Electronic Supporting Information (ESI)

One-pot synthesis of core/shell Co@C spheres by catalytic carbonization of mixed plastics and their application in the photo-degradation of Cong red

5 Jiang Gong, Jie Liu, Xuecheng Chen, Zhiwei Jiang, Xin Wen, Ewa Mijowska, Tao Tang*

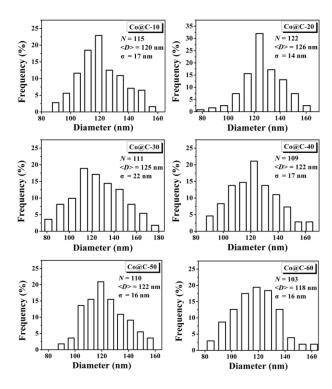


Fig. S1 The diameter distribution of core/shell Co@C spheres measured according to the results of TEM 10 observations (Fig. 2).

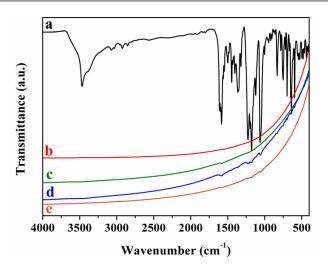


Fig. S2 FT-IR spectra of CR (a), Co@C-60 (b), C-60 (c) and the recovered solids from Dark + Co@C-60 system (d) and Dark + C-60 system (e).



Fig. S3 Photograph showing the core/shell Co@C-60 attracted by a magnet after being soaked in 12 M HCl solution for four weeks.

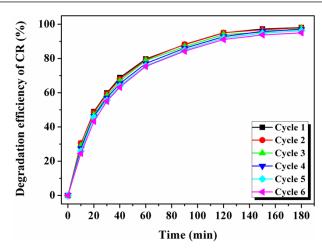


Fig. S4 The degradation behavior of CR during different cycles under UV irradiation. Experimental conditions: Co@C-60 (or recycled Co@C-60) dosage = 1.0 g/L, initial CR concentration = 100 mg/L, initial H_2O_2 concentration = 43.6 mM, and pH = 3.