GULEA, A., GRAUR, V., DIURICI, E., **ULCHINA (GRAUR), I.**, BOUROSH, P., BALAN, G., BURDUNIUC P., TSAPCOV V., RUDIC, V. (2020). Synthesis, Structure, and Biological Activity of Copper(II), Nickel(II), Cobalt(III), and Iron(III) Coordination Compounds with 2-{2-[(Prop-2-en-1-yl) carbamothioyl] hydrazinylidene} propanoic Acid. In: *Russian Journal of General Chemistry*. 2020, vol. 90, pp. 2120-2127. **IF 0.716** DOI: https://doi.org/10.1134/S107036322011016X

2-Oxopropanoic acid reacts in ethanol with N-(prop-2-en-1-yl)hydrazinecarbothioamide in a 1 : 1 mole ratio to form thiosemicarbazone H2L. Coordination compounds Cu(HL)X [X = Cl–, Br–, NO 3 –], Cu(H 2O)(L),Ni(HL)2, Co(HL)2X [X = Cl–, Br–], and Fe(HL)2X [X = NO3–, Br–] are formed in the reactions of H2L with copper(II),nickel(II), cobalt(II), and iron(III) salts. The reactions of Cu(H2O)(L) with imidazole (Im) and 3,4-dimethylpyridine(3,4-Lut) result in mixed-ligand complexes Cu(A)(L) [A = Im, 3,4-Lut]. The structures of two copper complexes were determined by single crystal X-ray diffraction analysis. The synthesized complexes exhibit selective antimicrobial and antifungal activity in the concentration range of 15.62–1000 μg/mL. The introduction of amines into the inner sphere of copper complexes leads to an increase in the antimicrobial activity.