Special Issue

Steep-Switching Devices

Message from the Guest Editor

The continuous scaling of transistors has significantly improved the device performance and density, but it has resulted in soaring-up power density in integrated circuits. To realize the hyper-connected society (smart cities), ultra-low-power devices for implementing all the infrastructures in smart cities are desperately needed. The main objective of this Special Issue is to accumulate prominent papers which unveil/propose various properties of steep-switching devices and alleviate critical issues from the devices. The interests of this Special Issue include, but are not limited to:

- Negative-capacitance FETs
- Tunnel FETs
- Phase-transition FETs
- Nanoelectromechanical relays
- Feedback FETs
- Ultra-low-power applications
- Neuromorphic applications using steep-switching devices
- Device structures of steep-switching transistors
- Materials for steep-switching devices
- Fabrication of steep-switching devices

Guest Editor

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Deadline for manuscript submissions

closed (30 September 2020)

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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).