

单臂脂环18-冠-6液晶的合成

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摘要 本文合成了两种单臂脂环18-冠-6-液晶,羟甲基 18-冠-6分别和4-(4'-正丁氧基苯甲酰氧基)苯甲酰氯或氯甲酸胆甾醇酯反应得到两种目标物,用DSC和偏光显微镜测定其相变温度,前者相变温度是T~K~N4.0℃和T~N~I33.5℃,后者相变温度T~K~S-22.4℃, T~S~N6.8℃, T~N~I40.4℃,用等克分子的硬脂酸和该冠醚液晶制成LB膜,观察到Y型LB膜的特征.

关键词 [合成](#) [液晶](#) [冠醚](#)

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Synthesis of monoarmed alicyclic 18-crown-6-liquid crystals

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Abstract Two novel monoarmed alicyclic 18-crown-6 liquid crystals were designed and synthesized in an attempt to lower the phase transition temperature of crown ether liquid crystal. They were synthesized by treating hydroxymethyl 18-crown-6- with chloride 4-(4'-n-butoxybenzoyloxy) benzoylate or cholesteryl chlorocarbonate respectively. The phase transition temperatures were determined by DSC and polarized microscopy were found to be as follows: T~K~N, 4.0℃; T~N~I, 33.5℃ for the former and T~K~S, -22.4℃; T~S~N, 6.8℃; T~N~I, 40.1℃ for the later. The characteristics of Y-type LB film were observed from the LB film prepared with equimolecular stearic acid and the new liquid crystal.

Key words [SYNTHESIS](#) [LIQUID CRYSTAL](#) [CROWN ETHER](#)

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