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Synthesis and Evaluation of Biological Activity of New Antimony Compounds With Methotrexate and Benzothiazole

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Abstract:The aim of the present work is to synthesize four new antimony compounds containing Methotrexate (MTX) and Benzothiazole (BZT) as ligands, 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, BZT, SbCl₃ and the new compounds was evaluated against Leishmania parasite. All compounds were effective, while compound (4) was the best in inhibition.

Keywords:antimony complexes, methotrexate, benzothiazole, cytotoxicity, leishmania parasite.

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