

## Supplementary Materials: Article Sulfur-doped TiO<sub>2</sub>: structure and surface properties

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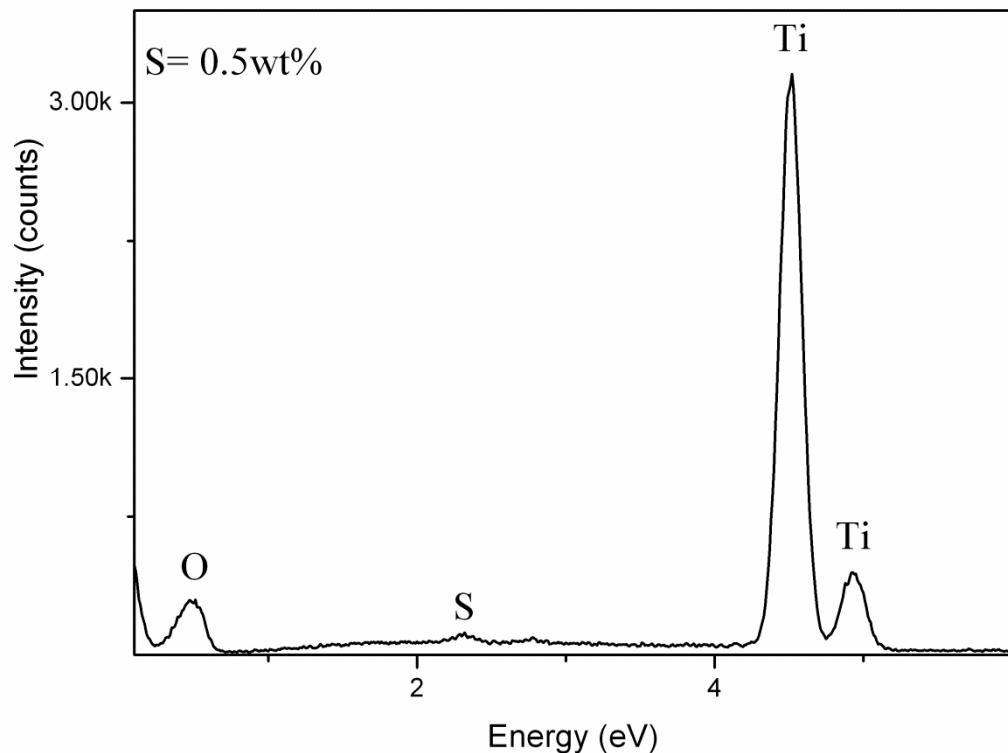


Figure S1. EDAX spectrum of TiO<sub>2</sub>/H<sub>2</sub>S.

