

## ELECTRONIC SUPPLEMENTARY INFORMATION

### Photocatalytic activity of undoped and Mn- and Co-doped TiO<sub>2</sub> nanocrystals incorporated in enamel coatings on stainless steel

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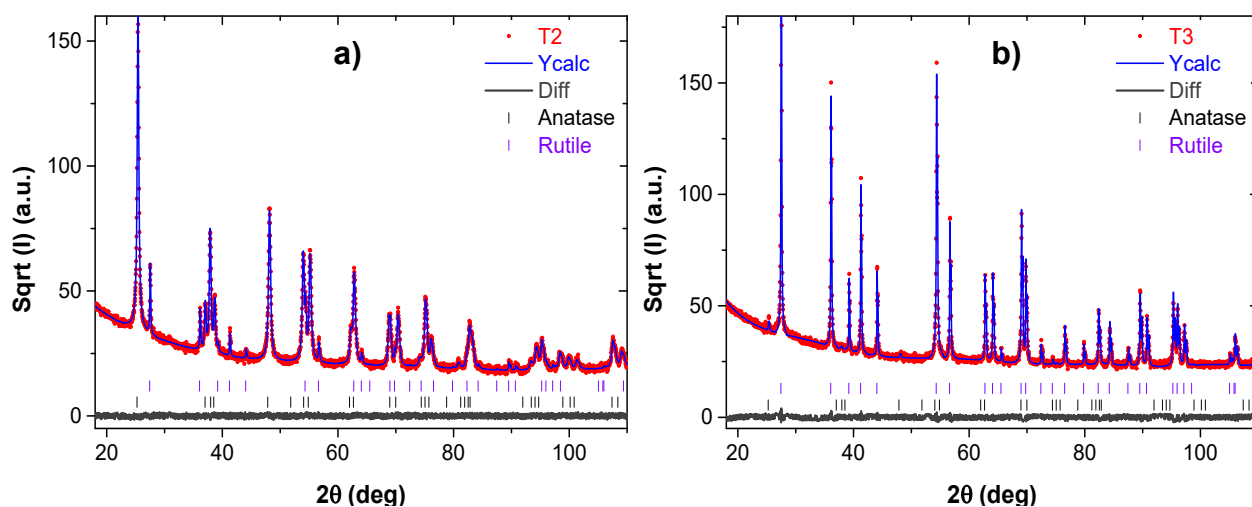
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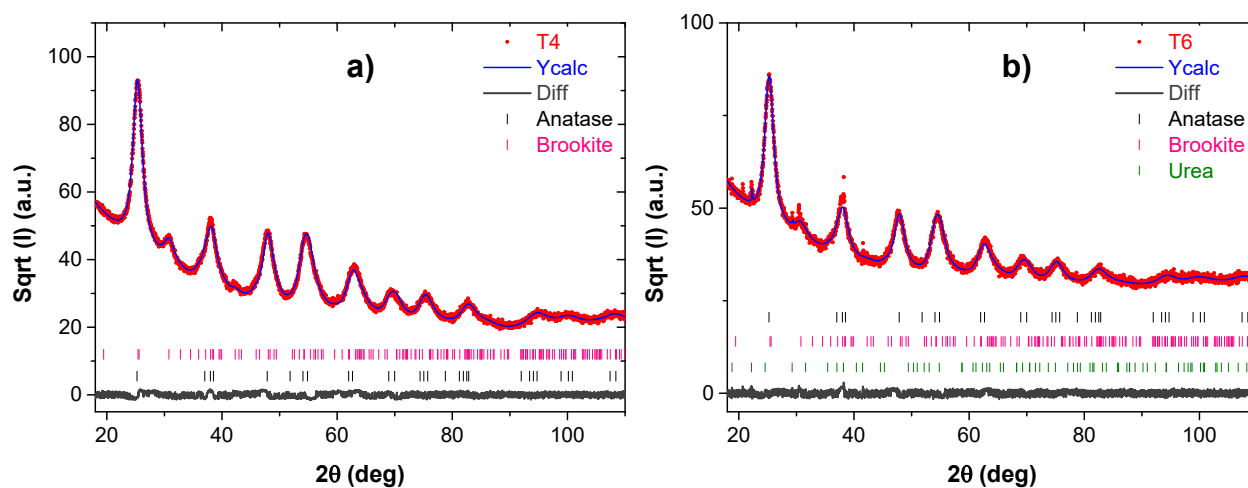
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## 1. X-ray diffraction analyses of TiO<sub>2</sub> NCs

