

Special Issue on
**Advances in Carbon-Based Nanomaterials for
Multifunctional Electronic Devices**

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Nanomaterials are important in electronic devices due to the novel optical, structural, magnetic, and electronic properties of the nanomaterials. Therefore, advancements in the synthesis and characterization of these nanomaterials are essential in order to design new multifunctional electronic devices ranging from solar cells to high-speed transistors. Nanomaterials can be synthesized by various physical and chemical routes, ranging from pulsed laser deposition to hydrothermal techniques. The integration of these nanomaterials with semiconducting substrates is beneficial for a range of highly efficient electronic devices.

The aim of this Special Issue is to welcome both original research and review articles featuring significant advancements in the characterization of novel carbon-based nanomaterials for multifunctional electronic devices.

Potential topics include but are not limited to the following:

- ▶ Synthesis of novel carbon-based nanomaterials by physical and/or chemical routes
- ▶ Structure-property correlations of carbon-based nanomaterials by using TEM, SEM, EELS, KPFM, AFM, XPS, and Raman spectroscopy
- ▶ Designs of multifunctional electronic devices (solar cells, optoelectronics, multiferroics, sensors, photodetectors, transistors, and water-splitting) that include the use of nanomaterials
- ▶ Applications of carbon-based nanomaterials in biotechnology with a focus on biosensors
- ▶ Theoretical and computational studies of nanomaterials focusing on their electronic and biological interactions

Authors can submit their manuscripts through the Manuscript Tracking System at <https://mts.hindawi.com/submit/journals/jnm/aemn/>.

Papers are published upon acceptance, regardless of the Special Issue publication date.

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