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Diffraction Imaging of Crystalline Materials at XFELs and Synchrotrons

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Message from the Guest Editors

Dear Colleagues,

The scope of this Special Issue spans several aspects of coherent diffractive imaging (CDI) of crystals with a focus on nanoscale crystalline materials. The topics covered are serial/single-crystal diffractive imaging of macromolecular/inorganic materials (e.g.: serial macromolecular crystallography, fiber-diffraction, grain-mapping in case of inorganic nanocrystals), instrumentation and sample delivery for diffractive imaging, Bragg-CDI, ptychography, holography, x-ray microscopy, projection imaging, fluctuation imaging, and ultrafast pump-probe diffractive imaging of nanocrystals, data processing for high repetition rate XFELs including the development of software and algorithms including machine learning methods. Your contribution could either be a review article condensing the recent signs of progress in these areas or a perspective focusing on future developments of a specific technique or a class of crystalline materials or even a facility/instrument, or it could be a rapid communication/full-article with original theoretical or experimental research results!



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Special Issue



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Editor-in-Chief

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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.

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