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27 June-30 June 2024 / Sarajevo, B&H

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Hotel Radon Plaza, Džemala Bijedića 185, Sarajevo 71000

Registration desk will be open on Thursday (27 June 2024) from 18:30 to 20:00; Friday (28 June 2024) from 8:00 to 09:00

KEY TO ABSTRACT IDENTIFICATION

PL	Plenary Lectures
KL	Keynote Lectures
OP	Oral Presentations
PP-AC	Poster presentations- Analytical Chemistry
PP-BB	Poster presentations- Biochemistry and Biotechnology
PP-CAM	Poster presentations- Chemistry of Advanced Materials
PP-CE	Poster presentations- Chemical Engineering
PP-CNP	Poster presentations- Chemistry of Natural Products
PP-EDC	Poster presentations- Education in Chemistry
PP-ENC	Poster presentations- Environmental Chemistry
PP-FC	Poster presentations- Food Chemistry
PP-IC	Poster presentations- Inorganic Chemistry
PP-MC	Poster presentations- Medicinal Chemistry
PP-OC	Poster presentations- Organic Chemistry
PP-PTC	Poster presentations- Physical and Theoretical Chemistry
PP-RC	Poster presentations- Radiochemistry
PP-TRC	Poster presentations- Topics Related to Chemistry

OPENING CEREMONY LECTURER

We are honored to announce that Dr. Emira Kahrović, a distinguished scientist, professor emeritus and the only member of our department who is also a member of the Academy of Science and Arts of Bosnia and Herzegovina, will deliver a lecture at the grand opening of the Congress. Dr. Kahrović is recognized as one of the leading experts in the field of chemistry in general, and particularly inorganic chemistry, with a long-standing career and numerous significant contributions to science.

Throughout her illustrious career, Dr. Kahrović has published a series of studies that have greatly advanced our understanding of chemical processes in the field of Inorganic Chemistry. Her passion for science and dedication to research have inspired many young scientists to follow in her footsteps.

Dr. Kahrović's lecture at this congress represents a unique opportunity for all participants to hear firsthand about the latest advancements in chemistry, as well as her own experiences and challenges in scientific work. Her presentation will be rich with valuable insights and motivation, which will undoubtedly enhance the congress program.



Dr. Emira Kahrović

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Heterometallic Bridged Pt(II)-Zn(II) Complexes: Influence of the Substituent In 4'-Position in Inert Terpy Ligand on Mechanism of Interactions of the Complexes with Biomolecules

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Abstract: Platinum complexes have significant applications in medicine. However, patients often experience a large number of side effects when taking these drugs. While they exhibit rapid efficacy, they also demonstrate toxicity, and resistance commonly develops. One approach to mitigate these unwanted effects is through the synthesis of heteronuclear complexes. In addition to platinum(II), these heteronuclear complexes incorporate another metal that naturally occurs in the human body. The novel heteronuclear complexes [*cis*-PtCl(NH₃)(μ-4,4'-bipyridyl)ZnCl(terpy-Cl)](ClO₄)₂, [*cis*-PtCl(NH₃)(μ-pyrazine)ZnCl(terpy-Cl)](ClO₄)₂, [*trans*-PtCl(NH₃)(μ-4,4'-bipyridyl)ZnCl(terpy-Cl)](ClO₄)₂ and [*trans*-PtCl(NH₃)(μ-pyrazine)ZnCl(terpy-Cl)](ClO₄)₂, (where terpy-Cl = 4'-chloro-2,2':6',2''-terpyridine) were synthesized and characterized.

The stability and interaction of heteronuclear complexes with biologically relevant molecules 5'-GMP and GSH were investigated spectroscopically. It was shown that chloride in 4' position of 2,2':6', 2''-terpyridine has great influence on the stability of complexes. The decrease of electrophilicity of metal centers leads to the higher p*K*_a values and to moderate stability of the complexes at physiological conditions. In the case of all complexes the decomposition was noticed. These complexes without strong independent cytotoxicity can be a starting point in further research in combined treatments with the aim to reduce side effects.

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