

GULEA, A., GRAUR, V., ULCHINA (GRAUR), IA., BOUROSH, P., SMAGLII, V., GARBUZ, O., TSAPKOV, V. Synthesis, Structure, and Biological Activity of Mixed-Ligand Amine-Containing Copper(II) Coordination Compounds with 2-(2-Hydroxybenzylidene)-N-(prop-2-en-1-yl)hydrazinecarbothioamide. In: Russian Journal of General Chemistry. 2021, vol. 91, nr. 1, pp. 98–107. ISSN 1608-3350. IF 0.716 DOI: <https://doi.org/10.1134/S1070363221010114>

Abstract—Copper(II) nitrate reacts in ethanol with 2-(2-hydroxybenzylidene)-N-(prop-2-en-1-yl)hydrazinecarbo-thioamide H₂L in an 1 : 1 molar ratio to form the coordination compound Cu(HL)NO₃·H₂O. The introduction of amines [imidazole (Im), 3,5-dibromopyridine (3,5-Br₂Py), and 4-methylpyridine (4-Pic)] into the reaction mixture in a molar ratio 1 : 1 : 2 leads to the formation of CuA(HL)NO₃·nH₂O [A = Im, 3,5-Br₂Py, 4-Pic; n = 0, 3] complexes. The structure of the obtained compounds was determined by X-ray structural analysis. The synthesized complexes exhibit antimicrobial, antifungal, antioxidant, and anticancer activities.