

MS14-P33 | CRYSTAL STRUCTURE AND BIOLOGICAL ACTIVITIES OF A NEW PROTON TRANSFER

MATERIAL

HAMDI, NAJLAA (Faculty of Sciences University Sidi Mohamed Ben Abdelah, FES, MAR); CHAOUCH, Souad (USMBA, FEZ, MAR); IDBOUMLIK, Meryem (USMBA, FEZ, MAR); LACHKAR, Mohammed (USMBA, FEZ, MAR); EL BALI, Brahim (UMP, oujda, MAR)

A novel hybrid phosphite was synthesized using 1,4- diaminobutane (dabn) as structure-directing agent using slow evaporation method. Single crystal X-ray diffraction analysis shows that it crystallizes in the triclinic system (S.G: P-1). The crystal structure is built up from corner sharing $[\text{CoO}_6]$ octahedrons running in a form of chain along [001], interconnected by H_2PO_3 pseudo-pyramid units. The diprotonated organic molecule residing between the parallel chains, interacts with the inorganic moiety via hydrogen bonds leading thus to the formation of a three dimensional network. The biological tests exhibit significant activity against *C. albicans* and *E. coli* strains in all used concentrations while less activity was pronounced when tested against *S. epidermidis*, *S. cerevisiae* whilst there was no activity against the nematode model *S. feltiae*.