



# Mixed Metal Oxide W-TiO<sub>2</sub> Nanopowder for Environmental Process: Synergy of Adsorption and Photocatalysis

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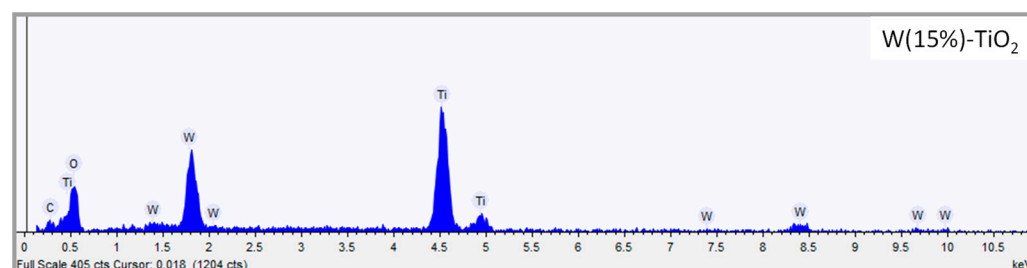
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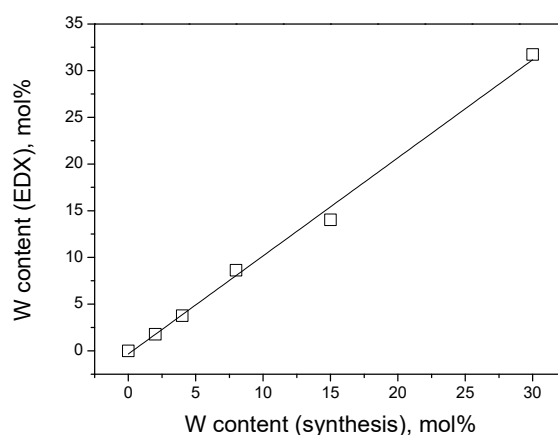
## 1. EDX measurements



(1) Traces of C are due to supporting tape. No contamination was observed.

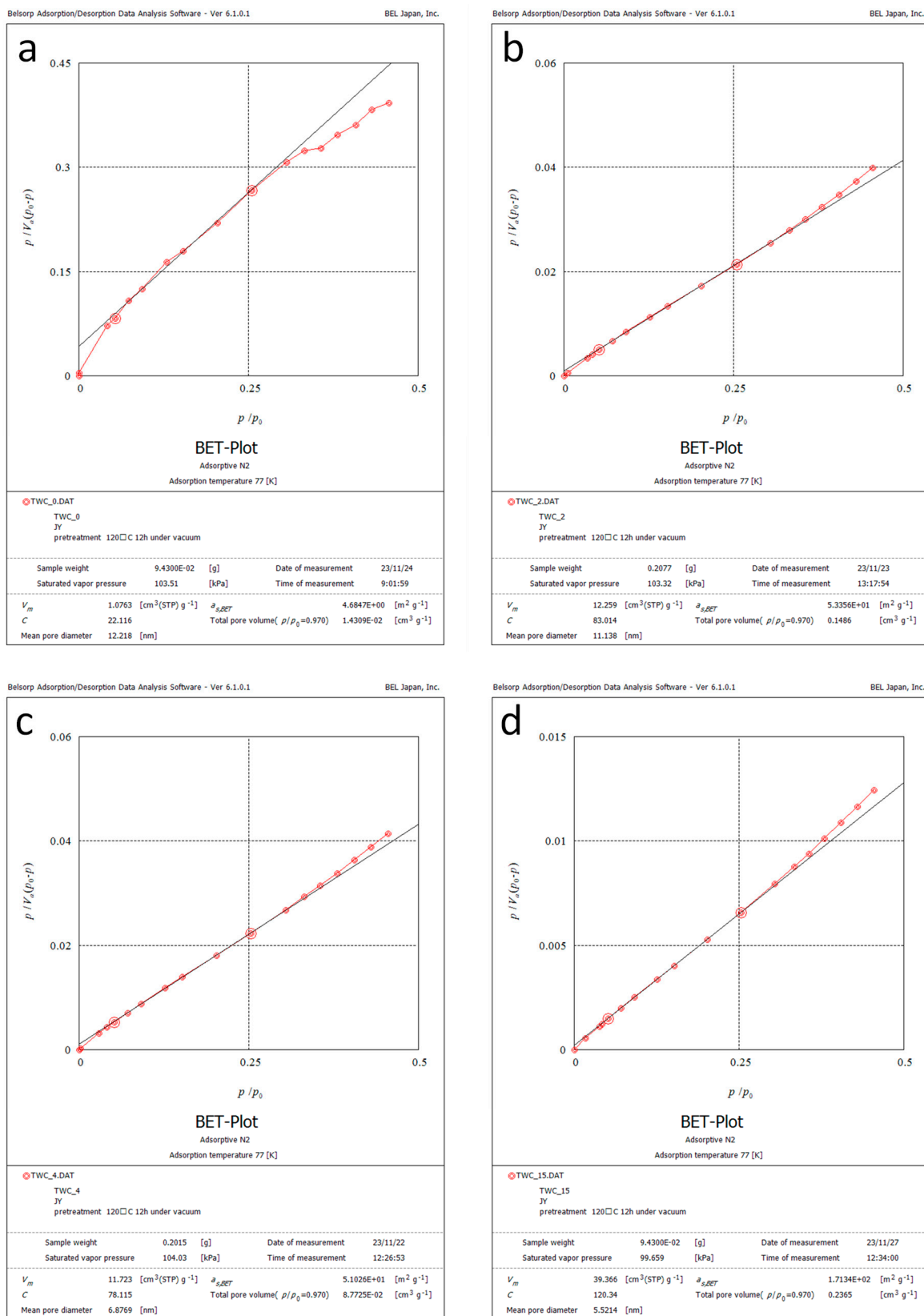
**Table S1.** W/Ti elemental composition of selected W(x)-TiO<sub>2</sub> nanopowders calcinated at 550 °C, where  $x = C_W / (C_W + C_{Ti})$ .

