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New class of chiral azobenzene mesogens: 4-[(E)-(4-alkylphenyl)diazenyl]phenyl cholesteryl adipates

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Liquid-crystalline azobenzene derivatives are today very important materials in modern opto-electronics [1,2]. Chiral moiety can induce extra new structures and physical properties. In this communication after short review about mesogenic chiral azobenzenes a new series of compounds are presented [3]. Four types of mesophases were identified: chiral nematic, smectic A, *smectic C* and TGBA. For decyl derivative freezing process is not observed. Glass state is created. By the use of the UV-Vis spectroscopy the photoisomerization studies were conducted. Moreover, the circular dichroism (CD) spectra were measured.

References

- [1] Q. Li, <i>Liquid Crystals Beyond Displays. Chemistry, Physics and Applications</i>, Wiley, 2012.
- [2] A. Sobolewska, J. Zawada, S. Bartkiewicz, and Z. Galewski, <i>J. Phys. Chem. C</i> **117**, 10051-10058 (2013).
- [3] J. Czeszejko-Sochacka, <i>PhD Thesis</i>, University of Wrocław, 2010.

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