of Rare-Earth Modification TiO<sub>2</sub> and Photodegradation on Benzohydroxamic Acid



**Figure S1.** N<sub>2</sub> adsorption-desorption isotherms and pore size distributions (inset) of pure TiO<sub>2</sub> (a,e) and RE/TiO<sub>2</sub> (b,c,d,f). (a) Pure TiO<sub>2</sub> (500 °C); (b) 0.75% La/TiO<sub>2</sub> (500 °C); (c) 0.20% Ce/TiO<sub>2</sub> (500 °C); (d) 0.70% Gd/TiO<sub>2</sub> (500 °C); (e) Pure TiO<sub>2</sub> (450 °C); (f) 0.50% Yb/TiO<sub>2</sub> (450 °C).





**Figure S2.** TDOS and PDOS of anatase TiO<sub>2</sub> (unit cell) and RE/TiO<sub>2</sub> ( $2 \times 2 \times 1$  supercell, La/TiO<sub>2</sub>, Ce/TiO<sub>2</sub>, Yb/TiO<sub>2</sub>).