

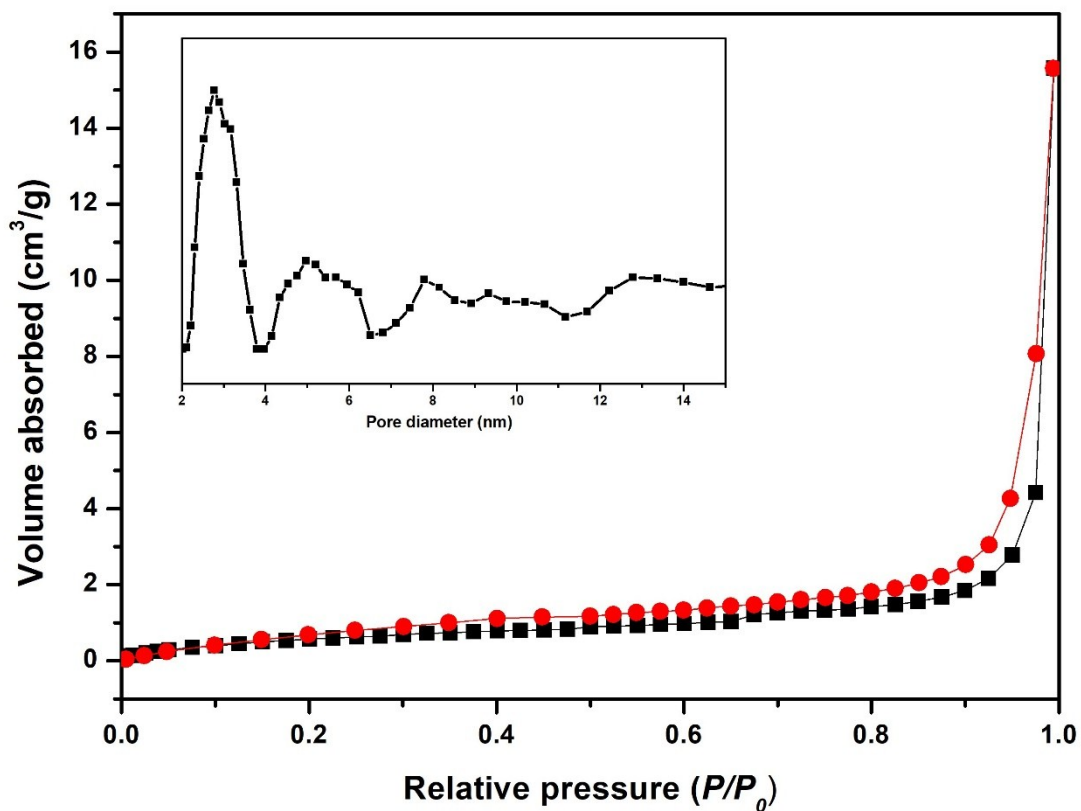
## Supporting Information

### **PW<sub>12</sub>/Bi<sub>2</sub>WO<sub>6</sub> composite photocatalyst for enhanced visible light photocatalytic degradation of organic dye pollutant**

