

Supporting information

Lignite Derived Carbon Quantum Dots/TiO₂ Heterostructure Nanocomposites: Photoinduced Charge Transfer Property and Enhanced Visible Light Photocatalytic Activity

Jia Yu, Chuanxiang Zhang,* Yulin Yang,* Guiyun Yi, Ruiqing Fan, Liang Li, Baolin Xing, Quanrun Liu, Jianbo Jia, Guangxu Huang

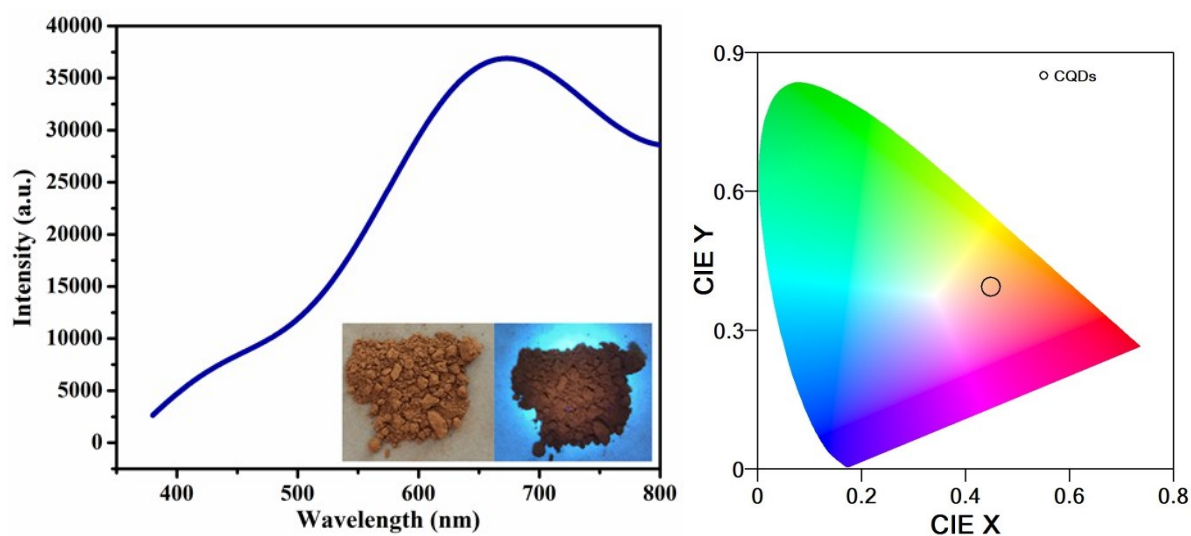


Fig. S1 Fluorescence emission spectrum of lignite derived CQDs powder and the corresponding CIE spectra, excited at 350 nm. Inset: photographs of lignite derived CQDs under day light (left) and UV light of 365 nm (right).

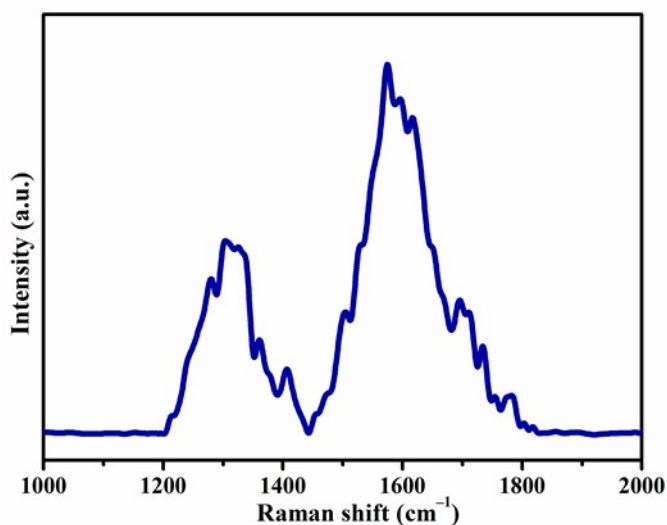


Fig. S2 Raman spectra of lignite derived CQDs.

