Supporting Information for

MOF-derived yolk–shell CdS microcubes as efficient and stable visible-light-driven photocatalysts for water splitting

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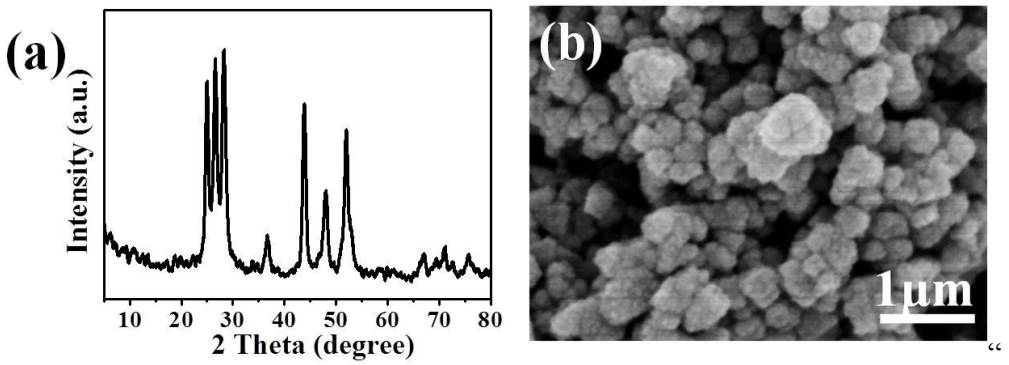

Fig. S1 (a) XRD pattern and (b) FESEM image of CdS-P

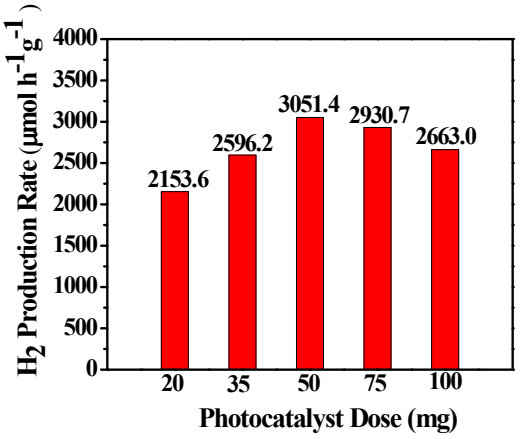

Fig. S2 Effect of photocatalyst dose on hydrogen evolution rate (sacrificial reagent, 0.1 M Na_2S + 0.1 M Na_2SO_3; pH=10.8)

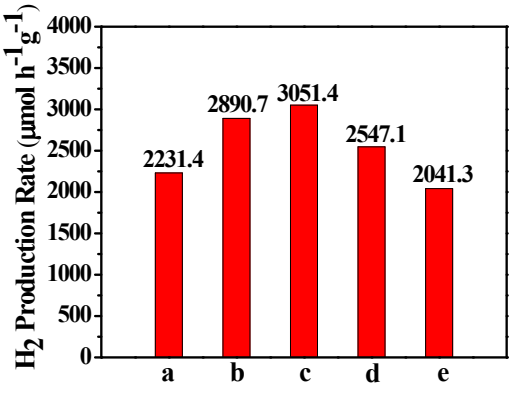

Fig. S3 Effect of sacrificial donor concentration on hydrogen evolution rate: (a) 0.05M Na_2S+0.05M Na_2SO_3, (b) 0.075M Na_2S +0.075M Na_2SO_3, (c) 0.1 M Na_2S +0.1 M Na_2SO_3, (d) 0.15M Na_2S +0.15M Na_2SO_3, (e) 0.2M Na_2S +0.2M Na_2SO_3 (photocatalyst dose, 50 mg)

