symmetry

an Open Access Journal by MDPI

IMPACT FACTOR 2.2

CITESCORE 5.4

Advances in Nonlinear Optics and Symmetry

Guest Editors:

Prof. Dr. Shuiquan Deng
State Key Laboratory of Structural Chemistry, Fujian Institute of Research on the Structure of Matter (FJIRSM), Chinese Academy of Sciences, Fuzhou 350002, China

Dr. Xiyue Cheng
State Key Laboratory of Structural Chemistry, Fujian Institute of Research on the Structure of Matter (FJIRSM), Chinese Academy of Sciences, Fuzhou 350002, China

Deadline for manuscript submissions:
closed (31 October 2022)

Message from the Guest Editors

Dear Colleagues,

The study of nonlinear optics is closely related to symmetry. For example, second-order nonlinear optical interactions (described by a $\chi^{(2)}$ susceptibility) can occur only in noncentrosymmetric crystals—that is, in crystals that do not display inversion symmetry. The study of how to obtain materials without inversion symmetry is a critical issue in the design and synthesis of new nonlinear optical materials. Moreover, the essential properties for nonlinear optical materials including second harmonic generation tensor and birefringence are also determined by symmetry (i.e., crystal symmetry, intrinsic symmetry, and Kleinman symmetry). Therefore, symmetry is also a topic of intensive investigation in the structure–property relationship in nonlinear optical materials.

This Special Issue invites researchers to submit original research papers and review articles related to nonlinear optical materials in which theoretical or experimental issues of symmetry are considered.

symmetry

IMPACT FACTOR 2.2

CITESCORE 5.4

an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Sergei Odintsov
1. Institució Catalana de Recerca i Estudis Avançats (ICREA), Passeig Luis Companys, 23, 08010 Barcelona, Spain
2. Institute of Space Sciences (ICE-CSIC), C. Can Magrans s/n, 08193 Barcelona, Spain

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.

Author Benefits

Open Access: free for readers, with article processing charges (APC) paid by authors or their institutions.
High Visibility: indexed within SCIE (Web of Science), Scopus, CAPlus / SciFinder, Inspec, Astrophysics Data System, and other databases.
Journal Rank: JCR - Q2 (*Multidisciplinary Sciences*) / CiteScore - Q1 (General Mathematics)

Contact Us

Symmetry Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/symmetry
symmetry@mdpi.com
𝕏@Symmetry_MDPI