

### PERSONAL INFORMATIONS

#### Dr. Nevzeta Ljubijankić



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Date of birth: March 28th, 1963

Place of birth: Brodarevo

Nationality: Bosnian and Herzegovinian

#### ORCID

https://orcid.org/0000-0002-7421-4592

Researcher ID

H-2568-2015



https://www.researchgate.net/profile/Nevzeta\_Ljubijankic

Google

https://scholar.google.com/citations?user=fUCKmewAAAAJ&hl=hr&oi=ao

#### **EMPLOYMENT**

#### Faculty of Science, University of Sarajevo

Department of Chemistry, Division of General and Inorganic Chemistry

Zmaja od Bosne 35, 71 000 Sarajevo, Bosna i Hercegovina Cabinet: 339/III

Full Professor in the fields of General Chemistry and Inorganic Chemistry

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#### **WORK EXPERIENCE**

29. 11. 2023. - present

**Full professor** in the fields of *General Chemistry and Inorganic Chemistry* at the Chemistry Department of the Faculty of Science, University of Sarajevo.

Main activities and responsibilities

Lecturer and teacher in charge:

First cycle of studies – General Chemistry I, General Chemistry II, General and Inorganic Chemistry, Stoichiometry, Chemical Concepts: Molecules and Reactivity, Inorganic Toxicants in the Environment, Inorganic Chemistry with Materials, Inorganic syntheses

Second cycle of studies – Chemistry of Organometallic compounds

Third cycle of studies — Chemistry of Organometallic compounds - selected chapters, Synthesis and Identification of Inorganic Compounds, Synthesis and identification of inorganic compounds - selected chapters

**12. 03. 2018**. – 29. 11. 2023.

**Associate Professor** in the fields of *General Chemistry* and *Inorganic Chemistry* at the department of Chemistry, Faculty of Science, University of Sarajevo, Bosnia and Herzegovina

Main activities and responsibilities

Lecturer and teacher in charge:

First cycle of studies – General Chemistry I, General Chemistry II, General and Inorganic Chemistry, Stoichiometry, Chemical Concepts: Molecules and Reactivity, Inorganic Toxicants in the Environment, Inorganic Chemistry with Materials

Second cycle of studies – Chemistry of Organometallic compounds

Third cycle of studies - Chemistry of Organometallic compounds - selected chapters, Synthesis and Identification of Inorganic Compounds, Synthesis and identification of inorganic compounds - selected chapters

**25. 06. 2013**.— 12. 03. 2018.

**Assistant Professor** in the fields of *General Chemistry* and *Inorganic Chemistry* at the department of Chemistry, Faculty of Science, University of Sarajevo, Bosnia and Herzegovina.





Main activities and responsibilities

Lecturer and teacher in charge:

First cycle of studies - General and Inorganic chemistry, Stoichiometry, Inorganic syntheses, Applied Inorganic Chemistry, Chemical concepts: Molecules and Reactivity, Inorganic

Toxicants in the Environment.

Second cycle of studies - Higher Inorganic Practice, Chemistry of Organometallic compounds

**12.01.2009**. - 25. 06. 2013.

Senior Teaching Assistant in the fields of General Chemistry and Inorganic Chemistry at the department of Chemistry, Faculty of Science, University of Sarajevo, Bosnia and Herzegovina.

**05. 02. 2002. -** 05. 02. 2007.

Teaching Assistant for laboratory practice in Biochemistry, Higher Medical School,

University of Bihać

Main activities and responsibilities

Laboratory exercises and calculations in: Stoichiometry, Introduction to Laboratory Work, General Chemistry II, General Chemistry (For Physics Students), Inorganic Chemistry I, Inorganic Chemistry II, Inorganic Syntheses, Chemistry of Complex Compounds, Mechanisms of Inorganic Reactions, Higher Inorganic Practice, Inorganic Materials

2001. - 2009.

Principal JU "II srednja škola", Cazin

1994. - 2001.

Chemistry Teacher at JU "II srednja škola", Cazin

1991. - 1994.

Chemistry Teacher at MSŠ "Safet Krupić", Bosanska Krupa

1987. - 1991.

Engineering Technologist at "Poliester", Priboj, Republika Srbija

#### **ENGAGEMENT AT OTHER FACULTIES**

2015. - today

Lecturer and teacher in charge: General, Inorganic and Organic chemistry at the Faculty of

Health Studies, University of Sarajevo.

2014. - 2017.

Lecturer and teacher in charge: Inorganic Chemistry at the Biotechnical Faculty,

University of Bihać.

2010. - 2014.

Senior Teaching Assistant: Chemistry, Chemistry with Stoichiometry, Basics of Human

Physiological Chemistry, General Chemistry at the Faculty of Health Studies, University of

Sarajevo.

2010. - 2014.

Senior Teaching Assistant: Basics of Natural Sciences I and Basics of Natural

Sciences II at the Academy of Fine Arts, University of Sarajevo.

2002. - 2006.

Teaching Assistant: Biochemistry, Higher Medical School of Bihać.

#### **EDUCATION AND TRAINING**

13. 01. 2013.

Doctor of Chemical Sciences, Faculty of Science, University of Sarajevo

Doctoral dissertation: "Complexes of Ru(III) with Schiff bases derived from salicylaldehyde: synthesis, structural aspects and interactions with DNA" done at the Division of General and Inorganic Chemistry of the Faculty of Science in

Sarajevo under the mentorship of prof. Dr Emira Kahrović.

1999. - 2007.

**Master of Chemical Sciences** 

Thesis "Daily fluctuations of cortisol in the saliva of healthy individuals" done at the Division of Organic Chemistry and Biochemistry of the Faculty of Medicine in

Sarajevo under the mentorship of prof. Dr Emin Sofić.

1981. - 1986.

