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Advanced Nanocomposites for Sensing Applications

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Message from the Guest Editors

In the last two decades, advanced nanocomposites, which are multiphase materials containing two or more distinctly dissimilar components mixed at the nanometric scale, have shown great prospects in various sensing applications, including physical and biochemical sensing. Nanocomposites surprisingly show unique and sometimes enhanced properties (e.g., mechanical, thermal, electrical, optical, etc.) which are not possessed by raw materials. Importantly, these superior properties of advanced nanocomposites can be tuned by varying the components of raw materials and adjusting the synthesis process. Furthermore, the emergence of new nanomaterials with outstanding physical and chemical properties has opened up a broader road for the sensing application of advanced nanocomposites. This Special Issue focuses on the development of advanced nanocomposites for various sensing applications, including (but not limited to) physical sensors (e.g., strain, optical, acceleration, magnetic, etc.) and chemical sensors (e.g., gas, humidity, chemical ion, etc.). Both original research articles and comprehensive review articles are welcome.



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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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