

SYNTHESIS AND EVALUATION OF BIOLOGICAL ACTIVITY OF NEW ANTIMONY COMPOUNDS WITH METHOTREXATE

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ABSTRACT

The aim of the present work is to synthesize two new antimony compounds containing Methotrexate (MTX) as a ligand, in the mole ratio 1:1 and 1:2. Antimony complexes were characterized by FTIR, UV, CHNS analysis, Atomic Absorption and conductivity measurements.

The biological activity of MTX, SbCl₃ and the two new compounds was evaluated against HeLa and Rhabdomyosarcoma (RD) cell lines. The four compounds were effective, while compound (2) gave the best inhibition.

KEYWORDS: Antimony Complexes, Methotrexate, Cytotoxicity, HeLa cell, RD Cell