure Communications, **C64(6)** (2008) 217-220
[doi:10.1107/S0108270108010706](https://doi.org/10.1107/S0108270108010706)
- 15.** **S. Rajković**, C. Kallay, R. Serenyi, G. Malandrinos, N. Hadjiliadis, D. Sanna, I. Sovago
Complex formation processes of terminally protected peptides containing two or three histidyl residues. Characterization of the mixed metal complexes of peptides
Dalton Trans., (2008) 5059-5071.
<https://doi.org/10.1039/B808323A>
- 16.** **S. Rajković**, B. Đ. Glišić, M. D. Živković, M. I. Djuran
Hydrolysis of the amide bond in methionine-containing peptides catalyzed by various palladium(II) complexes: Dependence of the hydrolysis rate on the steric bulk of the catalyst
Bioorg. Chem., **37(5)** (2009) 173-179.
<https://doi.org/10.1016/j.bioorg.2008.02.005>
- 17.** **S. Rajković**, M. D. Živković, C. Kállay, I. Sóvágó, M. I. Djuran
A study of the reactions of a methionine- and histidine-containing tetrapeptide with different Pd(II) and Pt(II) complexes: The selective cleavage of the amide bond by platination of the peptide and steric modification of the catalyst
Dalton Trans., (2009) 8370-8377.
<https://doi.org/10.1039/B908182H>
- 18.** U. Rychlewska, B. Warzajtis, B. Đ. Glišić, **S. Rajković**, M. I. Djuran
Crystallographic evidence of Gly-D,L-Met oxidation to its sulfoxide in the presence of gold(III): solid solution of the racemic mixture of two diastereoisomers

- Acta Crystallogr. C: Crystal Structure Communications*, **C66** (2010) 51-54.
[doi:10.1107/S0108270110001666](https://doi.org/10.1107/S0108270110001666)
19. B. Đ. Glišić, **S. Rajković**, M. D. Živković, M. I. Djuran
A comparative study of complex formation in the reactions of gold(III) with Gly-Gly, Gly-L-Ala and Gly-L-His dipeptides
Bioorg. Chem., **38** (2010) 144-148
<https://doi.org/10.1016/j.bioorg.2010.03.002>
 20. U. Rychlewska, B. Warżajtis, B. Đ. Glišić, M. D. Živković, **S. Rajković**, M. I. Djuran
Monocationic gold(III) Gly-L-His and L-Ala-L-His dipeptide complexes: crystal structures arising from solvent free and solvent-containing crystal formation and structural modifications tuned by counter-anions
Dalton Trans., **39** (2010) 8906-8913.
<https://doi.org/10.1039/C0DT00163E>
 21. M. D. Živković, D. P. Ašanin, **S. Rajković**, M. I. Djuran
Hydrolysis of the amide bond in *N*-acetylated L-methionylglycine catalyzed by various platinum(II) complexes under physiologically relevant conditions
Polyhedron, **30(6)** (2011) 947-952.
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 22. B. Đ. Glišić, **S. Rajković**, Z. Stanić, M. I. Djuran
A spectroscopic and electrochemical investigation of the oxidation pathway of glycyl-D,L-methionine and its *N*-acetyl derivative induced by gold(III)
Gold Bull., **44** (2011) 91-98.
<https://doi.org/10.1007/s13404-011-0014-9>
 23. B. Đ. Glišić, **S. Rajković**, M. I. Djuran
The reactions of the monofunctional $[\text{Au}(\text{dien})\text{Cl}]^{2+}$ complex with L-histidine-containing dipeptides: dependence of the complex formation on the dipeptide structure
J. Coord. Chem., **66(3)** (2013) 424-434
<https://doi.org/10.1080/00958972.2012.759652>
 24. **S. Rajković**, D. P. Ašanin, M. D. Živković, M. I. Djuran
 ^1H NMR study of the reactions between carboplatin analogues $[\text{Pt}(\text{en})(\text{Me-mal-}O,O')$] and $[\text{Pt}(\text{en})(\text{Me}_2\text{-mal-}O,O')$] and various methionine- and histidine-containing peptides under physiologically relevant conditions
Inorg. Chim. Acta, **395** (2013) 245-251.
<https://doi.org/10.1016/j.ica.2012.11.004>
 25. D. P. Ašanin, M. D. Živković, **S. Rajković**, B. Warżajtis, U. Rychlewska, M. I. Djuran
Crystallographic evidence of anion... π interactions in the pyrazine bridged $\{[\text{Pt}(\text{en})\text{Cl}]_2(\mu\text{-pz})\}\text{Cl}_2$ complex and comparative study of the catalytic ability of mononuclear and binuclear platinum(II) complexes in the hydrolysis of *N*-acetylated L-methionylglycine
Polyhedron, **51** (2013) 255-262
<https://doi.org/10.1016/j.poly.2012.12.037>
 26. **S. Rajković**, D. P. Ašanin, M. D. Živković, M. I. Djuran
Synthesis of different pyrazine-bridged platinum(II) complexes and ^1H NMR study of their catalytic abilities in the hydrolysis of the *N*-acetylated L-methionylglycine
Polyhedron, **65** (2013) 42-47
<https://doi.org/10.1016/j.poly.2013.08.016>

