Special Issue

New Advances in Semiconductor Devices/Circuits

Message from the Guest Editor

Recent advances in SiGe- and InP-based HBT technology have enabled the realization of monolithic microwave-integrated circuits (MMICs) including, for example, LNA, power amplifiers (PAs), MMIC receiver front-end devices, oscillators, and frequency multipliers. Based on InP HBT, a MMIC PA operating at G-band and yielding a 8.9dB gain and 90mW output power was realized. SiGe and InP HBTs are among the fastest transistors available today. This Special Issue welcomes research papers that describe recent advances in semiconductor devices and circuits, not only limited to InP and SiGe HBTs, but also addressing advanced CMOS and AIIIBV. The scope of this Special Issue includes, but is not limited, to the following topics: (1) High-frequency power amplifiers, LNAs, frequency multipliers, noise sources. (2) Frequency multipliers. (3) THz detection. (4) High-frequency noise in advanced semiconductor devices. (5) Harmonic distortion, load pull, device linearization. (6) Advanced-technology semiconductor devices. (7) Compact modeling.

Guest Editor

Dr. Paulius Sakalas

1. ATV Automatisierung Technik Voigt, Heilbronner Str.17, 01089 Dresden, Germany
2. MPI Corporation, Advanced Semiconductor Test Division, Chungho St. 155, Chupei, Hsinchu 302, Taiwan

Deadline for manuscript submissions

15 June 2025

Electronics

an Open Access Journal by MDPI

Impact Factor 2.6
CiteScore 5.3

mdpi.com/si/179527

Electronics
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
electronics@mdpi.com

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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

Prof. Dr. Flavio Canavero
Department of Electronics and Telecommunications, Politecnico di Torino, 10129 Torino, Italy

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