

Electronic Supplementary Information

Template-free Syntheses of Hierarchical PbS Microstructures Using a New Sulphur Source and Their Time-dependent Morphological Evolution and Photocatalytic Properties

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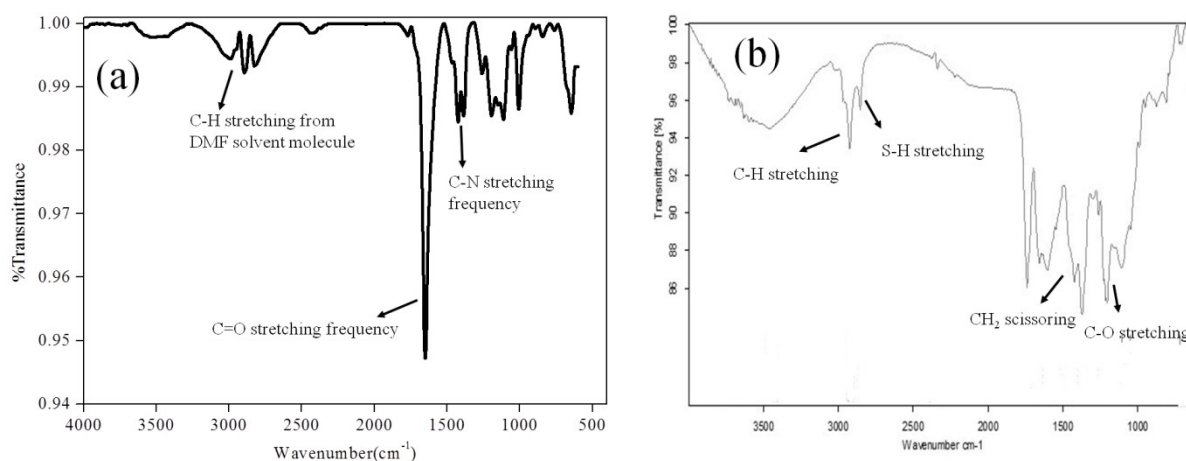


Fig. S1 IR spectrum of PbS nanostructures (a) S2 (b) S7.

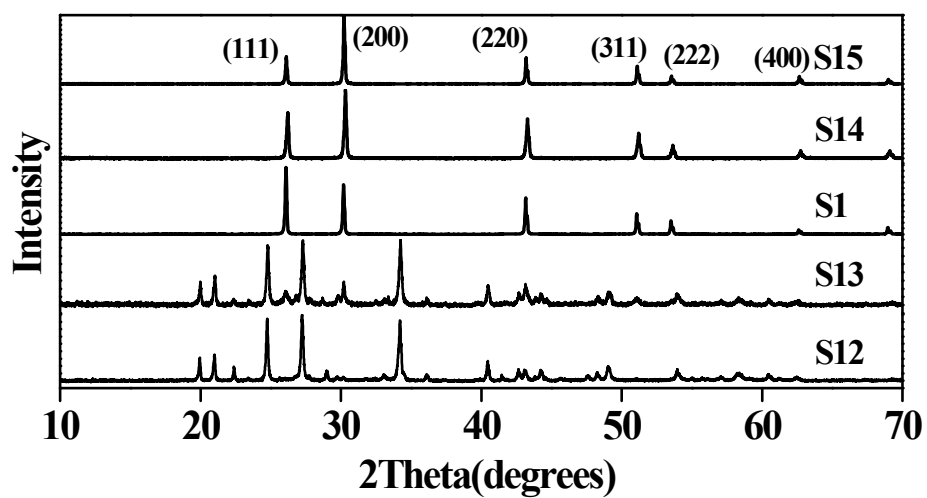


Fig. S2 XRD pattern of PbS microstructures prepared at different temperatures of 120 °C (S12), 130 °C (S13), 150 °C (S1), 180 °C (S14), 200 °C (S15).

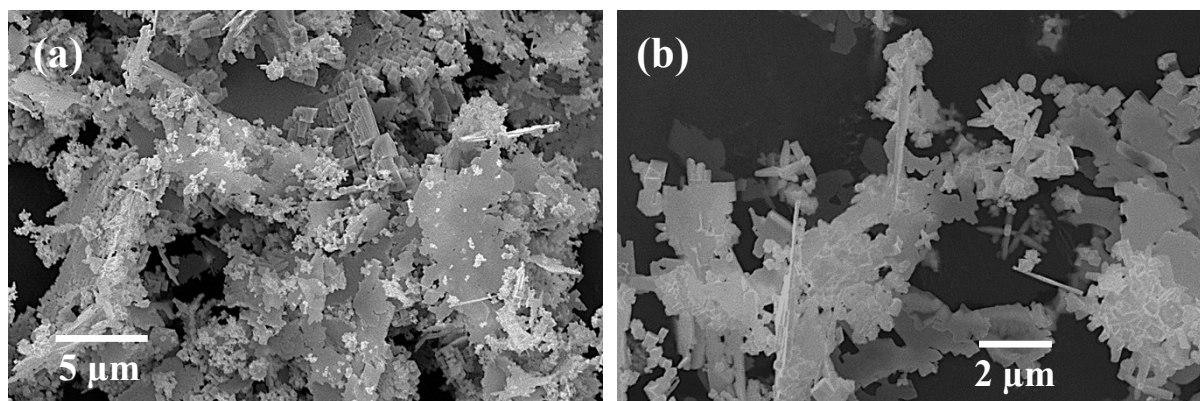


Fig. S3 SEM images of as-synthesized PbS microstructures (a) 180 °C (S14) (b) 200 °C (S15).

