Special Issue

Advances in Transmission Electron Microscopy for the Study of Soft and Hard Matter

Message from the Guest Editor

Transmission Electron Microscopy (TEM) enables to study the structural, morphological, electronic, magnetic, and chemical properties of matter at atomic resolution. The main reason for the success of electron microscopy was, and still is, the ability of the scientific community to develop a plethora of TEM methodologies capable to solve new puzzling problems posed by society's scientific and technological demands. This Special Issue aims to focus on some important advances in TEM methodologies, Scanning TEM (STEM), and relevant TEM/STEM-based spectroscopies. There are some specific areas of interest that I believe will be of growing importance in the future and fit the scope of this Special Issue: electron microscopy on radiation-sensitive organic and inorganic matter, time-resolved TEM, coherent diffraction imaging in TEM, electron holography with a focus on low-dose approaches, electron tomography, electron energy-loss magnetic chiral dichroism (EMCD), methods to maximize and quantify the information that can be extracted from a TEM/STEM experiment, methods to complement cryo-TEM experiments, thus overcoming the limitations related to averaged imaging.

Guest Editor

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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.

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