Special Issue

Nanomaterials for Optical Fiber Sensing

Message from the Guest Editor

One of the most promising fields in optical fiber sensing is the utilization of nanomaterials, a specialized area that has gained significant attention due to the unique properties of nanoparticles, which can enhance the sensitivity, selectivity, and range of optical fiber sensors. The utilization of nanomaterials in optical fiber sensing clearly shows how nanoscale features can significantly influence the properties of a material. Nanoparticles, with their large surface area and high surface-to-volume ratio, offer improved performance compared to bulk materials. For instance, silver nanoparticles have been shown to enhance the sensitivity of refractive index sensors, while graphene oxide has been employed in chemical and biological sensors due to its exceptional electrical and mechanical properties. In this Special Issue of *Nanomaterials*, we aim to showcase the latest advancements in the integration of nanomaterials into optical fiber sensors. We have invited contributions from leading experts in the field to provide an overview of the current state of the art.

Guest Editor

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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. We are proud of our increasing impact factor and ability to provide rapid decisions to authors.

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