



## Ferroelectric Materials and Piezoelectric Actuators

Guest Editors:

**Prof. Dr. Junhui Hu**

State Key Lab of Mechanics and Control of Mechanical Structures, Nanjing University of Aeronautics and Astronautics, Nanjing 210016, China

**Prof. Dr. Tadej Rojac**

Electronic Ceramics Department, Jozef Stefan Institute, Jamova cesta 39, 1000 Ljubljana, Slovenia

**Dr. Julian Walker**

Department of Materials Science and Engineering, NTNU Norwegian University of Science and Technology, Sem Sælands vei 12, 7034 Trondheim, Norway

Deadline for manuscript submissions:

**closed (31 August 2021)**

### Message from the Guest Editors

Dear Colleagues,

Ferroelectric materials have wide promising applications in computer RAM, sensing, imaging, chemical reaction catalyses, precision driving motors, micro/nano/molecular manipulations, energy harvesting, transduction, etc.

This Special Issue covers the latest advances in ferroelectric materials, piezoelectric actuators, and their applications.

Thematic areas include (i) the relationships between the processing, structure, microstructure, and functional response of ferroelectric and related materials in the form of bulk polycrystalline ceramics, single crystals, and thick or thin films, (ii) novel functionalities or a combination of properties oriented toward new application areas, and (iii) the modeling and characterization of piezoelectric materials and their performance in a wide range of devices and applications.

Prof. Dr. Junhui Hu  
Prof. Dr. Tadej Rojac  
Dr. Julian Walker  
*Guest Editors*





an Open Access Journal by MDPI

## Editors-in-Chief

### Prof. Dr. Kenji Uchino

Electrical Engineering, Emeritus  
Academy Institute, Pennsylvania  
State University, University Park,  
PA 16802, USA

### Prof. Dr. Norman M. Wereley

Department of Aerospace  
Engineering, University of  
Maryland, 3179J Martin Hall,  
College Park, MD 20742, USA

## Message from the Editorial Board

We are just entering the Next Wave of Technology (NWT) where actuators will play the same role as the computer chip did for computers/social media approximately four decades ago. Just in the U.S., production of \$1 trillion year of electromechanical systems (vehicles, orthotics, manufacturing cells, freight trains, aircraft, etc.) will be impacted by the NWT, all driven by actuators. Five key trends can be found for the future perspectives: “Performance to Reliability”, “Hard to Soft”, “Macro to Nano”, “Homo to Hetero” and “Single to Multi functional”. We invite papers that primarily impact these economic sectors; those illustrating basic scientific principles are also welcome.

## Author Benefits

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

**High Visibility:** indexed within SCIE (Web of Science), Scopus, Inspec, and other databases.

**Journal Rank:** JCR - Q2 (Engineering, Mechanical) / CiteScore - Q1 (Control and Optimization)

## Contact Us

---

Actuators Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/actuators](http://mdpi.com/journal/actuators)  
[actuators@mdpi.com](mailto:actuators@mdpi.com)  
[X@Actuators\\_MDPI](https://twitter.com/Actuators_MDPI)