# Electronic Supplementary Information

## A facile approach to synthesize CdS-attapulgite as a photocatalyst for reduction reaction in water

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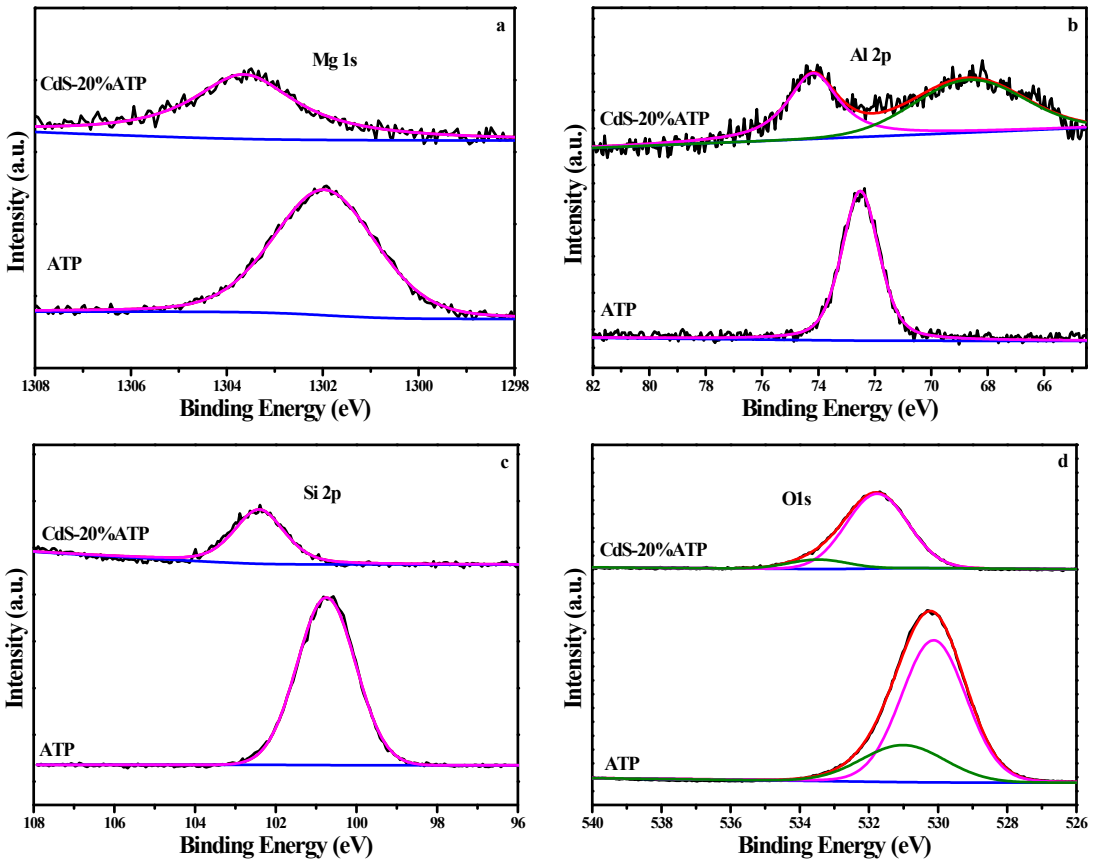


