Supporting information

Facile synthesis of FeOOH quantum dots modified ZnO nanorods films via a metal-solating process

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5 pages, 6 figures and 1 tables

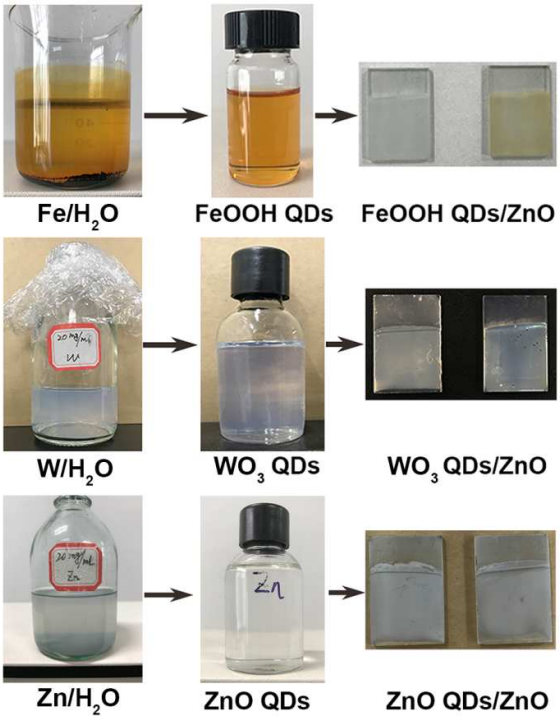

Fig. S1 Images of the as-prepared samples

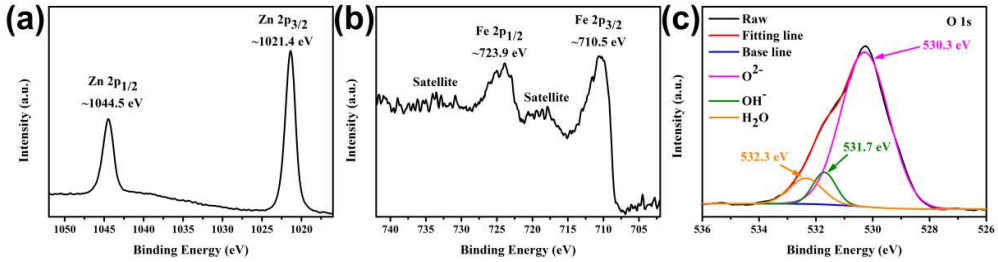

Fig. S2 XPS spectra of FeOOH QDs/ZnO film.

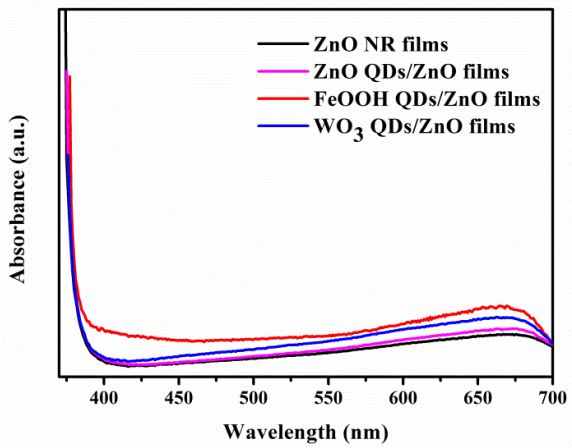

Fig. S3 UV-visible diffuse reflectance spectra of samples.

