

Special Issue

Diverse Nanomaterials Applied in Bio- and Electrochemical Sensing

Message from the Guest Editor

The field of nanotechnology has witnessed significant advancements in recent years, leading to the development of diverse nanomaterials with promising applications in bio- and electrochemical sensing. These nanomaterials possess unique properties such as a high surface-area-to-volume ratio, excellent conductivity, and exceptional catalytic activity, making them suitable candidates for sensing applications. One of the extensively studied nanomaterials is carbon nanotubes (CNTs), which have shown remarkable potential in biosensing. CNTs can be utilized as nanoelectrodes for detecting a range of biomolecules, including DNA, proteins, and enzymes. Their large surface area allows for increased analyte adsorption, resulting in enhanced sensitivity. Moreover, CNTs can be functionalized with various biomolecules, such as antibodies and aptamers, enabling selective detection of target analytes. In summary, diverse nanomaterials, including carbon nanotubes, metal nanoparticles, and semiconductor nanomaterials, have been extensively studied and applied in bio- and electrochemical sensing.

Guest Editor

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Message from the Editor-in-Chief

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