



## Synthesis, Characterization and Thermal Studies of Poly (5-Indanyl Methacrylate –co- Glycidyl 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 <sup>1</sup>H-NMR and <sup>13</sup>C-NMR. Copolymerization of 5-IMA with Glycidylmethacrylate (GMA) is carried out in benzene by free radical Solution polymerization at 70°C using Benzoyl Peroxide. 5-IMA –Co-GMA Copolymers are characterized by Fourier transform infrared (FT-IR), Nuclear Magnetic Resonance Spectroscopic Techniques (<sup>1</sup>H-NMR) spectroscopy. Analysis of the thermal properties of the Copolymer by Thermogravimetric analysis (TGA) and Differential Scanning Calorimetry Analysis (DSC) are also reported.

**Keywords:** 5-indanyl Methacrylate, Glycidyl methacrylate and Benzoyl Peroxide.

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