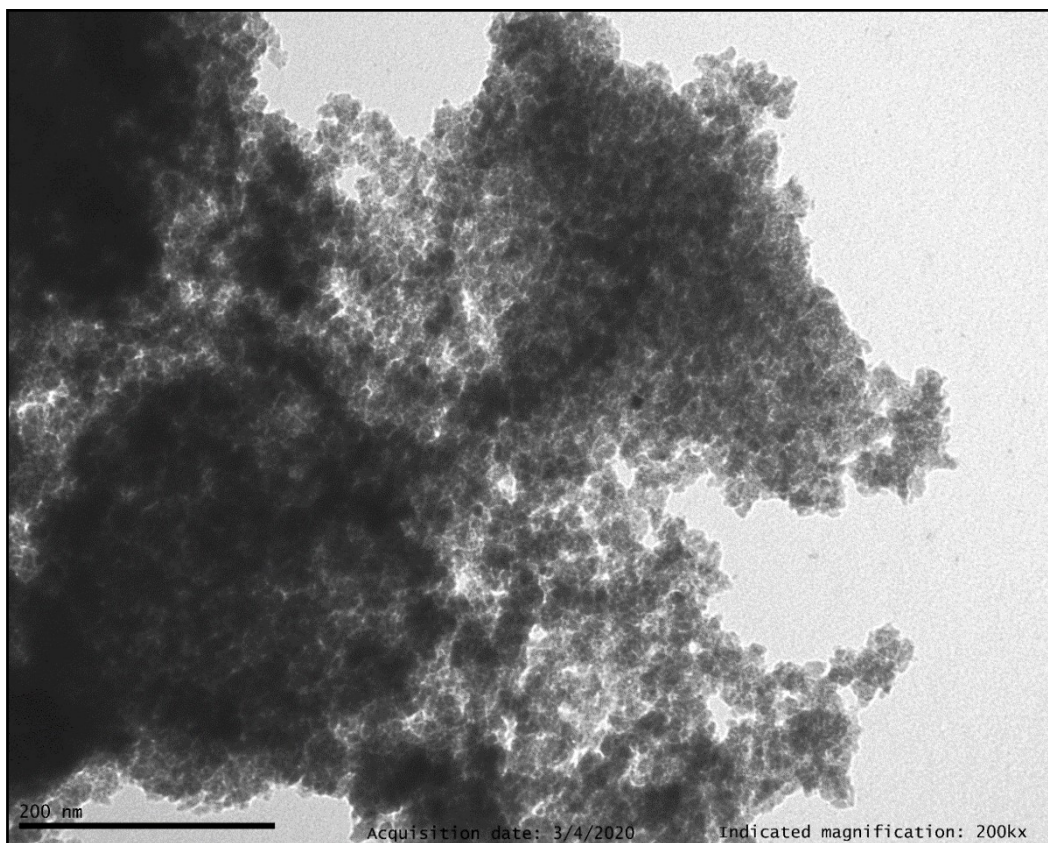


**Fig. S1** XRD diffraction patterns of (a) pure TiO<sub>2</sub> NCs calcined at 600 °C (T2); (b) pure TiO<sub>2</sub> NCs calcined at 800 °C (T3).

