Supplementary Materials: Ag/Ag₂O as a Co-Catalyst in TiO₂ Photocatalysis: Effect of the Co-Catalyst/Photocatalyst Mass Ratio

Soukaina Akel *, Ralf Dillert, Narmina O. Balayeva, Redouan Bougahed, Julian Koch, Mohammed El Azzouzi and Detlef W. Bahnemann *

<table>
<thead>
<tr>
<th>Ag/Ag₂O</th>
<th>Conc.</th>
<th>App Intensity</th>
<th>Weight%</th>
<th>Weight%</th>
<th>Atomic%</th>
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<tr>
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### Ag/Ag₂O//TiO₂ Composites (TC):

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### TC 14

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**Figure S1.** EDX diagrams of all prepared photocatalysts.
Figure S2. XRD patterns of TM 11 photocatalyst after one cycle of MB bleaching employing UV/vis light.
Figure S3. XPS spectra of Ag 3d, O 1s and Ti 2p in the Ag/Ag₂O, TM and TC materials.
Figure S4. Emission spectrum of the used Xenon lamp.

Figure S5. UV/vis spectra of aqueous methylene blue solutions obtained during illumination with visible light in the presence of Ag/Ag2O.

Figure S6. Calibration curve for H2 experiment.