





 PERSONAL  
INFORMATIONS

**Dr Adnan Zahirović**

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Date of birth: January 22, 1990  
 Place of birth: Dobož, Bosnia and Herzegovina  
 Nationality: Bosnian and Herzegovinian  
 Marital status: married, father of one child



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<https://scholar.google.hr/citations?user=Ny8QisMAAAAJ&hl=hr&oi=ao>



Times cited: 169 (02/12/2022)

H-index: 7

i10-index: 7


## EMPLOYMENT

**Assistant Professor of Inorganic Chemistry**


**University of Sarajevo, Faculty of Science**

Department of Chemistry

Laboratory for Inorganic and Bioinorganic Chemistry

 Zmaja od Bosne 35, 71 000 Sarajevo, Bosnia and Herzegovina

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## WORKING EXPERIENCE

since October 28, 2020

**Assistant Professor of Inorganic Chemistry** at Department of Chemistry Faculty of Science University of Sarajevo, Bosnia and Herzegovina

2021 – 2023

**Assistant Professor – external associate for subjects General Chemistry and Inorganic Chemistry** at Faculty of Metallurgy and Technology University of Zenica, Bosnia and Herzegovina

2022/2023

**Assistant Professor – external associate for subject Medicinal Chemistry** at Faculty of Medicine University of Zenica, Bosnia and Herzegovina

2021/2022

**Assistant Professor – external associate for subject Chemistry** at Faculty of Mechanical Engineering University of Zenica, Bosnia and Herzegovina



June 29, 2016 – **Senior Research and Teaching Assistant for Inorganic Chemistry** at Department of Chemistry Faculty of Science University of Sarajevo, Bosnia and Herzegovina  
 October 28, 2020

February 20, 2013 – **Research and Teaching Assistant for Inorganic and Analytical Chemistry** at Department of Chemistry Faculty of Science University of Sarajevo, Bosnia and Herzegovina  
 June 29, 2016

**Experience in teaching** Assistant Professor of Inorganic Chemistry

Lecturer and teacher in charge:

First cycle of studies:

- *Inorganic Chemistry I*
- *Inorganic Chemistry II*
- *Chemistry of Complex Compounds*
- *Inorganic Reaction Mechanism*
- *Bioinorganic Chemistry*
- *Diagnostics of Inorganic Materials*
- *Inorganic Syntheses*
- *Nomenclature of Inorganic Compounds*
- *Infrared Spectroscopy of Inorganic Compounds*

Second cycle of studies:

- *Structural Inorganic Chemistry*

Third cycle of studies:

- *Bioinorganic Chemistry*
- *Design and application of metal complexes*

Assistant Professor – external associate:

- *General Chemistry* – Faculty of Metallurgy and Technology University of Zenica
- *Inorganic Chemistry* – Faculty of Metallurgy and Technology University of Zenica
- *Medicinal Chemistry* – Faculty of Medicine University of Zenica, Bosnia and Herzegovina
- *Chemistry* – Faculty of Mechanical Engineering University of Zenica

Assistant for laboratory practice in Inorganic and Analytical Chemistry

Subjects at undergraduate (BSc) and graduate (MSc) studies:

- *Inorganic Chemistry I, Inorganic Chemistry II, Chemistry of Complex Compounds, Inorganic Reaction Mechanism, Bioinorganic Chemistry, Inorganic Chemistry and Materials, Diagnostics of Inorganic Materials, Inorganic Synthesis, Infrared Spectroscopy of Inorganic Compounds, Nomenclature of Inorganic Compounds, Analytical Chemistry I, Analytical Chemistry II, Analytical Chemistry III, Mechanisms of Ionic Exchange, General Chemistry*
- *Higher Inorganic Practice, Selected Topics in Inorganic Chemistry, Inorganic Materials, Structural Inorganic Chemistry*

