Interaction of Salicylamide and Salicylic Acid with Iron and Cobalt and their Comparative Study by IR and NMR

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Abstract: *The complexes formed by salicylic acid and several substituted derivatives of salicylic acid (Salicylamide) with essential metal ions of the soil (iron and cobalt) have been investigated at 25° and in a medium of variable ionic strength using pH. The equilibrium constants of complex formation of the 1 : 1 , 1 : 2 and1 : 3 mole ratio metal–acid complexes formed are discussed with reference to the activity degradation of substituents. Salicylic acid and Salicylamide after disposal can also react with the various metal ions present in the soil to form complexes. The rate at which these complexes are formed is done with the help of UV-vis. Spectroscopy. The complexes formed are characterized by various Spectroscopic technique viz. FTIR and NMR.*

Keywords: Salicylic acid, Salicylamide, FTIR, UV-vis.