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Title:	The first examples of room temperature liquid crystal dimers based on cholesterol and pentaalkynylbenzene
Authors:	Gupta, Monika (/jspui/browse?type=author&value=Gupta%2C+Monika) Pal, S.K. (/jspui/browse?type=author&value=Pal%2C+S.K.)
Keywords:	pentaalkynylbenzene liquid crystal dimers X-ray
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Abstract:	In this article, we report the synthesis of the first examples of room temperature liquid crystal dimers based on cholesterol and pentaalkynylbenzene linked via flexible alkyl spacers. The thermal behaviour and mesomorphic properties of the newly synthesised compounds were investigated by differential scanning calorimetry, polarised optical microscopy and X-ray diffraction studies. All the synthesised dimers showed nematic (N*) phase at room temperature and exhibited excellent fluorescent emission properties. The steady-state anisotropy and fluorescence lifetime were measured in order to gain further insights into the supramolecular arrangement of these dimers
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