عنوان مقاله:

Thermotropic Liquid Crystalline Polyesters Using Aromatic Rigid Diols, Unsaturated Fumaric Acid and Flexible Sebacic Acid

محل انتشار:

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نویسندگان:

Apparav Wale - *Chemical Engineering and Process Development Division, National Chemical Laboratory, Dr. Homi Bhabha Road, Pashan Pune-۴۱۱ ۰۰۸, India*

Smita Mule - *Chemical Engineering and Process Development Division, National Chemical Laboratory, Dr. Homi Bhabha Road, Pashan Pune-۴۱۱ ۰۰۸, India*

Atul Dhage - *Chemical Engineering and Process Development Division, National Chemical Laboratory, Dr. Homi Bhabha Road, Pashan Pune-۴۱۱ ۰۰۸, India*

Khudbudin Mulani - *Chemical Engineering and Process Development Division, National Chemical Laboratory, Dr. Homi Bhabha Road, Pashan Pune-۴۱۱ ۰۰۸, India*

خلاصه مقاله:

In the present study, seven different series of thermotropic liquid crystalline polyesters (TLCPs) containing unsaturated fumaroyl chloride and flexible sebacoyl chloride were synthesized using the interfacial polymerization methodology. Homopolyesters prepared with saturated flexible spacer such as sebacoyl chloride were mesomorphic whereas homopolyesters synthesized using unsaturated aliphatic spacer such as fumaroyl chloride that was non-mesomorphic. Aromatic diad and triad based mesogenic diols were selected as rigid moiety for liquid crystalline phase formation. Within each series, copolyesters were synthesized by varying relative mole ratio of the above two aliphatic diacid chlorides. Most of the liquid crystalline polyesters showed solubility in phenol:tetrachloroethane (60:40) at 40 °C.

کلمات کلیدی:

Unsaturated polyesters, Flexible, rigid, Liquid crystalline, Thermotropic