**Experience in research**

- Design and synthesis of metal complexes with properties relevant for biological use or in catalysis
- Synthetic skills in solution, mechanochemical, electrochemical and solvothermal synthesis
- Characterization of metal coordination compounds using different spectroscopic and electrochemical methods (chemical and thermal analysis, infrared and electron absorption and emission spectroscopy, NMR spectroscopy, mass spectrometry, magnetic susceptibility measurements, different voltammetric techniques)
- Interaction of the metal complexes with biomolecules such as DNA and proteins using multi-spectroscopy approach
- Chemical kinetics of the catalytic reactions involving metal complexes and small organic molecules
- Basic skills in development of electrochemical (bio)sensors



## EDUCATION

- 2014 – 2018 **Doctor of Chemical Sciences**  
 Faculty of Science, University of Sarajevo  
 PhD Thesis: "*Heteroleptic Ruthenium Complexes of Flavonoids: Synthesis, Characterization and Structure*" Field: *Inorganic Chemistry*. Mentors: prof. dr. Emira Kahrović, prof. dr. Marina Cindrić
- 2014 – 2015 One-term (6 months) stay during PhD studies at University of Zagreb, Faculty of Science, Department for General and Inorganic Chemistry, Division: Inorganic and Structural Chemistry (Grant received from Erasmus Mundus Basileus V). Group of Professor Marina Cindrić
- 2012 – 2013 **Master of Chemical Engineering**  
 Faculty of Science, University of Sarajevo  
 Thesis: "*Spectroscopic and Electrochemical Evidence on CT DNA Intercalation by Sodium bis(N-2-oxyphenyl-5-X-salicylideneiminato-ONO)ruthenate (III) Complexes*"  
 Average grade (9 exams): 10 (A)
- 2008 – 2012 **Bachelor of Chemical Engineering**  
 Faculty of Science, University of Sarajevo  
 Thesis: "*Synthesis and Characterization of New Anionic Complex Compound Tetraethylammonium dichlorobis(N-butylsalicylideneiminato-ON)ruthenate (III)*"  
 Average grade (59 exams): 10 (A)
- 2004 – 2008 Gymnasium „Edhem Mulabdić“ Maglaj, natural sciences class
- 1996 – 2004 Elementary school „Sulejman Omerović Car“ Maglaj

## PERSONAL SKILLS

Mother language	Bosnian				
Other languages	Understanding		Speaking		Writing
	Listening	Reading	Interaction	Listening	Reading
English	B2.2	B2.2	B2.2	B2.2	B2.2
	Certificate: Syllabus Foreign Language School, Sarajevo				
German	A1	A1	A1	A1	A1

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

Computer skills ▪ advanced

Driving license ▪ car



## OTHER INFORMATIONS

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### Awards and honors

- 2021 **Science Award of University of Sarajevo**  
(for research and publication of scientific research papers in journals indexed by the Web of Science Core Collection and promotion of scientific research production by the University of Sarajevo)
- 2019 **Science Award of University of Sarajevo**  
(for research and publication of scientific research papers in journals indexed by the Web of Science Core Collection and promotion of scientific research production by the University of Sarajevo)
- 2017 **Science Award of University of Sarajevo**  
(for research and publication of scientific research papers in journals indexed by the Web of Science Core Collection and promotion of scientific research production by the University of Sarajevo)
- 2013 Holder of the "**Golden Badge of University of Sarajevo**" as the best undergraduate and the best graduate of the Faculty of Science University of Sarajevo
- 2012 Holder of the "**Golden Badge of University of Sarajevo**" as the best undergraduate of Faculty of Science and the best undergraduate of the University of Sarajevo in 2012

### Conference Organization

- 2022 Member of Scientific Committee - 3rd Congress of Chemists and Chemical Engineers of Bosnia and Herzegovina with International Participation, Sarajevo, Bosnia and Herzegovina

### Training

- 2021 RSC Lectureship Series: Analyst
- 2015 *Training & Research for Academic Newcomers*, University of Sarajevo, 2015 (pedagogic education)

### Research Activities and Projects

Title	<b><i>Network for Equilibria and Chemical Thermodynamics Advanced Research (NECTAR)</i></b>
Type	<i>Inland Research Project – Support for COST Action NECTAR</i>
Project leader	<i>Dr Adnan Zahirović</i>
Participation	<i>Leader and Principal Investigator</i>
Financier	<i>Ministry for Science, Higher Education and Youth of Canton Sarajevo</i>
Duration	<i>12 months – 2022</i>



