Special Issue

Ultrasonic Transducers for Biomedical Applications

Message from the Guest Editors

Ultrasound transducer is one of the most critical components of any ultrasonic systems, which has been widely utilized in biomedical applications for decades, including imaging, therapeutics, blood flow measurement, and cell separation. In recent years, there have been continual advances in ultrasound transducer technology, which helps prevent diseases and improve quality of life. In this Special Issue, original research articles and reviews are welcome. Research areas may include (but not limited to) the following:

- Micromachined ultrasonic transducers;
- High intensity focused ultrasound (HIFU) transducers;
- Flexible and wearable ultrasonic transducers;
- 1-3 piezocomposite transducers;
- Capacitive micromachined ultrasonic transducers (CMUT)
- Piezoelectric micromachined ultrasonic transducers (PMUT):
- Thin film ultrasonic transducers;
- Biomedical applications of ultrasonic transducers.

Guest Editors

Dr. Chang Peng

School of Biomedical Engineering, ShanghaiTech University, Shanghai 201210, China

Dr. Yangbin Liu

School of Information Science and Technology, Northwest University, Xi'an 710127. China

Deadline for manuscript submissions

20 December 2025



Actuators

an Open Access Journal by MDPI

Impact Factor 2.3 CiteScore 4.3



mdpi.com/si/207280

Actuators
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
actuators@mdpi.com

mdpi.com/journal/actuators





an Open Access Journal by MDPI

Impact Factor 2.3
CiteScore 4.3



About the Journal

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.

Editors-in-Chief

Prof. Dr. Kenji Uchino

Emeritus Academy Institute, The 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

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)

