

Title: Construction of CdS/Ni₃S₂ Heterojunctions for the Enhancement of Hydrogen Production

Abstract: The CdS /Ni₃S₂ heterojunction is prepared by a two-step hydrothermal method. The structure and crystalline phase are proved by SEM, TEM and XRD. The photocatalytic hydrogen production performance of the CdS/Ni₃S₂ heterojunction exhibits about ~24 times enhancement that of pure CdS, which could be ascribed to that the CdS with narrow band gap could increase the solar utilization and the Ni₃S₂ with quickly photon-generated electrons transferring could improve the separation of photon-generated carriers.