**Graduate Chemical Engineer** 

Thesis "Quantitative determination of silymarin" done at the Division of Organic Chemistry and Biochemistry of the Faculty of Medicine in Sarajevo under the

mentorship of prof. Dr Krunoslav Dursun.



Nevzeta Ljubijankić



#### Professional training

1998. Completed pedagogical-psychological and didactic-methodical training at the

Pedagogical Academy, University of Bihać.

2001. Passed the professional exam for independent class teaching, in accordance with

the professional exam program of the Ministry of Education, Science and Culture of

the USC.

# PERSONAL SKILLS AND COMPETENCES

Native language Bosnian

Russian

**English** 

Other languages

UNDERSTANDING SPEECH

Listening Reading Spoken interaction Spoken production

C2 C2 C2 C2

B1 B1 B1 B1 B1

Degrees: A1/2: Beginner - B1/2 Independent user - C1/2 Experienced user Common European Framework of Reference for Languages

Social skills and competences

Teamwork; ability to adapt to multicultural environments, good communication skills acquired during work experience.

Organizational skills and competencies

Organization skills; leadership skills.

Technical skills and competencies

Work on different instruments used in chemical analyses.

# **ADDITIONAL INFORMATION**

Participation in the work of the Higher Education Organization

2017. - Ongoing

Head of the Chemistry Department

2014. – 2020.

member of the Quality Assurance Committee at the Faculty of Science



- Member of the Society of Chemists and Technologists of Sarajevo Canton
- Member of the Organizing Committee of the Second Congress of Chemists and Technologists of Bosnia and Herzegovina with international participation (October 21-23, 2016)
- Member of the Organizing Committee of the Third Congress of Chemists and Technologists of Bosnia and Herzegovina with international participation (October 19-21, 2018)

#### Memberships

- Member of the Scientific Committee of the Third Congress of Chemists and Technologists of Bosnia and Herzegovina with international participation (October 19-21, 2018)
- Member of the Organizing Committee of the Fourth Congress of Chemists and Technologists of Bosnia and Herzegovina with international participation (June 30 - July 2, 2022).
- Member of the Scientific Committee of the Fourth Congress of Chemists and Technologists of Bosnia and Herzegovina with international participation (June 30 - July 2, 2022)

#### Reviews

Reviewer of the Chemistry Curriculum, Ministry of Education of Sarajevo Canton, 13th July 2021.

The reviewer of the manuscript entitled "Biochemistry of myeloperoxidase" by Dr. Sci. Semire Galijašević (Decision of the Council of the Medical School, University Sarajevo School of Science and Technology number: 028-5556/20)

The reviewer of the manuscript entitled "Diary of Methodical Practice in Chemistry" authored by Dr. Sci. Melihe Zejnilagić-Hajrić (Decision of the Council of the Faculty of Science Sarajevo number: 01/06-3196/2-2016 dated 08.12.2016).

Reviewer of the manuscript entitled "Bioinorganic Chemistry" authored by Dr.sci. Amire Cipurković, (Decision of the Council of the Natural Sciences Group of the University of Tuzla, number 10/1-1261-1/16, dated February 25, 2016).

Bulletin of chemists and technologists of Bosnia and Herzegovina (Manuscript: BCTBH Ref. No: 16/2020: Copper(II) complexes with some antibiotics: Synthesis, FT-IR study and in vitro antibacterial activity).

Bulletin of chemists and technologists of Bosnia and Herzegovina (Manuscript: BCTBH Ref. No: 13/2020: Analysis of stability of naturally aged single base propellant).

Bulletin of chemists and technologists of Bosnia and Herzegovina (Manuscript: BCTBH Ref. No: 11/2020: Peroxidase activity of hemoglobin and heme destruction).

Bulletin of chemists and technologists of Bosnia and Herzegovina (Manuscript: BCTBH Ref. No: 12/2018 Electrochemical Oxidation of Ascorbic Acid Mediated by Ru(III) Schiff-base Complex/Multi-Walled Carbon Nanotube/Nafion Modified Carbon Electrodes).

Bulletin of chemists and technologists of Bosnia and Herzegovina (Manuscript: BCTBH Ref. No: 14/2018: Synthesis, characterization and in vitro antimicrobial activity of the Cu(II) and Fe(III) complexes with 1-cyclopropyl-6-fluoro-4- oxo-7-(piperazin-1-yl)-1,4-dihydroquinoline-3-carboxylic acid).

Bulletin of chemists and technologists of Bosnia and Herzegovina (Manuscript: GHTBH Ref. No: 3/2015: The effects of problem-based learning on students' achievements in primary school chemistry).

4<sup>th</sup> International Congress of Chemists and Chemical Engineers of Bosnia and Herzegovina (Abstract No:OP\_79: Novel metal(II) fluoridooxidomolybdates(VI))

4<sup>th</sup> International Congress of Chemists and Chemical Engineers of Bosnia and Herzegovina (Abstract No: PP\_9: Coordination compounds – preparation, structures, properties and applications)

 $4^{th}$  International Congress of Chemists and Chemical Engineers of Bosnia and Herzegovina (Abstract FTIR: Characterisation of the host-guest interactions in inclusion complexes of dimenhydrinate and2-hydroxypropyl- $\beta$ -cyclodextrin)



4<sup>th</sup> International Conference "NEW TECHNOLOGIES-DEVELOPMENT AND APPLICATION" (Paper No: NT-2018-056: DETECTIONOF HEAVY METALS IN HAIR COLOURS BY THE ATOMIC APSORPTION SPECTROPHOTOMETRY http://www.springer.com/series/15179)

3<sup>rd</sup> International Congress of Chemists and Chemical Engineers of Bosnia and Herzegovina (Abstract No:5bb4: Calcined colemanite as filler for epoxy composite materials).

