Special Issue

Recent Advances in Liquid Crystal Nanomaterials

Message from the Guest Editor

Self-assembling organic materials that exhibit liquid crystalline behavior represent soft matter with unique properties. They are extremely promising anisotropic media for the design of nanocomposite systems. Composite systems—liquid crystals (LCs) doped with different nanoparticles, such as gold, or semiconducting, ferroelectric, magnetic, or carbon nanotubes—have been subjected to intensive research in an effort to produce materials with unique properties, as well as to increase the sensitivity of these materials to external fields. Several approaches have been devised for the generation of new functional materials. Promising new directions include LCs for organic electronics; semiconductor devices; energy conversion; LC templating to create nanostructured materials; synthesizing nanoparticles in liquid crystalline templates or ordering nano- and microparticles; liquid crystal colloids and their potential in photonics and metamaterials; liquid crystal-functionalized polymer fibers; LC elastomer actuators; and drug delivery applications.

This SI is a timely approach to survey the recent progress in the field of liquid crystal-based nanomaterials and their applications.

Guest Editor

Dr. Natália Tomašovičová
Institute of Experimental Physics, Slovak Academy of Sciences, Watsonova 47, 040 01 Košice, Slovakia

Deadline for manuscript submissions

closed (10 July 2023)

Materials

an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 6.4
Indexed in PubMed

mdpi.com/si/148133

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

mdpi.com/journal/materials

Materials

an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 6.4
Indexed in PubMed

mdpi.com/journal/materials

MDPI

About the Journal

Message from the Editor-in-Chief

Materials (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. *Materials* provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

Editor-in-Chief

Prof. Dr. Maryam Tabrizian
1. Department of Biomedical Engineering, Faculty of Medicine and Health Sciences, McGill University, Montreal, QC H3A 2B6, Canada
2. Faculty of Dentistry and Oral Health Sciences, McGill University, 3640 Rue University, Montreal, QC H3A 0C7, Canada

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within Scopus, SCIE (Web of Science), PubMed, PMC, Ei Compendex, CaPlus / SciFinder, Inspec, Astrophysics Data System, and other databases.

Journal Rank:

JCR - Q2 (Metallurgy and Metallurgical Engineering) / CiteScore - Q1 (Condensed Matter Physics)