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The Research Related to Nanomaterial Cold Cathode

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Message from the Guest Editor

Dear Colleagues,

Nanomaterial cold cathodes have potential applications in various vacuum microelectronic devices, including microwave tubes, X-ray sources, detectors, and energy-conversion devices. This Special Issue aims to encourage researchers to submit reviews or original articles related to the research studies related to field emission from 1-D or 2-D nanomaterials and its applications as cold cathode in devices. The scope of the Special Issue includes: 1) Preparation of 1-D and 2-D nanomaterials for field emission cold cathode application; 2) Field electron emission properties of nanomaterials; 3) Application of nanomaterials as cold cathode in vacuum nanoelectronic or optoelectronic devices. See more information in

<https://www.mdpi.com/si/76886>

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Guest Editor



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Special Issue



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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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