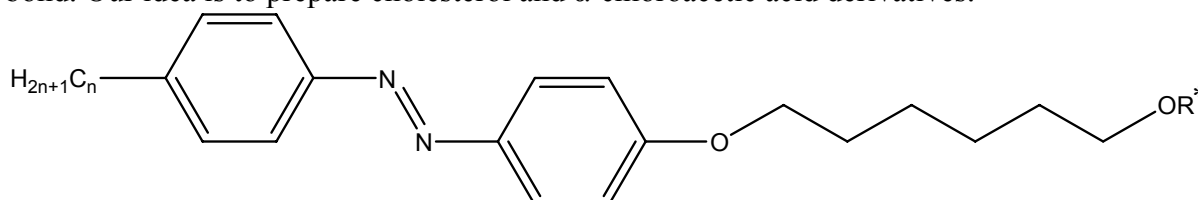


Liquid crystalline properties of chiral derivatives of 4-alkyl-4'-(6-hydroxyhexyloxy)azobenzenes

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Liquid crystals are a group of compounds investigated for over 100 years and the interest in them has in recent years considerably grown up thanks to LCD technology. Our most interest are 4-4' substituted azobenzenes which were recognized as the liquid-crystalline compounds very early [1]. In the 70's only few groups with short alkyl chain were described in literature[2,3], but they were found as unsuitable in LCD technology because of their photosensitivity. Today this property make azobenzene compounds very prospective for opto-electronics, nonlinear-optics and many others branches of applied science[4].

In our work we synthesized new chiral derivatives of 4-alkyl-4'-(6-hydroxyhexyloxy)azobenzenes, which are formed by attached chiral substitute (R^*) by ether bond. Our idea is to prepare cholesterol and α -chloroacetic acid derivatives.



Using polarization microscopy (POM and TOA methods) and the differential scanning calorimetry (DSC) liquid-crystalline properties are investigated.

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