Special Issue

Resistive Memory Characterization, Simulation, and Compact Modeling

Message from the Guest Editors

Resistive memories (RRAM) are outstanding electron devices in the electronics realm. Resistive memories are key devices in this Special Issue where the most representative features of this technology will be tackled from different perspectives. Therefore, the scope will range from materials and device processing technologies to circuit and applications. We will pay special attention to simulations, including all the different approaches that can be employed to describe device physics and internal variables. In addition, compact modeling will be addressed, along with advanced electrical characterization methodologies and reliability studies. The topics of interest include but are not limited to:

- Fabrication of resistive switching materials, devices, and advanced material characterization
- Electrical characterization techniques and reliability for resistive memories
- Resistive memories physical simulation
- Resistive memory compact modeling
- Memristor modeling approach
- Emerging device applications: neuromorphic devices and circuits, hardware security, digital logic circuits, etc.

https://www.mdpi.com/journal/electronics/special_issues/Resistive_Memories

Guest Editors

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Deadline for manuscript submissions

closed (31 August 2022)

Electronics

an Open Access Journal by MDPI

Impact Factor 2.6
CiteScore 6.1

mdpi.com/si/74366

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About the Journal

Message from the Editor-in-Chief

Electronics is a multidisciplinary journal designed to appeal to a diverse audience of research scientists, practitioners, and developers in academia and industry. The journal is devoted to fast publication of latest technological breakthroughs, cutting-edge developments, and timely reviews of current and emerging technologies related to the broad field of electronics. Experimental and theoretical results are published as regular peer-reviewed articles or as articles within Special Issues guest-edited by leading experts in selected topics of interest.

Editor-in-Chief

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manuscripts are peer-reviewed and a first decision is provided to authors approximately 16.8 days after submission; acceptance to publication is undertaken in 2.4 days (median values for papers published in this journal in the first half of 2025).