Supplemental file

Photosensitive bent-core compounds with azo-group attached to the central ring

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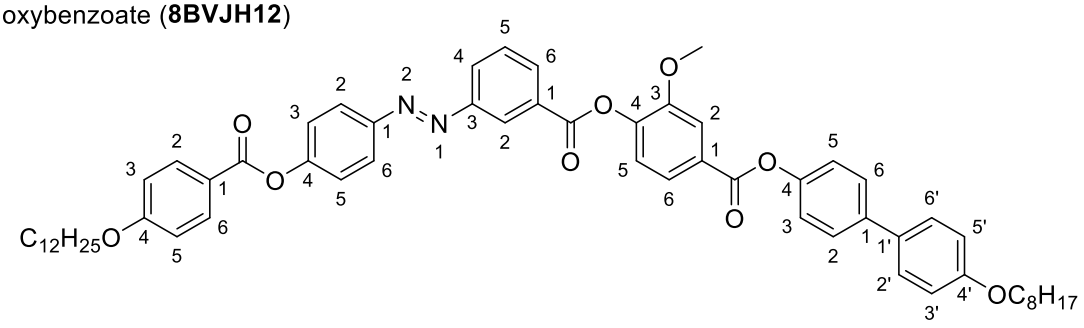
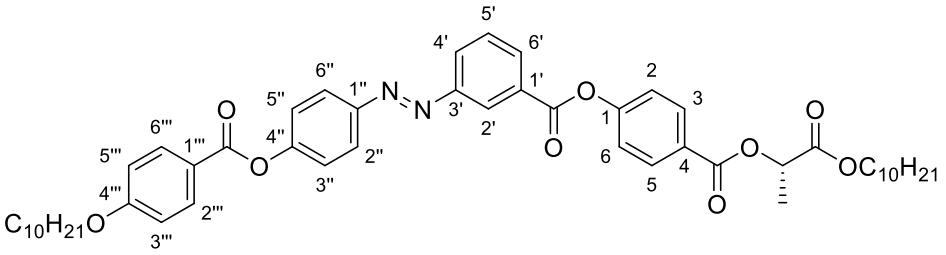
Characterization of compounds

4´-(Octyloxy)-biphenyl-4-yl (*E*)-4-({3-[(4´-{[4´´-(dodecyloxy)benzoyl]oxy}phenyl)diazenyl]benzoyl}oxy)-3-methoxybenzoate (**8BVJH12**)



(*S*)-4-({[1-(Decyloxy)-1-oxopropan-2-yl]oxy}carbonyl)phenyl (*E*)-3´-[(4´´-{[4´´´-(decyloxy)benzoyl]oxy}phenyl)diazenyl]benzoate (**LJV10/10**)



(*S*)-4-{[4´-({[1-(decyloxy)-1-oxopropan-2-yl]oxy}carbonyl)phenoxy]carbonyl}phenyl (*E*)-3´´-[(4´´´-{[4´´´´-(decyloxy)benzoyl]oxy}phenyl)diazenyl]benzoate (**LJ10/10**)

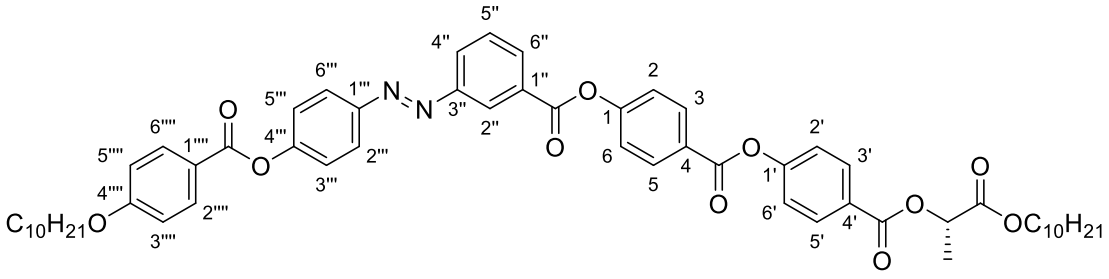


Figure 1. Numbering of atoms of final materials in NMR spectra.

