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Advanced Diffraction Techniques (X-ray, Electron, Neutron) in Materials Science

Guest Editor

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Message from the Guest Editor

Leading with the rapidly advanced techniques in neutron, synchrotron and electron diffraction, materials-probing techniques have gone through many developments that contribute to fruitful new discoveries in material science. Higher-power beams, larger-area detectors, better resolution in situ characterization capabilities. developments in multi-extreme sample environments and other advances in the diffraction instruments have allowed for a more in-depth probing of crystal and magnetic structures. including in disordered materials. nanostructure systems, macromolecular systems. heterostruture systems, spacial-resolved and timelyresolved changes in structures under various sample environments, including extreme conditions. This Special Issue is focused on the advances in advanced diffraction techniques (X-ray, electron, neutron) in materials science, to recognize the achievements in this field.

- Diffraction study in materials systems
 - Films, surface interactions
 - Spacial-resolved and timely-resolved measurements
 - Nanostructure materials, complex structure and disordered materials
 - Diffuse scattering
 - Materials under extremes
 - Macromolecular systems













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Message from the Editor-in-Chief

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