

An Aqueous Route Synthesis of Transition-Metal-Ions-Doped Quantum Dots by Bimetallic Cluster Building

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Water-soluble doped quantum dots (QDs) have unique photophysical properties and functionalities as optical labels for bioimaging and chemo-/biosensing. However, doping in quantum dots is not easy due to the dopant-ion size mismatch and “selfpurification” effect. Here, we demonstrate a successful preparation of Mn-, Cu-, and Ni-doped CdS QDs with bimetallic clusters instead of ions as building blocks under mild aqueous conditions up to gram scale.

References:

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