

Special Issue

Time-Resolved X-ray Diffraction and Scattering Techniques Applied to Dynamical Processes

Message from the Guest Editors

The discovery of X-ray radiation by Röntgen in 1895 has initiated the development of powerful structural characterization techniques, including non-resonant and anomalous diffraction and scattering (WAXS, SAXS), imaging and tomography. These tools, which possess intrinsic atomic resolution, are applied routinely in Material Sciences, Physics, Chemistry and Biology. When the measurements are performed with temporal resolution, they deliver feedback in the form of “molecular movies” for a wide range of dynamical processes, such as (bio)chemical reactions, clustering or phase transitions.

This Special Issue, “Time-Resolved X-ray Diffraction and Scattering Techniques Applied to Dynamical Processes”, aims to regroup a wide collection of original studies based on the development or use of time-resolved X-ray diffraction and scattering techniques across all time scales (from ultraslow to ultrafast), and across the physical phases (gas, liquid, powder and crystal). The multidisciplinary contributions will provide an overview of the current state-of-the-art and will participate in the elaboration of scientific roadmaps that will guide future investigations.

Guest Editors

Dr. Sophie E. Canton
ELI-ALPS, Szeged, Hungary

Dr. Dmitry Khakhulin
European XFEL GmbH, Schenefeld, Germany

Dr. Qingyu Kong
Synchrotron SOLEIL, L'Orme des Merisiers, Saint-Aubin, 91192 Gif-sur-YVETTE CEDEX, France

Deadline for manuscript submissions

closed (20 December 2022)



Crystals

an Open Access Journal
by MDPI

Impact Factor 2.4
CiteScore 5.0



mdpi.com/si/51681

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

[mdpi.com/journal/
crystals](https://mdpi.com/journal/crystals)





Crystals

an Open Access Journal
by MDPI

Impact Factor 2.4
CiteScore 5.0



[mdpi.com/journal/
crystals](https://mdpi.com/journal/crystals)



About the Journal

Message from the Editor-in-Chief

Welcome to *Crystals*, the journal dedicated to the fascinating world of crystallographic research! Crystals are more than mere decorative elements; they hold the key to understanding the fundamental structure of matter. Our mission is to explore the crucial significance of this research across various fields. From medicine to technology, chemistry to geology, crystals play a vital role. Their structure provides insights into new advanced materials, innovative drugs, and groundbreaking technologies. Through *Crystals*, we delve into the microscopic world to discover solutions that will shape the future. Join us on a journey through the *Crystals*, where science merges with beauty and innovation.

Editor-in-Chief

Prof. Dr. Alessandra Toncelli

Department of Physics, University of Pisa, 56126 Pisa, PI, Italy

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, Ei Compendex, CAPus / SciFinder, and other databases.

Journal Rank:

JCR - Q2 (Crystallography) / CiteScore - Q2 (Condensed Matter Physics)