

Synthesis and Biological Activity Evaluation of U Complexes

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Abstract : The use of anticancer agents forms an important part of the treatment of cancer of various types. Uranyl Complexes with DPHMP ligand have been used for the prevention and treatment of cancers. U(IV) metal complexes prepared by reaction of uranyl salt $\text{UO}_2(\text{NO}_3)_2 \cdot 6\text{H}_2\text{O}$ with DPHMP in dry acetonitrile. Characterization of the ligand and its complexes was made by microanalyses, FT-IR, ^1H NMR, ^{13}C NMR and UV-Visible spectroscopy. These new complex showed excellent antitumor activity against two kinds of cancer cells that that are HT29:Human colon adenocarcinoma cell line and T47D:human breast adenocarcinoma cell line.

Keywords : uranyl complexes, DPHMP ligand, antitumor activity, HT29, T47D

Conference Title : ICSRD 2020 : International Conference on Scientific Research and Development

Conference Location : Chicago, United States

Conference Dates : December 12-13, 2020