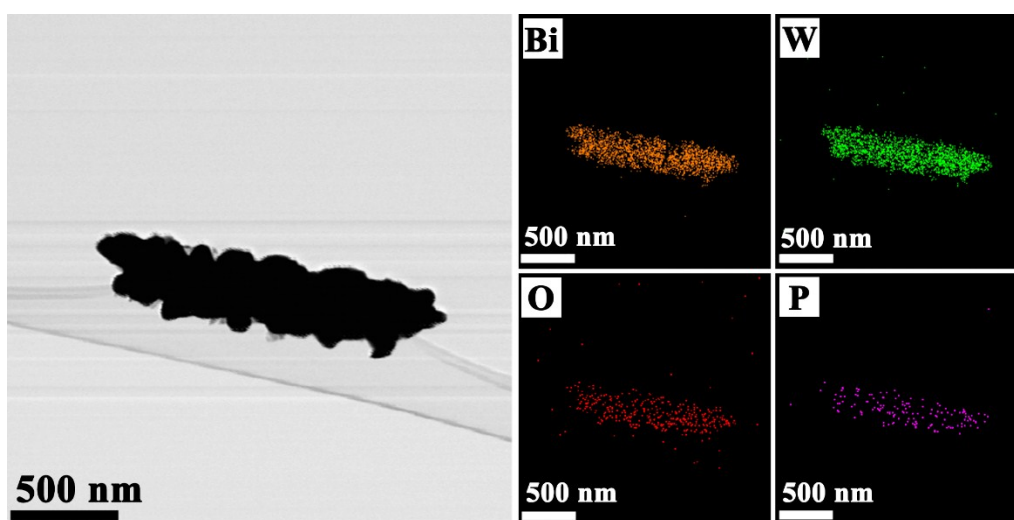
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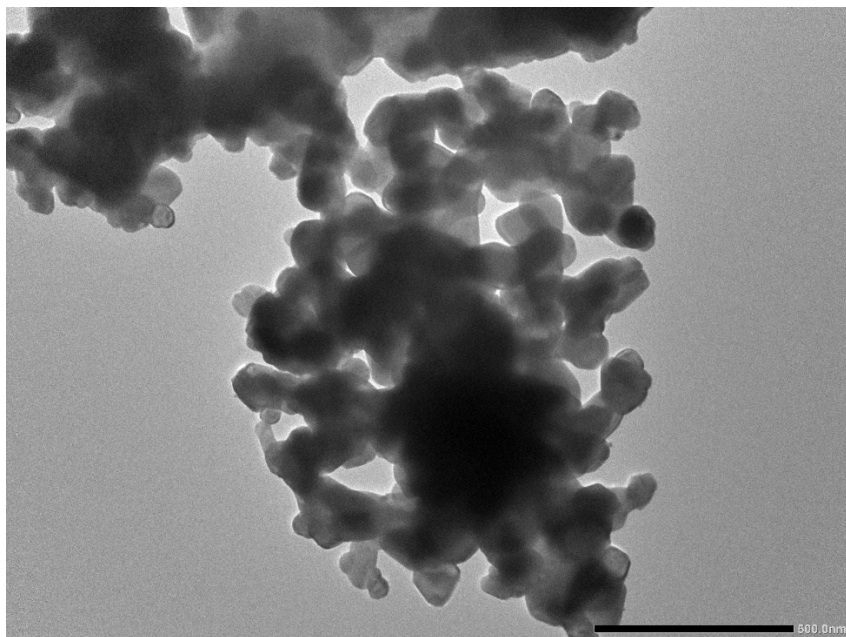
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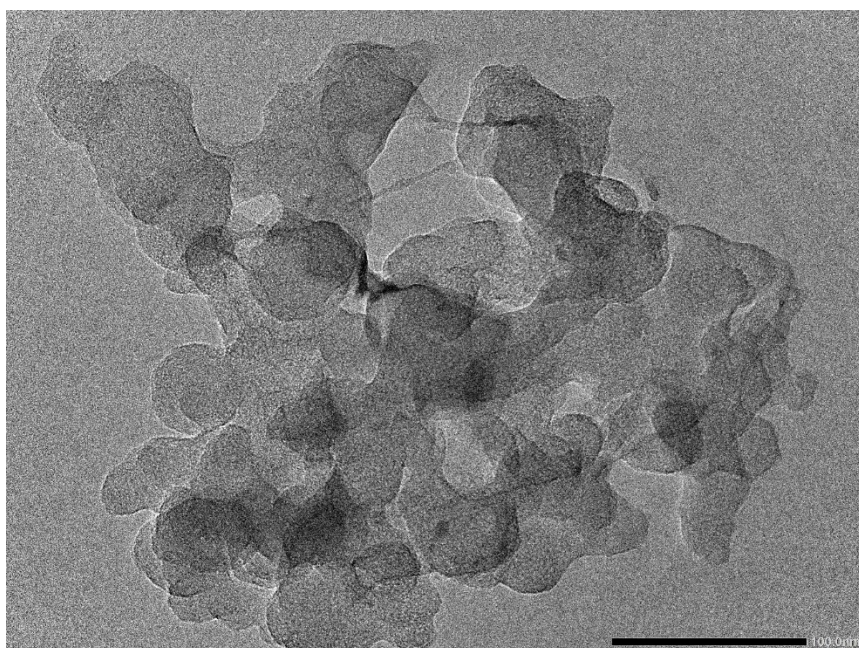
**Figure S1.** Nitrogen adsorption-desorption isotherm and the corresponding pore size distribution (inset) of  $PW_{12}/Bi_2WO_6$  composites.  $N_2$  sorption was measured by a Hiden isochema IGA 100B instrument.



**Figure S2.** EDS elemental mappings (Bi, W, O and P from a sheet of  $PW_{12}/Bi_2WO_6$  composite on TEM image). Note the scale bar corresponds to 500 nm.

