Highly Porous SnO_2/TiO_2 Heterojunction Thin-Film Photocatalyst Using Gas-Flow Thermal Evaporation and Atomic Layer Deposition

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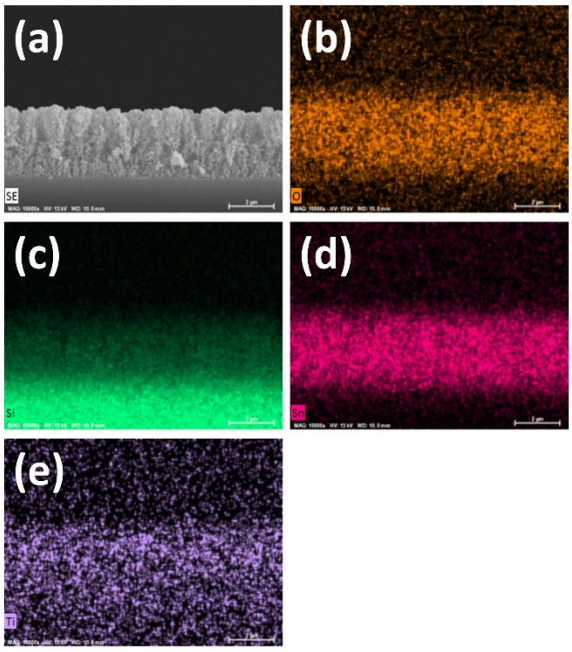

Figure S1. EDX mapping for SnO_2/TiO_2-50: (a) lateral SEM image of SnO_2/TiO_2-50 of information collection area, (b) O element, (c) Si element (d) Sn element and (e) Ti element.

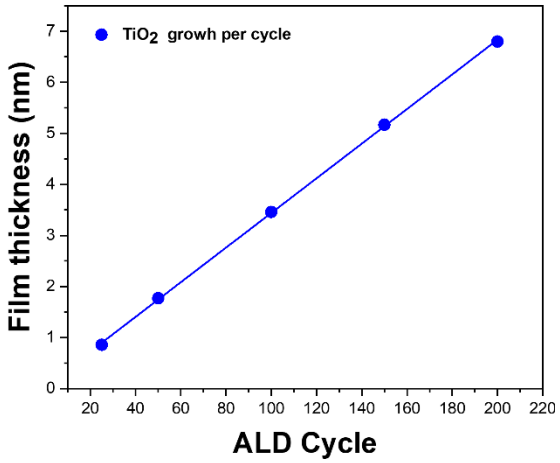

Figure S2. Growth per cycle (GPC) of TiO_2 thin film at 300℃ on Si substrate

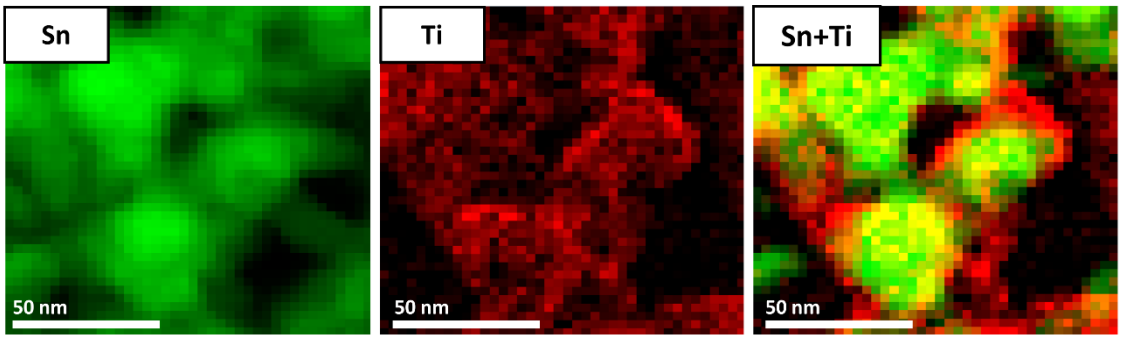

Figure S3. EELS spectrum of SnO_2/TiO_2-50. Sn and Ti clearly reveals presence as heterojunction structure.

