

Call for Papers

Special Section on Fundamentals and Applications of Advanced Semiconductor Devices

The IEICE (Institute of Electronics, Information and Communication Engineers) Transactions on Electronics announce a Special Section on “Fundamentals and Applications of Advanced Semiconductor Devices” to be published in **September 2025**. As digital processing units penetrate deeply into information society, the demand for high-performance semiconductor devices is kept growing. The purpose of this Special Section is to discuss various aspects of advanced semiconductor devices from fundamental physics to circuit applications. These include Si-based MOSFETs and bipolar transistors, compound semiconductor devices, and nano-scale devices.

1. Scope

Contributions are solicited in the following areas (but are not limited to these areas):

- Advanced integration technologies
- ULSI process technologies
- High-speed devices and circuits
- Power devices
- Wide bandgap materials and devices
- Novel devices and circuits
- Semiconductor devices applications
- MOS/bipolar devices technologies
- Compound semiconductor materials and devices
- Microwave/Millimeter-wave devices and circuits
- TFT materials, devices and circuits
- Quantum effect/single electron devices
- Characterization and simulation
- Sensors and displays

2. Submission Instructions

The deadline for submission is extended to August 31, 2024. Types of manuscripts should be either “Paper (within 8 pages)” or “Brief Paper (within 4 pages).” Manuscripts should be prepared according to the “Information for Authors,” the latest version of which is available at: https://www.ieice.org/eng/shiori/mokuji_es.html.

This special section will accept only papers by electronic submission. Prospective authors are requested to follow the submission procedure described below.

Submit a paper and transfer copyright of the paper using the IEICE Web site

https://review.ieice.org/regist/regist_baseinfo_e.aspx. Authors should choose the [Special-FU] *Fundamentals and Applications of Advanced Semiconductor Devices* as a "Issue/Section" on the online screen. Do not choose [Regular-EC].

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* IEICE Trans. on Electronics requires authors to cite 30 or more references for full paper and 15 or more references for brief paper.

* All papers published in or after August 2025 issue are opened to all readers in the world through J-STAGE.