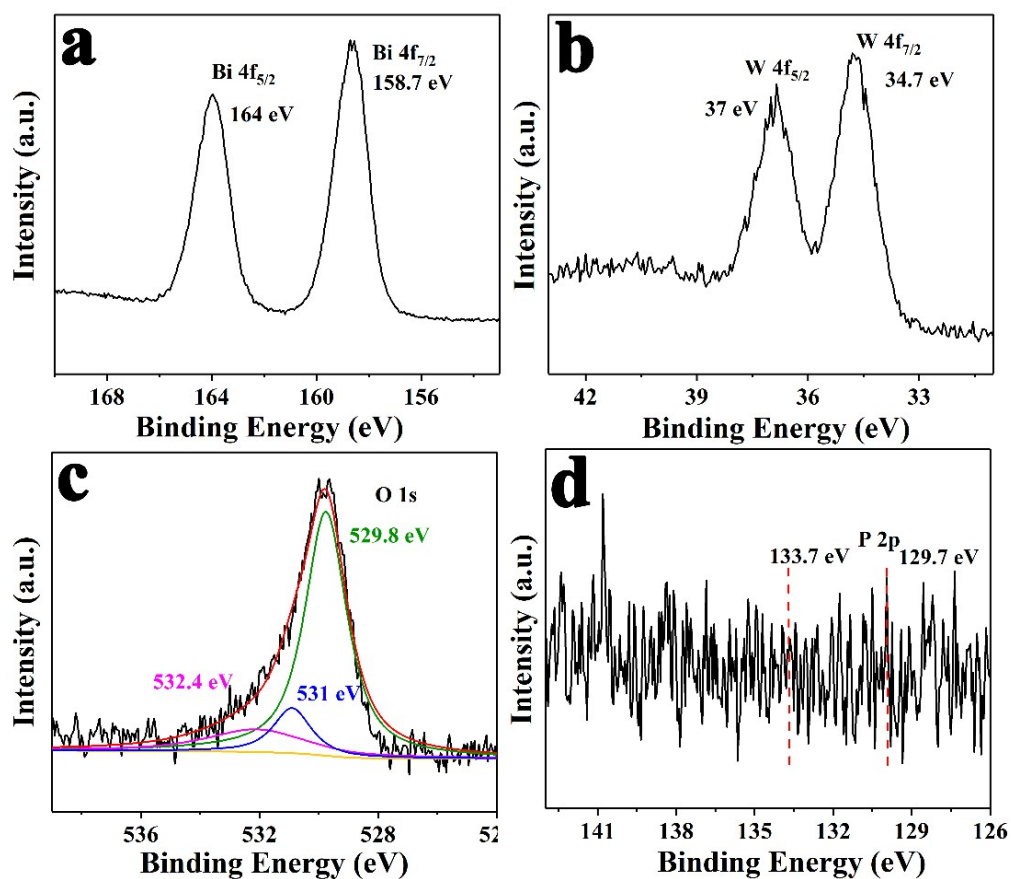


**(a)**

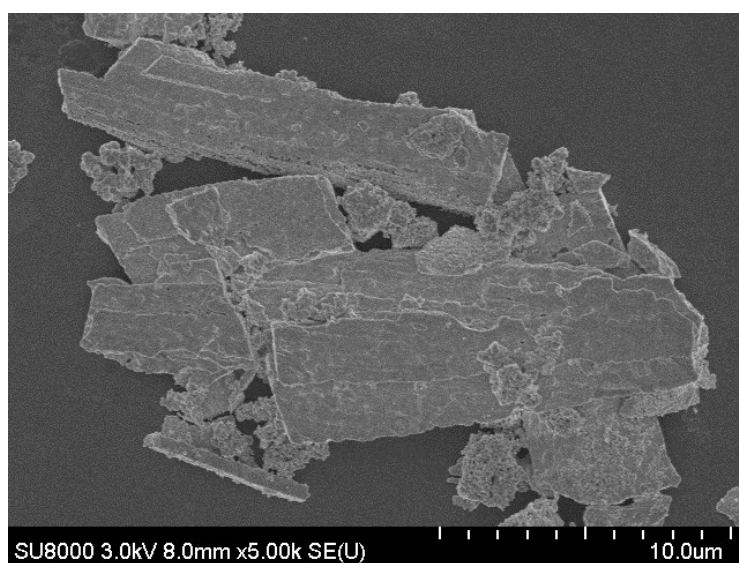


**(b)**

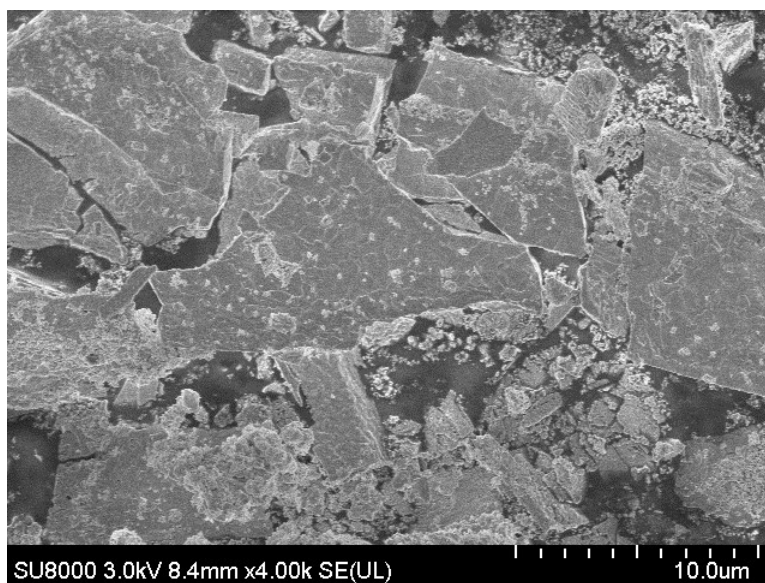
**Figure S3.** TEM images of the  $\text{PW}_{12}/\text{Bi}_2\text{WO}_6$  composites: (a) The black scale bar corresponds to 500 nm; (b) The black scale bar corresponds to 100 nm.



