Special Issue

In Situ Characterization of Functional Materials via Electron Microscopy Techniques

Message from the Guest Editor

We invite researchers to submit their work on functional materials under different environments, including high temperatures, pressures, and electric fields. This Special Issue aims to encompass a broad range of functional materials, such as ferroelectrics, piezoelectrics, catalysts, and energy storage materials, among others. Contributions should focus on in situ electron microscopy techniques, such as TEM and SEM. The Issue aims to provide a valuable discussion on materials with high temporal and spatial resolution to capture the dynamic processes of functional materials. Moreover, we particularly welcome works that address the challenges associated with studying materials in extreme environments as they offer valuable insights for future research endeavors. In the practice of researchers sharing their findings, they contribute to the advancement of our understanding of functional materials and the development of in situ characterization techniques. **Keywords:**

- in situ spectroscopy and microscopy
- extreme environments
- temporal and spatial resolution

Guest Editor

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Deadline for manuscript submissions

closed (10 March 2024)

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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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