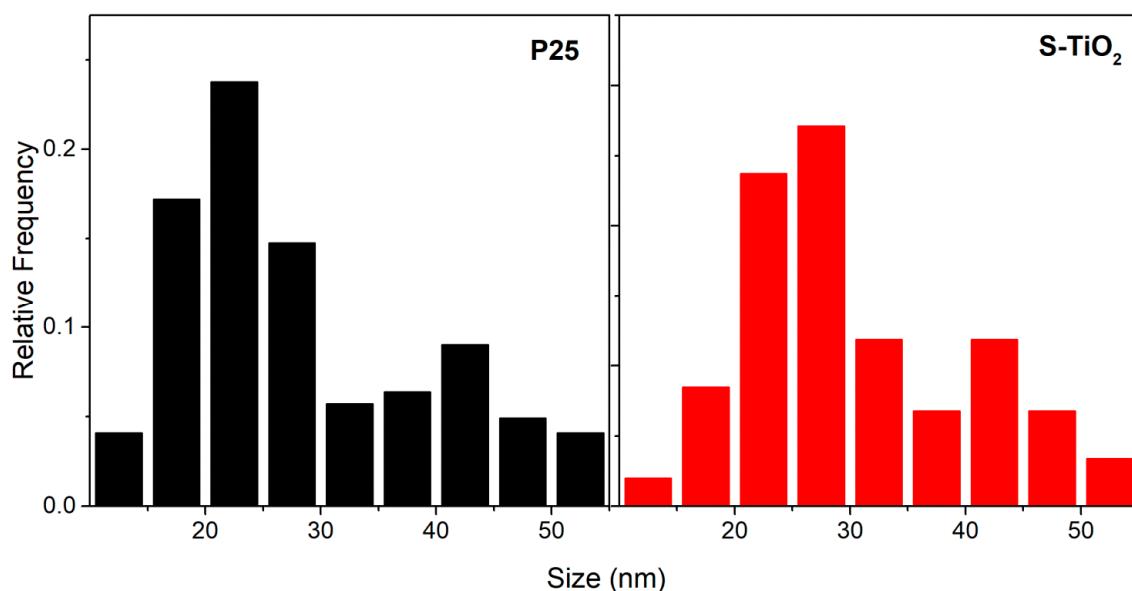
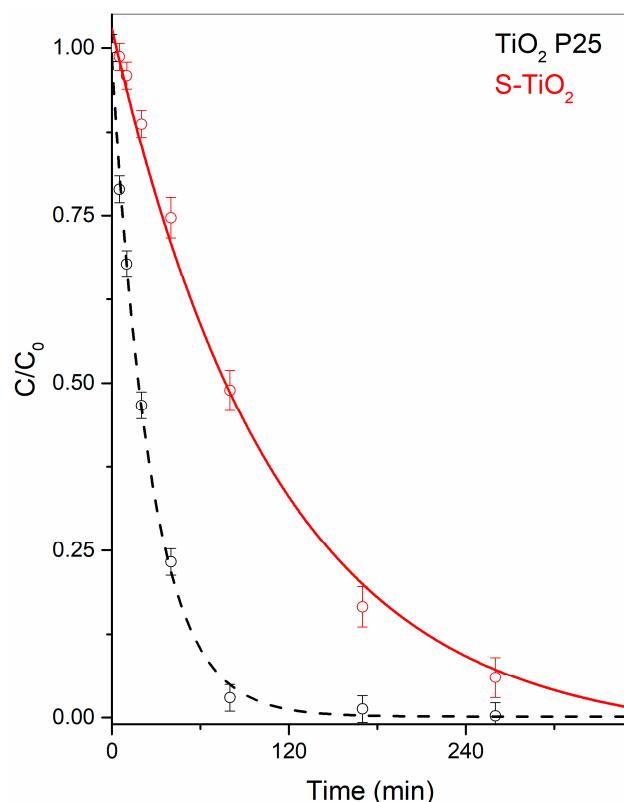


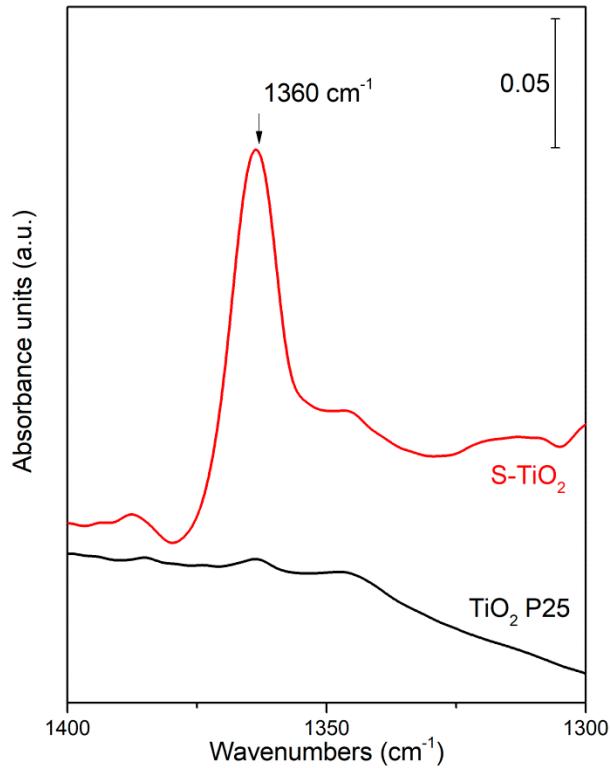
Figure S2. Particle size distributions (PSDs) of TiO<sub>2</sub> P25 (left panel) and of S-TiO<sub>2</sub> (right panel).

**Table S1.** Mean crystal sizes of anatase and rutile nanoparticles in TiO<sub>2</sub> P25 and S-TiO<sub>2</sub> samples, as obtained from XRD peak broadening (black and red patterns in Figure 1).

<b>TiO<sub>2</sub> P25</b>		
(101) Anatase		25 nm
(110) Rutile		40 nm
<b>S-TiO<sub>2</sub></b>		
(101) Anatase		26 nm
(110) Rutile		41 nm



**Figure S3.** Time dependence of  $C/C_0$  upon solar light exposure of S-TiO<sub>2</sub> (red line) as compared to the TiO<sub>2</sub> P25 (black dotted line), for photodegradation of methylene blue.



**Figure S4.** FTIR spectra, recorded before CO dosage, of  $\text{TiO}_2$  (black curve) and  $\text{TiO}_2/\text{H}_2\text{S}$  (red curve).