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Excitons in Molecular Aggregates

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Message from the Guest Editors

Dear Colleagues,

A molecular aggregate is a collection of organic dye molecules held in close proximity. In many cases, chromophores are strongly bound to a macromolecular scaffold such as a protein via covalent bonds, and in other cases, molecules are bound by weaker van der Waals forces. The same electronic interactions can lead to electronic energy transfer. These characteristics have made excitons in molecular aggregates attractive for potential application in quantum-information and solar-energy devices. Nonetheless, fundamental questions remain about how tight synthetic control of the molecular or supramolecular structures can be used to tailor the electronic and vibrational environment of the excitons.

This Special Issue explores how computational, theoretical, and laboratory measurement studies can be used to yield a comprehensive understanding of excitons in molecular aggregates, including natural biological complexes and tailored synthetic systems. Both original research articles and reviews in the field are welcome.

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Guest Editors



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Special Issue



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Message from the Editor-in-Chief

As the premier open access journal dedicated to molecular chemistry, now in its 30th year of publication, the papers published in *Molecules* span from classical synthetic methodology to natural product isolation and characterization, as well as physicochemical studies and the applications of these molecules as pharmaceuticals, catalysts, and novel materials. Pushing the boundaries of the discipline, we invite papers on all major fields of molecular chemistry and multidisciplinary topics bridging chemistry with biology, physics, and materials science, as well as timely reviews and topical issues on cutting-edge fields in all of these areas.

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