Special Issue

Nanomaterials in Electronics and Optoelectronics: Towards Next-Generation Devices

Message from the Guest Editor

This collection of articles delves into the groundbreaking applications of nanomaterials, emphasizing their pivotal role in advancing modern technology. It covers the development of skin electronics, providing innovative solutions for real-time health monitoring through seamless skin integration. We explore the potential of implantable systems utilizing bioresorbable nanomaterials, designed to safely dissolve in the body, reducing long-term health risks and environmental impact. It also highlights the emerging field of nanogenerators, which convert mechanical energy into electrical energy, boosting the efficiency and sustainability of wearable and implantable devices. Furthermore, we discuss the integration of artificial intelligence with nanomaterial-based electronics, enhancing device performance, data analysis, and predictive maintenance. This synergy between nanotechnology and AI is paving the way for smarter, more responsive, and sustainable electronic and optoelectronic devices. I invite you to explore this Special Issue, showcasing the transformative potential of nanomaterials in shaping the future of technology.

Guest Editor

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Message from the Editorial Board

Materials (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. *Materials* provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

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