- Title ***HeteroBinuklearni (Aren)rutenijzlato kompleksi kao Inhibitori Tiodoksini reduktaze (BAIT)***  
 Type *Inland Research Project*  
 Project leader *Dr Adnan Zahirović*  
 Participation *Leader and Principal Investigator*  
 Financier *Ministry for Science, Higher Education and Youth of Canton Sarajevo*  
 Duration *18 months – 2021/2022*
- Title ***Kompleksi vanadija s hidrazonima kao potencijalni anti-SARS-CoV-2 agensi***  
 Type *Inland Research Project*  
 Project leader *Dr Adnan Zahirović*  
 Participation *Leader and Principal Investigator*  
 Financier *Federal Ministry of Science and Education, Bosnia and Herzegovina*  
 Duration *One year – 2021*
- Title ***Network for Equilibria and Chemical Thermodynamics Advanced Research (CA18202)***  
 Type *International COST project*  
 Project leader *Prof. Demetrio Milea (MC Chair, Italy)*  
 Participation *Management Committee Member from BiH*  
 Financier *European Cooperation in Science and Technology (COST)*  
 Duration *4 years (2019 – 2023)*
- Title ***Mechanochemistry for Sustainable Industry (CA18112)***  
 Type *International COST project*  
 Project leader *Dr Evelina Colacino (MC Chair, France)*  
 Participation *Management Committee Substitute from BiH*  
 Financier *European Cooperation in Science and Technology (COST)*  
 Duration *4 years (2019 – 2023)*
- Title ***In vitro testing the vitality of cancerous cell lines after application of ruthenium complexes***  
 Type *Inland Research Project*  
 Project leader *Amina Kurtović - Kozarić*  
 Participation *Researcher*  
 Financier *Federal Ministry of Science and Education, Bosnia and Herzegovina*  
 Duration *One year – 2018*
- Title ***New antiproliferative ruthenium complexes: Synthesis and SAR study***  
 Type *Inland Research Project*  
 Project leader *Emira Kahrović*  
 Participation *Researcher*  
 Financier *Federal Ministry of Science and Education, Bosnia and Herzegovina*  
 Duration *One year – 2018*



Title ***Development of Ruthenium Complexes as Mediators for New Sensors***  
 Type *Inland Research Project*  
 Project leader *Emir Turkušić*  
 Participation *Young researcher*  
 Financier *Federal Ministry of Science and Education, Bosnia and Herzegovina*  
 Duration *One year – 2017*

Title ***Ruthenium Complexes of Flavonoids as Potential Drugs: Synthesis and Characterization***  
 Type *Inland Research Project*  
 Project leader *Emira Kahrović*  
 Participation *Young researcher*  
 Financier *Federal Ministry of Science and Education, Bosnia and Herzegovina*  
 Duration *One year – 2015*

Title ***Metal-Hydride Organic Frameworks (HOF) – New solids for gas adsorption and separation***  
 Type *International SCOPES Research Project*  
 Project leader *Černý, Radovan; principal investigator in bh group Emira Kahrović*  
 Participation *Coworker*  
 Financier *Swiss National Science Foundation*  
 Duration *2014 – 2017 (project suspended due to administrative difficulties)*

Title ***Investigation of Interaction - Intercalation of DNA (Deoxyribonucleic Acid) with New Ru(III) Schiff Base Complexes***  
 Type *Research Project*  
 Project leader *Emira Kahrović*  
 Participation *Young researcher*  
 Financier *Federal Ministry of Science and Education, Bosnia and Herzegovina*  
 Duration *One year – 2013*

