

MS35-P07 | NOVEL SCHIFF BASE-METAL COMPLEXES; SYNTHESIS, CRYSTAL STRUCTURE AND BIOLOGICAL ACTIVITY

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Schiff base metal complexes occupy an important role in the development of the chemistry of chelate systems due to the fact that especially these with NO donor atoms, such systems closely resemble metallo-proteins and used to form polynuclear complexes with interesting structural motifs. Schiff base ligands and their complexes show interesting pharmacological effects such as anticancer, antimicrobial, antibacterial, and urease inhibitory activities [1]. Herein, we reported the synthesis of three schiff base metal complexes. All compounds were characterized by X-ray diffraction, NMR and elemental analysis. Additionally, the *in vitro* activities of all compounds against the human leukemia cell line K562 were investigated by evaluation of IC50 values and mode of cell death (apoptosis). The experiments revealed that the cytotoxicity of the studied complexes is higher or comparable with the cisplatin.

Keywords: Schiff base; Anticancer; K562 cell line; Docking study

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