

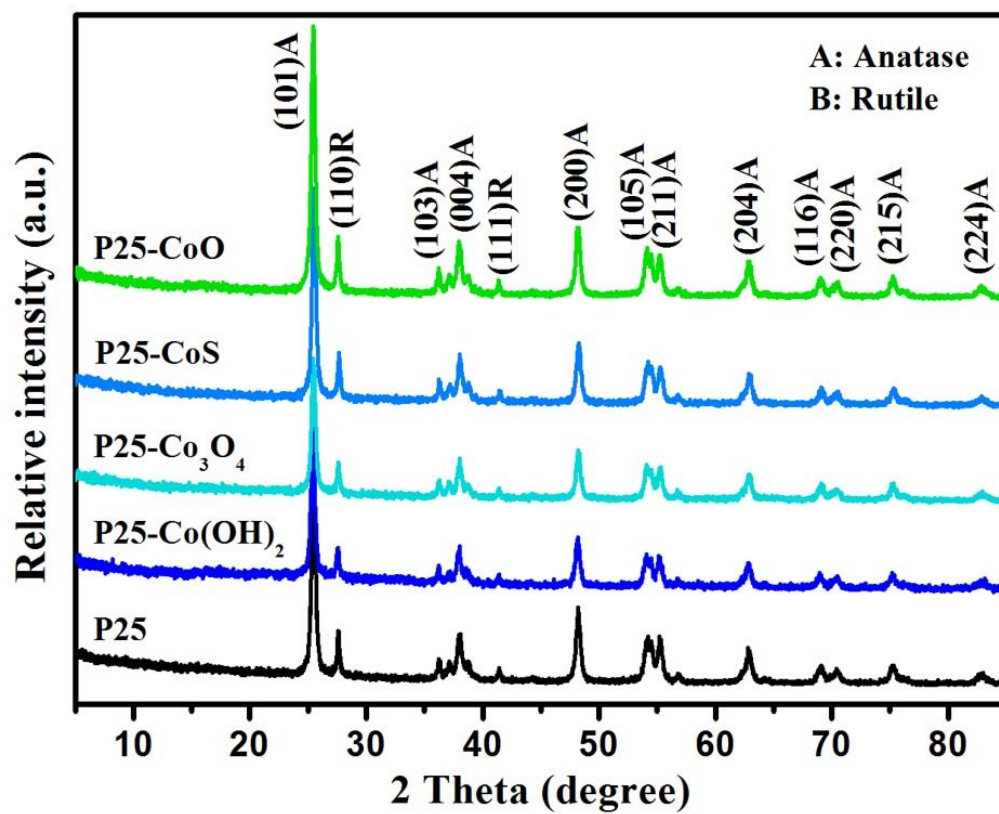
### Electronic Supplementary Information

Enhancement of photocatalytic H<sub>2</sub>-production activity of CdS nanorods by cobalt-based cocatalysts modification

