1. K. I. Shivakumar, D. Pociecha, J. Szczytko, S. Kapuściński, H. Monobe, P. Kaszyński, ‘Photoconductive bent-core liquid crystalline radicals with a paramagnetic polar switchable phase’, *J. Mater. Chem. C*, **8**, 1083-1088, (2020) DOI:10.1039/C9TC05764A
2. R. Walker, D. Pociecha, C. A. Crawford, J. M. D. Storey, E. Gorecka, C. T. Imrie,” Hydrogen bonding and the design of twist-bend nematogens”, *J. Mol. Liq*., **303**, 112630, (2020). DOI: 10.1016/j.molliq.2020.112630
3. M. Šmahel, A. Poryvai, Y. Xiang, D. Pociecha, T. Troha, V. Novotna, J. Svoboda, M. Kohout, ‘Photosensitive bent-core nematic liquid crystals with various linking units in the side arms: Structure-properties relationships’, *J. Mol. Liq*., **306**, 112743, (2020). DOI: 10.1016/j.molliq.2020.112743
4. J. Matraszek, K. Grześkiewicz, E. Górecka, D. Pociecha, ‘Fluorescent bent-core mesogens with thiophene-based central unit’, *Liq. Cryst*., **47**, 1803-1810,(2020): DOI: 10.1080/02678292.2020.1729427
5. R. Walker, D. Pociecha, A. Martinez-Felipe, J. M. D. Storey, E. Gorecka, C. T Imrie, ‘Twist-Bend Nematogenic Supramolecular Dimers and Trimers Formed by Hydrogen Bonding’, *Crystals*, **10**, 175, (2020). DOI: 10.3390/cryst10030175
6. V. Novotná, S. Stulov, M. Cigl, V. Hamplová, E. Gorecka, D. Pociecha, ‘Mesomorphic properties of lactic acid derivatives and their racemic mixtures in comparison with analogous non-chiral compounds’, *Liq. Cryst*., **47**,1516-1527, (2020): DOI: 10.1080/02678292.2020.1741040
7. J. Matraszek, D. Pociecha,N. Vaupotič, M. Salamończyk, M. Vogrin,E. Gorecka, ‘Bi-continuous orthorhombic soft matter phase made of polycatenar molecules’, *Soft Matter*, **16**, 3882-3885, (2020). DOI: 10.1039/D0SM00331J
8. N. Vaupotič, M. Salamończyk, J. Matraszek, M. Vogrin, D. Pociecha, E. Gorecka, ‘New structural model of a chiral cubic liquid crystalline phase’, *Phys. Chem. Chem. Phys*., **22**, **‏**12814-12820, (2020). DOI: 10.1039/D0CP01579B
9. W. Lewandowski, N. Vaupotič, D. Pociecha, E. Górecka, L. M. Liz-Marzán, ‘Chirality of liquid crystals formed from achiral molecules revealed by resonant X-ray scattering’, *Adv. Mater*., 1905591, (2020). DOI:10.1002/adma.201905591
10. K. Yin, D. Lu, W.Tian, R. Zhang, H. Yu, E. Gorecka, D. Pociecha, N. Godbert, J. Hao and H. Li, ‘Ordered Structures of Alkylated Carbon Dots and Their Applications in Nonlinear Optics’, *J. Mater. Chem. C*, **8**, 8980-8991, 2020, DOI: 10.1039/D0TC01867H.
