



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

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Deadline for manuscript
submissions:
closed (20 December 2022)

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.





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Message from the Editor-in-Chief

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