### Participation at Local and Regional Conferences

July 2022 *3<sup>rd</sup> Congress of Chemists and Chemical Engineers of Bosnia and Herzegovina with International Participation, Sarajevo, Bosnia and Herzegovina*  
 October 2016 *2<sup>nd</sup> Congress of Chemists and Chemical Engineers of Bosnia and Herzegovina with International Participation, Sarajevo, Bosnia and Herzegovina*  
 October 2014 *1<sup>st</sup> Congress of Chemists and Chemical Engineers of Bosnia and Herzegovina with International Participation, Sarajevo, Bosnia and Herzegovina*  
 June 2014 *5<sup>th</sup> June – World Environment Day, Bihac, Bosnia and Herzegovina*  
 February 2014 *X Meeting of Young Chemical Engineers, Zagreb, Croatia*  
 February 2012 *IX Meeting of Young Chemical Engineers, Zagreb, Croatia*

### Participation at International Conferences

February 2021 *Royal Society of Chemistry Lectureship Series: Analyst*  
 February 2021 *ChemComm Emerging Investigators Lectureship Winner Seminar, Royal Society of Chemistry*



- August 2016 *13<sup>th</sup> European Biological Inorganic Chemistry*, Budapest, Hungary  
 August 2014 *12<sup>th</sup> European Biological Inorganic Chemistry*, Zurich, Switzerland  
 September 2013 *International Turkish Congress on Molecular Spectroscopy*, Istanbul, Turkey  
 September 2012 *40<sup>th</sup> International Conference on Coordination Chemistry*, Valencia, Spain

### Memberships

- Society of Biological Inorganic Chemistry
- Society of Chemists and Technologists of Sarajevo Canton
- Association of Golden Badge Winners of the University of Sarajevo

### Reviewing Activity

- November 2022 **Journal of Molecular Structure (Web of Science – SCIE, CC)**  
 (MOLSTRUC-D-22-05942: Play of molecular host: guest assembly on a G-quadruplex binder)
- July 2022 **Ministry for Science, Higher Education and Youth of Canton Sarajevo (Research Project)**  
 (Project Proposal 8116: Synthesis and structural characterization of bioactive organometallic rhenium complexes as potential drugs in photodynamic cancer treatment)
- March - April 2022 **4th International Congress of Chemists and Chemical Engineers of Bosnia and Herzegovina (Review of 7 Abstract for Conference)**
- February 2022 **Journal of Molecular Structure (Web of Science – SCIE, CC)**  
 (MOLSTRUC-D-22-00572: Cytotoxic activity of sulfur and oxygen chelated Pt(II) complexes; their DNA/BSA binding by in vitro and in silico approaches)
- August 2021 **Swiss National Science Foundation (Review of International Research Project Proposal)**  
 (IZLCZ0\_206047: Bio-mimetic carrier-free nanodrugs targeting intracellular and biofilm-growing MRSA)
- April 2021 **Journal of Molecular Structure (Web of Science – SCIE, CC)**  
 (MOLSTRUC-D-21-01377: Divalent cobalt, copper and zinc complexes of (2Z,2'Z)-2,2'-(oxalylbis(hydrazin-2-yl-1-ylidene))dipropionic acid (H4OPA): Synthesis, Characterization, Computational, Conductometric titration and biological potency)
- February 2021 **Glasnik hemičara i tehnologa Bosne i Hercegovine (Web of Science – ESCI)**  
 (BCTBH Ref. No.: 2/2021: Binding constants determination and in silico analysis of the interaction of albumin with phenolic acids)
- January 2021 **Journal of Molecular Structure (Web of Science – SCIE, CC)**  
 (MOLSTRUC-D-21-00126: Design and synthesis of clubbed aryl oxadiazole-1,2,4-triazine derivatives for anticonvulsant evaluation)
- October 2020 **Glasnik hemičara i tehnologa Bosne i Hercegovine (Web of Science – ESCI)**  
 (BCTBH Ref. No.: 16/2020: Copper(II) complexes with some antibiotics: Synthesis, FT-IR study and in vitro antibacterial activity)
- April 2020 **Analytical Letters (Web of Science – SCIE, CC)**  
 (LANL-2020-0381: Non-destructive discrimination of ships' deck paints using attenuated total reflection Fourier transform infrared spectroscopy and chemometrics analysis)

### Mentorship

#### MSc Theses

1. Sikima Ana (22/09/2022)  
*Synthesis and characterization of ruthenium(II) complexes with ethylenediamine structural motifs*
2. Pajdaković Marina (30/09/2021)  
*Synthesis of copper complexes with nicotinic acid hydrazone*