27. **S. Rajković**, U. Rychlewska, B. Warżajtis, D. P. Ašanin, M. D. Živković, M. I. Djuran
Disparate behavior of pyrazine and pyridazine platinum(II) dimers in the hydrolysis of histidine- and methionine-containing peptides and unique crystal structure of $\{[\text{Pt}(\text{en})\text{Cl}]_2(\mu\text{-pydz})\}\text{Cl}_2$ with a pair of $\text{NH}\cdots\text{Cl}\cdots\text{HN}$ hydrogen bonds supporting the pyridazine bridge
Polyhedron, **67** (2014) 279-285.
<https://doi.org/10.1016/j.poly.2013.09.008>
28. B. Đ. Glišić, Z. D. Stanić, **S. Rajković**, V. Kojić, G. Bogdanović, M. I. Djuran
Solution study under physiological conditions and cytotoxic activity of the gold(III) complexes with L-histidine-containing peptides
J. Serb. Chem. Soc., **78** (2013) 1911-1924.
DOI: [10.2298/JSC130920105G](https://doi.org/10.2298/JSC130920105G)
29. B. Đ. Glišić, **S. Rajković**, Z. D. Stanić, M. I. Djuran
Oxidation of methionine residue in Gly-Met dipeptide induced by $[\text{Au}(\text{en})\text{Cl}_2]^+$ and influence of the chelated ligand on the rate of this redox process
Gold Bull., **47** (2014) 33-40.
<https://doi.org/10.1007/s13404-013-0108-7>
30. L. Senerović, M. D. Živković, A. Veselinović, A. Pavić, M. I. Djuran, **S. Rajković**, J. Nikodinović-Runić
Synthesis and evaluation of series of diazine-bridged dinuclear platinum(II) complexes through *in vitro* toxicity and molecular modeling: Correlation between structure and activity of Pt(II) complexes
J. Med. Chem., **58** (2015) 1442-1451.
<https://doi.org/10.1021/jm5017686>
31. B. Warżajtis, B. Đ. Glišić, M. D. Živković, **S. Rajković**, M. I. Djuran, U. Rychlewska
Different reaction products as a function of solvent: NMR spectroscopic and crystallographic characterization of the products of the reaction of gold(III) with 2-(aminomethyl)pyridine
Polyhedron, **91** (2015) 35-41
<https://doi.org/10.1016/j.poly.2015.02.031>
32. **S. Rajković**, M. D. Živković, M. I. Djuran
Reactions of dinuclear platinum(II) complexes with peptides
Curr. Protein Pept. Sc., **17** (2016) 95-105.
doi: [10.2174/138920371702160209120921](https://doi.org/10.2174/138920371702160209120921)
33. **S. Rajković**, M. D. Živković, B. Warżajtis, U. Rychlewska, M. I. Djuran
Synthesis, spectroscopic and X-ray characterization of various pyrazine-bridged platinum(II) complexes: ^1H NMR comparative study of their catalytic abilities in the hydrolysis of methionine- and histidine-containing dipeptides
Polyhedron, **117** (2016) 367-376.
<https://doi.org/10.1016/j.poly.2016.06.011>
34. M. D. Živković, **S. Rajković**, B. Đ. Glišić, N. S. Drašković, M. I. Djuran
Hydrolysis of the amide bond in histidine- and methionine-containing dipeptides promoted by pyrazine and pyridazine palladium(II)-aqua dimers: Comparative study with platinum(II) analogues
Bioorg. Chem., **72** (2017) 190-198.
<https://doi.org/10.1016/j.bioorg.2017.04.008>
35. **S. Rajković**, B. Warżajtis, M. D. Živković, B. Đ. Glišić, U. Rychlewska, M. I. Djuran
Hydrolysis of Methionine- and Histidine-Containing Peptides Promoted by Dinuclear Platinum(II) Complexes with Benzodiazines as Bridging Ligands: Influence of Ligand Structure on the Catalytic Ability of Platinum(II) Complexes
Bioinorg. Chem. Appl., Volume 2018 (2018) 12 pages
<https://doi.org/10.1155/2018/3294948>

