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## **Nanodevices—Technologies and Applications in Semiconductor Industry**

Guest Editors:

**Prof. Dr. Yiming Li**

**Prof. Dr. Yao-Jen Lee**

**Prof. Dr. Seiji Samukawa**

Deadline for manuscript  
submissions:

**closed (31 October 2023)**

### **Message from the Guest Editors**

The SI is focused on emerging semiconductor device technology initiating from FETs, high-electron mobility transistors (HEMTs), tunneling FETs (TFETs), and so on through novel structural and material options through modeling as well as fabrication. It is worth pointing that the material choices in device technologies have been advanced with the latest research findings by tsmc, Taiwan (Semiconductor industry) and MIT, USA (highly reputed university). Having said that, the several novel implementations on device options is always beneficial and needed for the emerging technology nodes in semiconductor industry. Here, 3D stacked multi-bridge vertical channel complementary FET, so-called the CFET with gate-all-around has also been invented to continue Moore's law. To do this, a method of manufacturing semiconductor devices and advanced processing equipment's are needed. Therefore, this SI focuses on,

- CMOS platform device technologies (FETs & CFETs, HEMTs, TFETs, etc.);
- Process module innovations and progresses in device technology;
- Material engineering and implementations in device technology;
- Device to circuit interactions and applications.



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# Special Issue



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## Editor-in-Chief

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## Message from the Editor-in-Chief

Nanoscience and nanotechnology are exciting fields of research and development, with wide applications to electronic, optical, and magnetic devices, biology, medicine, energy, and defense. At the heart of these fields are the synthesis, characterization, modeling, and applications of new materials with lower nanometer-scale dimensions, which we call “nanomaterials”. These materials can exhibit unusual mesoscopic properties and include nanoparticles, coatings and thin films, metal-organic frameworks, membranes, nano-alloys, quantum dots, self-assemblies, 2D materials such as graphene, and nanotubes. Our journal, *Nanomaterials*, has the goal of publishing the highest quality papers on all aspects of nanomaterial science to an interdisciplinary scientific audience. All of our articles are published with rigorous refereeing and open access.

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