Special Issue

Nanomaterials for Electron Devices

Message from the Guest Editors

Electron devices are widely used in our daily lives, which are the enabling technology for the 4th Industrial Revolution, Artificial Intelligence, Cloud Computing, and Autonomous Drives. Nanomaterials are the key technologies for electron devices and integrated circuits (ICs), which have been implemented in MOS transistors, dynamic random-access memory (DRAM), and three-dimensional (3D) NAND flash memory. Nanomaterials will be even more important as electron devices downscale to sub-10 nm nodes for gate-all-around (GAA) nanosheet transistors, ferroelectric DRAM, Resistive RAM, and emerging nonvolatile memories. After reaching the downscaled quantum-mechanical and technology limits, nanomaterials will still be crucial for monolithic 3D IC and brain-mimicking IC hardware. In this Special Issue titled "Nanomaterials for Electron Devices" in the journal *Nanomaterials*, we invite potential authors to submit papers on nanomaterials used for MOSFET, DRAM, 3D NAND flash memory, and thin-film transistors, as well as frontier GAA nanosheet transistors, emerging nonvolatile memories, and future monolithic 3D IC and brain-mimicking IC hardware.

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Deadline for manuscript submissions

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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. We are proud of our increasing impact factor and ability to provide rapid decisions to authors.

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