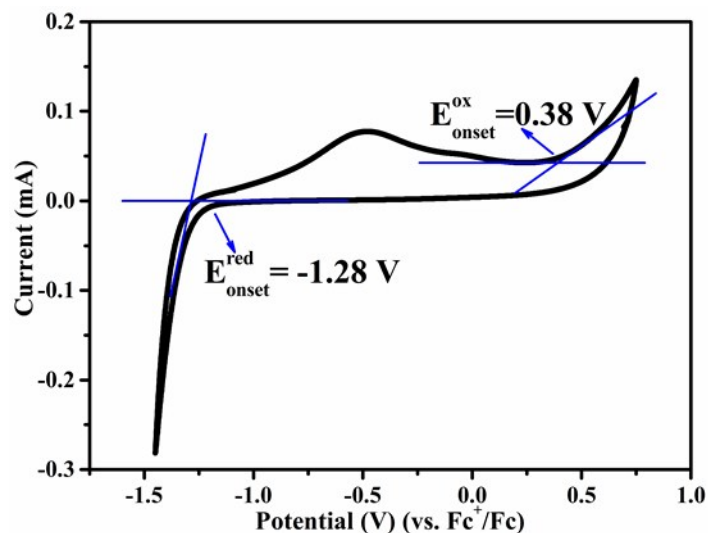


Fig. S3 CV curve of the lignite derived CQDs electrode in 0.1 M TBAPF6 in DMF with a scan rate of 100 mV/s.

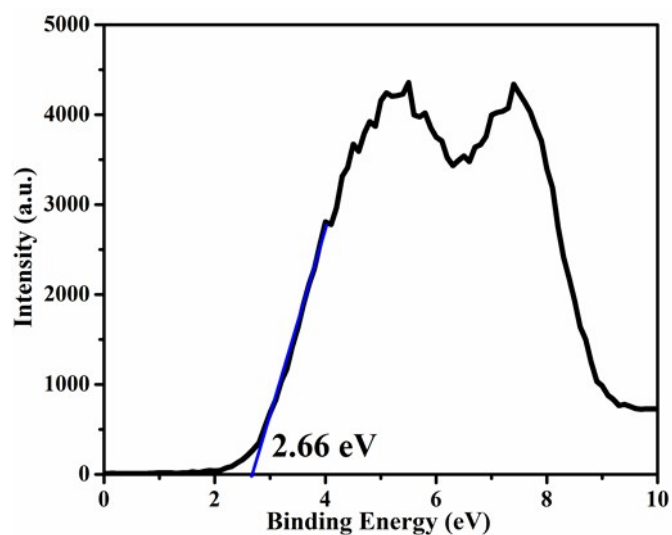


Fig. S4 XPS valence band spectrum of TiO_2

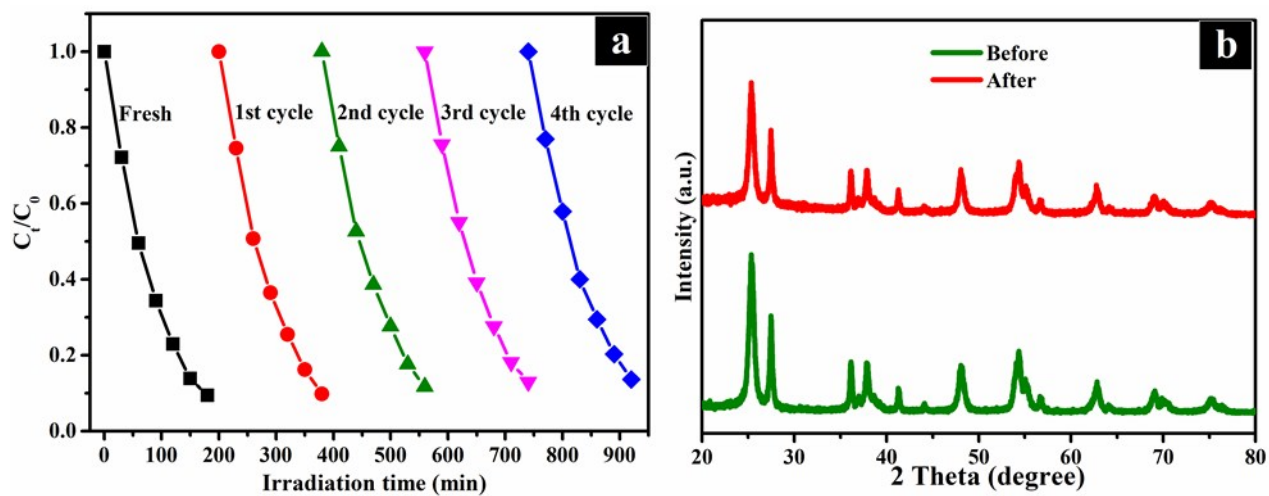


Fig. S5 (a) Cycle experiments for photocatalytic degradation RhB under visible light, (b) XRD patterns of 2 wt% CQDs/ TiO_2 , before and after four cycles.