3<sup>rd</sup> International Congress of Chemists and Chemical Engineers of Bosnia and Herzegovina (Abstract No: 219d: Silica gel impregnated by vanadium(V) oxide: synthesis, characterization and application as a novel solid phase extractant for Cd(II), Cr(III), Cu(II) and Pb(II)).

3<sup>rd</sup> International Congress of Chemists and Chemical Engineers of Bosnia and Herzegovina (Abstract No: 02d3: Selective and Sensitive Detection of Iron(II) with a Calix[4]arene Derivative Having Morpholino Binding Sites).

 $3^{rd}$  International Congress of Chemists and Chemical Engineers of Bosnia and Herzegovina, (Abstract No: e81d: Synthesis and characterization of copper(II) and nickel(II)  $\beta$ -diketonates with pyridine-based amides).

## Participation in research projects

Project title, project leader, year

- Synthesis and characterization of bioactive rhenium(I) carbonyl complexes with diimine ligands; project financed by the Federal Ministry of Education and Science; project manager: prof. Dr. Nevzeta Ljubijankić; in 2023
- Project title, project leader, year
- Bioactive rhenium(I) carbonyl complexes with structural analogues of antitumor alkaloids, a project financed by the Ministry of Science, Higher Education and Youth of Canton Sarajevo; project manager prof. Dr. Nevzeta Ljubijankić; in 2023
- Project title, project leader, year
- ECOBIAS Development of master curricula in ecological and aquatic bioassesment for Western Balkans HEIs; project manager: Dr.Sci. Samir Đug, (as a member of the project team), 2021.

Project title, project leader, year

Synthesis, characterization and antitumor properties of new ruthenium complexes with O, N and S - donor ligands; project financed by the Federal Ministry of Education and Science; project manager: Dr.Sci. Nevzeta Ljubijankić (as project manager); 2016

Project title, project leader, year

Determination of the content of heavy metals and metalloids (As, Pb, Cd, Cr, Ni, Co, Mo, Zn, Se, P, Fe and Cu) in drinking water in the USC area using the AAS method; project financed by the Federal Ministry of Education and Science; project manager: Dr. Sci. Ekrem Pehlić (as a member of the project team), 2015.

Additional professional education - participation in professional seminars

Summer school "Security of urban systems - technical systems in fire protection and private security" University of Sarajevo, Faculty of Criminology, Criminology and Security Studies Lecturer: prof. Dr Nevzeta Ljubijankić

14 – 18. 06. 2021.

Seminar for chemistry teachers of primary and secondary schools in Sarajevo Canton;

Lecturer: doc. Dr Nevzeta Ljubijankić Topic: Possibilities of examination and analysis of fire and toxic gases created in laboratory fires



19. - 20. 06. 2017. Topic: Stoichiometric calculations: Limiting reactant of a chemical reaction.

Conversion of measurement units. Conversion factor.

28. - 29. 06. 2016. Topic: Stoichiometric calculations.

#### Other seminars

14, 02, 2017. Pure chromatography (RESTEK) Sarajevo

17. 11. 2016. Responsable Research and Innovation Tools Training, Sarajevo

03. - 04. 03. 2010. Cambridge Structural Database Workshop, Institut Ruđer Bošković, Zagreb,

Hrvatska

24. - 25. 04. 2009. III Consultation on the reform of higher education - application of the Bologna

principles at the University of Sarajevo

04. 09. 2008. Seminar: Regional positioning of tourist schools in BiH Module 1.7, Mostar School

development and guiding image Module 1.3.2

2008. Member of the expert team in the preparation and scoring of test material for the

> external evaluation of student achievements in chemistry in general high school (Agency for Standards and Assessment in Education for the Federation of Bosnia and

Herzegovina)

Seminar: School development and guiding image Module 1.3. Sarajevo 20 - 22. 06. 2007.

10. - 11. 05. 2007. Workshops of the United World College Initiative (UWC) and the International

Baccalaureate Organization (IBO) in Bosnia and Herzegovina on the topic of the importance of external evaluation in the secondary education system and the work of

schools

2005. - 2007. Seminars for school principals EU VET program II (three-day seminars with topics:

> Development of secondary vocational education in the EU context. Reform and modernization of secondary vocational education in BiH. New teaching methods and new assessment methods. School management in accordance with educational reforms. Exchange of information about the development of the new NPP in schools.

2006.

Teacher training program EU VET program II with topics Methodology of modular (August-December)

NPP. Active teaching methods. Learning styles. New assessment techniques.

2006. Five-day training program on Business planning for student entrepreneurship by the

BIP program in cooperation with the EU-VET program. Sarajevo.

02. - 06.02.2004.Participation in the training management seminar (BiH Education Development

Project, EMIS)

#### **BIBLIOGRAPHY**

#### **Textbooks**



#### Nevzeta Ljubijankić

#### Osnove stehiometrije

University of Sarajevo, Faculty of Science, 2023; ISBN 978-9926-453-57-2 COBIS.BH-ID 53054982





#### Nevzeta Ljubijankić, Sabina Begić, Irnesa Osmanković

#### Praktikum opšte hemije

University of Sarajevo, Faculty of Science, 2022; ISBN 978-9926-453-53-4 COBIS.BH-ID 50502406



Meliha Zejnilagić-Hajrić, **Nevzeta Ljubijankić,** Amira Čopra-Janićijević, Danijela Vidic, Ines Nuić

#### Praktikum iz metodike nastave hemije

University of Sarajevo, 2016; ISBN 978-9958-592-77-5 COBIS.BH-ID 22953478



Emira Kahrović, Nevzeta Ljubijankić,

#### Praktikum anorganske hemije,

Faculty of Science, 2011;

ISBN 978-9958-592-20-1 COBIS.BH-ID 19080454

#### Participation in conferences

2022.

