Environmental Science and Technology: Supporting Information

Reductive Dechlorination of Carbon Tetrachloride in Aqueous Solutions Containing Ferrous and Copper Ions

R. A. Maithreepala and Ruey-an Doong

101, Sec. 2, Kuang Fu Road, Department of Atomic Science, National Tsing Hua University,

Hsinchu, 30013, Taiwan.

5 pages, 4 Figures.

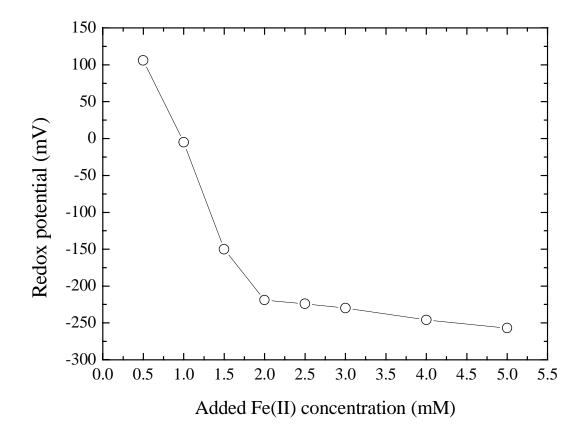


Figure S1. The redox potentials (ORP) of the aqueous solution as a function of Fe(II) concentration in the presence of 0.5 mM Cu(II). 50 mM HEPES buffer was used to maintain pH at 7.0 ± 0.1 .

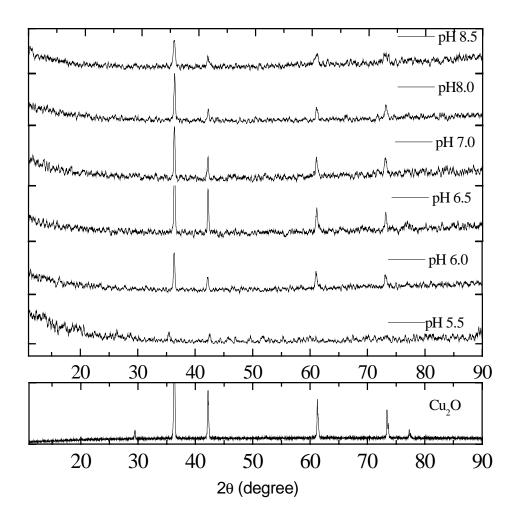
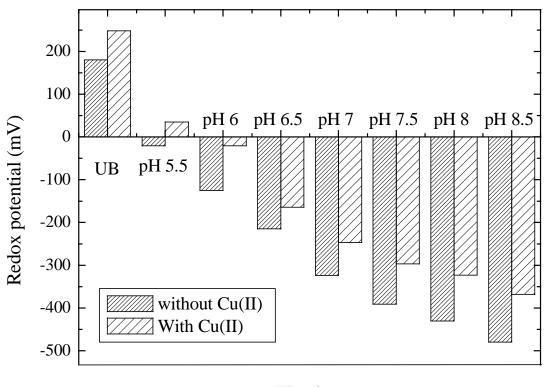


Figure S2. The XRPD patterns of the precipitates produced from the reaction of 3 mM Fe(II) and 3 mM Cu(II) at various pH values ranging from 5.5 to 8.5. The standard XRD pattern of Cu_2O was also provided for comparison.



pH values

Figure S3. Effect of pH on the measured redox potentials (ORP) of aqueous solutions in the 3 mM Fe(II)-amended systems in the presence and absence of 0.5 mM Cu(II).

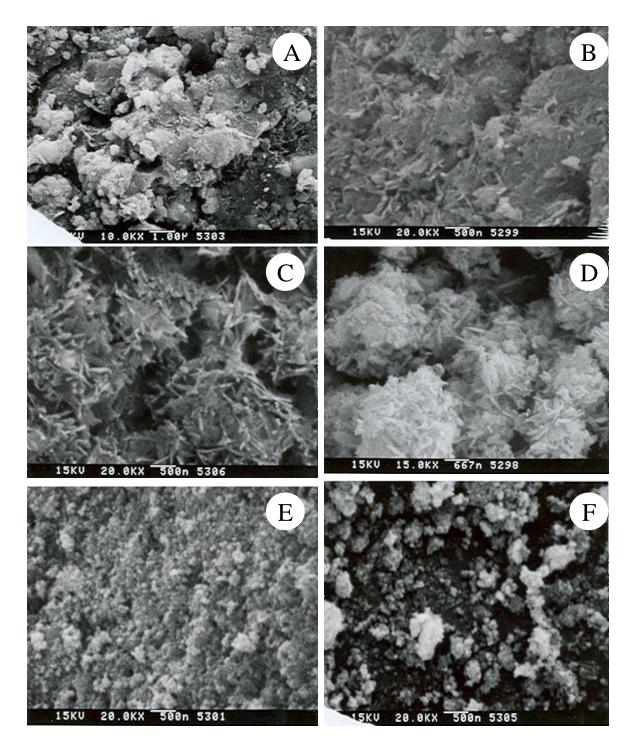


Figure S4. Changes in morphology of ferric oxides produced from the reaction of 3 mM Fe(II) and 0.5 mM Cu(II) at various pHs ranging from 5.5 to 8.5. The pH of the SEM images was (a) 5.5, (b) 6.0, (c) 6.5, (d) 7.0, (e) 8.0 and (f) 8.5.