CONTENTS

Wholly aromatic polyamides were developed and commercialised some decades ago, and since then a great deal of effort has been expended to try to improve in particular the processability of the early...Â Lin J., Sherrington D.C. (1994) Recent developments in the synthesis, thermostability and liquid crystal properties of aromatic polyamides. In: Polymer Synthesis. Advances in Polymer Science, vol 111. Liquid Crystal Institute, Kent State University, Kent, OH 44242, USA Version of record first published: 07 Jun 2012. To cite this article: Ã. Buka , N. Ã‰ber , K. Fodor-Csorba , A. JÃ¡kli & P. Salamon (2012): Physical properties of a bent-core nematic liquid crystal and its mixtures with calamitic molecules, Phase Transitions: A Multinational Journal, 85:10, 872-887.Â These results indicate the strong influence of the liquid crystalline environment on the conformations which can exist in the banana phases.Â Measurements showed that both the pure compounds and the mixtures have a negative dielectric anisotropy ("a Â¼ "k Ã€ "? 5 0), but the dielectric relaxations in the nematic phase of ClPbis10BB have some distinctive character compared to those of typical calamitic nematics. This work describes the preparation of a liquid crystalline adduct of tris(Î²-diketonate)gadolinium (III) with 5,5â€²-diheptadecyl-2,2â€²-bipyridine. The adduct exhibits smectic and nematic mesomorphism.Â Compositions with different ratios of components have been obtained. They possess a wide temperature range of nematic mesophase.Â The possibility of obtaining homogeneous nematic mixtures based on the synthesized Gd(CPDk3-5)3Bpy17-17 complex and organic liquid crystals: 4-n-heptyloxy-4â€²-n-cyanobiphenyl, 4-(nonyloxy)benzoic acid, (E)-1-(4-butylphenyl)-2-(4-(heptyloxy)phenyl)diazene and 1-(4-fluorophenyl)-3-(4-(. 4-propylcyclohexyl) phenyl)propan-1,3-dione, is shown. Some substances form crystalline solids consisting of particles in a very organized structure; others form amorphous (noncrystalline) solids with an internal structure that is not ordered. The main â€¦Â These forces are primarily responsible for the physical properties exhibited by the bulk solids. The following sections provide descriptions of the major types of crystalline solids: ionic, metallic, covalent network, and molecular. Ionic Solids.Â The properties of the different kinds of crystalline solids are due to the types of particles of which they consist, the arrangements of the particles, and the strengths of the attractions between them. The dielectric properties of a paramagnetic terbium-containing liquid crystal have been studied.Â Some important physical parameters that determine the effectiveness of the orientation of the lanthanidomeso-gens under the magnetic or electric field are the anisotropy of magnetic susceptibility and of dielectric anisotropy, respectively.Â The measurement of the dielectric permittivity is a powerful tool for characterizing the structure and physical properties of liquid crystalline materials [18] Investigations of the terbium complex were carried out using the analyzer HIOKI-3532 operating within the frequency range 100 Hz to 5 MHz.Â 6. The dependence of the components of dielectric permittivity on the electric field frequency.