

Special Issue

Molecular Insights into Quantum Biology

Message from the Guest Editor

The field of **quantum biology** posits that quantum effects are not merely present but may play a *functional role* in living systems, extending beyond what can be explained by classical mechanisms alone. The main scope of this Special Issue is to **dissect and decipher the molecular building blocks** of putative quantum biology, enabling a reductionist view that lays bare the *functional enablers* of quantum effects in living systems. We invite **theoretical, experimental, and visionary contributions** that bridge the gap between quantum mechanics and the life sciences. Research areas of interest include, but are not limited to, the following: biological qubits and quantum information processing; quantum sensing in biological systems; long-lived quantum coherences and entanglement; magnetoreception and navigation; quantum cognition and neural processes; photosynthetic light harvesting and excitonic transport; long-range electrodynamic interactions; collective excitations and superradiance; quantum perspectives on anesthesia; spectroscopic approaches for probing quantum biology; environmental interactions that sustain or enhance quantum effects.

Guest Editor

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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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