



## Applications of Nanocrystal in LED Lighting and Display

Guest Editors:

**Dr. Chun Sun**

School of Electronics and  
Information Engineering, Hebei  
University of Technology, Tianjin  
300401, China

**Dr. Xiaoyu Zhang**

School of Materials Science &  
Engineering, Jilin University,  
Changchun 130012, China

Deadline for manuscript  
submissions:

**closed (30 September 2023)**

### Message from the Guest Editors

Recently, fluorescent nanomaterials including quantum dots, carbon nanomaterials, and up-conversion nanomaterials, have attracted much attention in LED lighting and display area as they possessed unique physicochemical properties and excellent optical properties. These fluorescent nanomaterials show great potential to replace the traditional phosphor powder and increase the efficiency of the LED.

In the Special Issue on “Applications of Nanocrystal in LED Lighting and Display”, we are pleased to invite you to share the latest lighting and display developments in fluorescent nanomaterials.

This Special Issue aims to organize research articles, communications, and review articles to study the fluorescent nanomaterials synthesis, materials properties, and device applications for lighting and display. Research areas may include (but are not limited to) the following:

- Quantum dots;
- Carbon nanomaterials (carbon dots and graphene dots);
- Up-conversion nanomaterials;
- Metal nanomaterials;
- Surface plasmon resonance;
- Förster resonance energy transfer;
- Lighting and display;
- Micro-LED display or AR/VR, etc.





an Open Access Journal by MDPI

## Editor-in-Chief

### **Prof. Dr. Eugenia Valsami-Jones**

School of Geography, Earth and  
Environmental Science,  
University of Birmingham,  
Birmingham B15 2TT, UK

## 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.

## 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](#), [CAPus / SciFinder](#), [Inspec](#), and [other databases](#).

**Journal Rank:** JCR - Q2 (Physics, Applied) / CiteScore - Q1 (General Chemical Engineering)

## Contact Us

*Nanomaterials* Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/nanomaterials](http://mdpi.com/journal/nanomaterials)  
[nanomaterials@mdpi.com](mailto:nanomaterials@mdpi.com)  
[X@nano\\_mdpi](#)