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Title: Ligand Exchange on CdSe Nanoplatelets for the Solar Light Sensitization of TiO₂ and ZnO Nanorod Arrays

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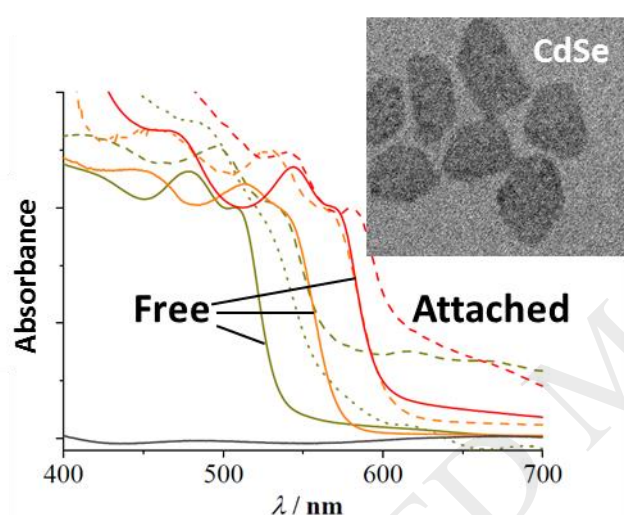
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Graphical abstract



Highlights :

- CdSe Nanoplatelets controlled at the atomic monolayer scale are prepared.
- Surface ligands are exchanged for mercaptopropionic acid, OH⁻ and SH⁻ linkers.
- Raman and UV-Vis absorption spectroscopies show the attachment of the nanoplatelets on oxides.
- OH⁻ is found the best-working linker for TiO₂ and ZnO sensitization to visible light.

Abstract

In quantum dot (QD) solar cells, the *ex situ* sensitization of wide band gap semiconductors (WBSCs) makes it possible to control the shape and the passivation of the nanosized sensitizer. Hence, *ex situ* techniques can be used to investigate how the band gap of the sensitizers affects the performance of quantum dot solar cells. The latter can be precisely controlled in 1D

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