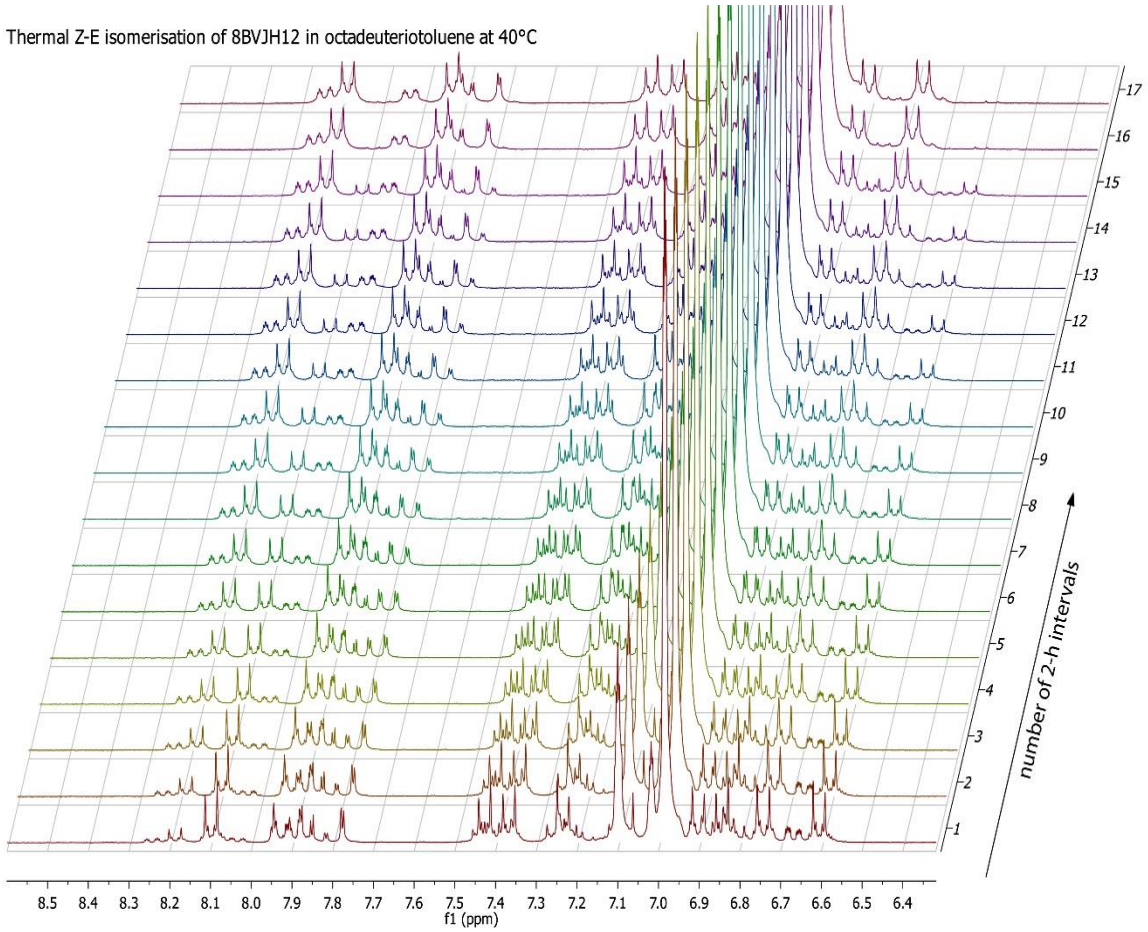


Figure 2. Illustrative plot showing the development of H-NMR spectra of photostationary mixture of isomers of 8BVJH12 in octadeuteriotoluene during the thermal Z-E isomerisation process, i.e. the decay of signals belonging to Z-isomer and the growth of E-isomer signals.

Compound LJV10/10

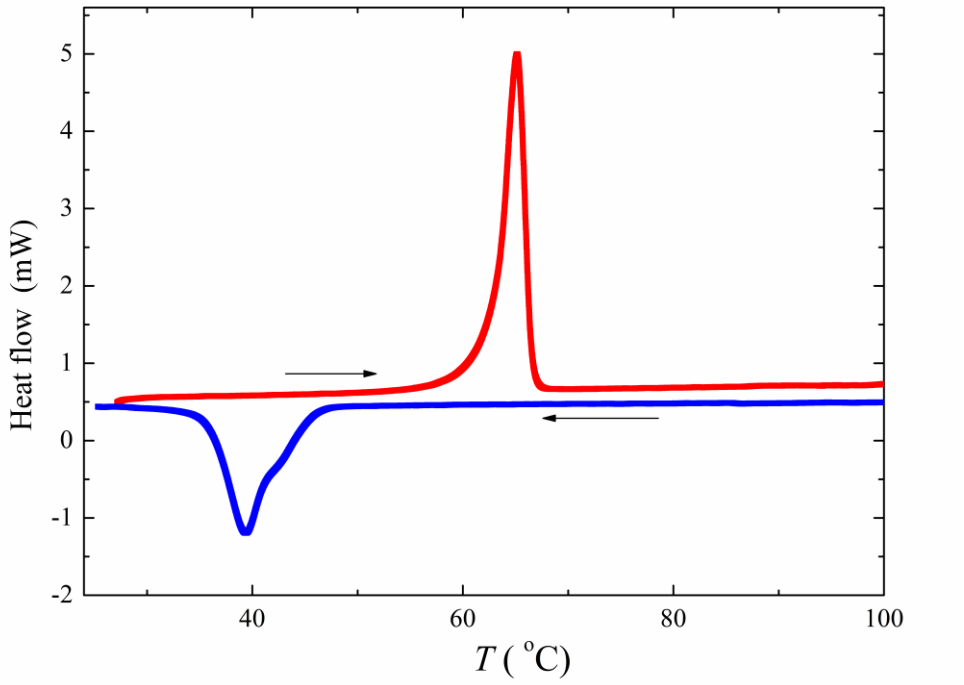


Figure 3. DSC thermographs for compound **LJV10/10**. The second heating is presented in red colour and the second cooling in blue colour. The compound melt on heating from the crystalline phase and crystalize on cooling, no mesophase was detected.

