







an Open Access Journal by MDPI

Novel Acquisition and Analysis Methods for X-ray Micro-CT in Materials Sciences

Guest Editors:

Prof. Veerle Cnudde

Ghent University – PProGRess (UGCT), Belgium
Chairholder "Porous media Imaging techniques" Department of Earth Sciences, Utrecht University, Utrecht, The Netherlands

Prof. Matthieu N. Boone

Ghent University – Radiation Physics (UGCT), Belgium

Deadline for manuscript submissions:

closed (30 September 2021)

Message from the Guest Editors

Dear Colleagues,

In recent years, high-resolution X-ray computed tomography (micro-CT) has evolved drastically, both in lab environments, such as at synchrotron facilities, and in terms of data acquisition, as well as data analysis. With this Special Issue, we want to create an overview of these recent developments applied on materials research. The focus is on the methodological perspective of any of the aspects of X-ray micro-CT imaging illustrated with an example in materials sciences, as well as on novel applications of recent innovations in micro-CT imaging.

Topics may include:

- X-ray phase contrast and/or dark-field imaging;
- Spectral and hyperspectral X-ray micro-CT;
- Dual-energy X-ray imaging;
- High-speed or dynamic X-ray micro-CT;
- In-situ or operando X-ray imaging;
- Micro-CT at novel X-ray sources;
- 3D analysis;
- Digital volume correlation;
- Conversion to numerical models.













an Open Access Journal by MDPI

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

Message from the Editor-in-Chief

Materials (ISSN 1996-1944) was launched in 2008. The iournal covers twenty-five comprehensive biomaterials, energy materials, advanced composites. advanced materials characterization, porous materials, manufacturing processes and systems. 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.

Author Benefits

Open Access: free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility: indexed within Scopus, SCIE (Web of Science), PubMed, PMC, Ei Compendex, CaPlus / SciFinder, Inspec, Astrophysics Data System, and other databases.

Journal Rank: JCR - Q2 (*Metallurgy & Metallurgical Engineering*) / CiteScore - Q2 (*Condensed Matter Physics*)

Contact Us