

Figure 1S- Cyclic voltammetry curves for a TiO<sub>2</sub> (P25) in: (1) 0.01 M NaHCO<sub>3</sub> at pH 7.2 ; (2) 0.01 M NaHCO<sub>3</sub> bubbled with CO<sub>2</sub> until pH 5.5. Scan rate: 50 mV/s

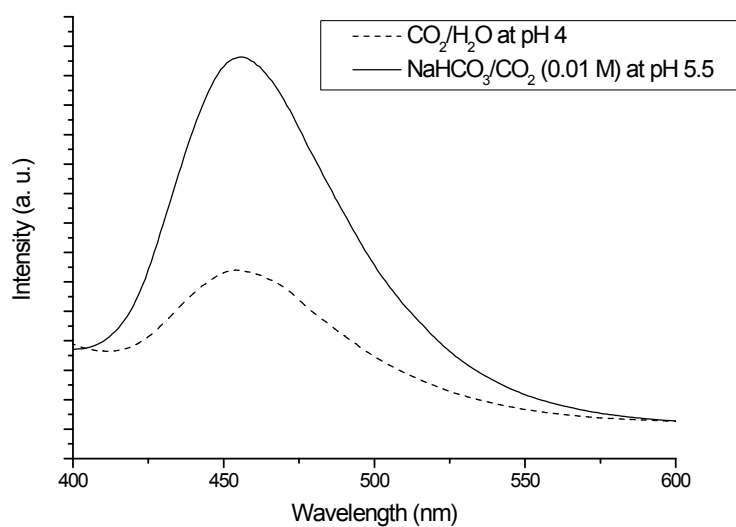


Figure 2S. Emission intensity of 7-hydroxycoumarin measured at 455 nm obtained upon illumination (15 min) of deaerated suspensions of TiO<sub>2</sub>-P25 containing coumarin ( $1 \times 10^{-4}$  M). Compare with data of Figure 3 in the text.

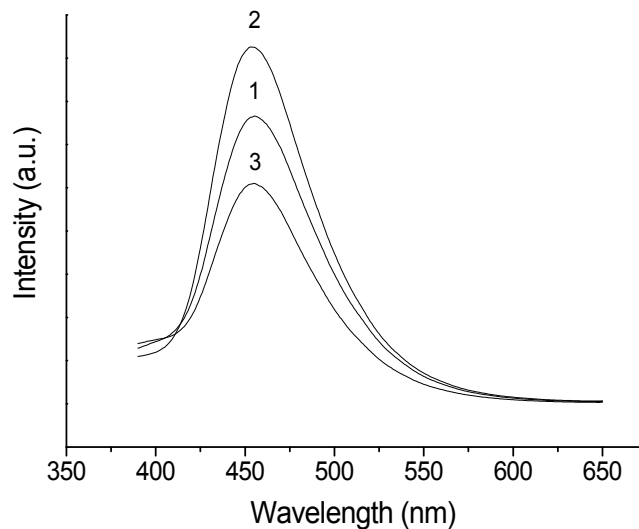


Figure 3S. Emission intensity of 7-hydroxycoumarin measured at 455 nm obtained upon illumination (15 min) of deaerated suspensions of TiO<sub>2</sub>-P25 containing coumarin ( $1 \times 10^{-4}$  M), at pH 7.2 in the absence of NaHCO<sub>3</sub> (1); at pH 10 in the absence of NaHCO<sub>3</sub> (2); at pH 10 in the presence of NaHCO<sub>3</sub>/Na<sub>2</sub>CO<sub>3</sub> (3).

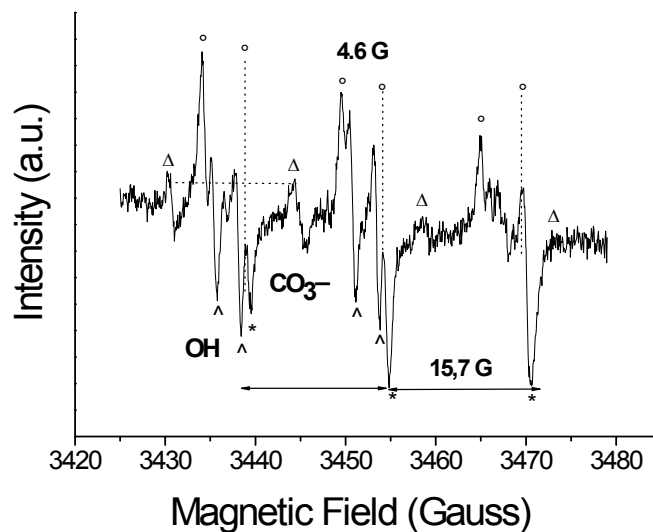


Figure 4S. EPR spectrum of the paramagnetic adducts obtained on illumination ( $\lambda > 360$  nm) of deaerated aqueous suspensions of Ru-TiO<sub>2</sub> in the presence of pbn (0.1 M) and of NaHCO<sub>3</sub> (0,01 M) at pH 7.2 ÷ 7.5.