LULL.	Herzegovina, Sarajevo, BiH 30.06-02.07
2022.	Seventh international scientific and professional conference "5. Juni – svjetski dan zaštite okoliša' " Bihać, Bosnia and Herzegovina, June 9 - 10.
2018.	XII International Conference of Chemists, technologists and environmentalists of the Republic of Srpska, Teslić, BiH 2-3 November.
2018.	3 <sup>rd</sup> International Congress of Chemists and Chemical Engineers of Bosnia and Herzegovina, Sarajevo, BiH 19 – 21 October.
2018.	6 <sup>th</sup> International Scientific Conference "June 5th – World Environment Day", Bihać, BiH, 18-19 June.
2017.	The fifth scientific-professional meeting with international participation "5. juni - Svjetski dan zaštite okoliša" Bihać, BiH, June 29 and 30.
2016.	2 <sup>nd</sup> International Congress of Chemists and Chemical Engineers of Bosnia and Herzegovina, Sarajevo, BiH, 21-23 October.
2016.	The second scientific-professional meeting with international participation "5. juni - Svjetski dan zaštite okoliša", Bihać, Bosna i Hercegovina, June 1 and 2.
2015.	The third scientific-professional meeting with international participation "5. juni - Svjetski dan zaštite okoliša", Bihać, Bosna i Hercegovina, June 4 and 5.
2014.	Congress of Chemists and Chemical Engineers of Bosnia and Herzegovina with International Participation, Sarajevo, Bosnia and Herzegovina, 10-12 October.
2014.	The second scientific-professional meeting with international participation "5. juni - Svjetski dan zaštite okoliša", Bihać, Bosna i Hercegovina, June 4 and 5.
2012.	IX meeting of young chemical engineers, Zagreb, Croatia, February 16-17.
2007.	15 <sup>th</sup> Meeting of Balkan clinical laboratory Federation, Antalya, Turkey, September 04-07.

4th International Congress of Chemists and Chemical Engineers of Bosnia and



## Scientific research papers in journals

- Veljović E, Osmanović A., Salihović M., Ljubijankić, N., Begić S., Špirtović-Halilović S., (2023). DNA Binding Affinity Assessmnt of Xanthene Compounds: in Vitro and in Silico Approach. Kemija u industriji: Časopis kemičara i kemijskih inženjera Hrvatske, KUI-13/2023 - Decclaration of acceptance. (Web of Science Core Collection: Science Citation Index Expanded)
- Ljubijankić, N., Šuta, E., Ćatić, A., Begić, S., Ljubijankić, S., & Ibragić, S. (2023). Ru (III)
  Complexes and Their Ligands Derived from Salicylaldehyde and Halogenated Anilines:
  Synthesis, Characterisation, and Antioxidant Activity. Kemija u industriji: Časopis kemičara i kemijskih inženjera Hrvatske, 72(7-8), 455-462. (Web of Science Core Collection: Science Citation Index Expanded)
- Korać, (R) S., Huremović, J., Žero, S., Ljubijankić, N. (2023). Content of Metals in Cow, Sheep and Goat Milk Samples. Bulletin of the Chemists and Technologists of Bosnia and Herzegovina, 60, 1-6. DOI: 10.35666/2232-7266.2023.60.01 (Web of Science Core Collection: Emerging Sources Citation Index)
- Pavlović, M., Kahrović, E., Aranđelović, S., Radulović, S., Ilich, P., Grgurić-Šipka, S., Ljubijankić, N., Žilic, D., Jurec, J. (2023) Tumor selective Ru(III) Schiff bases complexes with strong in vitro activity toward cisplatin-resistant MDA-MB-231 breast cancer cells. J Biol Inorg Chem 28, 263–284. DOI:10.1007/s00775-023-01989-0 (Web of Science Core Collection: Science Citation Index Expanded, Current Contents/ Life Sciences, Imapact factor: 3.862 for 2023, Q1)
- Adžemović, S., Aliefendić, S., Mehić, E., Ranica, A., Vehab, I., Alagić, N., Delibašić, Š., Herceg, K., Karić, M., Hadžić, B., Gojak-Salimović, S., Ljubijankić, N., Džepina, K., Ramić, E., Huremović J. (2023) Estimation of atmospheric deposition utilizing lichen Hypogymnia physodes, moss Hypnum cupressiforme and soil in Bosnia and Herzegovina. *International Journal of Environmental Science and Technology*, 20, 1905–1918, DOI: 10.1007/s13762-022-04133-8 (Web of Science Core Collection: Science Citation Index Expanded, Imapct factor 3.519 for 2013..Q3)
- Šehović, E., Memić, M., Sulejmanović, J., Hameed, M., Begić, S., Ljubijankić, N., Selović, A., Ghfar, A., Sher, F. (2022). Thermodynamic valorisation of lignocellulosic biomass green sorbents for toxic pollutants removal. Chemosphere, 307, DOI: 10.1016/j.chemosphere.2022.135737 (Web of Science Core Collection: Science Citation Index Expanded, Current Contents Agriculture, Biology & Environmental Sciences, Impact factor: 8.943 for 2022, Q1)
- Ljubijankić, S., Galijaševic, S., Plavšić-Davidović, B., Balaban, M., Ljubijankić, N. (2022) Synthesis, IR characterization and antioxidant capacity of Cu(II) complexes with amino acids and melatonin. Bulletin of the Chemists and Technologists of Bosnia and Herzegovina, 58, 19-32. DOI: 10.35666/2232-7266.2022.58.06 (Web of Science Core Collection: Emerging Sources Citation Index)
- Elma Veljović, Krešimir Molčanov, Mirsada Salihović, Una Glamočlija, Amar Osmanović, Nevzeta Ljubijankić, Selma Špirtović-Halilović, (2022) Crystallography and DFT Studies of Synthesized Tetraketones, Acta Chimica Slovaca. 69, 243–250. DOI: 10.17344/acsi.2021.7329 (Web of Science Core Collection: Emerging Sources Citation Index, Current Contents Physical, Chemical & Earth Sciences, Impact factor: 1.524 for 2023, Q4)
- Ljubijankić, N., Galijašević, S. (2020) Synthesis and characterization of Fe(III) complex with thiosemicarbazide-based ligand. Bulletin of the Chemists and Technologists of Bosnia and Herzegovina, 54, 13-18. DOI: 10.35666/ghtbh.2020.55.03 (Web of Science Core Collection: Emerging Sources Citation Index)



