



*crystals*

an Open Access Journal by MDPI



## Covalent Organic Frameworks

Guest Editors:

### **Dr. Xing Han**

Department of Chemistry,  
University of California, Berkeley,  
Berkeley, CA 94720, USA

### **Dr. Tianqiong Ma**

Department of Chemistry,  
University of California, Berkeley,  
Berkeley, CA 94720, USA

Deadline for manuscript  
submissions:

**closed (28 June 2023)**

### **Message from the Guest Editors**

Covalent organic frameworks (COFs) are a new class of crystalline porous organic material possessing two- or three-dimensional structures. COFs are constructed from pre-designed organic building units connecting by strong covalent bonds between light atoms (e.g., B, C, N, O, P, Si). COFs have emerged as a material with a wealth of applications, such as sorption, separation, optoelectronics, catalysis, sensors, drug delivery, energy storage, etc.

As a crystalline material, progress in developing their chemistry often dominates the ability to crystallize them. In most cases, reversible reactions have been used to build COF materials so that self-correction can be realized in the crystal growth of COFs by chemical equilibrium. However, the strength of covalent bonding between the building units often yields polycrystalline products. Hence, structural analysis of COFs usually combines multiple characterization methods, for example, powder X-ray diffraction (PXRD) modeling and TEM techniques.

In this Special Issue, we will focus on the design, synthesis, crystal growth, properties, and emerging applications of COFs.



[mdpi.com/si/100666](https://mdpi.com/si/100666)

# Special Issue



## Editor-in-Chief

## Message from the Editor-in-Chief

Crystals are a very important class of structured material, both from a scientific and technological viewpoint. In 2011, the Nobel Prize in Chemistry was awarded to Dan Schechtman for his work on quasicrystals. Our journal already expresses in its name *Crystals* that its focus centers around all aspects of this class of materials, which has fascinated humankind from its beginning. Despite decades of research on crystals, it remains a hot and fascinating research topic.

*Crystals* is a good platform for dissemination of knowledge in this area.

## Author Benefits

**Open Access:**— free for readers, with [article processing charges \(APC\)](#) paid by authors or their institutions.

**High Visibility:** indexed within [Scopus](#), [SCIE \(Web of Science\)](#), [Inspec](#), [CAPus / SciFinder](#), and [other databases](#).

**Journal Rank:** JCR - Q2 (*Crystallography*) / CiteScore - Q2 (*Condensed Matter Physics*)

## Contact Us

---