



Ultrafast X-ray Spectroscopy

Guest Editors:

Dr. Victor V. Kimberg

Dr. Nanna Holmgaard List

Dr. Thomas Fransson

Dr. Iulia Brumboiu

Dr. Valeria Lanzilotto

Dr. Oksana Travnikova

Deadline for manuscript
submissions:

closed (30 April 2023)

Message from the Guest Editors

Dear Colleagues,

It is our great pleasure to invite you to submit an article for the Special Issue of *Molecules*, titled “Ultrafast X-ray spectroscopy”.

The recent development of a new generation of X-ray radiation sources and the great improvement in time and spectral resolution of experimental instruments can open up new qualitative possibilities for studying nature in unprecedented detail, with sub-femtosecond and sub-nanometer precision. Ultrafast photoinduced electronic and nuclear dynamics, which can be uncovered with the help of X-ray spectroscopy, lies in the basics of chemical reaction control, advances of material science and technology, as well as fundamental understanding of non-linear light–matter interaction.

This Special Issue invites contributions of recent advanced theoretical and experimental studies of various ultrafast processes (electronic, nuclear, or structural dynamics) in different systems ranging from single molecules to molecular clusters, molecular liquids, and condensed matter using X-rays as the main tool.





an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Thomas J. Schmidt

Institute of Pharmaceutical
Biology and Phytochemistry,
University of Münster,
Corrensstrasse 48, D-48149
Münster, Germany

Message from the Editor-in-Chief

As the premier open access journal dedicated to experimental organic chemistry, and now in its 25th year of publication, the papers published in *Molecules* span from classical synthetic methodology to natural product isolation and characterization, as well as physicochemical studies and the applications of these molecules as pharmaceuticals, catalysts and novel materials. Pushing the boundaries of the discipline, we invite papers on multidisciplinary topics bridging biochemistry, biophysics and materials science, as well as timely reviews and topical issues on cutting edge fields in all these areas.

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](#), [MEDLINE](#), [PMC](#), [Reaxys](#), [CaPlus / SciFinder](#), [MarinLit](#), [AGRIS](#), and [other databases](#).

Journal Rank: JCR - Q2 (Chemistry, Multidisciplinary) / CiteScore - Q1 (Chemistry (miscellaneous))

Contact Us

Molecules Editorial Office
MDPI, St. Alban-Anlage 66
4052 Basel, Switzerland

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

mdpi.com/journal/molecules
molecules@mdpi.com
[X@Molecules_MDPI](https://twitter.com/Molecules_MDPI)