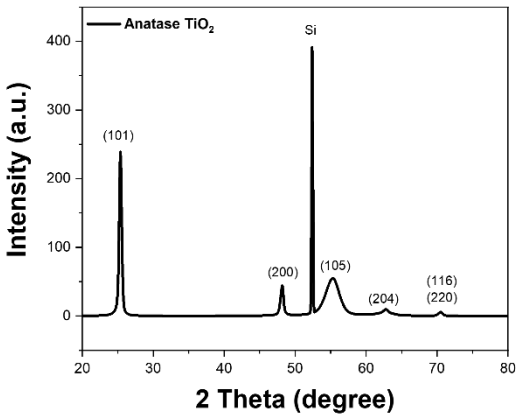

Figure S4. XRD pattern of as-deposited TiO_2 layer by ALD cycles process on Si substrate

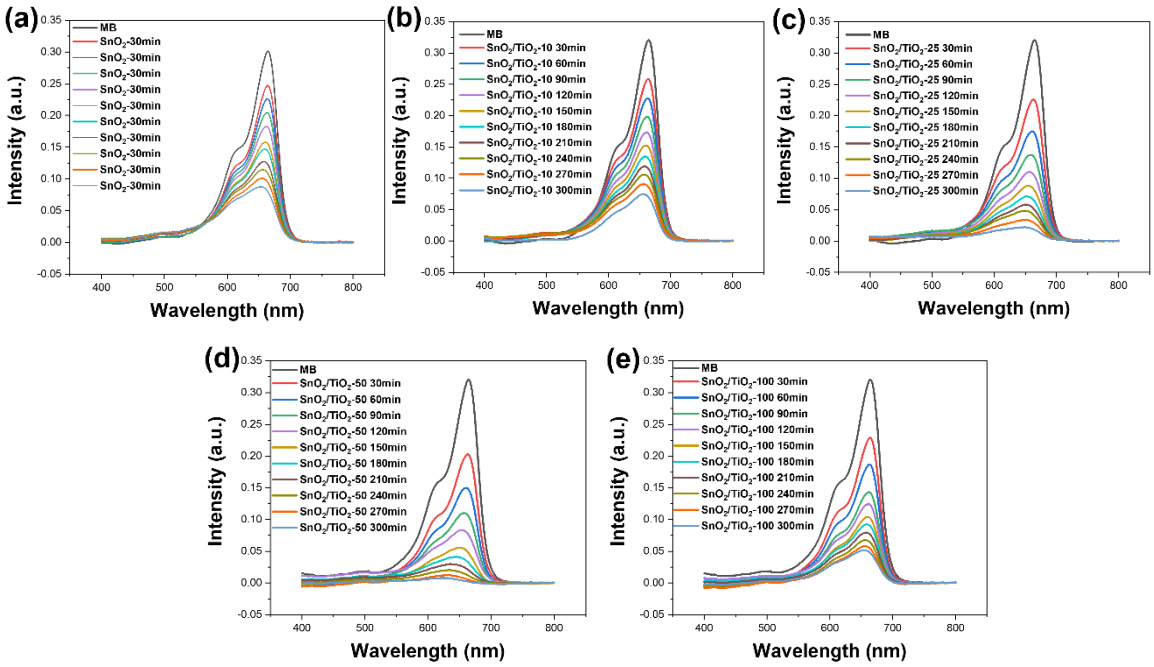

Figure S5. UV-Visible absorbance spectra of photodegradation of methylene blue (a)-(e) by SnO_2 and all SnO_2/TiO_2 with different ALD cycles.

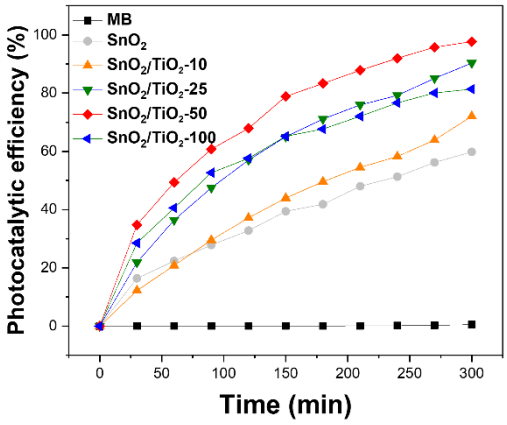

Figure S6. The photocatalytic efficiency (%) with increasing degradation time by SnO_2 and all SnO_2/TiO_2-50 photocatalysts.