

Special Issue

Advanced Nanomaterials in Terahertz and Microwave Technology

Message from the Guest Editor

Nanomaterials are materials with typical size features in the lower nanometer size range and characteristic mesoscopic properties. These properties make them attractive objects of fundamental research and potential new applications. The microwave (1–50 GHz) and terahertz (THz) wave ranges (0.1–10 THz), lie naturally at the boundaries between optics and electronics, are now increasingly considered to be under the same umbrella, and researchers in both areas borrow and adapt successful concepts from each other. The novel optical and electronic properties of nanomaterials offer much promise to the field of THz and microwave science and technology. This Special Issue of *Nanomaterials* aims to provide an overview of and recent progress in advanced nanomaterials in THz and microwave technology. Potential topics include but are not limited to: (1) synthesis, fabrication, properties, and applications of advanced nanomaterials at the THz and microwave region; (2) control of THz and microwave in nanomaterials; (3) THz and microwave plasmonic nanomaterials, switching and bistability; (4) THz and microwave plasmonic metamaterials and metasurface.

Guest Editor

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About the Journal

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.

Editor-in-Chief

Prof. Dr. Eugenia Valsami-Jones

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