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Synthesis, Characterization and Thermal Studies of Poly(5-Indanyl Methacrylate)

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Abstract : A monomer of 5-indanylMethacrylate (5-IMA), has been synthesized from the precursor viz., 5-indanol and characterized by Fourier transform infrared (FT-IR), Nuclear Magnetic Resonance Spectroscopic Techniques ^{1}H-NMR and^{13}C-NMR.Homopolymerization of 5-IMA is carried out in benzene by free radical Solution polymerization at 70°C using Benzoyl Peroxide. Then the Homopolymer of Poly (5-Indanyl Methacrylate) wascharacterized by Fourier transform infrared (FT-IR), Nuclear Magnetic Resonance Spectroscopic Techniques (^{1}H-NMR) spectroscopy. Analysis of the thermal properties of the Poly(5-IndanylMethacrylate) by Thermogravimetric analysis (TGA) and Differencial Scanning Calorimetry Analysis (DSC) is also reported.
Keywords: 5-indanyl Methacrylate, TGA and DSC.

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