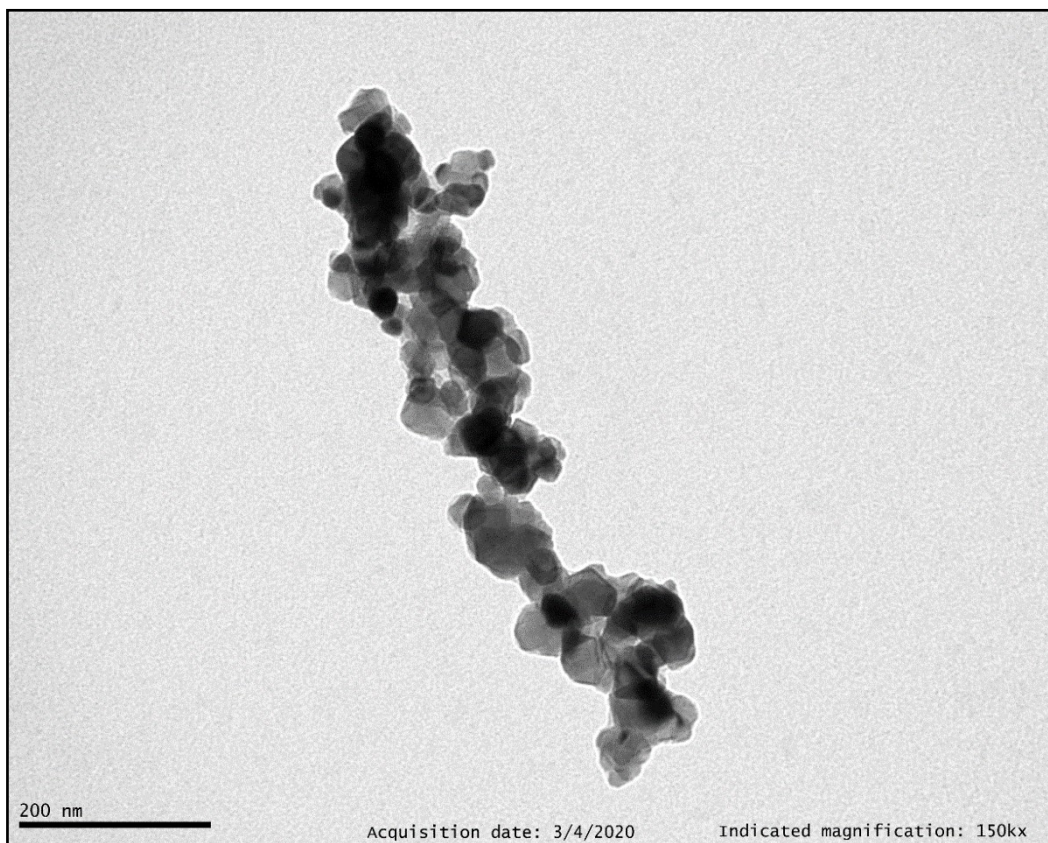


**Fig. S2** XRD diffraction patterns of (a) non-calcined Mn-doped TiO<sub>2</sub> NCs (T4); (b) non-calcined Co-doped TiO<sub>2</sub> NCs (T6).

