

CONSTRUCTION AND OPTICAL-ELECTRICAL PROPERTIES OF INORGANIC/ORGANIC HETEROJUNCTION NANOSTRUCTURES

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We have designed and synthesized a series of ordered inorganic/organic hybrid aggregate nanostructures of by self-assembly and self-organizing technique. The process and mechanism of growing hybrid aggregate nanostructures have been studied. The ability to tune the size and morphologies of hybrid aggregate nanostructures has been achieved by controlling reaction conditions. The effects of morphologies and size dependent on electrical and optical properties have been demonstrated. These semiconductor molecular hybrid aggregate nanostructures exhibit interesting electrical, optical, and optoelectronic properties for use in next-generation electronic and optoelectronic devices.

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