Special Issue

Single-Molecule Protein Dynamics

Message from the Guest Editors

Proteins play a critical role in maintaining every aspect of cell survival and metabolism. The inherent dynamics of proteins in their native functional state, as well as when folding/unfolding and forming interactions, results in an ensemble of protein molecules with distinct conformational states. The dynamic conformational populations and transitions between conformational states, which have been found to be closely related to protein function and regulation, are often challenging to explore by bulk techniques. Single-molecule techniques, including both fluorescence-based and force-based approaches, have been developed as powerful tools to investigate the conformational dyamics of proteins and provide mechanistic insights into the working mechanisms of biomolecules at single-molecule resolution. This Special Issue on “Single-Molecule Protein Dynamics” calls for manuscripts applying or developing single-molecule approaches to investigate the dynamics of the structure, folding, and interactions of proteins, furthering a deeper understanding of how proteins function in biological processes.

Guest Editors

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Message from the Editorial Board

Biomolecules is a multidisciplinary open-access journal that reports on all aspects of research related to biogenic substances, from small molecules to complex polymers. We invite manuscripts of high scientific quality that pertain to the diverse aspects relevant to organic molecules, irrespective of the biological question or methodology. We aim for a competent, fair peer review and rapid publication. Please look at some of the exciting work that has been published in *Biomolecules* so far. We would be delighted to welcome you as one of our authors.

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