**Synthesis, IR, 1H, 13C and 119Sn NMR spectral characterization of di-and tri-organotin(IV) phenoxides and their application as thermal stabilizer for Poly( methyl methacrylate) polymer.**

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**Abstract**

The di-and tri-organotin(IV) phenoxides of composition n-Bu2SnCl2-n(OAr1,2)n and Ph3Sn(OAr1,2) (where OAr1 = OC6H3-But-2-OMe-4 and OAr2=OC6H4-OMe-4 and n = 1 or 2) have been synthesized by reacting respective organotin(IV) chlorides with substituted phenols in the presence of triethylamine in THF at room temperature. The complexes have been characterized by elemental analyses, molar conductivity measurements, molecular weight determinations, IR, 1H, 13C and 119Sn NMR spectrometry techniques. Based upon physico-chemical and spectral data a tetrahedral environment around tin has been proposed. The addition compounds of organotin(IV) phenoxides have been prepared with 2, 2΄-dipyridylamine ligand and characterized by physico-chemical and ir spectral studies. The PMMA-organotin(IV) phenoxide blends have been prepared by 1:1 and 1:2 combinations by mass and characterized by FTIR. Thermal investigations by simultaneous TG-DTA study on PMMA- organotin(IV) phenoxides blends have shown increased thermal stability compared to pure PMMA.

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