

Special Issue

Recent Advances in Integrated Non-reciprocal Devices

Message from the Guest Editor

Non-reciprocal devices are ubiquitously used in modern communication, radar and sensing technologies. Traditionally, these non-reciprocal components are realized using ferrites. However, these ferrites-based non-reciprocal devices are bulky, expensive and require high deposition temperatures for fabrication, thereby making them incompatible with modern-day semiconductor fabrication processes. Recognizing the need for integrated non-reciprocal components and their potential to disrupt the technologies ranging from communication, radar, optics, medial and quantum computing. This Special Issue requests submissions pertaining to this research goal, in order to employ materials and/or techniques to integrate non-reciprocal components to semiconductor media. Topics of interest for this Special Issue include but are not limited to RF, millimeter wave and optical non-reciprocal devices based on time-modulation, non-linearity, active current/voltage transistors, and non-conventional material/fabrication processes that can be integrated with semiconductor.

Guest Editor

Dr. Aravind Nagulu

Preston M. Green Department of Electrical & Systems Engineering,
Washington University, St. Louis, MO 63130, USA

Deadline for manuscript submissions

closed (31 July 2023)



Micromachines

an Open Access Journal
by MDPI

Impact Factor 3.0
CiteScore 6.0
Indexed in PubMed



mdpi.com/si/152535

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

[mdpi.com/journal/
micromachines](https://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](https://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.

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 16.8 days after submission; acceptance to publication is undertaken in 1.9 days (median values for papers published in this journal in the second half of 2025).