3. Šehbajraktarević Umihana (09/07/2021)  
*Copper complexes of N-alkylsalicylideneimines: Electrochemical characterization and interaction with BSA*
4. Hadžalić Selma (09/07/2021)  
*Synthesis and characterization of organometallic complex of ruthenium(II) with 2'-hydroxychalcone and pyridine*

#### **BSc Theses**

1. Haračić Azra (10/2022)  
*Synthesis and characterization of cyanates, thiocyanates and selenocyanates of 12 group metals*
2. Beriša Samra (27/09/2022)  
*Synthesis and identification of vanadium complex of hydrazone derived from 4-(dimethylamino)benzaldehyde*
3. Gačić Sanid (22/09/2022)  
*Synthesis and identification of vanadium complex of hydrazone derived from 4-chlorobenzaldehyde*
4. Horo Nađa (16/09/2022)  
*Synthesis and characterization of ruthenium(II) complex with Schiff base derived from ethylenediamine*
5. Sikima Ana (30/09/2021)  
*Interaction of (p-cymene)(chalconato)(pyridine)ruthenium(II) with BSA*

#### **Other activities at the Faculty**

- President of the Commission for the selection of associates for the title of Assistant of Inorganic Chemistry at the University of Sarajevo - Faculty of Science
- Member of the Commission for the selection of associates for the title of Assistant of General Chemistry at the University of Sarajevo - Faculty of Science
- Member of the Commission for PhD thesis defense of Mr Inesa Osmanković, „Heteroleptic complexes of ruthenium with diimines and Schiff bases derived from aminoacids: Synthesis, characterization and biological activity“
- Member of the Committee for the defense of BSc and MSc theses
- Member of the Commission for the preparation of technical specifications for public procurement of chemicals, accessories, equipment and laboratory furniture
- President or Member of the Commission for admission of students to the first and second cycle of chemistry studies





## BIBLIOGRAPHY

## Journal Articles

 Scientific research papers in journals indexed by  
 Web of Science - Current Contents Connect

1. Osmanković, I., Turkušić, E., **Zahirović, A.**, Kralj, M., Uzelac, L., Kahrović, E. (2021). CT DNA, BSA and Antiproliferative Activity of Ru(II) Bipyridine Complexes Containing Schiff Bases Derived from Amino Acids. *Croatica Chemica Acta*, 94(3), 149–158.  
  
<https://doi.org/10.5562/cca3872>
2. **Zahirović, A.**, & Kahrović, E. (2021). Electrochemical evidence for catechol oxidation by ruthenium (II) organometallics of 2'-hydroxychalcones. *Monatshefte für Chemie-Chemical Monthly*, 152(10), 1193-1200.  
  
<https://doi.org/10.1007/s00706-021-02842-3>
3. Memišević, M., **Zahirović, A.**, Višnjevac, A., Osmanović, A., Žilić, D., Kralj, M., Muratović, S., Martin-Kleiner, I., Završnik, D., Kahrović, E. (2021). Copper(II) salicylideneimine complexes revisited: From a novel derivative and extended characterization of two homologues to interaction with BSA and antiproliferative activity. *Inorganica Chimica Acta*, 120460.  
  
<https://doi.org/10.1016/j.ica.2021.120460>
4. **Zahirović, A.**, Roca, S., Višnjevac, A. & Kahrović, E., (2021). Ruthenium Organometallics of Chloro-Substituted 2'-Hydroxychalcones—A Story of Catecholase Biomimetics beyond Copper. *Journal of Organometallic Chemistry*, 121863.  
  
<https://doi.org/10.1016/j.jorganchem.2021.121863>
5. **Zahirović, A.**, Roca, S., Kahrović, E., & Višnjevac, A. (2021). Low DNA and high BSA binding affinity of cationic ruthenium (II) organometallic featuring pyridine and 2'-hydroxychalcone ligands. *Journal of Molecular Structure*, 1236, 130326.  
  
