Electronic Supplementary Information (ESI)

3D Nanostructured N-doped TiO_2 Photocatalysts with Enhanced Visible Absorption

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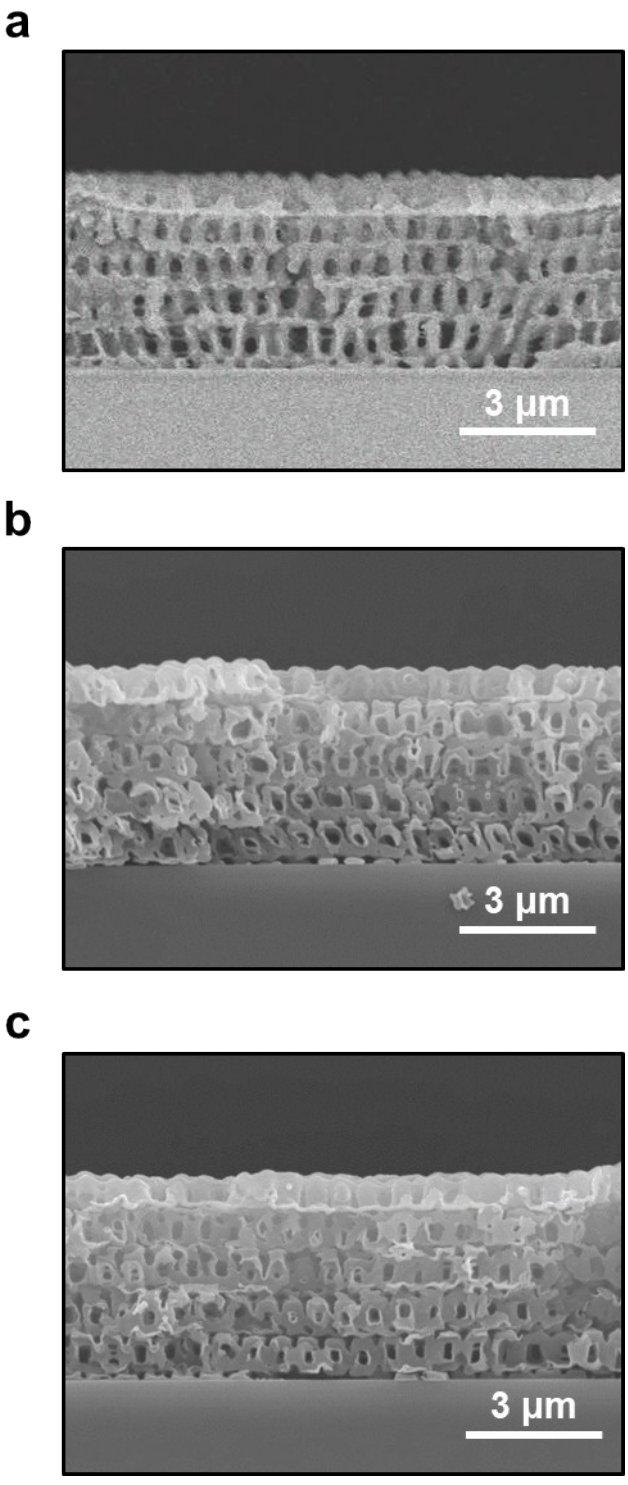

Figure S1. Cross-sectional SEM Image of (a) 3D polymer template, (b) 3D TiO_2 and (c) TiN coated 3D TiO_2.