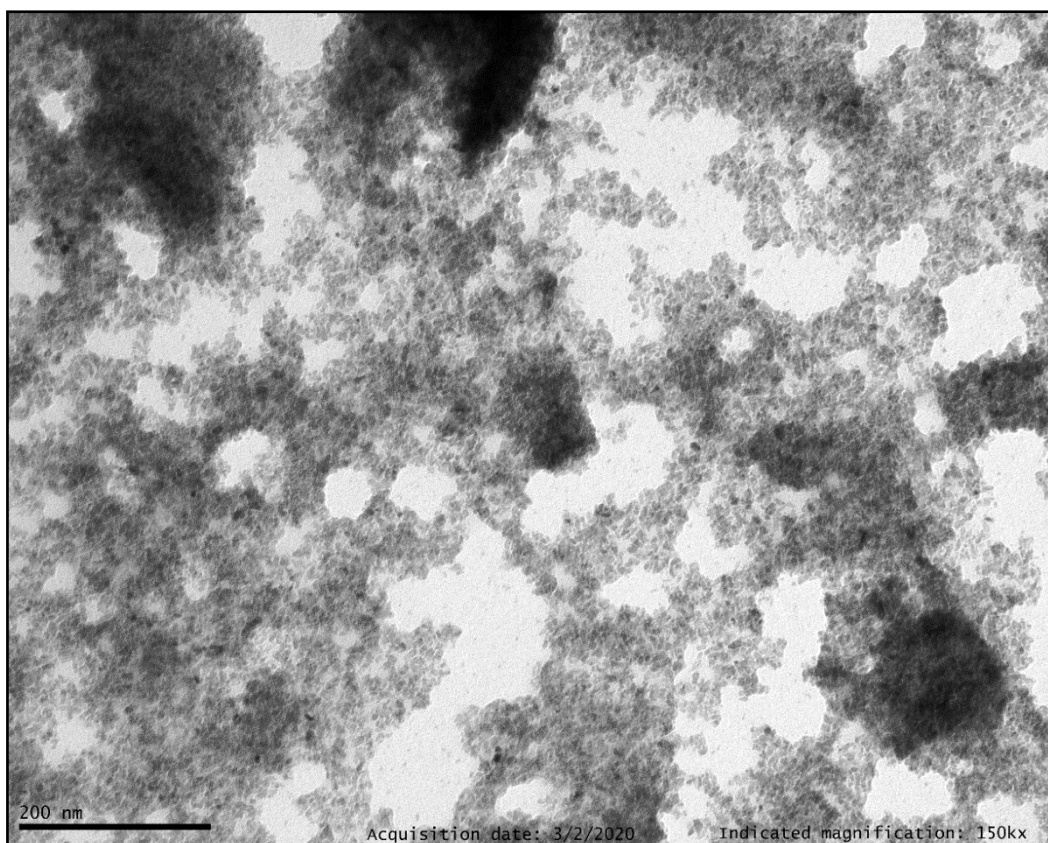
## 2. TEM images of TiO<sub>2</sub> NCs



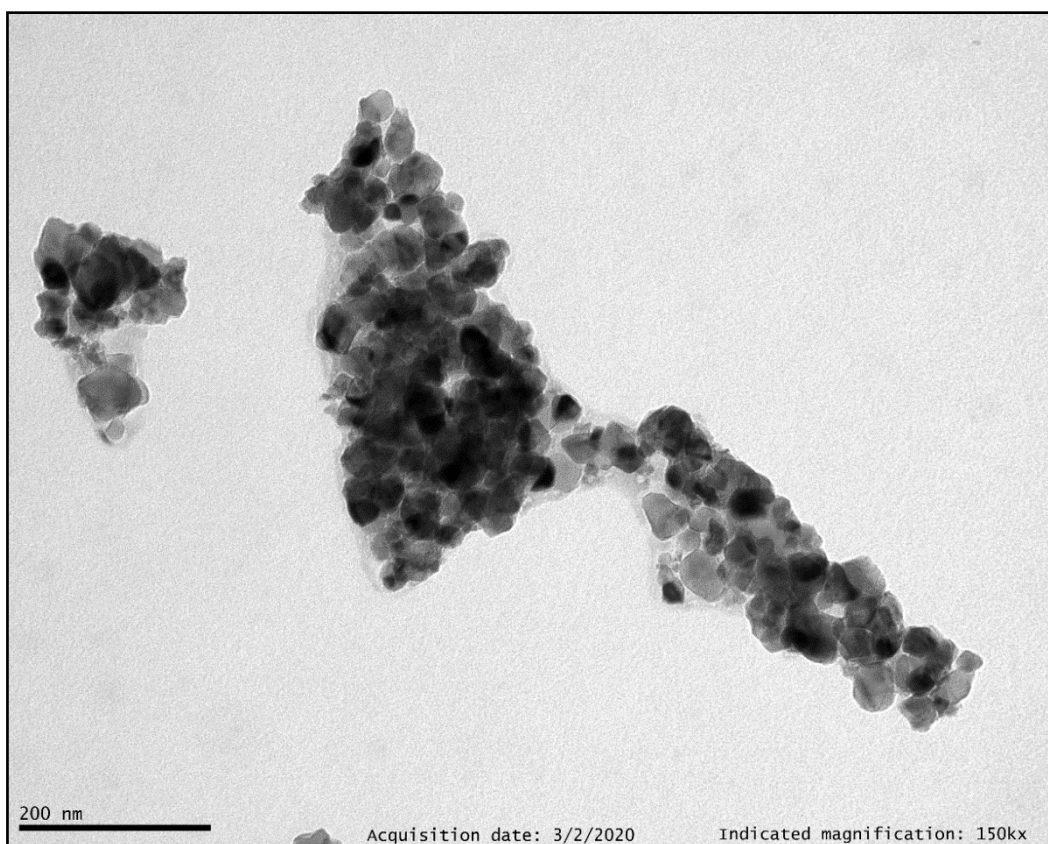
**Fig. S3** TEM image of T4.



