

Special Issue

Symmetry and Asymmetry in Functional Materials Science

Message from the Guest Editor

The organization and arrangement of matter at the geometric and structural levels form the foundation of biomaterials and functional materials science. Recent advances increasingly highlight the pivotal role of asymmetry—the deliberate disruption of symmetry—in enabling novel and enhanced material properties, particularly for biological applications. This field of study holds significant importance because manipulating symmetry enables the precise adjustment of material characteristics, reflecting how well materials perform in applications ranging from medical materials to engineering devices. The main objective of this Special Issue is to gather innovative research that investigates the creation, manufacturing, analysis, and implementation of functional biomaterials in which symmetrical and/or asymmetrical properties serve as crucial design elements determining performance. In this Special Issue, original research articles and reviews are welcome. Research areas may include (but are not limited to) the following:

- Biomedical engineering;
- Chiral biomaterials;
- Microbial-based materials;
- Bio-crystallization;
- Biomimetic systems.

We look forward to receiving your contributions.

Guest Editor

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About the Journal

Message from the Editor-in-Chief

Symmetry is ultimately the most important concept in natural sciences. It is not surprising then that very basic and fundamental research achievements are related to symmetry. For instance, the Nobel Prize in Physics 1979 (Glashow, Salam, Weinberg) was received for a unified symmetry description of electromagnetic and weak interactions, while the Nobel Prize in Physics 2008 (Nambu, Kobayashi, Maskawa) was received for the discovery of the mechanism of spontaneous breaking of symmetry, including CP symmetry. Our journal is named *Symmetry* and it manifests its fundamental role in nature.

Editor-in-Chief

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