



Perovskite Composites

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Message from the Guest Editors

In recent years, the broad field of composites has attracted the interest of other rapidly progressing scientific fields, such as that of perovskites, which can be represented by the well-known oxide perovskites or the novel set of hybrid organic–inorganic metal halide three- and lower-dimensional semiconductors. The latter have unique excitonic properties due to intense quantum mechanical and dielectric confinement effects; however, these perovskites lack stability because they are “soft” materials. Their application in optoelectronic devices can lead to efficient and simple photovoltaic panels and light-emitting diodes, at extremely low cost. Moreover, they can be used as tunable light and radiation detectors and, in general, offer a unique coupling of stable excitons to light, not to mention their usage as electrochemical detectors and photochargeable batteries.