Samples	W(0.02)-TiO <sub>2</sub>	W(0.04)-TiO <sub>2</sub>	W(0.08)-TiO <sub>2</sub>	W(0.15)-TiO <sub>2</sub>	W(0.30)-TiO <sub>2</sub>
W / (W + Ti)	0.0177	0.0376	0.0863	0.1403	0.3172



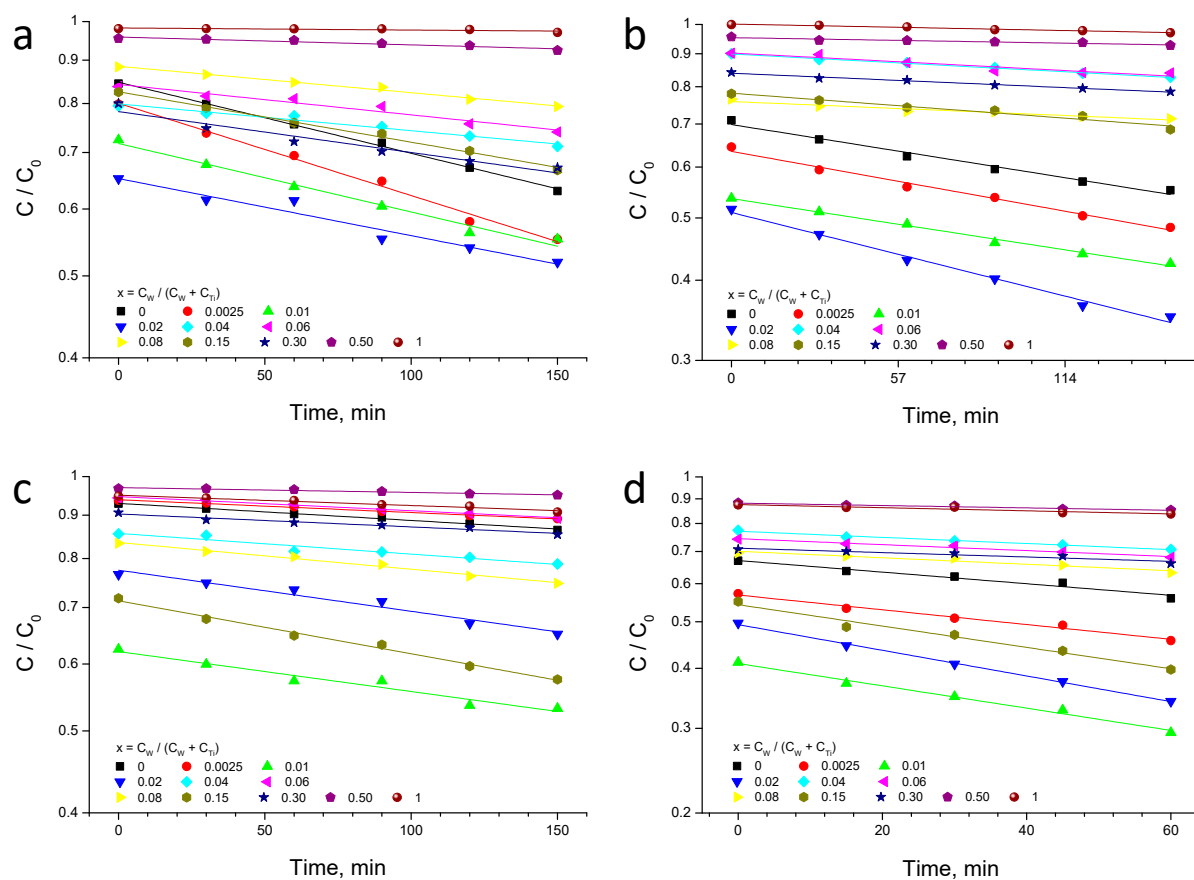
**Figure S1.** W/(W+Ti) composition of W-TiO<sub>2</sub> nanopowders (calcinated at 550 °C).

## 2. BET measurements



**Figure S2.** BET plots of W-TiO<sub>2</sub> nanopowders (calcinated at 550 °C) with W content of 0 (a), 2 (b), 4 (c) and 15 (d) mol%.

### 3. Kinetics of photocatalytic process



**Figure S3.** Semi-logarithmic plots of MB degradation kinetics using W-TiO<sub>2</sub> photocatalyst ( $C_{catalyst}=0.125$  g/L) under UV-A lamp ( $\lambda=365$  nm) (a-c) and sunlight (d) illuminations. Calcination temperatures are 500 °C (a), 550 °C (b, d), and 600 °C (c). Photocatalysts compositions  $x$  are labeled in inset. Fit of experimental data with first-order process kinetics is shown by solid lines.