**Fig. S1** Mg 1s (a), Al 2p (b), Si 2p (c) and O 1s (d) XPS spectra of CdS-20%ATP and ATP.

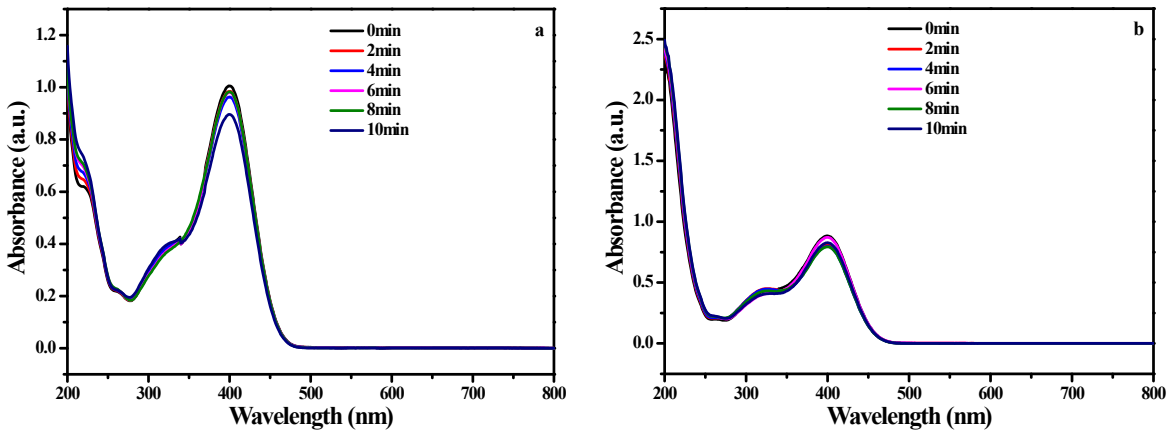


**Fig. S2** The UV-visible absorption spectra of *p*-NP without ammonium formate by blank-CdS (a) and CdS-20%ATP (b).

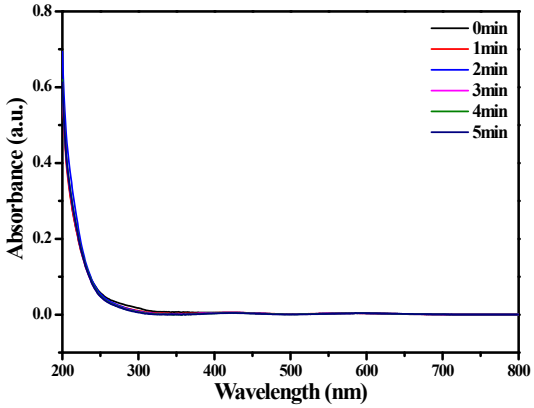


**Fig. S3** The UV-visible absorption spectra of Cr(Ⅵ) when pH=3 with CdS-20%ATP as catalyst.

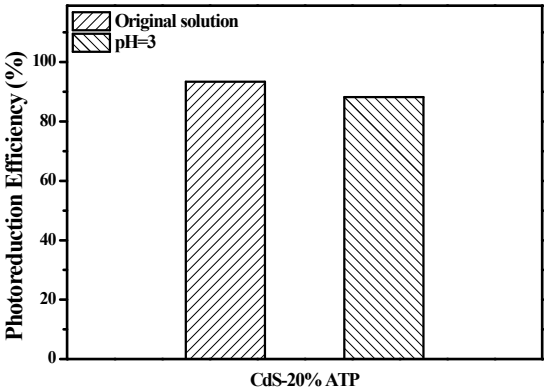


**Fig. S4** The photocatalytic reduction of *p*-NP with CdS-20%ATP.

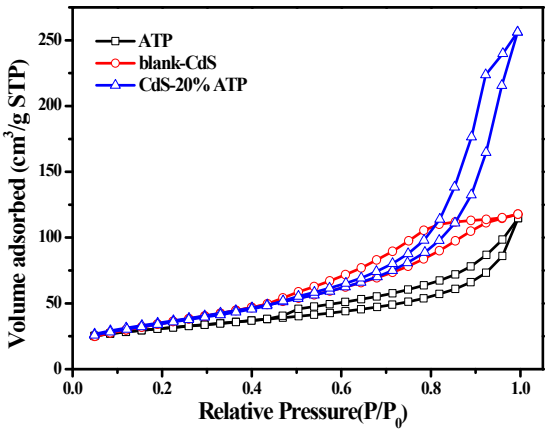


**Fig. S5** $N_2$ adsorption-desorption isotherms of the ATP, blank-CdS, and CdS-20%ATP.

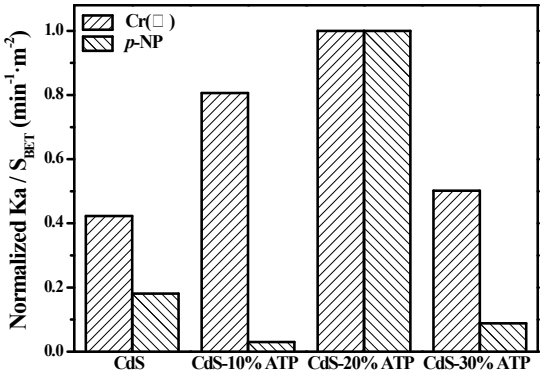


**Fig. S6** The image of normalized $K_a/S_{BET}$ of the blank-CdS, CdS-10%ATP, CdS-20%ATP and CdS-30%ATP.

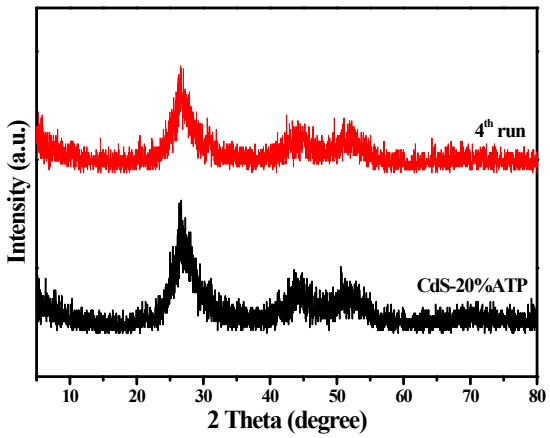


**Fig. S7** XRD patterns of CdS-20%ATP 4th run.