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## Infrared–Controlled Nanomaterials

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### **Message from the Guest Editor**

Dear Colleagues,

Nanomaterials with emission in the near-infrared (NIR) part of the spectrum (700–2500 nm) (termed NIR-LEDs) support a large variety of applications, such as optical diagnosis and biomedical imaging, optical communication, remote sensing, data storage, etc. This Special Issue aims to cover various aspects of infrared nanomaterials, from their composition and design to their photophysical and luminescence properties and emerging applications. It is expected to provide a comprehensive overview of the current state of research in the field of infrared-controlled nanomaterials, while also highlighting the opportunities and challenges that lie ahead. We believe that this Special Issue will serve as a valuable resource for scientists, engineers, and researchers working in this area, offering insights into the latest developments and future directions in this exciting and rapidly advancing field. See more: <https://www.mdpi.com/si/196416>

Dr. Yakun Wang  
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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