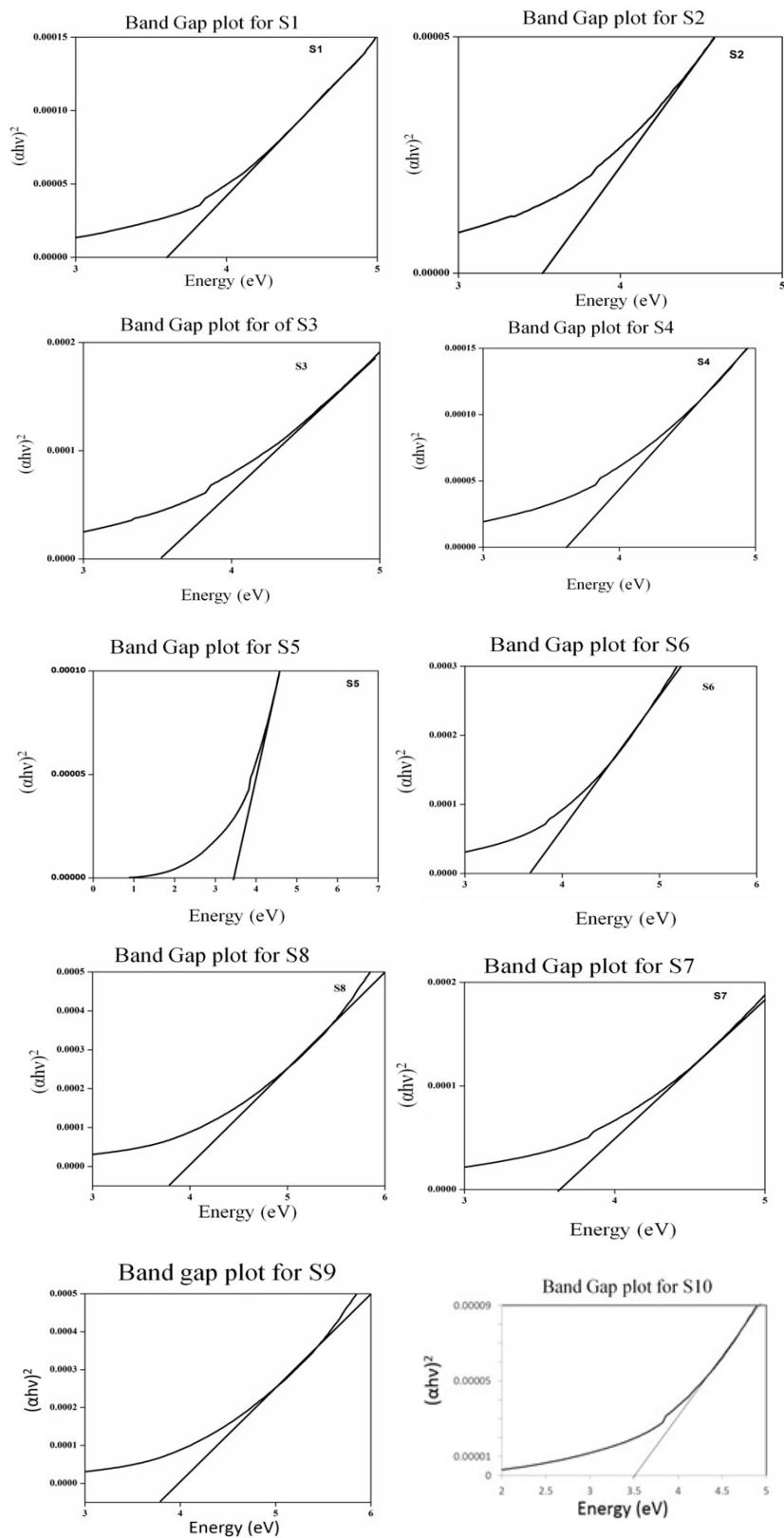


Fig. S4 Band gap calculations from Tauc plots for PbS (S1-S10)

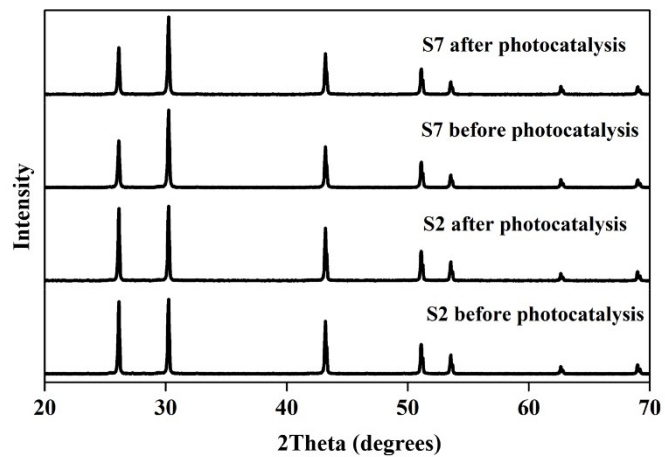


Fig. S5 PXRd plot of as-synthesized PbS microstructures, **S2** and **S7** before and after the photocatalytic degradation of MO dye.