

Supporting Information

Heterostructured Photocatalysts Associating ZnO Nanorods and Ag-In-Zn-S Quantum Dots for the Visible Light-Driven Photocatalytic Degradation of the Acid Orange 7 Dye

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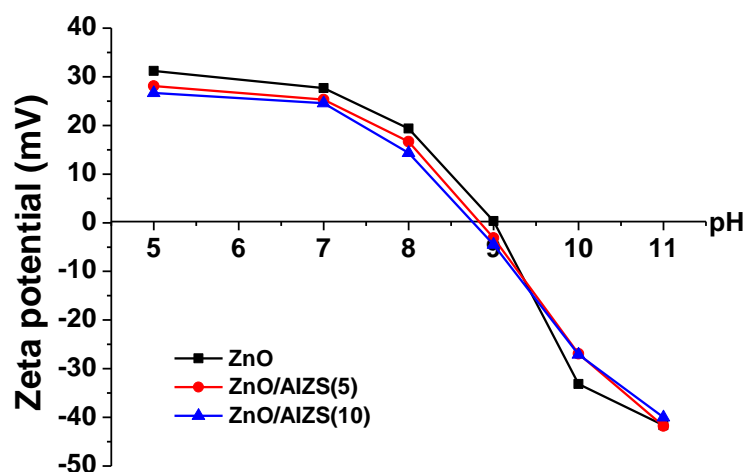


Figure S1. Zeta potentials of ZnO NRs, ZnO/AIZS(5) and ZnO/AIZS(10) heterostructured photocatalysts as a function of pH

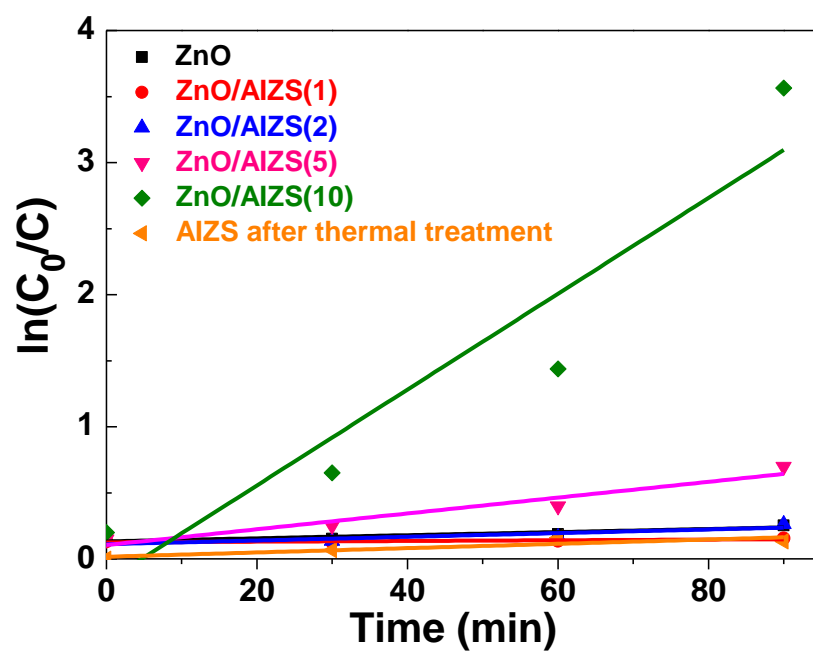


Figure S2. Plots of $\ln(C_0/C)$ for the determination of the first-order rate constants k of the photodegradation of Orange II under visible light irradiation.

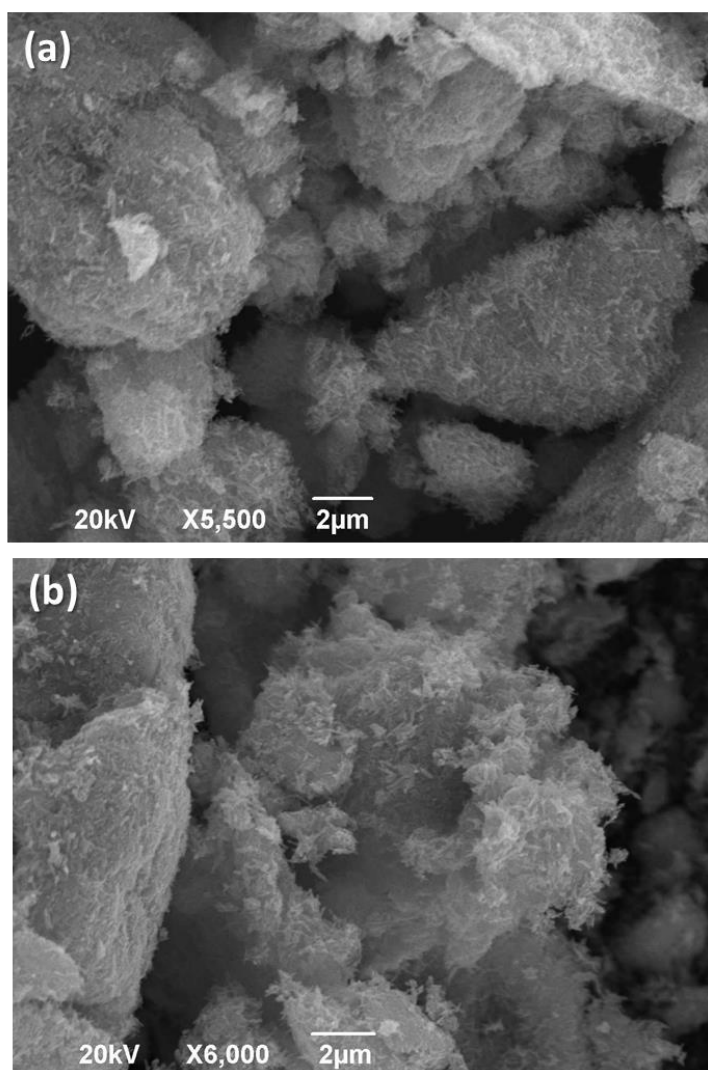


Figure S3. SEM images of (a) the as-prepared and (b) the reused ZnO/AIZS(10) photocatalyst.

Table S1. Impedance parameters obtained after fitting the EIS curves with the Randles equivalent model, where n is the exponent of the constant phase element Q and σ is the Warburg coefficient.

| Sample | R_s (Ω) | CPE ($\mu F.s^{n-1}$) | n | R_{ct} (Ω) | σ ($\Omega.s^{-1/2}$) |
|--------|--------------------|-------------------------|-------|-----------------------|--------------------------------|
| ZnO | 54.19 | 29.08 | 0.599 | 167022 | -6694 |
| 1% | 50.87 | 27.71 | 0.582 | 177183 | -8424 |
| 2% | 56.34 | 28.4 | 0.604 | 165075 | -6073 |
| 5% | 79.4 | 25.82 | 0.7 | 33600 | 120,8 |
| 10 % | 81.62 | 38.26 | 0.767 | 14659 | 268,1 |