



## Platinum and Palladium Complexes with 2,4-Dinitrophenylhydrazine: Synthesis and Cytotoxic Activity

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**SUMMARY.** New complexes of platinum and palladium were isolated with 2,4-dinitrophenylhydrazine (2,4-DNPH). These complexes were characterized and the results shown that the ligand is coordinated to platinum or palladium by the basic nitrogen of NH<sub>2</sub> group and have the general structure *cis*-[M(2,4-DNPH)<sub>2</sub>Cl<sub>2</sub>].H<sub>2</sub>O where M = Pt or Pd. The thermal stability of the complexes was followed in the temperature range 25-850 °C. The antitumor activity of the synthesized compounds has been studied and the compound *cis*-[Pt(2,4-DNPH)<sub>2</sub>Cl<sub>2</sub>], was found to display cytotoxicity (IC<sub>50</sub> = 4.6 μmol/L) against K562 tumoral cell line. This work is the first to describe the cytotoxic activity of complexes containing 2,4-dinitrophenylhydrazine.

**KEY WORDS:** Cytotoxic activity, Hydrazones, Metal-based drugs, Platinum complexes.

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