- Sulejmanović, J., Memić, M., Šabanović, E. and Ljubijankić, N. (2019) A tantalum(V) oxide impregnated silica gel surface: application as a promising adsorbent for simultanous heavy metal preconcentration. Analytical methods, 11(48): 6184–6192 DOI: 10.1039/c9ay01974j. (Web of Science Core Collection: Science Citation Index Expanded, Current Contents Agriculture, Biology & Environmental Sciences, Current Contents Physical, Chemical & Earth Sciences, Impact factor: 2.896 for 2019, Q2)
- Begić, S., Ljubijankić, N., Gojak-Salimović, S. and E. Osmić (2019) Novel complexes of ruthenium(III) with Schiff bases and indazole –synthesis and characterization. Rasayan J. Chem.,12(1): 294-299. DOI: 10.31788/RJC.2019.1215112. (Elsevier Scopus, Google Scolar, Chemical Abstracts Service)
- 12. Pehlić, E., **Ljubijankić, N.,** Jukić, H., Šapčanin, A. and Nanić, H. (**2019**) Sadržaj teških metala i metaloida u vodi za piće u Unsko-sanskoj županiji Federacije Bosne i Hercegovine. Kem. Ind.,68(3-4): 105-109. DOI: 10.15255/KUI.2018.03. (Web of Science Core Collection: Emerging Sources Citation Index)
- Ljubijankić, N., Begić, S., Ljubović-Dedeić, A., Stanković, M., Salimović-Bešić, I., Jadranin, M., Bencun, B. And Ljubijankić, S. (2018) Antimicrobial and genotoxic activity of novel ruthenium(III) complex with N-phenyl-5-nitrosalicylideneimine. Rasayan J. Chem.,11(4): 1511-1518. DOI: 10.31788/RJC.2018.1145021. (Elsevier Scopus, Google Scolar, Chemical Abstracts Service)
- Ljubijankić, N., Stanković, M., Tešević, V., Grgurić-Šipka, S., Jadranin, M., Begić, S. and Šabanović, E. (2018) Cytokinesis block micronucleus assay in human limphocytes after exposure to Ru(III) thiosemicarbazone complexes in vitro. Rasayan J. Chem.,11(2): 647-652. DOI: 10.7324/RJC.2018.1123004.
- Cipurković, A., Horozić, E., Ljubijankić, N., Odobašić, A., Galijašević, S. and Saletović, M. (2017) Synthesis and spectral characterization of Fe(II) and Mn(II) complexes with oral fluorouracil pro-drug capecitabine. Rasayan J. Chem.,10(4): 1381-1390. DOI: .10.7324/RJC.2017.1041905. (Elsevier Scopus, Google Scolar, Chemical Abstracts Service)
- Ljubijankić, N., Tešević, V., Grgurić-Šipka, S., Jadranin, M., Begić, S., Buljubašić, L., Markotić, E., Ljubijankić, S., (2016) Synthesis and characterization of Ru(III) complexes with thiosemicarbazide-based ligands. *Bulletin of the Chemists and Technologists of Bosnia and Herzegovina*, 47, 1-6. (Chemical Abstract Service)
- 17. Cipurković, A., Horozić, E., Crnkić, A., Marić, S., **Ljubijankić, N.,** (2016) Spectroscopic Investigations of Co(II) and Cu(II) Interaction with Imatinib Mesylate and Capecitabine. *Bulletin of the Chemists and Technologists of Bosnia and Herzegovina*, 47, 11-16. (Chemical Abstract Service)
- 18. Begić, S., **Ljubijankić**, **N.** (**2016**) Synthesis and Characterization of Neutral Ru(III) Complexes Containing Schiff Bases and *N*-donor Heterocyclic Ligands. *Bulletin of the Chemists and Technologists of Bosnia and Herzegovina*, 47, 27-32. (Chemical Abstract Service)
- Ljubijankić, N., Kučukalić, E., Ljubijankić, S., (2016) Determination of the Daily Rhythm of Cortisol in the Saliva of Women and Men. Bulletin of the Chemists and Technologists of Bosnia and Herzegovina, 46, 43-46. (Chemical Abstract Service)



