Facile formation of anatase nanoparticles on H-titanate nanotubes at low temperature for efficient visible light-driven degradation of organic pollutants

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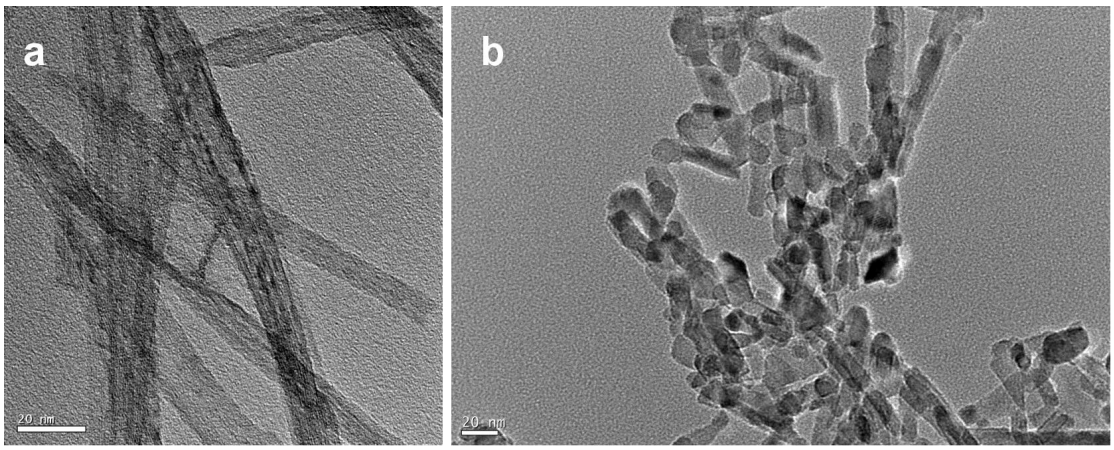

Figure S1. TEM images of (a) TiO_2-60, (b) TiO_2-500.