36. D. Čočić, S. Jovanović, **S. Rajković**, B. Petrović
Kinetics and mechanism of the substitution reactions of dinuclear platinum (II) complexes with important biomolecules
Inorg. Chim. Acta, **482** (2018) 635–642.
<https://doi.org/10.1016/j.ica.2018.07.004>
37. B. Konovalov, M. D. Živković, J. Z. Milovanović, D.B. Djordjević, A.N. Arsenijević, I. R. Vasić, G. V. Janjić, A. Franich, D. Manojlović, S. Skrivanj, M. Z. Milovanović, M. I. Djuran, **S. Rajković**
Synthesis, cytotoxic activity and DNA interaction studies of new dinuclear platinum(II) complexes with an aromatic 1,5-naphthyridine bridging ligand: DNA binding mode of polynuclear platinum(II) complexes in relation to the complex structure
Dalton Trans., **47**, (2018) 15091–15102.
<http://dx.doi.org/10.1039/C8DT01946K>
38. A. A. Franich, M. D. Živković, D. Čočić, B. Petrović, M. Milovanović, A. Arsenijević, J. Milovanović, D. Arsenijević, B. Stojanović, M. I. Djuran, **S. Rajković**
New dinuclear palladium(II) complexes with benzodiazines as bridging ligands: interactions with CT-DNA and BSA, and cytotoxic activity
J. Biol. Inorg. Chem., **24(7)** (2019) 1009-1022.
<https://doi.org/10.1007/s00775-019-01695-w>
39. N. Marković, M. Zarić, M. D. Živković, **S. Rajković**, I. Jovanović, N. Arsenijević, P. Čanović, S. Ninković
Novel Platinum(II) Complexes Selectively Induced Apoptosis and Cell Cycle Arrest of Breast Cancer Cells In Vitro
Chemistryselect., **4** (2019) 12971– 12977
<https://doi.org/10.1002/slct.201903290>
40. A. A. Franich, M. D. Živković, T. Ilić-Tomić, I. S. Đorđević, J. Nikodinović-Runić Jasmina, A. B. Pavić, G. V. Janjić, **S. Rajković**
New minor groove covering DNA binding mode of dinuclear Pt(II) complexes with various pyridine-linked bridging ligands and dual anticancer-antiangiogenic activities,
J. Biol. Inorg. Chem., **25** (2020) 395-409.
<https://doi.org/10.1007/s00775-020-01770-7>
41. A. A. Franich, M. D. Živković, J. Milovanović, D. Arsenijević, A. Arsenijević, M. Milovanović, M. I. Djuran, **S. Rajković**
In vitro cytotoxic activities, DNA- and BSA-binding studies of dinuclear palladium(II) complexes with different pyridine-based bridging ligands
J. Inorg. Biochem., **210** (2020) Article ID: 111158
<https://doi.org/10.1016/j.jinorgbio.2020.111158>
42. M. Bošković, A. A. Franich, **S. Rajković**, M. Jovanović, M. Jurisević, N. Gajović, M. Jovanović, N. Arsenijević, I. Jovanović, M. D. Živković
Potential Antitumor Effect of Newly Synthesized Dinuclear 1,5-Naphthyridine-Bridging Palladium(II) Complexes
Chemistryselect., **5(34)** (2020) 10549-10559
<https://doi.org/10.1002/slct.202002350>
44. B. Konovalov, A. A. Franich, M. Jovanović, M. Jurisević, N. Gajović, M. Jovanović, N. Arsenijević, V. Maric, I. Jovanović, M. D. Živković, **S. Rajković**
Synthesis, DNA/BSA-binding affinity and cytotoxicity of dinuclear platinum(II) complexes with 1,6-naphthyridine bridging ligand
Appl. Organomet. Chem., 2020:e6112
<https://doi.org/10.1002/aoc.6112>
45. M.D. Živković, A.A. Franich, D.P. Ašanin, N.S. Drašković, **S. Rajković**, M.I. Djuran

