Photoinduced *trans-cis* isomerization of new synthesised liquid crystal compounds

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ABSTRACT

In this paper, we perform a comparative study on reversible trans-cis isomerization of three new azoderivative compounds with mesomorphic behaviours. We found that the molecular shape of the mesogenes, namely the lateral substitution of the aromatic core, plays a significant role in the kinetics of the photoisomerization process. The type of the mesophase affects the rate constant of the photoisomerization process, also. The photochromic effects have been studied by means of electronic absorption spectra in UV and visible ranges.