

## Special Issue

# Design and Processing of Piezoelectric/Ferroelectric Ceramics

### Message from the Guest Editor

Piezoelectric and ferroelectric ceramics have numerous applications such as ultrasonic motors, sensors and capacitors, while new applications such as energy harvesting and high-temperature capacitors are constantly being developed. The design and processing of these materials is critical to their function. Piezoelectric and ferroelectric ceramics can be designed on many overlapping levels: at the microstructural level (single crystals, polycrystalline ceramics, textured ceramics); at the ferroelectric domain level (domain engineering, slush polar structure, normal/relaxor ferroelectrics, incipient ferroelectric and electrostrictive materials); at the structural level (phase boundary engineering); and at the compositional level (dopant addition, solid solution formation). The processing of these materials includes conventional sintering, multilayer processing (multilayer capacitors and actuators), thick/thin film processing, pressure-assisted sintering (hot pressing, spark plasma sintering) and novel techniques such as flash sintering and cold sintering. The Special Issue will collate the latest research on these topics in both lead-based and lead-free materials

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### Guest Editor

Prof. Dr. John G. Fisher

School of Materials Science and Engineering, Chonnam National University, Gwangju 61186, Republic of Korea

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### Deadline for manuscript submissions

closed (20 January 2025)



## Materials

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*Materials*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[materials@mdpi.com](mailto:materials@mdpi.com)

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### Message from the Editorial Board

*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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### Editors-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

Prof. Dr. Yuguang Ma

State Key Laboratory of Luminescent Materials and Devices, South China University of Technology, Guangzhou 510640, China

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