







Special Issue Reprint

Novel Nanomaterials and Nanotechnology: From Fabrication Methods and Improvement Strategies to Applications in Biosensing and Biomedicine

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The aim of this special issue is to showcase significant advancements in biosensors, emphasizing the innovative use of nanomaterials and aptasensors for bio-detection and food safety. This Special Issue presents diverse studies, including optical differential sensing platforms, PCR-independent RNA detection biosensors, and cancer biomarker identification strategies. Key contributions emphasize the enhancement of sensitivity using nanomaterials such as mesoporous silica and Au@Ag nanorods, along with nucleic acid functional materials like DNA hydrogels. Additionally, the development of rapid and selective sensors for detecting pathogens and nutrients is highlighted. This collection serves to inspire further research in biosensing technologies to improve food safety and public health.





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