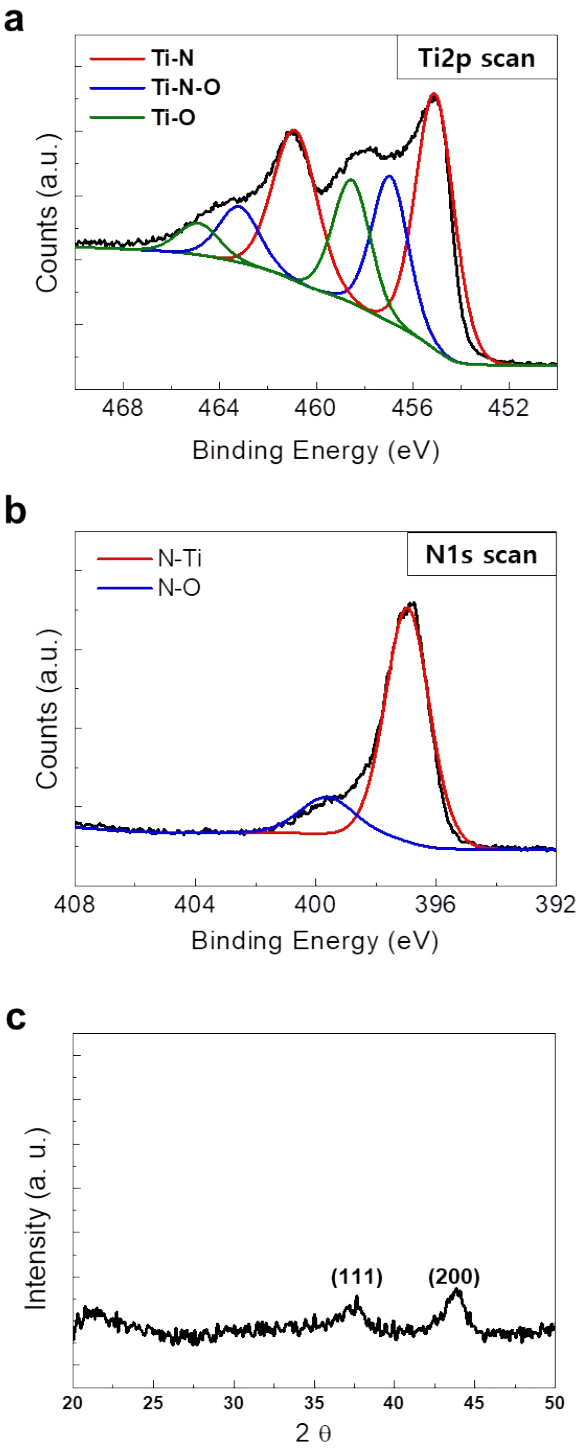

Figure S2. Characterization of TiN deposited by ALD. (a) XPS Ti2p scan, (b) XPS N1s scan and (c) XRD graph of TiN.