<https://doi.org/10.1016/j.molstruc.2021.130326>
6. **Zahirović, A.**, Žilić, D., Pavelić, S. K., Hukić, M., Muratović, S., Harej, A., & Kahrović, E. (2019). Type of complex–BSA binding forces affected by different coordination modes of alliin in novel water-soluble ruthenium complexes. *New Journal of Chemistry*, 43, 5791-5804.  
  
<https://pubs.rsc.org/en/content/articlelanding/2019/nj/c9nj00826h/unauth#!divAbstract>
7. **Zahirović, A.**, Osmanković, I., Turkušić, E., Kahrović, E. (2018). Improved method for spectrophotometric determination of ruthenium using 1,10-phenantroline: Applications for analysis of complex compounds. *Analytical Methods*, 10(42), 5078-5083.  
  
<http://pubs.rsc.org/en/content/articlelanding/2018/ay/c8ay01755g#!divAbstract>



8. Kahrović, E., **Zahirović, A.**, Višnjevac, A., Osmanković, I., Turkušić, E. and Kurtagić, H. (2018). Chalcone and Flavonol Copper(II) Complexes Containing Schiff Base Co-Ligand: Synthesis, Crystal Structures and Catecholase-like Activity. *Croatica Chemica Acta*, 91(2): 1-13.  
  
[https://hrcak.srce.hr/index.php?show=clanak&id\\_clanak\\_jezik=297468](https://hrcak.srce.hr/index.php?show=clanak&id_clanak_jezik=297468)
9. **Zahirović, A.**, Kahrović, E., Cindrić, M., Kraljević Pavelić, S., Hukić, M., Harej, A., & Turkušić, E. (2017). Heteroleptic ruthenium bioflavonoid complexes: From synthesis to in vitro biological activity. *Journal of Coordination Chemistry*, 70(24), 4030-4053.  
  
<https://doi.org/10.1080/00958972.2017.1409893>
10. Turkušić, E., Redžić, S., Kahrović, E., & **Zahirović, A.** (2017). Electrochemical Determination of Adrenaline at Ru (III) Schiff Base Complex Modified Carbon Electrodes. *Croatica Chemica Acta*, 90(2), 1-8.  
  
<https://doi.org/10.5562/cca3177>
11. Kahrović, E., **Zahirović, A.**, Kadrić, Š., Turkušić, E., Osmanković, I., & Džudžević Čančar, H. (2017). Structural feature of calf thymus deoxyribonucleic acid–ruthenium (III) interaction in aqueous solution by difference Fourier transformed infrared spectroscopy. *Spectroscopy Letters*, 50(8), 426-431.  
  
<https://doi.org/10.1080/00387010.2017.1350720>
12. Kahrović, E., **Zahirović, A.**, Kraljević Pavelić, S., Turkušić, E., & Harej, A. (2017). In vitro anticancer activity of binuclear Ru (II) complexes with Schiff bases derived from 5-substituted salicylaldehyde and 2-aminopyridine with notably low IC50 values. *Journal of Coordination Chemistry*, 70(10), 1683-1697.  
  
<https://doi.org/10.1080/00958972.2017.1308503>
13. Redžić, S., Kahrović, E., **Zahirović, A.**, & Turkušić, E. (2016). Electrochemical Determination of Dopamine with Ruthenium (III) Modified Glassy Carbon and Screen Printed Electrodes. *Analytical Letters*, 50(10), 1602-1619.  
  
<https://doi.org/10.1080/00032719.2016.1241799>
14. Pazalja, M., Kahrović, E., **Zahirović, A.**, & Turkušić, E. (2016). Electrochemical Sensor for Determination of L-Cysteine Based on Carbon Electrodes Modified with Ru (III) Schiff Base Complex, Carbon Nanotubes and Nafion. *International Journal of Electrochemical Science*, 11, 10939-10952.  
  
[dx.doi.org/10.20964/2016.12.86](https://doi.org/10.20964/2016.12.86)



15. Kahrović, E., **Zahirović, A.**, Turkušić, E., & Bektaš, S. (2016). A Dinuclear Ruthenium (II) Schiff Base Complex with Dissimilar Coordination: Synthesis, Characterization, and Biological Activity. *Zeitschrift für anorganische und allgemeine Chemie*, 642(6), 480-485.

