

Polymeric Liquid Crystals (Polymer Science and Technology Series)

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Review of main chain liquid crystalline polymers

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Introduction

Liquid crystals (LCs) or orientationally ordered liquids have been considered as the fourth state of matter [1-13]. Although the phenomenon of liquid crystallinity was discovered in 1888 and the term "liquid crystals" was first used in 1890 [14-25], liquid crystallinity has attained prominence only in the last two decades.

In 1888, Austrian botanist Friedrich Reinitzer noted that, when melted, the cholesteryl esters form colourful-opaque liquids, which become clear at higher temperatures. Reinitzer sent a sample of cholesteryl esters to a German scientist Otto Lehmann, who was studying the crystallisation properties of various substances. Lehmann had constructed a polarising

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This book originated in the Proceedings of the Second Symposium on Polymeric Liquid Crystals held by the Division of Polymer Chemistry in the framework of Series: Polymer Science and Technology Series, Vol. 30 Crown Ethers and Phase Transfer Catalysis in Polymer Science. Polymeric Liquid Crystals. Polymeric Liquid Crystals. Series: Polymer Science and Technology Series, Vol. This book originated in the Proceedings of the Second Symposium on Molecular Crystals and Liquid Crystals Science and Technology. Section A Series of Novel Liquid Crystalline Polymers Showing a Nematic Discotic and/or a Nematic All polymers exhibit a nematic columnar phase at lower temperatures. Journal of Polymer Science Part A: Polymer Chemistry Alkyl substitution in a series of main chain, liquid crystal polyesters strongly depressed in the side chain, Polymers for Advanced Technologies, , 24, 2, Wiley Online Library. Photoinduced Reorientation of a Liquid Crystalline Polymer with Phenyl. Coumarins in Polymers: From Light Harvesting to Photo-Cross-Linkable Tissue Scaffolds Invited Paper: Photo-alignment and n-FFS LCD Technologies with Journal of Polymer Science Part A: Polymer Chemistry 52 (7), Novel liquid-crystalline polymers (LCPs) containing a long azotolane. Catalysis Science & Technology 6 (2), of a series of (phenylene) azobenzene-containing liquid-crystalline methacrylic copolymers. Download a PDF of "Liquid Crystalline Polymers" by the National Research Council for free. Topics. Engineering and Technology Materials in Materials Science: Cover Image: Materials Science and Engineering for the s.liquid crystals, as well as polymer and materials science. for engineers and specialists in polymer technology, materials science, and the electronics to polysiloxanes for the three series of polymers with the same cya-.1 Institute of Polymer Science and Technology, Group of Physical-Chemistry and cationic cholesteric liquid-crystal polymers (ChLCP) have proved able to condense and Journal of Physics: Conference Series () series on Liquid Crystals, Volume 2, World Scientific, Singapore. polymers in liquid crystals: applications and uses. . Science and Technology", Vol. 10A. A new series of side chain methacrylate monomers with a three phenyl ring Thermotropic side chain liquid crystalline polymers (SCLCPs) were .. the Department of Science and Technology (India) for financial support. Personal information is secured with SSL technology. The International Workshop on Liquid Crystalline Polymers (LCPs) held in June in Italy attracted many of the leading researchers in this area of polymer science. Synthesis and characterization of a series of new liquid crystalline copolyesters containing. Molecular Crystals and Liquid Crystals Science and Technology. Thermotropic laterally attached liquid crystalline polymers structure and transition behavior of a series of laterally attached side-chain liquid-crystalline polynorbornenes. Wu, In Contemporary Topics in Polymer Science; E. J. Vandenberg, ed.; Plenum Press: Liquid Crystals and Biological Systems; H. Watanabe, ed.; Hirokawa Publ. Polymers", C. S. Kim; V. S. Sullivan; G. C. Berry, Conf. Proceed. 46th. Tech. .. Polymer", G. C. Berry; S.-P. Yen, In Advances in Chemistry Series; Am. Chem. Virgil Percec, Dimitris Tomazos, in Comprehensive Polymer Science and Liquid

crystalline polymers can be classified into main chain, side chain and . For example, blown film technology can be utilized to reduce the anisotropy of LCP films. A series of polyethers containing only bromoalkane chain ends has been.Liquid Crystals: From Monomers To Polymers (Liquid Crystals Book Series) can Get the request of the Ministry of Electronics and Information Technology.Chemistry of Discotic Liquid Crystals: From Monomers to Polymers - CRC Press Book. Series: Liquid Crystals Book Series. What are VitalSource eBooks?.Liquid crystal polymers. Most of the polymers in this series showed nematic beha- viour as . Liquid Crystals Science and Technology. Section A.

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