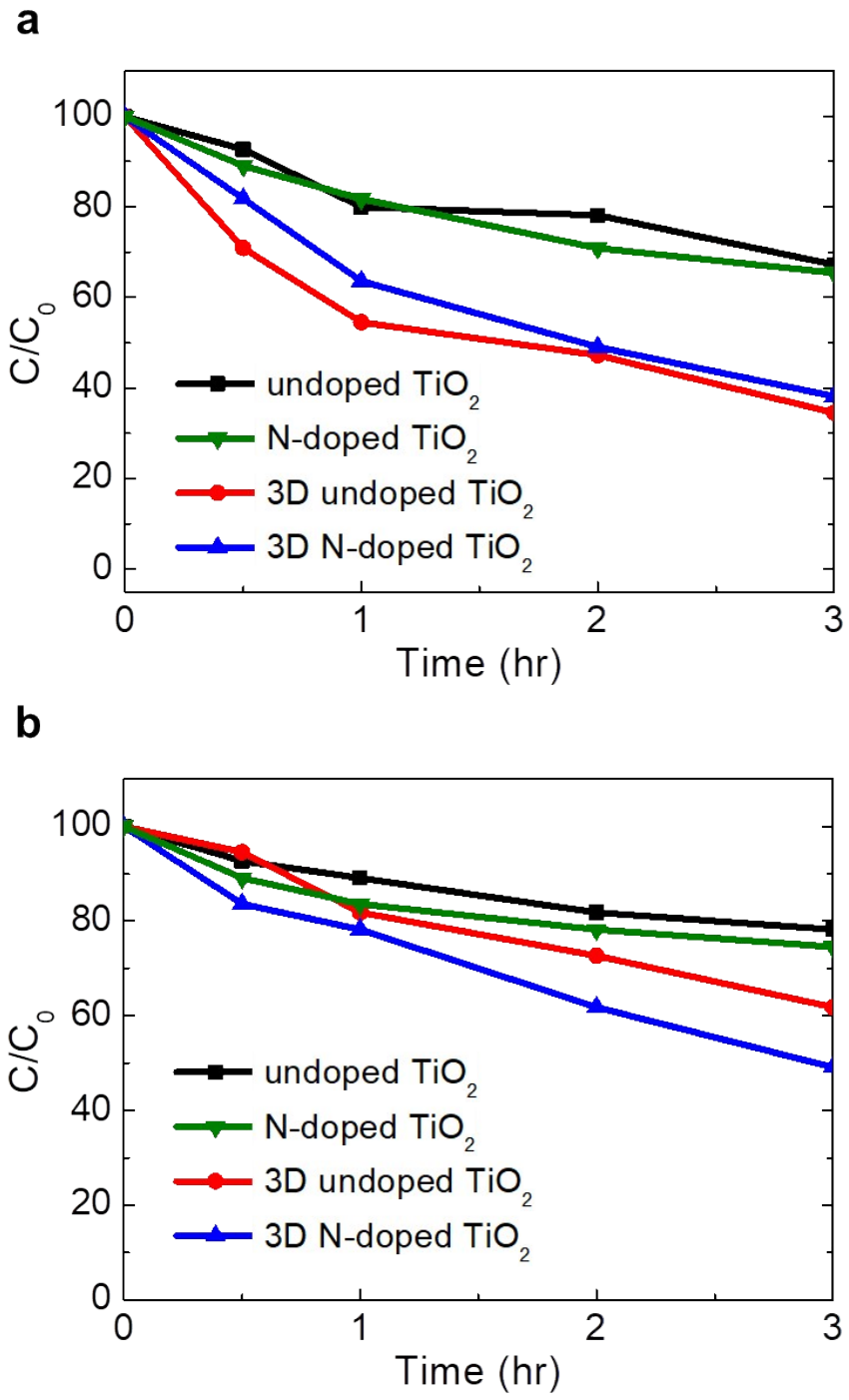

Figure S3. Time-dependent absorbance change of methylene blue (MB) solutions with undoped TiO_2 film, 3D undoped TiO_2 film, and 3D N-doped TiO_2 film, under (a) UV and (b) solar irradiation.

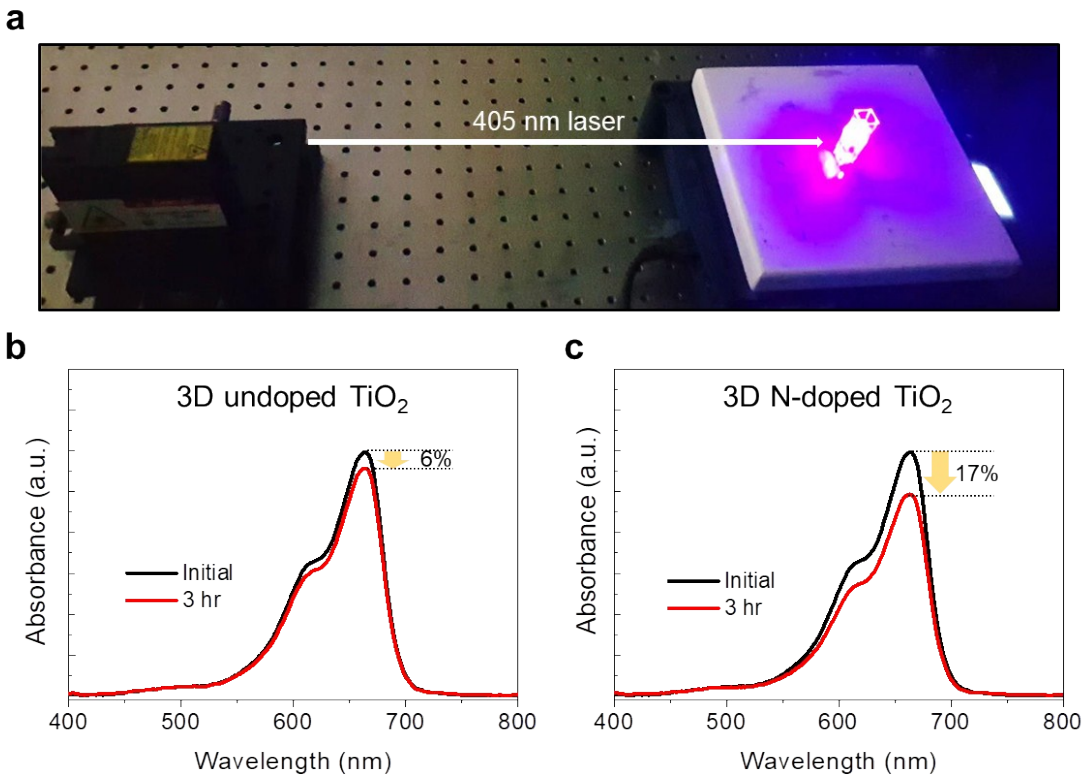

Figure S4. Measurement of photocatalytic activity under visible irradiation. (a) Digital image of diode laser (wavelength: 405 nm) set-up for measuring visible photocatalytic activity. Absorbance change of methylene blue (MB) solutions with (b) 3D undoped TiO_2 film and (c) 3D N-doped TiO_2 film under visible irradiation.