<https://doi.org/10.1002/zaac.201600008>

16. 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. *Croatica Chemica Acta*, 86(2), 215-222.

<http://dx.doi.org/10.5562/cca2216>

**Scientific research papers in journals indexed by  
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17. Muzika, V., Custovic, S., Alicelebic, S., Cosovic, E., **Zahirovic, A.**, & Kahrovic, E. (2019). Dinuclear ruthenium (II) Schiff base complex: a first in vivo study in Swiss albino mice. *Bratislavske lekarske listy*, 120(1), 26-34.

<https://www.ncbi.nlm.nih.gov/pubmed/30685989>

**Scientific research papers in journals indexed by  
Web of Science - Emerging Sources Citation Index**

18. Kahrović, E., Jakovljević, V., **Zahirović, A.** (2020). FTIR investigation of pigments and binder of painted walls in heritage monuments. *Journal of Science and Arts*, 20(3), 697-704.

<https://www.proquest.com/openview/d502b6ac9162cfce0036e189359c3483/1?pq-origsite=gscholar&cbl=105793>

**Scientific research papers in journals indexed by  
SCOPUS, EBSCO, CAS**

19. Eminovic, I., Kahrovic, E., Mesic, A., Turkusic, E., Kargic, D., **Zahirovic, A.**, & Dolicanin, Z. (2016). Cytogenotoxic effects of two potential anticancer Ruthenium (III) Schiff Bases complexes. *Journal of Health Sciences*, 6(2), 112-120

20. Emira Kahrović, Emir Turkušić, **Adnan Zahirović**, Sabaheta Bektaš and Huriya Džudžević Čančar (2016). Evidence on Antimicrobial Activity of Sodium Dichlorobis[N-phenyl-5-chlorosalicylideneiminato-N,O]ruthenate(III) against Gram-positive Bacteria. *Der Pharma Chemica*, 8(6): 174-178.

21. **Zahirović Adnan**, Turkušić Emir, Kahrović Emira (2015). Bis(iminato)ruthenates(III): Correlation of Half-wave Potential and Hydrolysis Constant with Electronic Effects of Substituent”, *Bulletin of the Chemists and Technologists of Bosnia and Herzegovina*, 45, 1-8.



22. Sead Ljubijankić, **Adnan Zahirović**, Mahira Memišević, Nevzeta Ljubijankić, Emira Kahrović (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.
23. Emira Kahrović, **Adnan Zahirović** and Emir Turkusic (2014). Calf Thymus DNA Intercalation by Anionic Ru(III) Complexes Containing Tridentate Schiff Bases Derived from 5-X-Substituted Salicylaldehyde and 2-Aminophenol, *Journal of Chemistry and Chemical Engineering*, 8, 335-343.

### Conference papers / presentations

#### Presentations at international conferences

24. **Adnan Zahirović**, Inesa Osmanković, Emir Turkušić and Emira Kahrović, Ruthenium(II) complex with S-Allyl-L-cysteine sulfoxide: Synthesis, characterization and BSA Interaction, 47th World Chemistry Congress IUPAC, Paris, France, July 5 – 12, **2019**.
25. **Adnan Zahirović**, Emir Turkušić, Inesa Osmanković, Aleksandar Višnjevac and Emira Kahrović, *Thermodynamic Aspect of Dicopper(II) Chalcone Complexes Interaction with CT DNA*, Pure and Applied Chemistry International Conference 2019, Bangkok, Thailand, February 7 – 8, **2019**.
26. Aleksandar Višnjevac, **Adnan Zahirović**, Inesa Osmanković, Emir Turkušić, Emira Kahrović, *Crystal structures and bioactivity studies of four novel chalcone and flavonol copper(II) complexes containing Schiff base co-ligand*, 31st European Crystallographic Meeting, Oviedo, Spain, August 22 – 27, **2018**, Book of Abstracts, MS36-P35: *Acta Cryst.* (2018). A74, e397.
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