Hydrolysis of the Amide Bond in L-Methionine- and L-Histidine-Containing Dipeptides in the Presence of Dinuclear Palladium(II) Complexes with Benzodiazines Bridging Ligands

J. Solution. Chem., **49**, (2020) 1082–1093.

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46. A.M. Bondžić, J.J. Žakula, L.B. Korićanac, O.D. Keta, G.V. Janjić, I.S. Đorđević, Snežana **U. Rajković**
Cytotoxic activity and influence on acetylcholinesterase of series dinuclear platinum(II) complexes with aromatic nitrogen-containing heterocyclic bridging ligands: Insights in the mechanisms of action,
Chem-biol. Interact., **351** (2022) 109708.
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47. M.N. Dimitrijević, A.A. Franich, M.M. Jurišević, N.M. Gajović, N.N. Arsenijević, I.P. Jovanović, B.S. Stojanović, S. Lj. Mitrović, J. Kljun, **S. Rajković**, M.D. Živković
Platinum(II) complexes with malonic acids: Synthesis, characterization, *in vitro* and *in vivo* antitumor activity and interaction with biomolecules
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48. A.A. Franich, I.S. Đorđević, M.D. Živković, **S. Rajković**, G.V. Janjić, M.I. Djuran
Dinuclear platinum(II) complexes as the pattern for phosphate backbone binding: a new perspective for recognition of binding modes to DNA,
J. Biol. Inorg. Chem., **27** (2022) 65–79.
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49. B. Konovalov, I. S. Đorđević, A. A. Franich, B. Šmit, M. D. Živković, M. I. Djuran, G. V. Janjić, **S. Rajković**
Dinuclear platinum(II) complexes with 1,5-nphe bridging ligand: Spectroscopic and molecular docking study of the interactions with N-acetylated L-methionylglycine and human serum albumin
J. M. Struc., 1288 (2023) 135810
<https://doi.org/10.1016/j.molstruc.2023.135810>
50. S. Zornić, B. Simović Marković, A. A. Franich, G. V. Janjić, M. B. Jadranin, J. Avdalović, **S. Rajković**, M. D. Živković, N. N. Arsenijević, G. D. Radosavljević, J. Pantić
Characterization, modes of interactions with DNA/BSA biomolecules and anti-tumor activity of newly synthesized dinuclear platinum(II) complexes with pyridazine bridging ligand
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51. S. Zornić, B. Simović Marković, A. A. Franich, M. D. Živković, B. Luković, N. N. Arsenijević, G. D. Radosavljević, **S. Rajković**, J. Pantić
Synthesis, characterization, DNA/BSA-binding affinity and biological activity of dinuclear palladium(II) complexes with aromatic N-heterocyclic bridging ligand
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52. M. Glišić, P. P. Čanović, M. M. Zarić, R. S. Živković Zarić, A. Franich, **S. Rajković**, M. Živković
The cytotoxicity of palladium (II) complexes containing 1,2- or 1,4-diazine bridging ligands on squamous cell carcinoma cells in vitro: Insights in the mechanisms of action
Appl. Organomet. Chem., 2024;e7449
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53. D. Luković, A.A. Franich, M.D. Živković, **S. Rajković**, B. Stojanović, N. Gajović, M. Jurišević, S. Pavlović, B. Simović Marković, M. Jovanović, B.S. Stojanović, R. Pavlović, I. Jovanović
Biological Evaluation of Dinuclear Platinum(II) Complexes with Aromatic N-Heterocycles as Bridging Ligands
Int. J. Mol. Sci., **25(15)** (2024) 8525.

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