

Thermal studies of unsaturated aliphatic-heterocyclic polyamides

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Thermal analysis provides important information on the temperature dependent properties of materials and on thermally induced process (phase transition, decomposition etc.). Thermal analysis is advantageous as it gives a general view of the thermal behavior of material under various conditions and requires a small amount of sample. Thermogravimetry analysis of synthesized unsaturated polymer using 2,6-diamminopyridine and maleic acid has been carried out in the temperature range of 40–500 °C. The thermogravimetric data was analysed by Murray and White, Coats and Redfern, Doyles and Freeman and Carroll's method to calculate energy of activation. Different kinetic parameters were determined from Freeman and Carroll's method and reported.

Keywords: 2,6-Diamminopyridine, maleic acid, energy of activation, entropy, free energy.
