Special Issue

Perovskite Materials and Devices: Past, Present and Future

Message from the Guest Editor

Conventional perovskite is a kind of microcrystalline material with a three-dimensional structure developed based on the natural mineral calcium titanate (CaTiO3). Recently, the conventional perovskite derivatives of metal halide perovskites have drawn tremendous attention in the preparation of high-performance optoelectronic devices, such as photovoltaics, light-emitting diodes (LEDs), photodetectors, lasers and so on, benefitting from outstanding optical and electrical properties, such as tunable bandgap, high photoluminescence quantum yield (PLQY), long carrier diffusion length, high charge mobility and good solution processability. Great achievements have been made in perovskite photovoltaics and LEDs with high photon-to-current and/or current-to-photon conversion efficiency approaching the theoretical limit. Further, substantial efforts are being made to improve the operational stabilities of perovskite photovoltaics and LEDs for future practical applications, while there is also a concern that the high device performances are mainly achieved with lead-based perovskites. New lead-free perovskites with excellent optoelectronic properties are highly desired.

Guest Editor

Dr. Zhenwei Ren

School of Optoelectronic Science and Engineering & Collaborative Innovation Center of Suzhou Nano Science and Technology, Soochow University, Suzhou 215006, China

Deadline for manuscript submissions

closed (15 September 2023)

Micromachines

an Open Access Journal by MDPI

Impact Factor 3.0
CiteScore 6.0
Indexed in PubMed

mdpi.com/si/165853

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

mdpi.com/journal/micromachines

Micromachines

an Open Access Journal by MDPI

Impact Factor 3.0
CiteScore 6.0
Indexed in PubMed

mdpi.com/journal/micromachines

About the Journal

Message from the Editor-in-Chief

You are invited to contribute research articles or comprehensive reviews for consideration and publication in *Micromachines* (ISSN 2072-666X). *Micromachines* is published in the open access format. Research articles, reviews and other contents are released on the internet immediately after acceptance. The scientific community and the general public have unlimited free access to the content as soon as it is published. As an open access journal, *Micromachines* is supported by the authors or their institutes by payment of article processing charges (APC) for accepted papers. We are pleased to welcome you as our authors.

Editor-in-Chief

Prof. Dr. Ai-Qun Liu
1. Department of Electrical and Electronic Engineering, The Hong Kong Polytechnic University, Hong Kong, China
2. School of Electrical and Electronic Engineering, Nanyang Technological University, Singapore 639798, Singapore

Author Benefits

High Visibility:

indexed within Scopus, SCIE (Web of Science), PubMed, PMC, Ei Compendex, dblp, and other databases.

Journal Rank:

JCR - Q2 (Instruments and Instrumentation) / CiteScore - Q1 (Mechanical Engineering)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 17.2 days after submission; acceptance to publication is undertaken in 1.9 days (median values for papers published in this journal in the first half of 2025).

MDPI