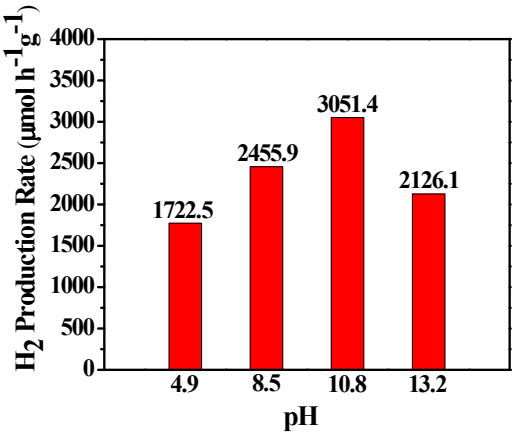

Fig. S4 Effect of pH value on hydrogen evolution rate (photocatalyst dose, 50 mg; sacrificial reagent, 0.1 M Na_2S + 0.1 M Na_2SO_3)

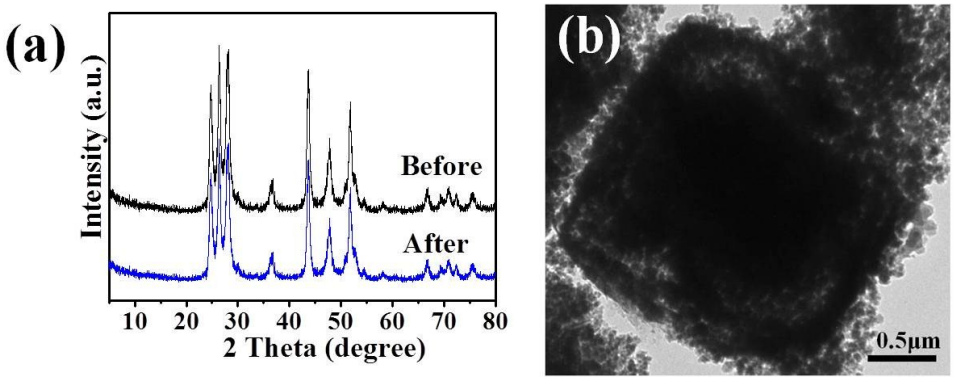

Fig. S5 (a) XRD patterns of CdS-YS before and after the photocatalytic reaction and (b) TEM image of CdS-YS after 4 cycles

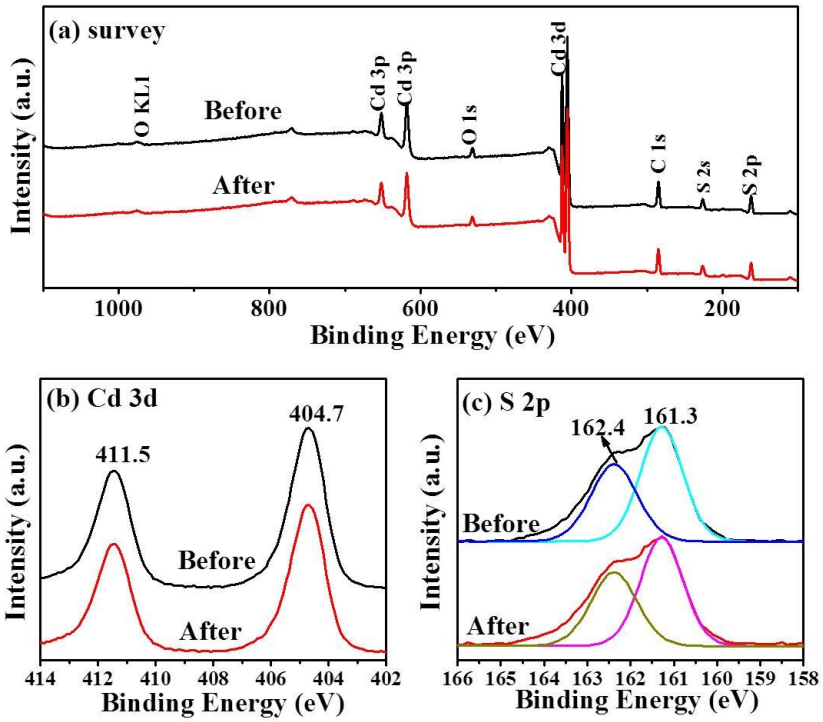

Fig. S6 XPS spectra of CdS-YS before and after the photocatalytic reaction