Special Issue

Nanocomposite and Structured Liquid Crystals (LCs): Properties and Applications

Message from the Guest Editors

Liquid crystals (LCs), anisotropic fluids with responses shaped by external stimuli, offer a flexible canvass to write patterns, capture nanoparticles and serve as hosts for dopants. Their extraordinary capability to manipulate light and, in turn, light to manipulate the LC orientation, led to many elegant, fundamental physical effects and configurations. Photosensitive dopants or nanoparticles can change core physical, optical or electrical parameters of the host materials paving the way for novel composite materials and application areas. Original contributions are sought for this special issue. Suitable topics include, but are not limited to the following:

- Self-assembly of nanoparticles mediated by smetic or chiral LCs;
- LC nanocomposites;
- Blue phase and patterning of LCs;
- Solitons, soliton arrays, and nonlinear optics;
- Properties of doped and nanocomposite LCs;
- Patterned LC elastomers;
- Applications of structured and doped LCs.

Guest Editors

Dr. Luciano De Sio

1. Department of Medico-surgical Sciences and Biotechnologies, Sapienza University of Rome, Corso della Repubblica 79, 04100 Latina, Italy
2. CNR-Lab. Licryl, Institute NANOTEC, 87036 Arcavacata di Rende, Italy

Prof. Dr. Malgosia Kaczmarek

Soft Photonics Systems Group, School of Physics and Astronomy, University of Southampton, Southampton SO17 1BJ, UK

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Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
nanomaterials@mdpi.com

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Message from the Editor-in-Chief

Nanoscience and nanotechnology are exciting fields of research and development, with wide applications to electronic, optical, and magnetic devices, biology, medicine, energy, and defense. At the heart of these fields are the synthesis, characterization, modeling, and applications of new materials with lower nanometer-scale dimensions, which we call “nanomaterials”. These materials can exhibit unusual mesoscopic properties and include nanoparticles, coatings and thin films, metal–organic frameworks, membranes, nano-alloys, quantum dots, self-assemblies, 2D materials such as graphene, and nanotubes. Our journal, *Nanomaterials*, has the goal of publishing the highest quality papers on all aspects of nanomaterial science to an interdisciplinary scientific audience. All of our articles are published with rigorous refereeing and open access.

Editor-in-Chief

Prof. Dr. Eugenia Valsami-Jones
School of Geography, Earth and Environmental Science, University of Birmingham, Birmingham B15 2TT, UK

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