

## Supporting Information

# Enhanced photocatalytic activity and stability by Ag doping and simultaneous deposition for organic pollutant degradation and hydrogen production: the case of CdS

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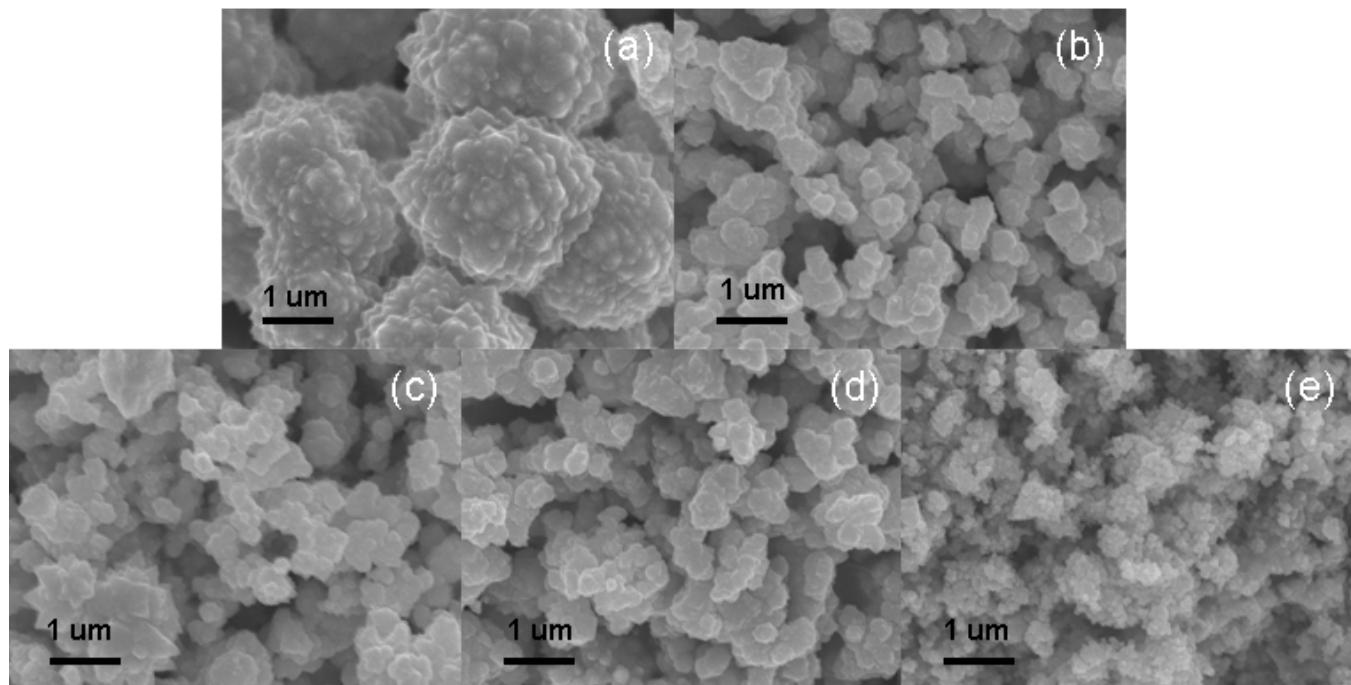


Figure S1. SEM images of different Ag-CdS photocatalysts with low magnification: CdS (a), Ag-CdS0.5 (b), Ag-CdS1 (c), Ag-CdS2 (d) and Ag-CdS4 (e)

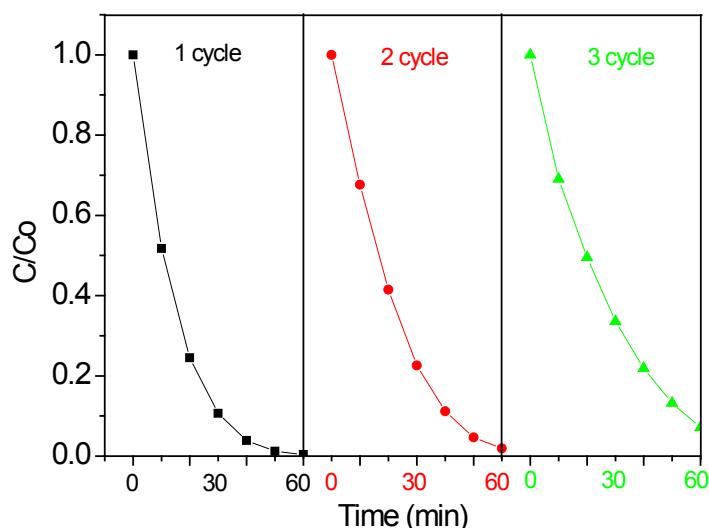


Figure S2. Repeated photodegradation of RhB over Ag deposited photocatalyst. Although the photocatalytic activity of the sample did not decrease so much with the increase of repeated time, the amount of solid sample in the solution decreased gradually and finally the sample couldn't be collected due to solvation.