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A New Mannich base, Ni (MOTTP) (H₂O)₄ NO₃] NO₃.H₂O and Ni (MDTTP)(H₂O)₄NO₃]NO₃.H₂O: Crystal structure, Thermal behavior, Solid state, FTIR, NMR Spectral analysis and Antimicrobial activity

V. Puvanadevi, P.R. Sivakumar*

*PG & Research Department of Chemistry, Government Arts College (Autonomous),
Coimbatore, TN, India.

E-mail ID : shivarashee@gmail.com, Tel: 9944713951.

Abstract : Singal crystal of Ni complex, an organic material, were grown by slow solvent evaporation technique at room temperature. DMSO was used as solvent. The nickel crystal obtained by the above technique were subjected to different characterization analyses. The functional groups and optical behavior of the crystal was identified from FTIR and UV analysis. The correlation between crystal structure and thermal stability of nickel complex is observed. In all compounds the fragments of ligands donor atoms go in the last steps. Additionally, antimicrobial activities of compounds were carried out against certain gram positive and gram negative bacteria were also determined.

Keywords : nickel complex, FTIR, Antimicrobial studies.

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