

Special Issue

Textures and Anisotropy in Advanced Materials

Message from the Guest Editor

The anisotropic properties of polycrystalline aggregates are strongly influenced by the preferred orientation (texture) of their constituting crystals. Beneficiation of such textures is conducted in order to optimize macroscopic properties in specific directions. Usual QTA, using X-ray, electron, and neutron scattering, progressively incorporated the characterization of residual stresses, crystal defects, and their variations in samples, giving rise to the new concept of Combined Analysis of the actual material. Additionally, the representation and simulation of the resulting properties, holds an important place in the understanding of a material's behavior. This Special Issue aims to review recent aspects of texture application to advanced materials of all kinds, from anisotropic elaboration techniques to resulting anisotropic properties, and via their scattering and spectroscopic characterization and simulation. New process developments, characterization techniques, simulations and databases linked to anisotropy are targeted.

Guest Editor

Prof. Dr. Daniel Chateigner

CRISMAT-CNRS Laboratory, Université de Caen Normandie, 14000 Caen, France

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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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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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