

**DNA AND BSA BINDING OF COPPER(II)-COMPLEXES WITH S-ISOALKYL DERIVATIVES OF THIOSALICYLIC ACID**

Jevtić V.V.,<sup>a</sup> Tomović D.Lj.,<sup>b</sup> Bukonjić A.M.,<sup>b</sup> Stanković A.S.,<sup>b</sup>  
Mijajlović M.Ž.,<sup>b</sup> Nikolić M.V.,<sup>b</sup> Mijailović Ž.,<sup>c</sup> Knežević S.,<sup>d</sup>  
Radić G.P.,<sup>b</sup> Bogojeski J.V.,<sup>a</sup> Petrović A.Z.<sup>a</sup>

<sup>a</sup>*Department of Chemistry, Faculty of Science, University of Kragujevac, Radoja Domanovića 12,  
34000 Kragujevac, Serbia;*

*e-mail: glodjovicv@yahoo.com*

<sup>b</sup>*Department of Pharmacy, Faculty of Medical Sciences, University of Kragujevac,  
Svetozara Markovića 69, 34000 Kragujevac, Serbia*

<sup>c</sup>*Department of Infectious diseases, Faculty of Medical Sciences, University of Kragujevac, Serbia*

<sup>d</sup>*Department of Pediatrics, Faculty of Medical Sciences, University of Kragujevac, Serbia*

The complexes of transition metal ions represent suitable areas of research because of the wide range of coordination numbers and geometries, available redox states, thermodynamic and kinetic characteristics. Transition metal ions in combination with different ligands offer a large number of possibilities for testing potential bioactivities.<sup>1</sup> Among transition metal ions copper is known as an endogenous metal for humans, with characteristic biological redox activities and relatively strong affinity for nucleobases.<sup>2</sup>

A few new copper(II)-complexes of S-isoalkyl derivatives of thiosalicylic acid were used to investigate the reactivity toward biomolecules. The interaction of these metal complexes with calf thymus DNA (CT-DNA) and bovine serum albumin (BSA) were examined. Overall, the studied complex exhibited good DNA and BSA interaction ability. All obtained results in this study indicate that the introduction of S-isoalkyl derivatives of thiosalicylic acid as ligand can be used to improve the stability and reactivity of copper(II) complexes.

**References**

1. Alessio E. *Bioinorganic Medicinal Chemistry*, Wiley-VCH, Weinheim, 2011.
2. Santini, C.; Pellei, M.; Gandin, V.; Porchia, M.; Tisato, F.; Marzano. C. *Chemical Reviews* 2014, 114, 815.

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