**Fig. S4** TEM image of T5.



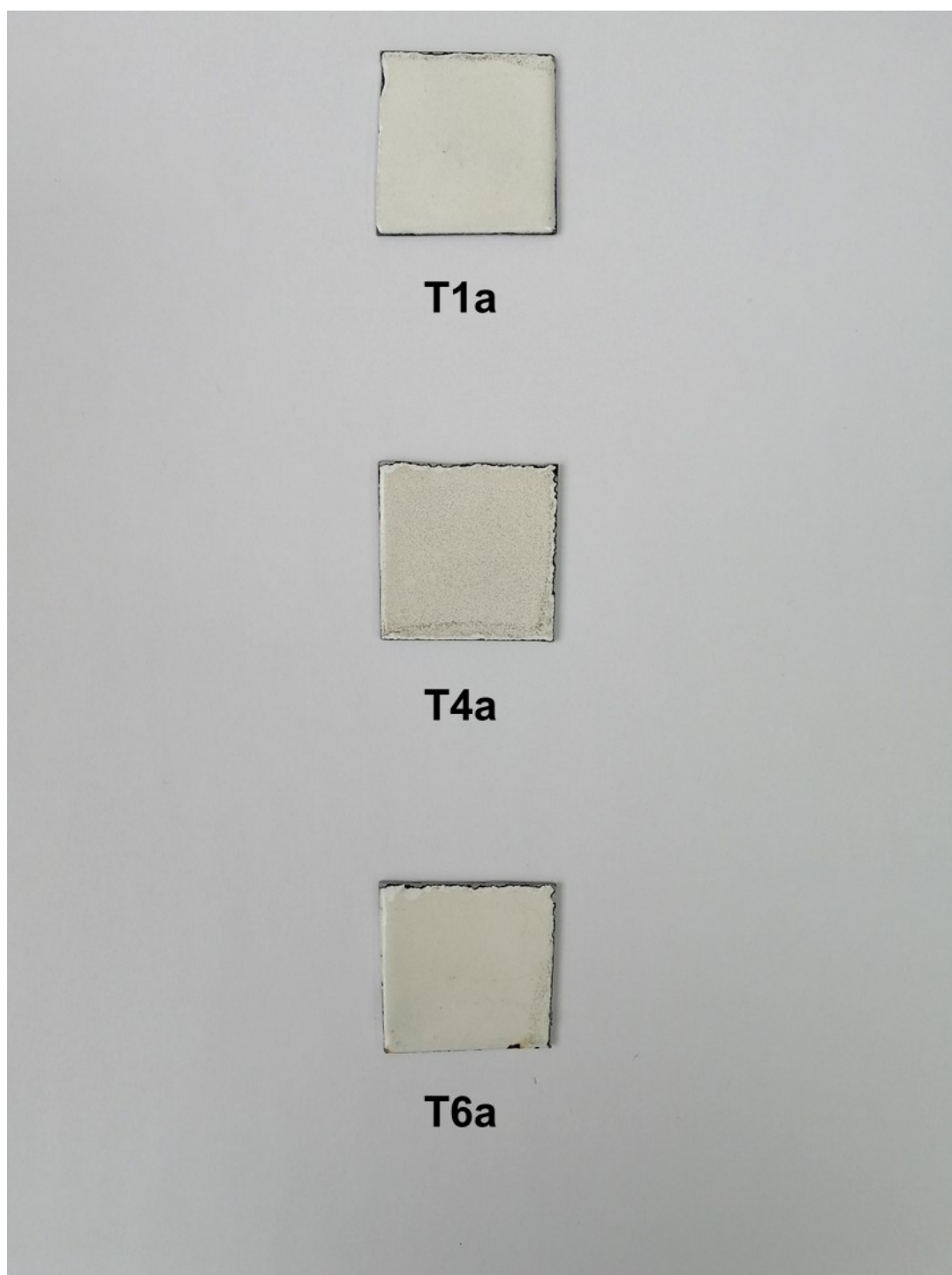
**Fig. S5** TEM image of T6.