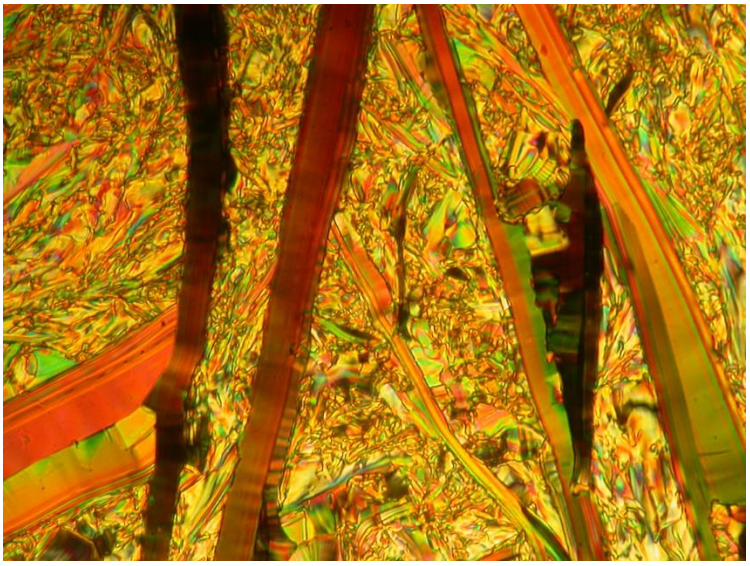


Figure 4. Planar texture of **LJV10/10** in the crystalline phase at T=30ºC:.

HPLC for 8BVJH12

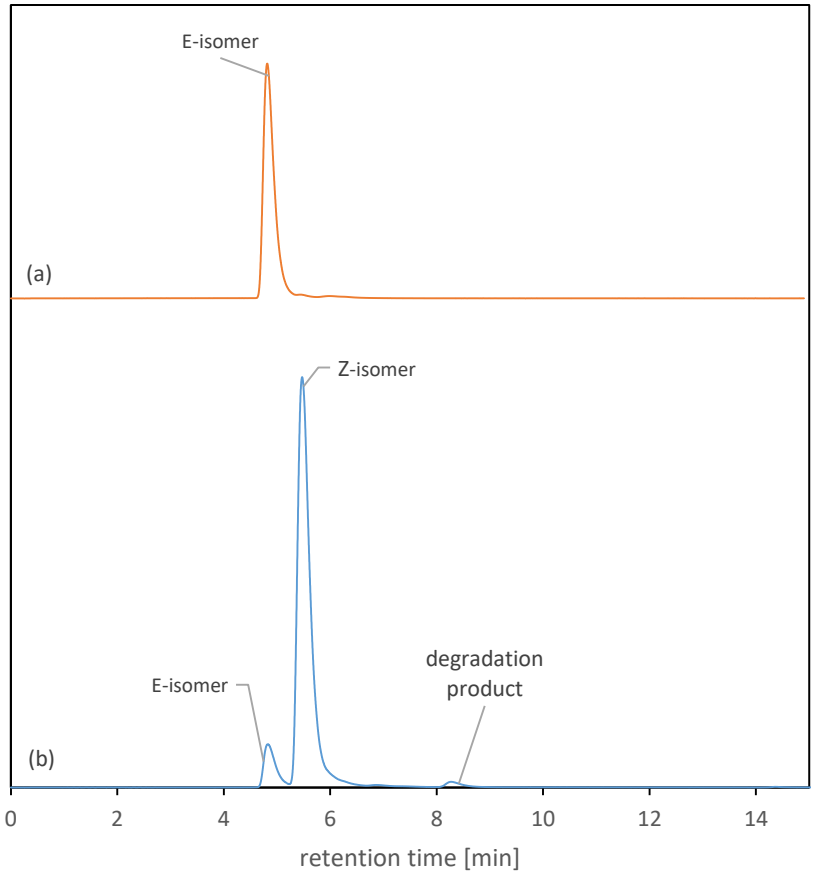


Figure 5. HPLC chromatograms (0.1 % MeOH in toluene) of the $CDCl_3$ solution of (a) pure (*E*)-8BVJH12 and (b) the same solution after illumination with UV- light (366 nm) for 1 hour.