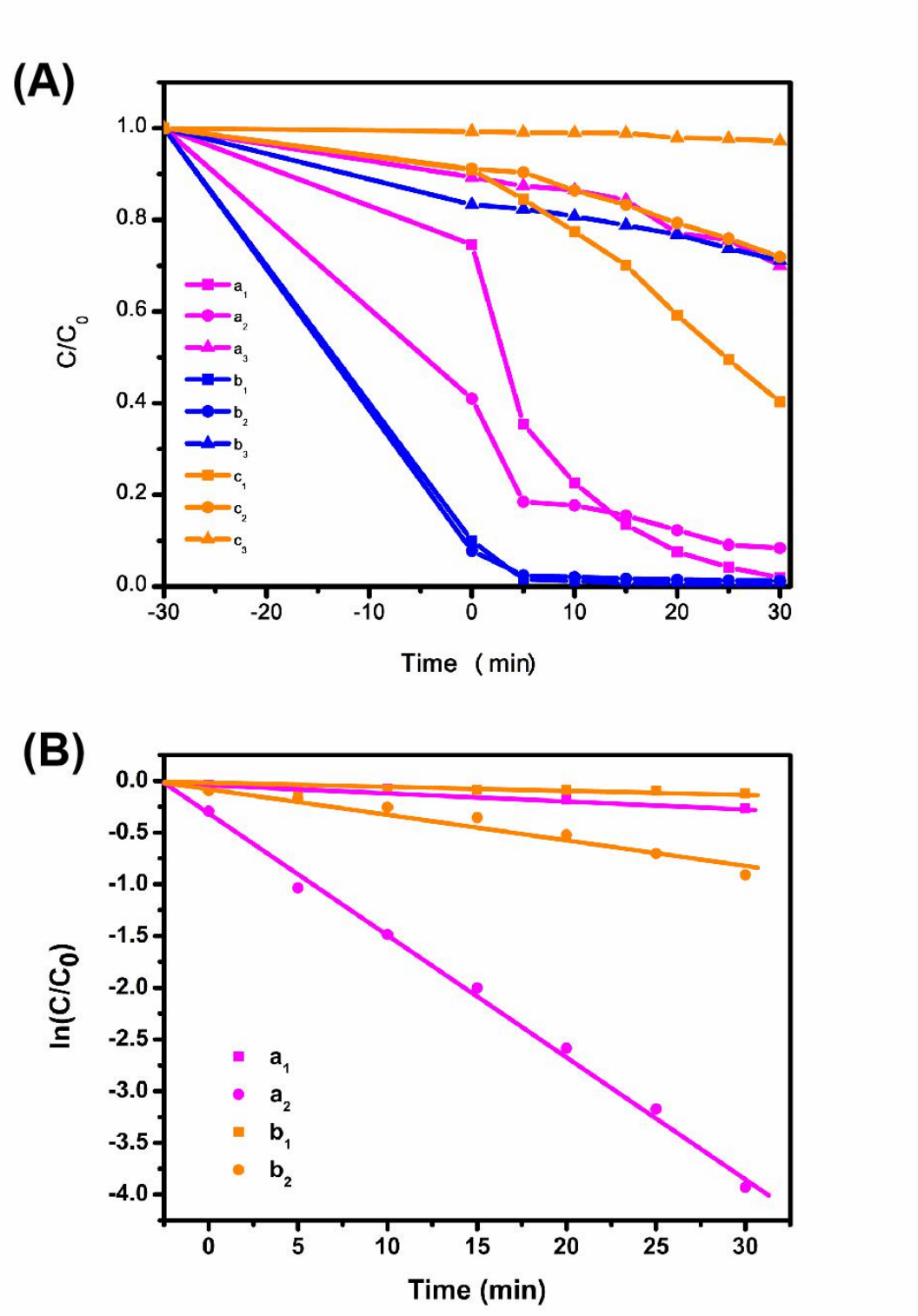

Figure S2. (A) Photocatalytic degradation of RhB over the (a_1) dual-phase H-titanate/anatase, (a_2) H-titanate, (a_3) anatase catalysts; photocatalytic degradation of MB over the (b_1) dual-phase H-titanate/anatase, (b_2) H-titanate, (b_3) anatase catalysts; photocatalytic degradation of MO over the (c_1) dual-phase H-titanate/anatase, (c_2) H-titanate, (c_3) anatase catalysts under visible light irradiation. (B) Photocatalytic kinetic plot of the (a_1) P25, (a_2) dual-phase H-titanate/anatase for degradation of RhB; photocatalytic kinetic plot of the (b_1) P25, (b_2) dual-phase H-titanate/anatase for degradation of MO under visible light irradiation.

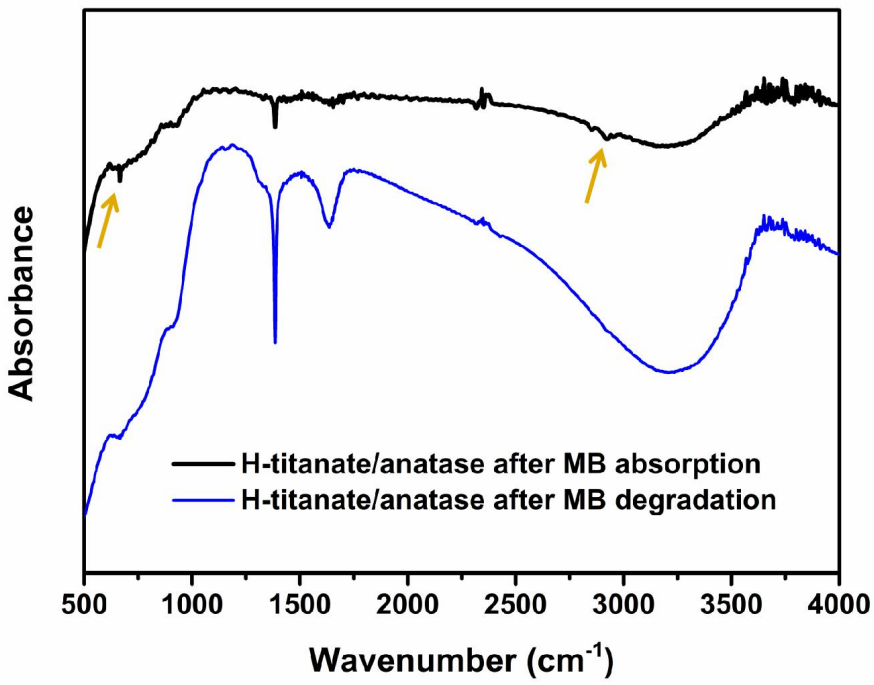

Figure S3. FT-IR spectra of H-titanate/anatase after MB adsorption and degradation tests.

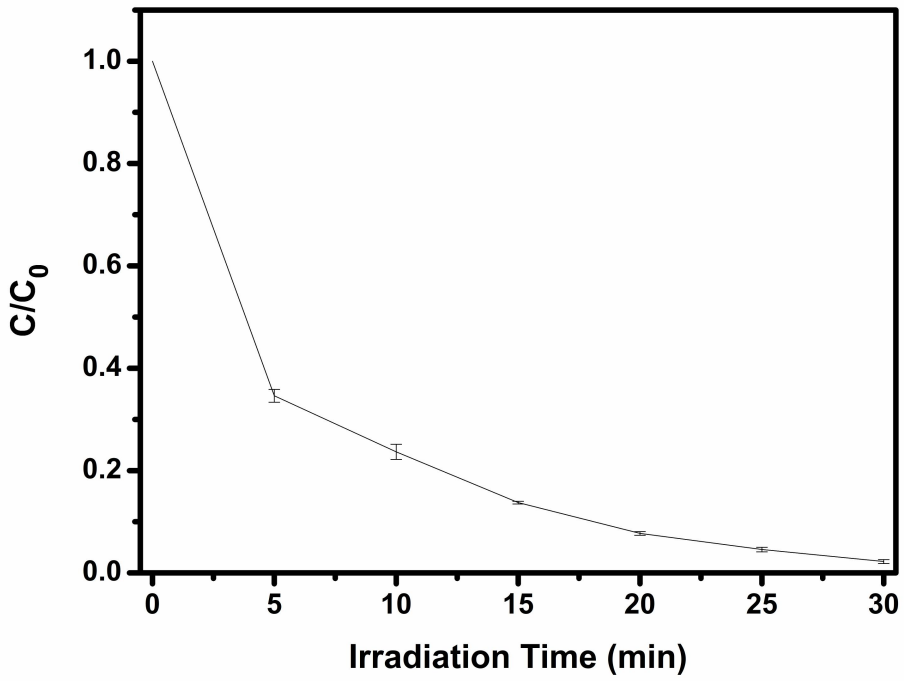

Figure S4. Photocatalytic degradation of RhB over the dual-phase H-titanate/anatase catalysts.

Table S1. Textural parameters of (a) TiO_2-60 (the as-prepared H-titanate tubes), (b) TiO_2-100, (c) TiO_2-200,. (d) TiO_2-300, (e) TiO_2-500.

Sample	S_{BET} (m^2g^{-1})	Pore Size (nm)	V_{total}[a] (cm^3g^{-1})
a	245	10.2	0.659
b	174	11.4	0.732
c	165	11.5	0.486
d	161	18.6	0.850
e	95	26.7	0.661

[a] Total pore volume was calculated at a relative pressure of P/P_0=0.98