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## Nanoelectronics: Concepts, Theory and Modeling

Guest Editor:

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Deadline for manuscript  
submissions:

**closed (17 July 2020)**

### Message from the Guest Editor

Dear Colleagues,

In this Special Issue, we would like to invite you to submit an original research paper or review paper on concepts, theory, and modeling of nanoscale materials including analytical and computational modeling of nanoscale materials and junctions, single molecule electronics, quantum coherence and entanglement, interaction effects in nanoscale transport, spintronics, nanoscale energy harvesting using thermoelectricity and piezoelectricity, quantum and phonon interference effects, hybrid graphene nanostructures, van-der Waals heterostructures and nanoribbons.

Dr. Hatef Sadeghi

*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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