

## PERSONAL INFORMATIONS

**Dr. Irnesa Osmanković**

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Date of birth: 01.10.1990.

Place of birth: Sarajevo, Bosnia and Herzegovina



[https://www.researchgate.net/profile/Irnesa\\_Osmankovic](https://www.researchgate.net/profile/Irnesa_Osmankovic)



<https://scholar.google.com/citations?user=ggaWF6UAAA&hl=en>

## EMPLOYMENT

**Senior Research and Teaching Assistant for General and Inorganic Chemistry**

University of Sarajevo, Faculty of Science

Department of Chemistry

Laboratory for Inorganic and Bioinorganic Chemistry

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## WORKING EXPERIENCE

since 2018.

**Senior Research and Teaching Assistant for General and Inorganic Chemistry**

at Department of Chemistry, Faculty of Science, University of Sarajevo, Bosnia and Herzegovina

2014 - 2018.

**Research and Teaching Assistant for General and Inorganic Chemistry**

at Department of Chemistry, Faculty of Science, University of Sarajevo, Bosnia and Herzegovina

## EDUCATION

17.10.2022.

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

PhD Thesis: *“Heteroleptic Ruthenium Complexes of Diimines and Schiff bases derived from Amino Acids: Synthesis, Characterization and Biological Activity.”*

Mentor: Prof. Dr. Emira Kahrović

2013-2014.

**Master of Chemical Engineering**, Faculty of Science, University of Sarajevo

Thesis: *„Preconcentration and Determination of some Metal Ions from Multielement Solutions after Coprecipitation with Yttrium-8-hydroxyquinoline.“*

Mentor: Prof. Dr. Mustafa Memić

2009-2013.

**Bachelor of Chemical Engineering**, Faculty of Science, University of Sarajevo

Thesis: *„Preconcentration of Metal Ions on Silica Gel 60 F<sub>254</sub>“*

Mentor: Prof. Dr. Mustafa Memić

2005-2009.

Gymnasium „First Bosniak High School“ Sarajevo

1997-2005.

Elementary School „Zahid Baručija“ Vogošća

Mother tongue

Bosnian

Other tongues

English

Understanding		Speaking		Writing
Listening	Reading	Interaction	Listening	Reading
C1	C1	C1	C1	C1

ICE (International General Certificate of Secondary Education) Cambridge, Great Britain

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

Computer skills

▪ advanced

Driving licence

▪ B category

## OTHER INFORMATIONS

### Participation in Regional Conferences

1. 4<sup>th</sup> International Congress of Chemists and Chemical Engineers of Bosnia and Herzegovina with International Participation, Sarajevo, June 2022.
2. 2<sup>nd</sup> International Congress of Chemists and Chemical Engineers of Bosnia and Herzegovina with International Participation, Sarajevo, October 2016.
3. Congress of Chemists and Chemical Engineers of Bosnia and Herzegovina with International Participation, Sarajevo, Bosnia and Herzegovina, October 2014.

### Research Activities and Projects

Participations - Young Researcher:

1. „*Kompleksi vanadija s hidrazonima kao potencijalni anti-SARS-CoV-2 agensi*“  
Federal Ministry of Science and Education, Bosnia and Herzegovina, 2021.  
Project leader: Doc. Dr. Adnan Zahirović
2. „*HeteroBinuklearni (Aren)rutenijzlato kompleksi kao Inhibitori Tiodoksina reduktaze (BAIT)*“  
Ministry for Science, Higher Education and Youth of Canton Sarajevo, Bosnia and Herzegovina, 2021/2022.  
Project leader: Doc. Dr. Adnan Zahirović
3. “*New antiproliferative ruthenium complexes: Synthesis and SAR-study*”  
Federal Ministry of Science and Education, Bosnia and Herzegovina, 2018.  
Project leader: Prof. Dr. Emira Kahrović
4. “*Development of Ruthenium Complexes as Mediators for New Sensors*”  
Federal Ministry of Science and Education, Bosnia and Herzegovina, 2017.  
Project leader: Prof. Dr. Emir Turkušić

1. Interdisciplinarity at University of Sarajevo, Rectorate of University of Sarajevo, 5.10.2018., Erasmus+ project Re@WBC
2. NETREL learning course (HPLC and GC chromatography techniques), Faculty of Science Sarajevo, 12-17.6.2014., TEMPUS project EU
3. NETREL learning course (Sample Treatment of Environmental Matrices), Faculty of Science Sarajevo, 3-7.2.2014., TEMPUS project EU

**Training** TRAIN (Training and Research for Academic Newcomers), University of Sarajevo, 2015/2016. (pedagogic education)

**Memberships** Society of Chemists and Technologists of Canton Sarajevo  
Royal Society of Chemistry, 2022 - 2023.

## BIBLIOGRAPHY

### Textbooks



Nevzeta Ljubijankić, Sabina Begić, **Irnesa Osmanković**

### Praktikum Opšte hemije

University of Sarajevo, 2022.

