



Excitons in Molecular Aggregates

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Deadline for manuscript
submissions:

closed (28 February 2023)

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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Message from the Editor-in-Chief

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Journal Rank: JCR - Q2 (*Chemistry, Multidisciplinary*) / CiteScore - Q1 (*Chemistry (miscellaneous)*)

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