

Special Issue

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

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, heterostructure systems, spacial-resolved and timely-resolved 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

Guest Editor

Dr. Yan Wu
Oak Ridge National Laboratory, Oak Ridge, TN, USA

Deadline for manuscript submissions

closed (20 July 2023)



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

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About the Journal

Message from the Editor-in-Chief

Materials (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. *Materials* provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

Editor-in-Chief

Prof. Dr. Maryam Tabrizian

1. Department of Biomedical Engineering, Faculty of Medicine and Health Sciences, McGill University, Montreal, QC H3A 2B6, Canada
2. Faculty of Dentistry and Oral Health Sciences, McGill University, 3640 Rue University, Montreal, QC H3A 0C7, Canada

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