

# Supporting Information

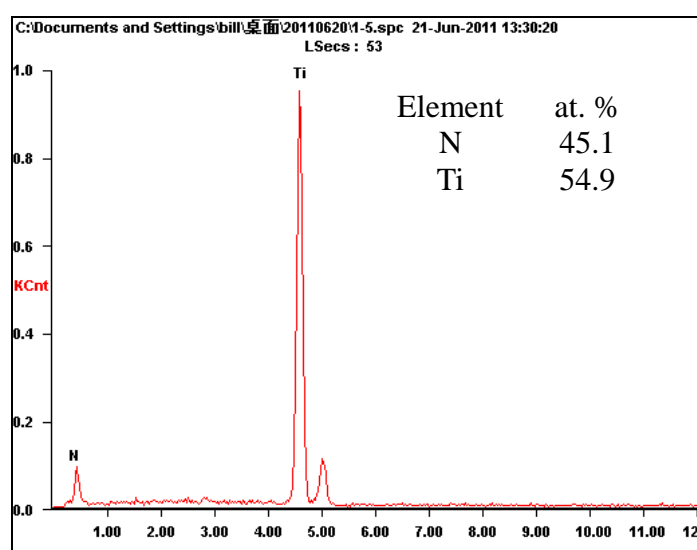
For

One-pot Synthesis of N-F-Cr-doped Anatase TiO<sub>2</sub> Microspheres with All-(001)

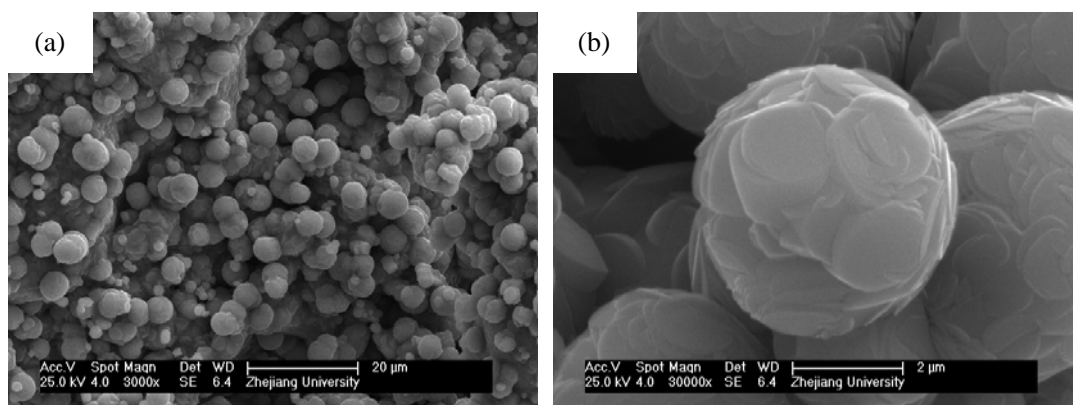
Surface for Enhanced Solar Absorption

by

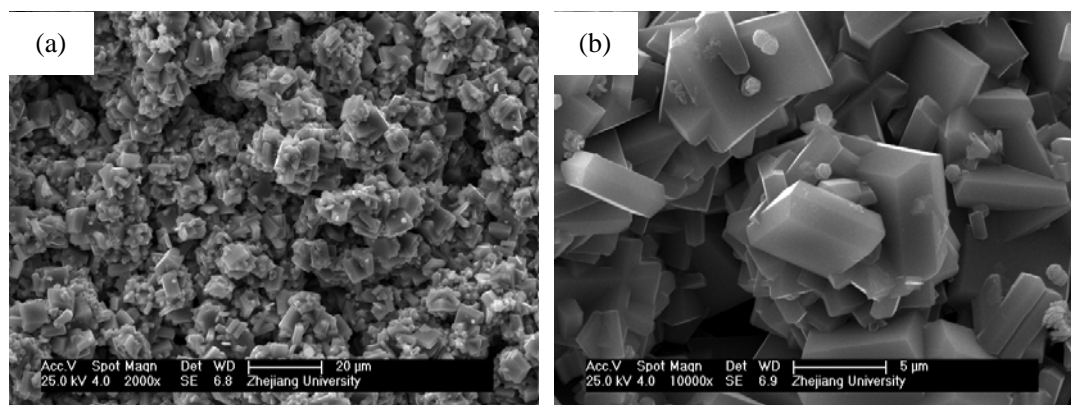
Jin-Ming Wu and Mei-Lan Tang



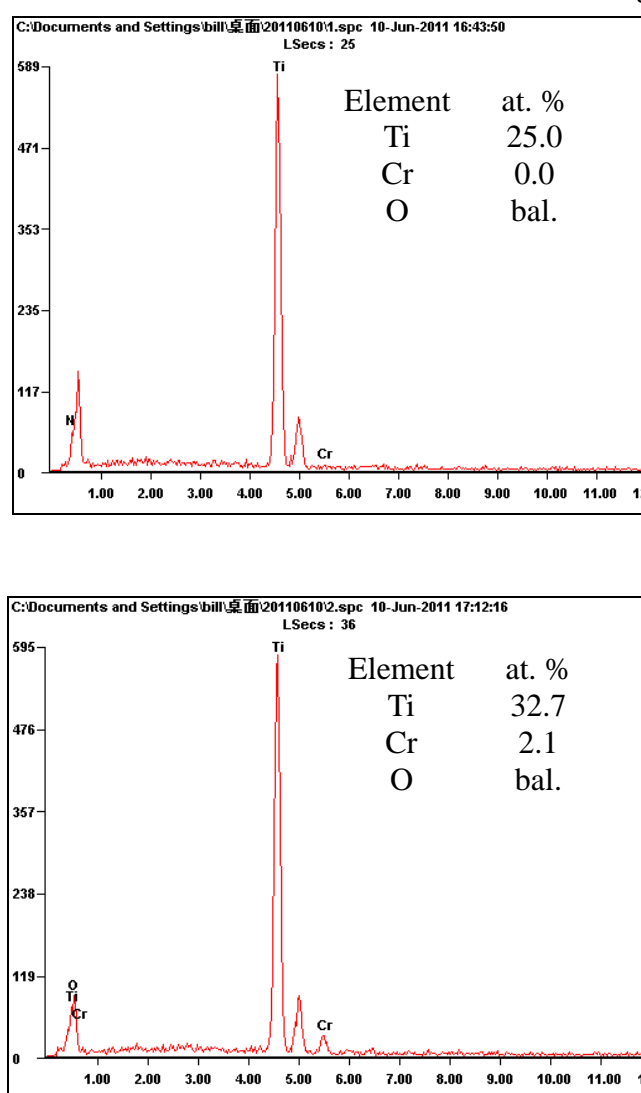
**Fig. S1** EDS analysis of the thermal sprayed TiN/Ti coating.



**Fig. S2** (a) low- and (b) high-magnification FE-SEM images of TiN/Ti after hydrothermal treatment in 0.4 mass% HF with the additive of 20 mg Cr.



**Fig. S3** (a) low- and (b) high-magnification FE-SEM images of Ti plate after hydrothermal treatment in 0.8 mass% HF with the additive of 10 mg Cr.



**Fig. S4** EDS spectra of  $\text{TiO}_2$  crystals derived by hydrothermal treatment of TiN/Ti at 180 °C for 12 h in 0.05 and 0.40 mass% HF with the additive of 10 mg Cr.