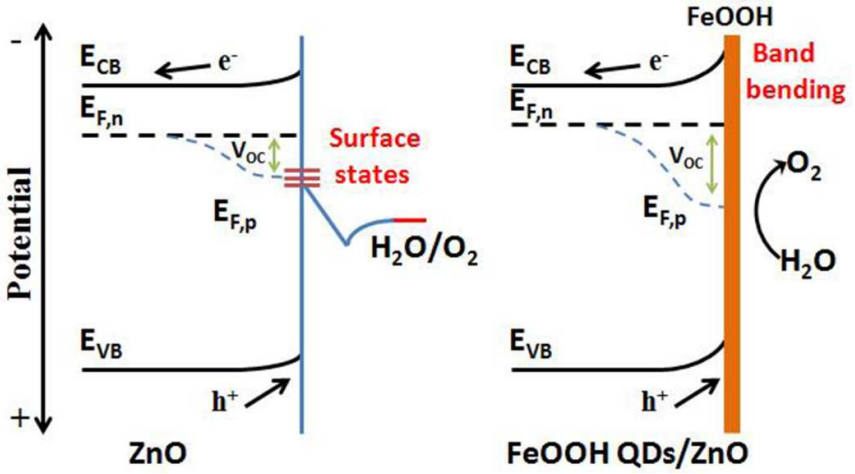

Fig. S4 Schematic band diagrams of bare and FeOOH QDs modified ZnO films under illumination.

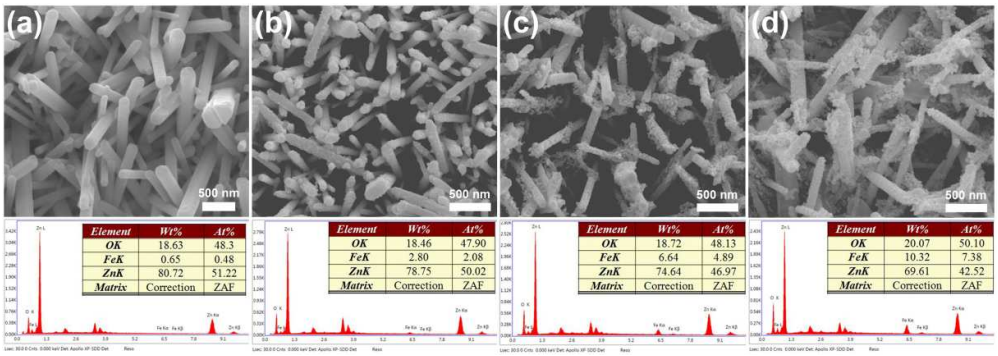

Fig. S5 SEM images of ZnO nanorods modified with different amounts of FeOOH QDs.

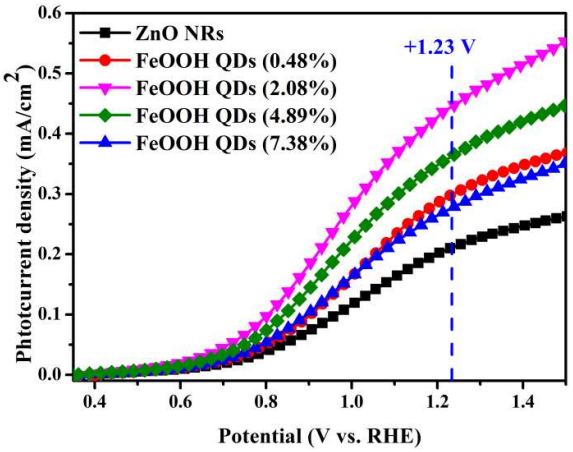

Fig. S6 Photocurrent densities of ZnO nanorods modified with different amounts of FeOOH QDs..

Table S1 Comparison of literature with the similar catalyst system.

Photocatalyst and cocatalyst	Shift of onset potential (V)	Current at 1.23 V_{RHE} without cocatalyst (mA/cm^2)	Current at 1.23 V_{RHE} with cocatalyst (mA/cm^2)	The current enhancement at 1.23 V_{RHE}	Ref.
ZnO; FeOOH QDs	0.20	0.21	0.44	110%	This work
ZnO; Co-Pi	0.02	0.90	1.00	11%	1
ZnO; Ni-B	0.20	0.90	1.25	39%	1
ZnO; Co_3O_4	0.10	0.75	1.20	60%	2
ZnO; C_xN_y	No obvious	0.25	0.48	92%	3
ZnO/TiO_2; FeOOH	0.27	0.50	1.25	150%	4
WO_3; FeOOH	0.07	0.60	1.30	117%	5
Fe_2O_3; FeOOH	0.12	0.61	1.21	98%	6

Supplementary References

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