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| Title:                  | Photo-responsive liquid crystals derived from azobenzene centered cholesterol-based tetramers  |
| Authors:                | Gupta, Monika (/jspui/browse?type=author&value=Gupta%2C+Monika)<br>Pal, Vaibhav (/jspui/browse?type=author&value=Pal%2C+Vaibhav)<br>Pal, S.K. (/jspui/browse?type=author&value=Pal%2C+S.K.)  |
| Keywords:               | Azobenzene<br>Cholesterol derivative<br>Polarization microscopy<br>Tetramer  |
| Issue Date:             | 2018   |
| Publisher:              | Royal Society of Chemistry   |
| Citation:               | New Journal of Chemistry, 42(11), pp. 8765-8772  |
| Abstract:               | This paper demonstrates the design and synthesis of azobenzene centred cholesterol based tetramers. A series of eight oligomeric compounds with varying flexible alkyl spacers (n = 1-8) is reported. These compounds displayed enantiotropic and monotropic chiral nematic (N*) mesophases, which were characterized by polarized optical microscopy (POM), differential scanning calorimetry (DSC) and X-ray scattering studies (SAXS/WAXS). We have also explored the photoisomerization behaviour of the compounds with n = 1 and n = 8. Although no photoisomerization effect was observed in the liquid crystalline (LC) state, it was, however, noticed in dilute solutions and monolayers, as depicted from UV-vis studies and Brewster angle microscopy (BAM), respectively |
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