11. M. Cigl, V. Hamplová, D. Pociecha, V. Novotná, ‘Photosensitive bent-core compounds with Azo-group attached to the central ring’, Crystals, 10,1030, (2020)
12. R. Walker, D. Pociecha, M. Salamończyk, J. M. D. Storey, E. Gorecka, C. T. Imrie, ‘Supramolecular Liquid Crystals Exhibiting a Chiral Twist-Bend Nematic Phase’, *Mater. Adv.*, **1,** 1622-1630, (2020). DOI:10.1039/D0MA00302F
13. H. Skopalová, P. Špaček, V. Kozmík, J. Svoboda, V. Novotná, D. Pociecha, M. Kohout, ‘The role of substitution in the apex position of the bent-core on mesomorphic properties of new series of liquid crystalline materials’, *Crystals*, **10**, 735, (2020).doi:10.3390/cryst10090735
14. P. Szustakiewicz, N. Kowalska, D. Grzelak, T. Narushima, M. Góra, M. Bagiński, D. Pociecha, H. Okamoto, L. M. Liz-Marzán, W. Lewandowski, ‘Supramolecular chirality synchronization in thin films of plasmonic nanocomposites’, *ACS Nano*, **14**, 12918–12928 (2020). doi:10.1021/acsnano.0c03964
15. W. Park, T. Ha, T. S. Jung, K. I. Sim, J. H. Kim, J. M. Wolska, D. Pociecha, E. Gorecka, T.-T. Kim, D. K. Yoon, ‘Security use of the chiral photonic film made of helical liquid crystal structures’,*Nanoscale,* **12**, 21629-21634, (2020), doi:10.1039/D0NR03743E
16. M. Ali, E. Gorecka, D. Pociecha, and N. Vaupotič, „Structure and grating efficiency of thin cells filled by a twist-bend nematic liquid crystal”, Phys. Rev. E **102**, 032704 (2020) doi: 10.1103/PhysRevE.102.032704
17. A. M. Bubnov, M. Cigl, N. Sedláčková, D. Pociecha, Z. Böhmová, V. Hamplová, “Self-assembling behaviour of new functional photosensitive cinnamoyl-based reactive mesogens”, *Liq. Cryst*. 47, 2276-2291, (2020). DOI:10.1080/02678292.2020.1783586
18. V. Novotná, S. Stulov, V. Hamplová, M. Cigl, D. Pociecha, The cholesteric and TGB phases under the applied electric field, *Liq. Cryst*. (2020) doi: 10.1080/02678292.2020.1858513
19. E. Forsyth, D. A. Paterson1, E. Cruickshank, G. J. Strachan, E. Gorecka, R. Walker, J. M. D. Storey, C. T. Imrie, Liquid crystal dimers and the twist-bend nematic phase: On the role of spacers and terminal alkyl chains, *J. Mol. Liq*. **320**, 114391, (2020). doi: 10.1016/j.molliq.2020.114391
20. Y. Cao, M. Alaasar, A. Nallapaneni, M. Salamończyk, P. Marinko, E. Gorecka, C. Tschierske, F. Liu, N. Vaupotič, C. Zhu, Molecular Packing in Double Gyroid Cubic Phases Revealed via Resonant Soft X-Ray Scattering, *Phys. Rev. Lett.*, **125**, 027801, (2020). doi: 10.1103/PhysRevLett.125.027801
21. V. Swaminathan, V. P. Panov, A. Panov, D. Rodriguez-Lojo, P. J. Stevenson, E. Gorecka, J. K. Vij, Design and electro-optic investigations of de Vries chiral smectic liquid crystals for exhibiting broad temperature ranges of SmA\* and SmC\* phases and fast electro-optic switching, *J. Mater. Chem. C*, **8**, 4859, (2020). doi: 10.1039/c9tc04405a
22. S. E. Kutniewska, A. Krowczynski, R. Kaminski, K. N. Jarzembska, S. Pillet, E. Wenger, D. Schaniel, Photocrystallographic and spectroscopic studies of a model (N,N,O)-donor square-planar nickel(II) nitro complex: in search of high-conversion and stable photoswitchable materials, *IUCrJ,* **7**, 1188–1198, (2020). doi:10.1107/S205225252001307X
23. T. Deptula, A. Krowczynski, I. Bubko, B. M. Gruber-Bzura, The influence of polyether substituents on biological activity of curcumin derivatives, *Acta Pol. Pharm*, **77**, 99-111, (2020). doi:10.32383/appdr/112859