- Ljubijankić, S., Zahirović, A., Memišević, M., Ljubijankić, N., Kahrović, E., (2014) Spectrophotometric determination of binding constants of Ru(III) salicylideneimine complexes with CT DNA. Bulletin of the Chemists and Technologists of Bosnia and Herzegovina, 43, 5-10. (Chemical Abstract Service)
- Ljubijankić, N., Zahirović, A., Turkušić, E., Kahrović, E., (2013) DNA Binding Properties of Two Ruthenium(III) Complexes Containing Schiff Bases Derived from Salicylaldehyde: Spectroscopic and Electrochemical Evidence of CT DNA Intercalation. Croat. Chem. Acta, 86 (2), 215-222. DOI: 10.5562/cca2216. (Web of Science Core Collection: Emerging Sources Citation Index, Current Contents Physical, Chemical & Earth Sciences, Impact factor: 0.556 for 2013)
- 22. Kahrović, E., Turkušić, E., Ljubijankić, N., Dehari, S., Dehari, D., Bajsman, A., (2012) New Ruthenium Complexes with Schiff Bases as Mediators for the Low Potential Amperometric Determination of Ascorbic Acid, Part I: Voltametric and Amperometric evidence of mediation with Tetraethylamonium dichloro-bis[N-phenyl-5-chloro-salicylideniminato-N,O]ruthenat (III). HealthMED, 6/2, 699-702. (SCImago Journal and Country Rank, Academic Resource Index, Google Scholar)
- Kahrović, E., Dehari, S., Dehari, D., Reci, H., Begić, S., Ljubijankić, N., (2010)
   Synthesis and characterization of new Ru (III) complexes with monobasic (NO)
   and dibasic (ONO) Schiff bases derived from salicylaldehydes. *Technics Technologies Education Management –TTEM*. 5/4, 799-803. (SCImago Journal and Country Rank, ResearchGate)
- Ljubijankić, N., Popović–Javorić, R., Šćeta, S., Šapčanin, A., Tahirović, I., Sofić, E., (2008) Daily fluctuation of the cortisol in the saliva and serum of healthy persons. Bosnian J. Basic Med. Sci., 8(2), 110-115. (Web of Science Core Collection: Science Citation Index Expanded, SCOPUS,Q3)

#### Professional papers

25. Horozić, E., Cipurković, A., **Ljubijankić, N.,** (2017) Anti-Infective and Anti-Tumor Activity of Some Metal Complexes (M<sup>II</sup>-M<sup>IV</sup>) With Schiff Bases. *Technologica Acta,* 10(1), 27-34.

# Complete articles in proceedings of international meetings - Proceedings

- 26. Kadić, S., **Ljubijankić, N.,** Begić, S., Kazlagić, N., Ljubijankić, S. **(2019)** Ecology in elementary school. *Book of proceedings 6<sup>th</sup> International Scientific Conference "June 5th World Envirnment Day"*, ISSN 2566-4530, p.356-364.
- 27. Kazlagić, A., Ljubijankić, S., Kadić, S., Begić, S., **Ljubijankić, N. (2019)**Properties and Ecotoxicology of Phosphorus. Book of proceedings 6<sup>th</sup>
  International Scientific Conference "June 5th World Envirnment Day", ISSN 2566-4530, p. 416-424.
- Ljubijankić, N., Cipurković, A., Begić, S., Horozić, E. i Ljubijankić, S. (2018) Osobine i ekotoksikologija kadmija. U Zbornik radova Peti naučno-stručni skup sa međunarodnim učešćem "5. juni - Svjetski dan zaštite okoliša" 29. i 30. Juni 2017, Bihać, BiH, Univerzitet u Bihaću, Biotehnički fakultet, ISSN 2566-4530, str. 48-55.
- 29. Begić, S., **Ljubijankić, N.** (2018) Zbrinjavanje hemijskog otpada u studentskim laboratorijama. U *Zbornik radova Peti naučno-stručni skup sa međunarodnim učešćem "5. juni Svjetski dan zaštite okoliša" 29. i 30. Juni 2017, Bihać, BiH, Univerzitet u Bihaću, Biotehnički fakultet, ISSN 2566-4530, str. 105-112.*



30. **Ljubijankić, N.,** Cipurković, A., Ljubijankić, S., (**2017**) Željezo u organizmu: ravnoteža apsorpcije, transporta i skladištenja. Četvrti naučno-stručni skup sa međunarodnim učešćem "5. juni - Svjetski dan zaštite okoliša" Bihać. Bosna i Hercegovina ISSN 2303-5889, 119–128.

#### Conference papers

- Ljubijankic, N., Begic, S., Ibragic, S. (2022) Antioxidant Activity of Ru(III) Complexes and Their Ligands Derived from Salycilaldehyde and Halogenated Anilines, 4<sup>th</sup> International Congress of Chemists and Chemical Engineers of Bosnia and Herzegovina, Sarajevo, BiH 30.06-02.07, Book of Abstracts, p. 47.
- Ljubijankić, S., Galijaševic, S., Plavšić-Davidović, B., Balaban, M., Ljubijankić, N. (2022) Synthesis, IR Characterization and Antioxidant Capacity of Cu(II) Complexes with Amino Acids and Melatonin, 4<sup>th</sup> International Congress of Chemists and Chemical Engineers of Bosnia and Herzegovina, Sarajevo, BiH 30.06-02.07, Book of Abstracts, p. 140.
- Šuta, E., Ljubijankić, N. (2022) Application of FTIR Spectroscopy in Monitoring the Formation of a Ru-NHC Complex from Selected Imidazolium Salts via Transmetalation, 4<sup>th</sup> International Congress of Chemists and Chemical Engineers of Bosnia and Herzegovina, Sarajevo, BiH 30.06-02.07, Book of Abstracts, p. 142.
- Ljubijankić, N., Cipurković A., Košarac L., Šuta, E. (2022) FTIR Spectroscopic Evaluation of Ligand Coordination Aspects in O, N, S Donating Thiosemicarbazone Ru(III) and Fe(III) Complexes, 4<sup>th</sup> International Congress of Chemists and Chemical Engineers of Bosnia and Herzegovina, Sarajevo, BiH 30.06-02.07, Book of Abstracts, p. 143.
- Korać S., Huremović J., Ljubijankić N., Ljubijankić S. (2022) Determination of metals in different kind of milk by atomic absorption spectrometry, Seventh International Scientific Conference "June 5th - World Environment Day", 9-10 June, Book of Abstracts p. 23.
- Pavlović, M., Aranđelović, S., Ljubijankić, N., Grgurić-Šipka, Sandra and Radulović, S. (2018) Cisplatin and ruthenium(III) complexes – comparison of cellular response of treated mda-mb231 breast cells. 25th Biennial Congress of the European Association for Cancer Research, Amsterdam, The Netherlands, 30 June – 3 July 2018. ESMO Open 3 (Suppl 2): A181.1-A181. DOI: 10.1136/esmoopen-2018-EACR25.431.
- 7. **Ljubijankić, N.,** Begić, S., Jadranin, M., Kazlagić, N., Ljubijankić, S. **(2018)** Synthesis and characterization of tetramethylammoniumdichlorobis(*N*-ethylsalicylideneiminato-*O*,*N*) ruthenate (III), *XII International Conference of Chemists*, technologists and environmentalists of the Republic of Srpska, Teslić, BiH 2-3 November, The Book of Abstracts, p. 18.
- Ljubijankić, N., Kazlagić, A., Salihbegović, A., Begić, S., Kadić, S., Špirtović-Halilović, S. (2018) Synthesis, Characterization and Biological Properties of Novel Ru(III) and Fe(III) Complexes with Thiosemicarbazide-based Ligands, 3<sup>rd</sup> International Congress of Chemists and Chemical Engineers of Bosnia and Herzegovina, Sarajevo, BiH 19 – 21 October, Book of Abstracts, p. 47.
- Ljubijankić, N., Markotić, E., Granzov, I., Šuta, E., Begić, S., Ljubijankić, S. (2018) Synthesis and Characterization of New Ru(III) and Fe(III) Complexes with Schiff Bases Derived from Supstitued Salicylaldehydes and Alkylamines, 3<sup>rd</sup> International Congress of Chemists and Chemical Engineers of Bosnia and Herzegovina, Sarajevo, BiH 19 21 October, Book of Abstracts, p. 48.



