Electronic Supplementary Material (ESI) for RSC Advances.

Supporting Information

ZnO Nanorods/Pt and ZnO Nanorods/Ag Heteronanostructure Arrays with Enhanced Photocatalytic Degradation of Dyes

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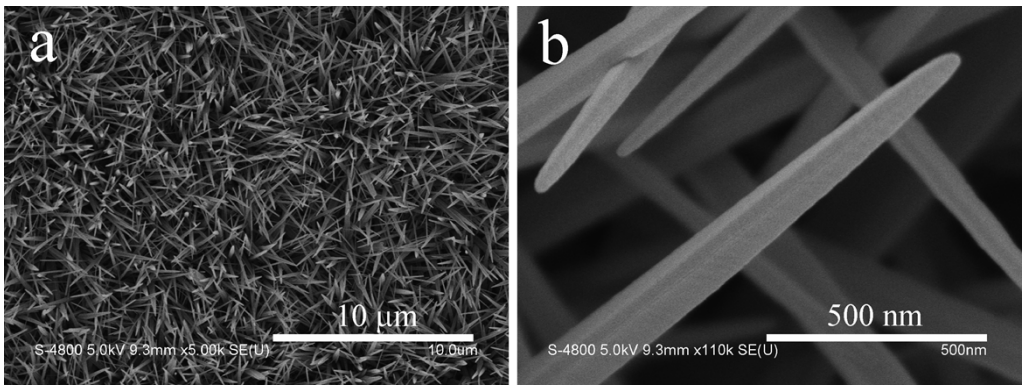

Fig. S1 Low- and high-magnification FESEM images of the needle-like ZnO-NRs array on zinc foil.

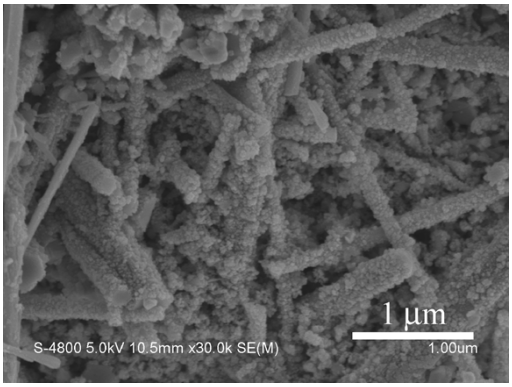

Fig. S2 FESEM image of the ZnO-NRs/Ag-NPs sample synthesized without the zinc substrate.

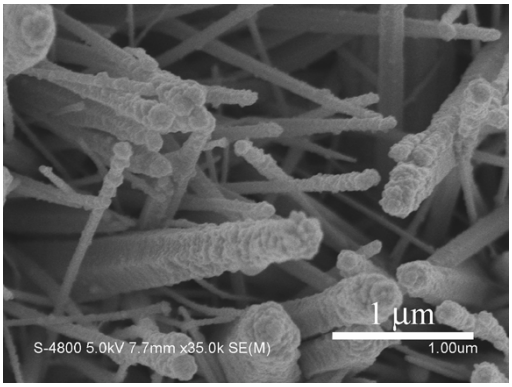

Fig. S3 FESEM image of the ZnO-NRs/Pt-NPs product synthesized without addition of 1, 6-hexanediamine.

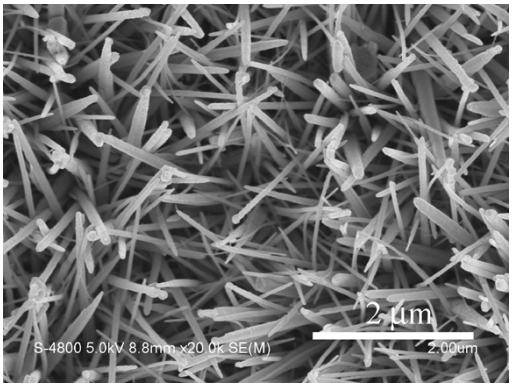

Fig. S4 FESEM image of the ZnO nanorods synthesized without addition of H_2PtCl_6 solution in the second reaction step.

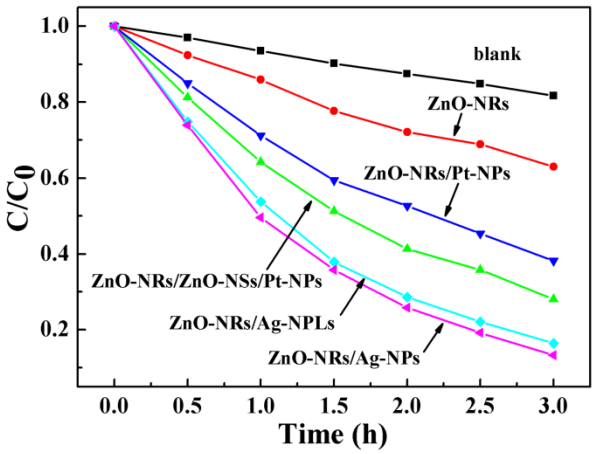

Fig. S5 RhB photodegradation curves of C/C_0 versus time by ZnO-NRs/Pt, ZnO-NRs/Ag hetero-nanostructure arrays and pure ZnO-NRs array as well as the blank under visible light irradiation.

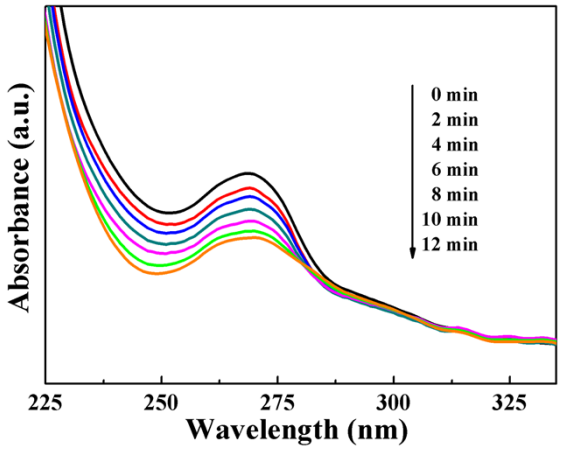

Fig. S6 UV-visible absorption spectra of photodegradation phenol aqueous solution with ZnO-NRs/Ag-NPs heterostructure array.

Table S1 Cycling results of photocatalytic degradation of RhB with ZnO-NRs/Ag-NPs, ZnO-NRs/ZnO-NSs/Pt-NPs heterostructure arrays and pure ZnO-NRs array.

Sample (Decolorization)	Cycle Number				
	1	2	3	4	5
ZnO-NRs/Ag-NPs	96.8%	96.5%	96.1%	95.7%	95.1%
ZnO-NRs/ZnO-NSs/Pt-NPs	90.6%	90.3%	90.1%	89.8%	89.5%
ZnO-NRs	68.7%	60.3%	51.2%	—	—