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New Complexes of Organotin(IV) 2-(N-Maleoylamino)-2-methylpropanoate: Synthesis, Spectroscopic Characterization and Biological Activity

Sajjad AHMAD[1], Saqib ALI[1],
Saira SHAHZADI[1],
Fiaz AHMED[1] and Khalid M. KHAN[2]
[1]Department of Chemistry, Quaid-i- Azam University}
45320 Islamabad-PAKISTAN
e-mail: drsa54@yahoo.com
[2]H. E. J. Research Institute of Chemistry, University of Karachi,
Karachi-75270, PAKISTAN

Abstract: Organotin(IV) complexes of 2-(N-maleoylamino)-2-methylpropanoate were prepared by treating the ligand acid with diorganotin dichloride and triorganotin chloride in 1:2 and 1:1 molar ratios, respectively. These reactions proceeded smoothly to completion and the complexes formed were characterized by elemental analysis, infrared, multinuclear NMR (^{1}H, ^{13}C, ^{119}Sn) and mass spectrometry. The biological activities of the tin complexes were studied by screening the compounds against various animal and plant pathogens. These results show that triorganotin(IV) carboxylates are more active against the animal and plant pathogens tested as compared to diorganotin dicarboxylates.

Key Words: Organotin(IV) carboxylates, spectroscopic studies, biological activity.

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