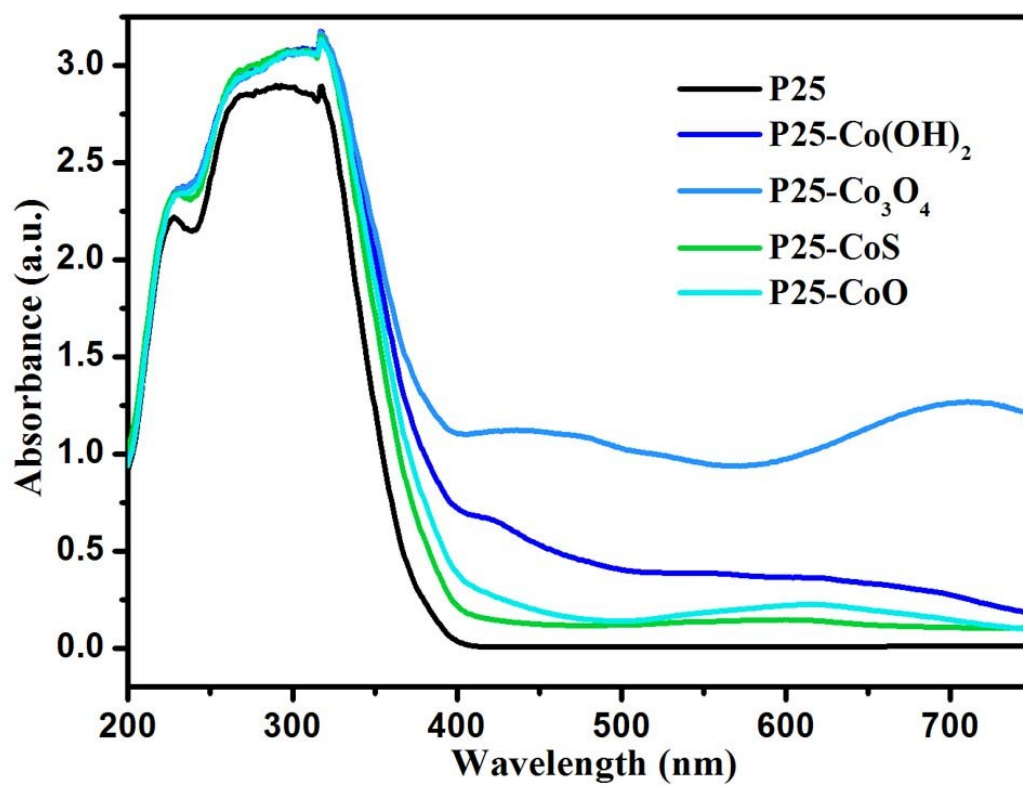
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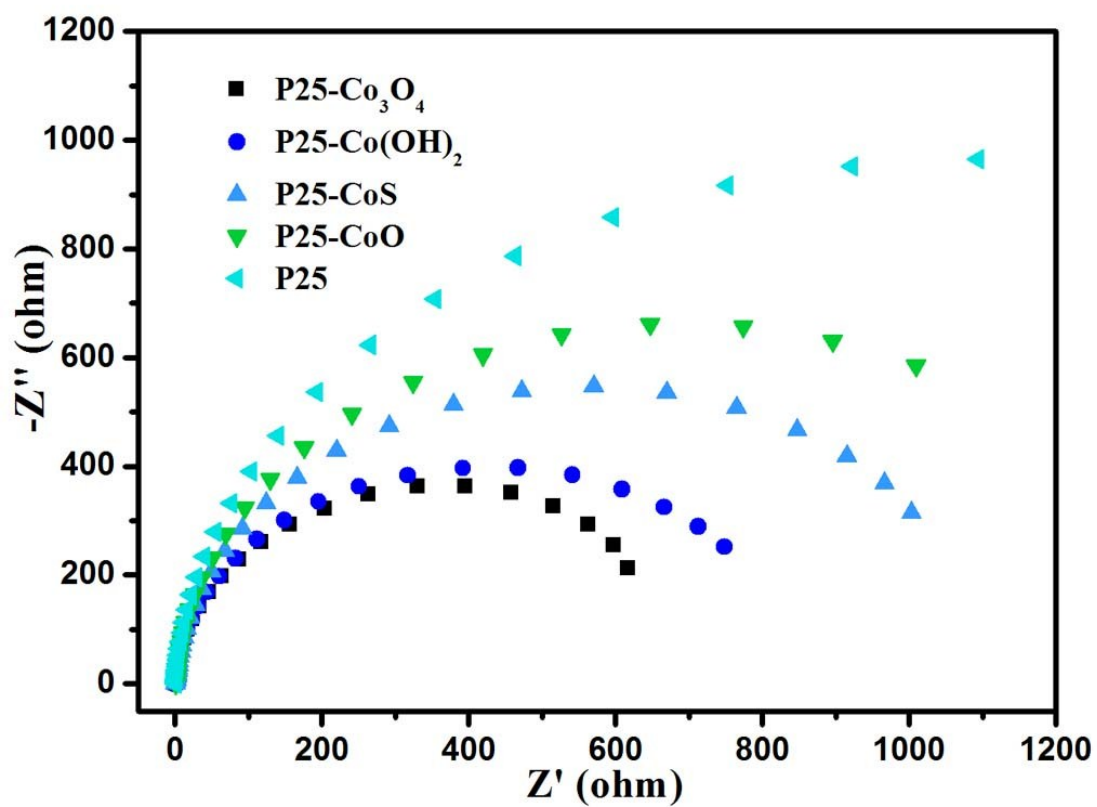
E-mail: [xiangqj@mail.hzau.edu.cn](mailto:xiangqj@mail.hzau.edu.cn)



**Fig. S1** XRD patterns of the comparison samples: P25, P25-Co(OH)<sub>2</sub>, P25-Co<sub>3</sub>O<sub>4</sub>, P25-CoS and P25-CoO.



**Fig. S2** UV-vis diffuse reflectance spectra of the P25, P25-Co(OH)<sub>2</sub>, P25-Co<sub>3</sub>O<sub>4</sub>, P25-CoS and P25-CoO samples.



**Fig. S3** Nyquist plots of the P25, P25- $\text{Co}(\text{OH})_2$ , P25- $\text{Co}_3\text{O}_4$ , P25- $\text{CoS}$  and P25- $\text{CoO}$  samples in 0.1 M  $\text{Na}_2\text{SO}_4$  aqueous solution.