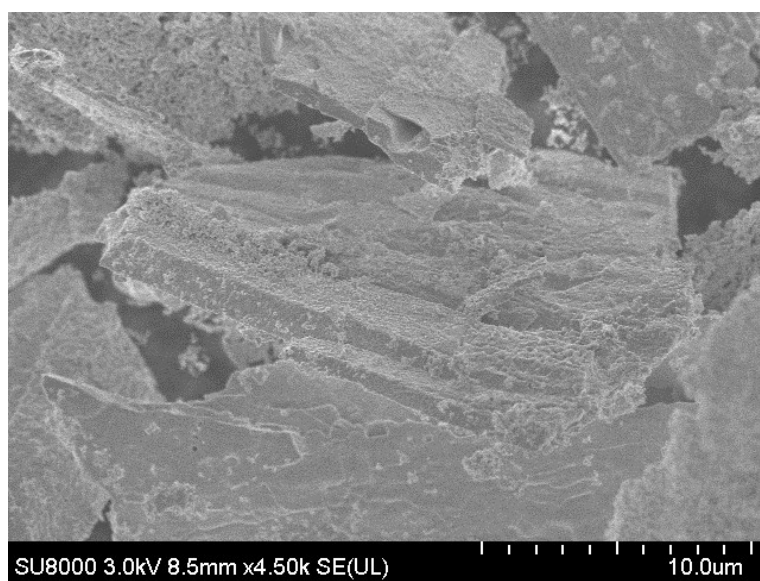
**Figure S4.** XPS spectra of the  $PW_{12}/Bi_2WO_6$  composites: Bi 4f (a), W 4f (b), O 1s (c) and P 2p (d). XPS was performed on a VG ESCALABMKII spectrometer with an  $MgK\alpha$  (1253.6 eV) achromatic X-ray source. The vacuum inside the analysis chamber was maintained at  $6.2 \times 10^{-6}$  Pa during the analysis.



**(a)**

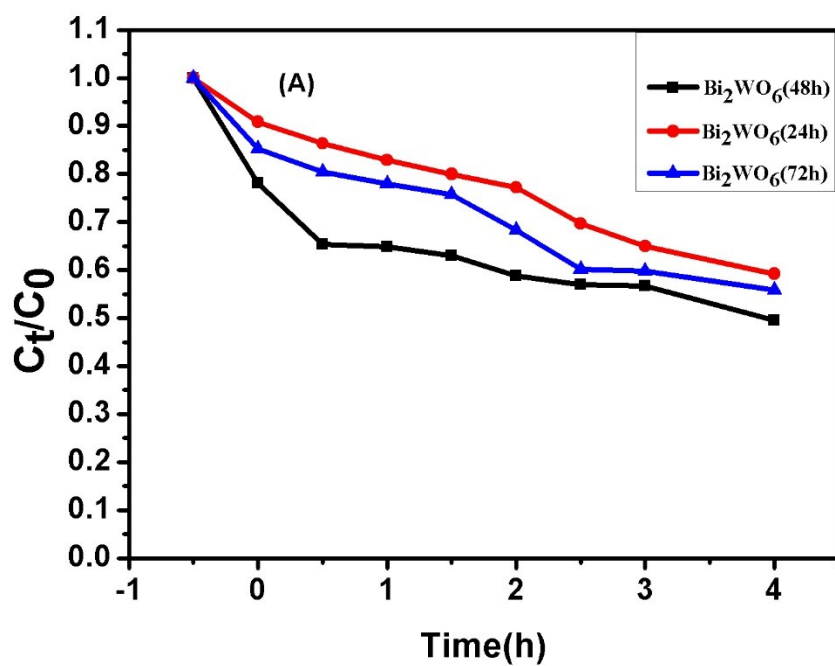


(b)



(c)

**Figure S5.** SEM images of the pure  $\text{Bi}_2\text{WO}_6$  sheets prepared in different aging time: (a) 48 h; (b) 24 h; (c) 72 h.



**Figure S6.** The photocatalytic performance of Rhodamine B degradation in aqueous solution by using the pure Bi<sub>2</sub>WO<sub>6</sub> sheets prepared in different aging time.