Special Issue

Molecular Research Progress of Optoelectronic Materials and Devices

Message from the Guest Editor

The factors involved in deciding to charge carrier transport from the molecular to the device scale, molecular type, ordering, and orientation are important parameters. To improve energy efficiency and the degree of integration beyond Moore's law limitation, conducting molecular research into active materials becomes crucial. Indeed, the structure-processing properties of active layers such as semiconductors, dielectrics, and electrodes rely on their molecular ordering and orientation, affording functionalities to optoelectronics. Various experimental methodologies used to fabricate the active films have been studied and advanced to modulate molecular orientation, which is directly related to a device's performance and functionalities. We encourage experimental and theoretical contributions focusing on molecular research progress on the multifunctionalities of active optoelectronic materials. A non-exhaustive list includes organic small molecules, polymers, perovskites, MOFs, and other inorganic types. We also welcome experimental and theoretical methodological advances in the field of molecular research.

Guest Editor

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Message from the Editor-in-Chief

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