Special Issue

Characterization of Nanostructures and Heterostructures

Message from the Guest Editor

The tremendous advances in material science that we have witnessed in recent decades are accompanied with advances in both preparation and characterization of materials on the nanoscale. Nanostructures and heterostructures often show modified, sometimes even opposite properties when compared to the same materials in bulk. The characterization of devices based on nanoscale materials ranges from detecting macroscopic phenomena (voltage, tunneling current or magnetization) to microscopic characterization with scanning microscopy (STM, AFM, etc.) and electron microscopy (SEM, TEM, STEM). On the other hand, nanoparticles are also used extensively in medicine applications for drug delivery, diagnostics, wound treatment or cell repair. For devices using nanorods or core–shell particles, microscopic characterization is an essential tool.

This Special Issue is dedicated to the characterization of materials that are confined to the nanometric scale, and for the audience ranging from spintronics to drug design.

It is my pleasure to invite you to submit a manuscript for this Special Issue. Full papers, communications, and reviews are all welcome.

Guest Editor

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Deadline for manuscript submissions

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Message from the Editor-in-Chief

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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