

Special Issue

Diverse Biomolecular Probes in the Development of Single-Molecule Biosensors

Message from the Guest Editors

Biomolecular probes occupy a pivot role in the development of single-molecule biosensors, which have been explored for the purpose of unveiling biological processes and physiological states. These probes are well designed to integrate with a range of techniques, including fluorescence, electrochemiluminescence, and nanopores. They offer the selective identification and sensitive quantification of target molecules, thereby improving the performance of biosensors. In recent years, a variety of biomolecular probes, including fluorescent dyes, quantum dots, and aptamers, have been exploited for various purposes, significantly propelling progress in the fields of clinical diagnosis, drug development, and metabolic research. We invite original articles and comprehensive reviews that focus on the development and application of innovative biomolecular probes in the field of single-molecule biosensing. We aim to present the latest advancements in the application of biomolecular probes for investigating biological processes and physiological states.

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