

**SYNTHESIS, CHARACTERIZATION AND BIOLOGICAL ACTIVITY OF NOVEL
CU(II), PD(II), PT(II) COMPLEXES WITH 2-HYDROXY-8-ETHYL-
TRICYCLO[7.3.1.0.2,7]TRIDECANE-13-ONE THIOSEMICARBAZONE**

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The chemistry of transition metal complexes of thiosemicarbazones have gained considerable attention due to their diverse applications in the pharmacological field as antimicrobial agents [1-4] and found to have in vitro cytotoxic effects against cancer cells [5]. In this research, we have synthesized and characterized new Cu(II), Pd(II) and Pt(II) complexes: [Cu(L)(H₂O)₂(OAc)](1), [Cu(L)(H₂O)₂(SO₄)](2), [Cu(L)(H₂O)₂(NO₃)](3), [Cu(L)(H₂O)₂(ClO₄)](4), [Cu(L)₂(H₂O)₂](5), [Pd(L)(OAc)]H₂O (6), [Pt(L)₂](7) were HL= 2-hydroxy-8-ethyl-tricyclo[7.3.1.0.2,7]tridecane-13-one-thiosemicarbazone. The ligand has been characterized by elemental analyses, IR, ¹H NMR and ¹³C NMR spectroscopy, mass spectroscopy. All complexes have been characterized by IR, ¹H NMR, ¹³C NMR, UV-Vis, FAB, EPR, mass spectroscopy, elemental and thermal analysis, magnetic susceptibility measurements and molar electric conductivity. The physico-chemical analyses confirmed the composition and the structure of the newly obtained complex combinations. All complexes with 2-hydroxy-8-R-tricyclo[7.3.1.0.2,7]tridecane-13-one thiosemicarbazone have been tested for their antimicrobial activity against *Escherichia coli*, *Salmonella enteritidis*, *Staphylococcus aureus*, Enterococcus, *Candida albicans* and cytotoxicity against SKBR-3 human breast, MCF-7 human breast, A375 human melanoma cancer cells and HL-60 human promyelocytic leukemia cells.

References

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