- 10. Ljubijankić, N., Šuta, E., Ćatić, A., Begić, S., Ljubijankić, S. (2018) Synthesis and Characterization of New Ru(III) Complexes with Schiff Bases derived from Salicylaldehydes and Halogen Derivatives of Aniline. 3<sup>rd</sup> International Congress of Chemists and Chemical Engineers of Bosnia and Herzegovina, Sarajevo, BiH 19 21 October, Book of Abstracts, p. 49.
- 11. Gojak-Salimović, S., Osmić, E., Ljubijankić, N., Begić, S. (2018) The Effect of Ru(III) Complexes with N-phenyl-5-X-salicylideneimine and Indazole on the Briggs-Rauscher Oscillating Reaction. 3<sup>rd</sup> International Congress of Chemists and Chemical Engineers of Bosnia and Herzegovina, Sarajevo, BiH 19 – 21 October, Book of Abstracts, p. 50.
- Kadić, S., Ljubijankić, N., Begić, S., Kazlagić, N., Ljubijankić, S. (2018)
   Ecology in elementary school. 6<sup>th</sup> International Scientific Conference "June 5th World Envirnment Day", Bihać, BiH, 18-19 June, Book of Abstracts, p. 64.
- 13. Kazlagić, A., Ljubijankić, S., Kadić, S., Begić, S., Ljubijankić, N. (2018) Properties and Ecotoxicology of Phosphorus. 6<sup>th</sup> International Scientific Conference "June 5th – World Environment Day", Bihać, BiH, 18-19 June, Book of Abstracts, p. 65.
- 14. Begić, S., Ljubijankić, N., (2017) Zbrinjavanje hemijskog otpada u studentskim laboratorijama. Peti naučno-stručni skup sa međunarodnim učešćem "5. juni Svjetski dan zaštite okoliša", Bihać, BiH, 29. i 30. Juni. Zbornik sažetaka p. 58.
- 15. Ljubijankić, N., Cipurković A., Begić, S., Horozić, E., Ljubijankić, S., (2017) Osobine i ekotoksikologija kadmija. Peti naučno-stručni skup sa međunarodnim učešćem "5. juni - Svjetski dan zaštite okoliša" Bihać, BiH, 29. i 30. Juni. Zbornik sažetaka p. 22.
- 16. Ljubijankić N., Begić. S., Ljubović-Dedeić A., Salimović-Bešić I., Jadranin M., Bencun.B., Zukić M. (2016) Antimicrobial Activity of Ruthenium(III) Complex with N-phenyl-5-nitro-salicylideneimine. 2<sup>nd</sup> International Congress of Chemists and Chemical Engineers of Bosnia and Herzegovina, Sarajevo, BiH, 21-23 October, Book of Abstracts, p.80.
- 17. Ljubijankić, N., Grgurić-Šipka, S., Tešević, V., Radulović, S., Aranđelović, S., Jadranin, M. (2016) Synthesis, Characterization and Antitumor Activity of the New Ruthenium(III) Complex with Schiff Base Derived from 5-methylsalicylaldehyde and methylamine. 2<sup>nd</sup> International Congress of Chemists and Chemical Engineers of Bosnia and Herzegovina, Sarajevo, BiH, 21-23 October, Book of Abstracts, p.81.
- 18. Ljubijankić, N., Tešević, V., Grgurić-Šipka, S., Jadranin, M., Begić S., Buljubašić, L., Markotić, E., Ljubijankić, S. (2016) Synthesis and Characterization of Ru(III) Complexes with Thiosemicarbazide-based Ligands. 2<sup>nd</sup> International Congress of Chemists and Chemical Engineers of Bosnia and Herzegovina, Sarajevo, BiH, 21-23 October, Book of Abstracts, p.82.
- 19. Horozić E., Cipurković A., Crnkić A., Marić S., Ljubijankić N. (2016) Spectroscopic Investigations of Co(II) and Cu(II) Interaction with Imatinib Mesylate and Capecitabine. 2<sup>nd</sup> International Congress of Chemists and Chemical Engineers of Bosnia and Herzegovina, Sarajevo, BiH, 21-23 October, Book of Abstracts, p.83.



