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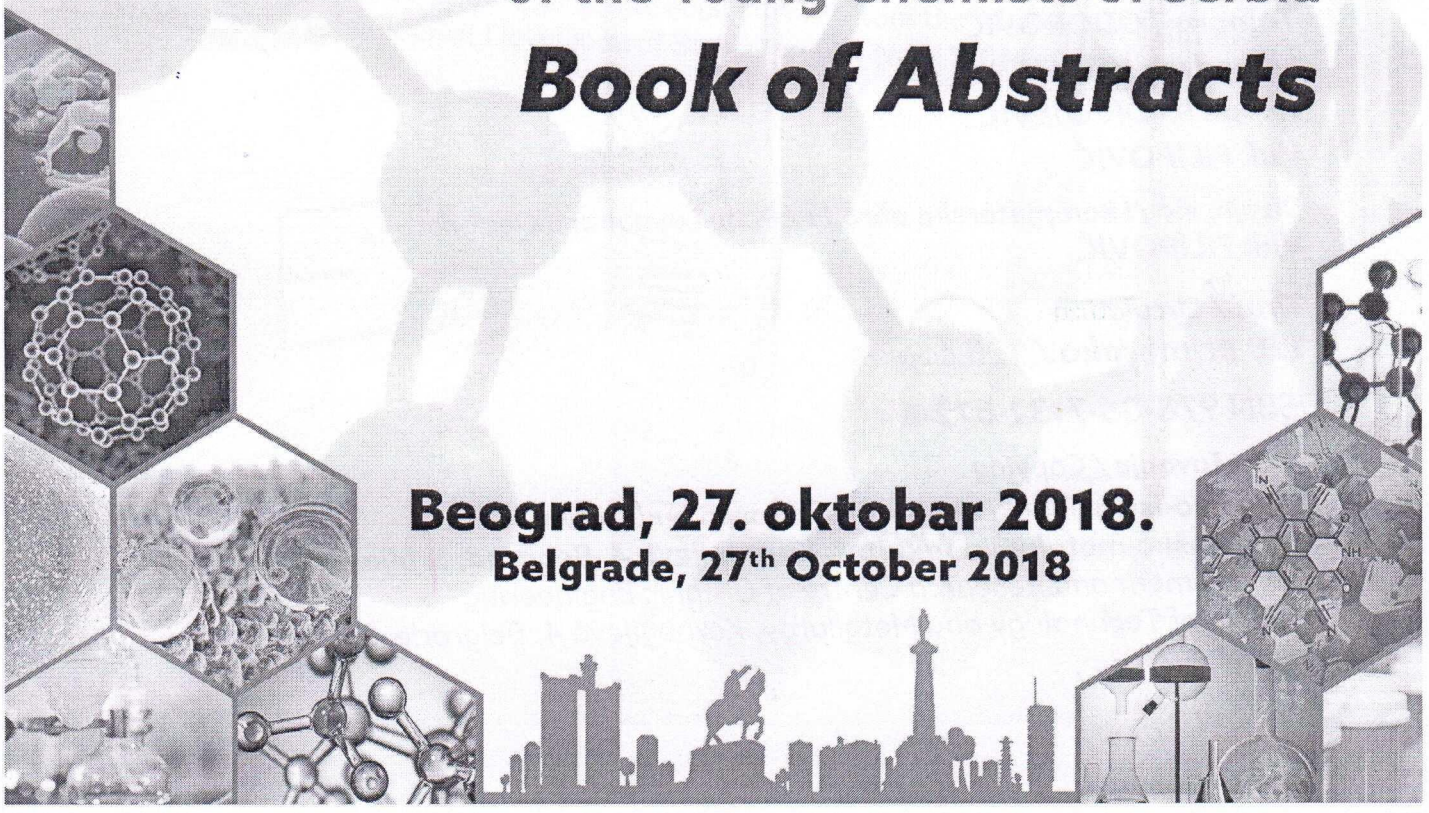

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Interactions of copper(II) complexes of some Schiff base ligands with calf thymus DNA and bovine serum albumin

Angelina Petrović,[1] Aleksandar Mijatović[2], Rada Baošić[2], Jovana Bogojeski[1]
[1]*University of Kragujevac, Faculty of Science, Department of Chemistry, Radoje Domanovića 12, 34000 Kragujevac, Serbia*
[2]*University of Belgrade, Faculty of Mining and Geology, Đušina 7, 11000 Beograd, Serbia*

Transition metal ions in combination with different ligands offer a large number of possibilities for testing potential bioactivities. Among transition metal ions copper is known as an endogenous metal for humans, with characteristic biological redox activities and relatively strong affinity for nucleobases. Copper complexes exhibit their antitumor activity on few different ways, they generate a high amount of reactive oxygen species, which causes oxidative damage to mitochondria and biomacromolecules. Copper(II) complexes have been reported to have moderate to good binding affinity with DNA, mostly via intercalation [1].

The interaction of a few copper(II)-complexes of Schiff base ligands to calf thymus DNA (CT-DNA) and bovine serum albumin (BSA) was further examined. Overall, the studied complex exhibited good DNA and BSA interaction ability. All obtained results in this study indicate that the introduction of S-alkyl derivatives of thiosalicylic acid as ligand can be used to improve the stability and reactivity of copper(II) complexes.

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