ISBN 978-9926-453-53-4

COBIS.BIH-ID-50502406

### Journal Articles

1. **Osmanković Irnesa**, Turkušić Emir, Zahirović Adnan, Kralj Marijeta, Uzelac Lidija and Kahrović Emira. "CT DNA, BSA and Antiproliferative Activity of Ru (II) Bipyridine Complexes Containing Schiff Bases Derived from Amino Acids." *Croatica Chemica Acta*, 94(3), (2021), P1-P10.
2. Zahirović Adnan, **Osmanković Irnesa**, Turkušić Emir, Emira Kahrović. "Improved method for spectrophotometric determination of ruthenium using 1,10-phenantroline: Applications for analysis of complex compounds." *Analytical Methods*, 10(42) (2018), 5078-5083
3. Kahrović Emira, Adnan Zahirović, Aleksandar Višnjjevac, **Irnesa Osmanković**, Emir Turkušić and Harun Kurtagić. „Chalcone and Flavonol Copper(II) Complexes Containing Schiff Base Co-Ligand: Synthesis, Crystal Structures and Catecholase-like Activity.“ *Croatica Chemica Acta*, 91(2), (2018): 1-13
4. Kahrović Emira, Adnan Zahirović, Šeherzada Kadrić, Emir Turkušić, **Irnesa Osmanković**, Huriya Džudžević-Čančar. *Structural Feature of Calf Thymus DNA – Ruthenium(III) Interaction in Aqueous Solution by Difference Fourier Transformed Infrared Spectroscopy*. *Spectroscopy Letters*, 50(2017), 426-431
5. **Svraka (Osmanković) Irnesa**, Memić Mustafa, Sulejmanović Jasmina, Muhić-Šarac Tidža, *Preconcentration of Metal Ions Using Silica Gel 60 F<sub>254</sub>*. *Bulletin of the Chemists and Technologists of Bosnia and Herzegovina*, 42 (2014) 11-16

6. **Osmanković Irnesa**, Turkušić Emir, Zahirović Adnan and Kahrović Emira. *Novel Mononuclear Ruthenium(II) Polypyridyl Complexes with Schiff Bases derived from Amino Acids – DNA and BSA in vitro Binding Studies*. 4th Congress of Chemists and Chemical Engineers of Bosnia and Herzegovina with International Participation, Sarajevo, Bosnia and Herzegovina, 30 June - 2 July 2022, Book of Abstracts, p.138
7. Adnan Zahirović, Amina Magoda, **Irnese Osmanković**, Emir Turkušić and Emira Kahrović. *Synthesis and Biological Activity of Copper(II) Complexes with Nicotinic Acid Hydrazones*. 4th Congress of Chemists and Chemical Engineers of Bosnia and Herzegovina with International Participation, Sarajevo, Bosnia and Herzegovina, 30 June - 2 July 2022, Book of Abstracts, p.137.
8. Adnan Zahirović, **Irnese 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**.
9. Adnan Zahirović, Emir Turkušić, **Irnese 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**
10. Aleksandar Višnjevac, Adnan Zahirović, **Irnese 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
11. Adnan Zahirović, Emira Kahrović, Marina Cindrić, Emir Turkušić, **Irnese Svraka**. *Synthetic Approaches to First Ruthenium–Quercetin Complexes: Insight into Design, Reactivity towards CT DNA and Antioxidant Activity*. 13th European Biological Inorganic Chemistry Conference, Budapest, Hungary, August 28–September 01 **2016**, Book of Abstracts, p. 301 (P148).
12. **Irnese Svraka**, Šeherzada Kadrić, Adnan Zahirović, Emira Kahrović. *FT-IR Spectroscopy Investigation of Cobalt(II)–CT DNA Interaction in Water Solution*. 2nd Congress of Chemists and Chemical Engineers of Bosnia and Herzegovina with International Participation, Sarajevo, Bosnia and Herzegovina, 21-23 October 2016, Book of Abstracts, p.78
13. **Irnese Svraka**, Elma Šabanović and Mustafa Memić, *Determination of Fe and Mn from Aqueous Solutions after Preconcentration on Yttrium(III) Oxide*. 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.42
14. Elma Šabanović, Mustafa Memić and **Irnese Svraka**, *The use of pulverized Cucurbita pepo peel for the preconcentration of Co and Ni ions from aqueous solutions*. 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.36