**Fig. S6** TEM image of T7.

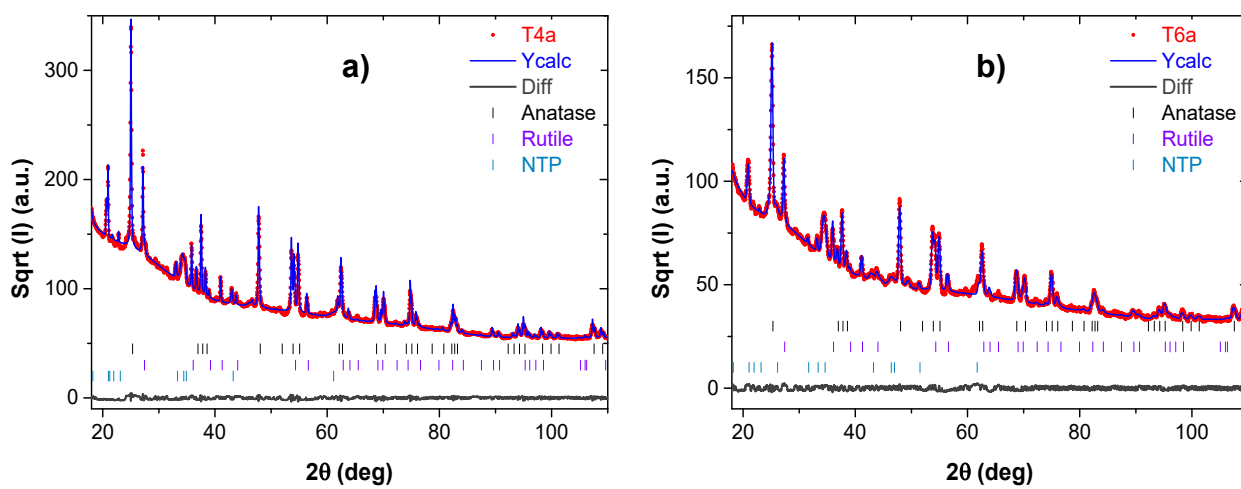


### 3. Photographs of supported photocatalysts



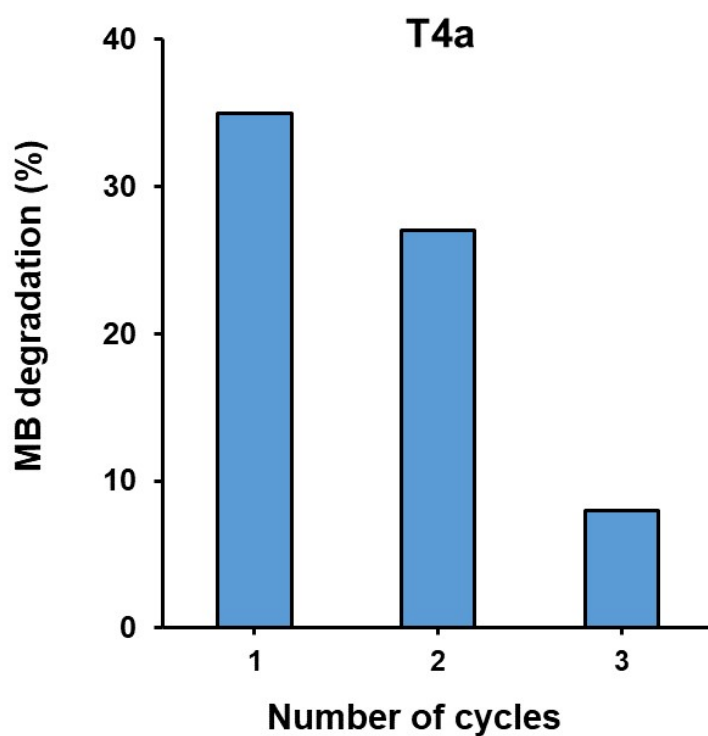
**Fig. S7** Photographs of supported photocatalysts containing TiO<sub>2</sub> NCs. T1a: pure TiO<sub>2</sub> NCs; T4a: Mn-doped TiO<sub>2</sub> NCs; T6a: Co-doped TiO<sub>2</sub> NCs.

#### 4. X-ray diffraction analyses of TiO<sub>2</sub> NCs deposited on enamel supported onto steel sheets

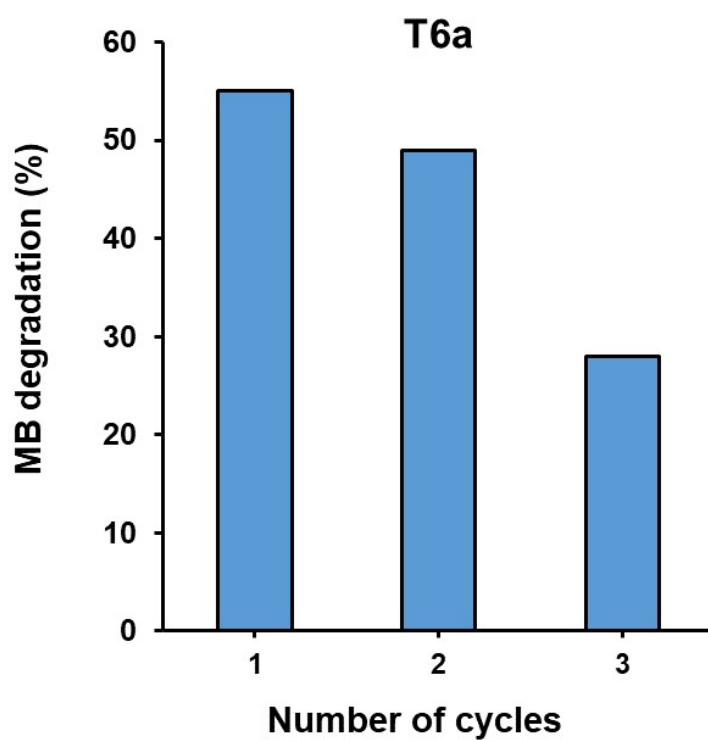


**Fig. S8** XRD diffraction patterns of (a) Mn-doped TiO<sub>2</sub> NCs deposited on enamel supported onto steel sheets (T4a). (b) Co-doped TiO<sub>2</sub> NCs deposited on enamel supported onto steel sheets (T6a).

## 5. Recycling experiments



**Fig. S9** Reuse of T4a in the degradation of MB. Conditions: MB (150 mL, 10  $\mu$ M), catalyst (5 x 5  $\text{cm}^2$ ), 22 W,  $\lambda = 395$  nm, at RT.



**Fig. S10** Reuse of T6a in the degradation of MB. Conditions: MB (150 mL, 10  $\mu$ M), catalyst (5 x 5  $\text{cm}^2$ ), 22 W,  $\lambda = 395$  nm, at RT.