- 20. Cipurković, A., Trumić, I., Selimbašić, V., Đozić, A., Ljubijankić, N. (2016) Distribution of Some Heavy Metals in the Process of Cement Clinker Production using Alternative Fuels. 2<sup>nd</sup> International Congress of Chemists and Chemical Engineers of Bosnia and Herzegovina, Sarajevo, BiH, 21-23 October, Book of Abstracts, p.84.
- 21. Galijašević, S., Cipurković, A., Ljubijankić, S., Jadranin, M., Granzov,I., Ljubijankić, N. (2016) Synthesis and Characterization of Fe(III) Complexes with Salicylaldehyde Thiosemicarbazone. 2<sup>nd</sup> International Congress of Chemists and Chemical Engineers of Bosnia and Herzegovina, Sarajevo, BiH, 21-23 October, Book of Abstracts, p.85.
- 22. Begić, S., Ljubijankić, N. (2016) Synthesis and Characterization of Novel Neutral Complex Compounds Ru(III) with Schiff Bases and N-heterocycles. 2<sup>nd</sup> International Congress of Chemists and Chemical Engineers of Bosnia and Herzegovina, Sarajevo, BiH, 21-23 October, Book of Abstracts, p.86.
- 23. Ljubijankić, N., Cipurković, A., Ljubijankić, S. (2016) Željezo u organizmu: ravnoteža apsorpcije, transporta i skladištenja. Četvrti naučno-stručni skup sa međunarodnim učešćem "5. juni Svjetski dan zaštite okoliša", Bihać, Bosna i Hercegovina, 1 2 juni 2016.
- 24. Ljubijankić, S., **Ljubijankić, N. (2015)** Biljni uređaj za prečišćavanje otpadnih voda Ljubijankići, Cazin. *Treći naučno-stručni skup sa međunarodnim učešćem "5. juni Svjetski dan zaštite okoliša", Bihać, Bosna i Hercegovina, 4 5 juni*, Zbornik sažetaka, p. 81.
- 25. Redžić, S., Kahrović, E., Turkušić, E., Ljubijankić, N., Zahirović, A. (2015) Amperometrijsko određivanje askorbinske kiseline na staklenoj karbon elektrodi modificiranoj sa Natrij bis[N-2-oksifenil-5-bromo salicilideniminato-ONO]rutenat(III) kompleksom. Treći naučno-stručni skup sa međunarodnim učešćem "5. juni Svjetski dan zaštite okoliša", Bihać, Bosna i Hercegovina, 4 5 juni. Zbornik sažetaka, p. 22.
- 26. Ljubijankić, N., Zahirović, A., Kahrović, E. (2014) Spectroscopic evidence on interaction of ruthenates (III) derived from N-low alkyl-5-substituted salicylideneimine with calf thymus DNA. Congress of Chemists and Chemical Engineers of Bosnia and Herzegovina with International Participation, Sarajevo, Bosnia and Herzegovina, 10-12 October 2014, Book of Abstracts, p.87.
- 27. Ljubijankić, S., Zahirović, A., Memišević, M., Ljubijankić, N., Kahrović, E. (2014) Spectrophotometric determination of binding constants of Ru(III) salicylideneimine complexes with CT DNA, Congress of Chemists and Chemical Engineers of Bosnia and Herzegovina with International Participation, Sarajevo, Bosnia and Herzegovina, 10-12 October, Book of Abstracts, p. 89.
- 28. Turkušić, E., Kahrović, E., Ljubijankić, N., Zahirović, A. (2014) Hemijski senzori i biosenzori u kontroli i zaštiti okoliša i zdravlja. Drugi naučno-stručni skup sa međunarodnim učešćem "5. juni Svjetski dan zaštite okoliša", Bihać, Bosna i Hercegovina, 4 5 juni, Zbornik sažetaka, p. 36.
- 29. Zahirović, A., Begić-Hairlahović, S., Ljubijankić, N., Turkušić, E., Kahrović, E. (2013) The Spectroscopic characterization of some Ru(III) complexes with Schiff bases derived from salicylaldehyde and investigation of interaction with CT DNA. International Turkish Congress on Molecular Spectroscopy, Istanbul, Turkey, September 15-20, Book of Abstracts, Applied Spectroscopies P7, p. 88.



- 30. Kahrović, E., Turkušić, E., Ljubijankić, N., Begić, S., Dugandžić, V., Zahirović, A. (2012) The Spectroscopic Investigations of a Ruthenium Schiff Base Complex with CT DNA, 40 International Congress on Coordination Chemistry, Valencia, Spain, September 9-13, Book of Abstracts, MS.D2.P.601, C404-C405.
- 31. Zahirović, A., **Ljubijankić**, **N.** (2012) Synthesis and characterization of a new anionic compound dichlorobis(N-buthylsalicylideniminato-O,N)ruthenate(III). *IX meeting of young chemical engineers, Zagreb, Croatia*, February 16-17, Book of Abstracts, p. 61.
- 32. Kahrović, E., Dehari, S., Dehari, D., Jusufi, S., Reci, H., Begić, S., Ljubijankić, N. (2009) Ruthenium (III) complexes with bidentate Schiff bases. Preliminary interaction of Tetraethylamoniumdichloro-bis[N-phenyl-4-bromosalicylideniminato-N,O]ruthenat(III) with DNA. 14<sup>th</sup> International Conference on Biological Inorganic Chemistry, Nagoya, Japan, July 25-30, (J Biol Inorg Chem 14 (Suppl 1):S175-S184).
- 33. Ljubijankić N., Popović Javorić, R., Šćeta, S., Šapčanin, A., Tahirović, I., Sofić, E. (2007) Daily fluctuation of the cortisol in the saliva and serum of healthy persons. 15<sup>th</sup> Meeting of Balkan clinical laboratory Federation, Antalya, Turkey, September 04-07, Abstract of the 15 th Meeting of Balkan clinical laboratory Federation, XIV, 07,1.