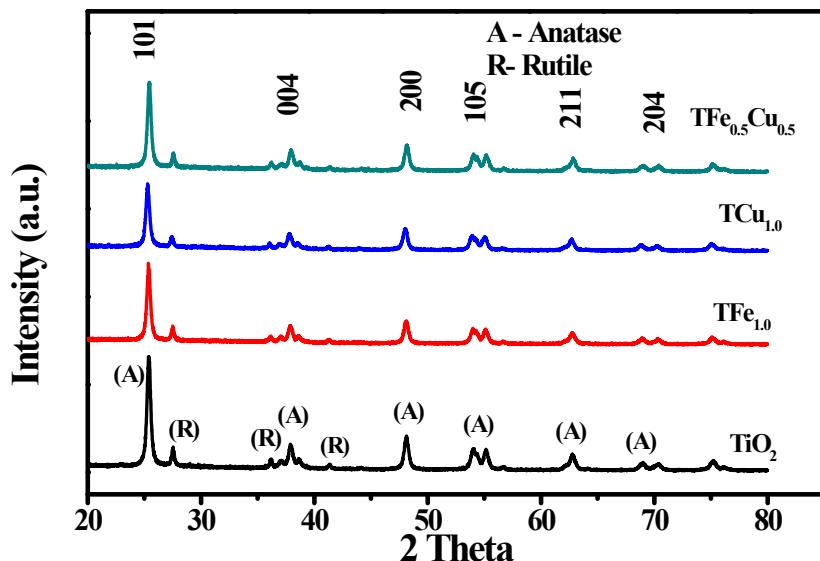
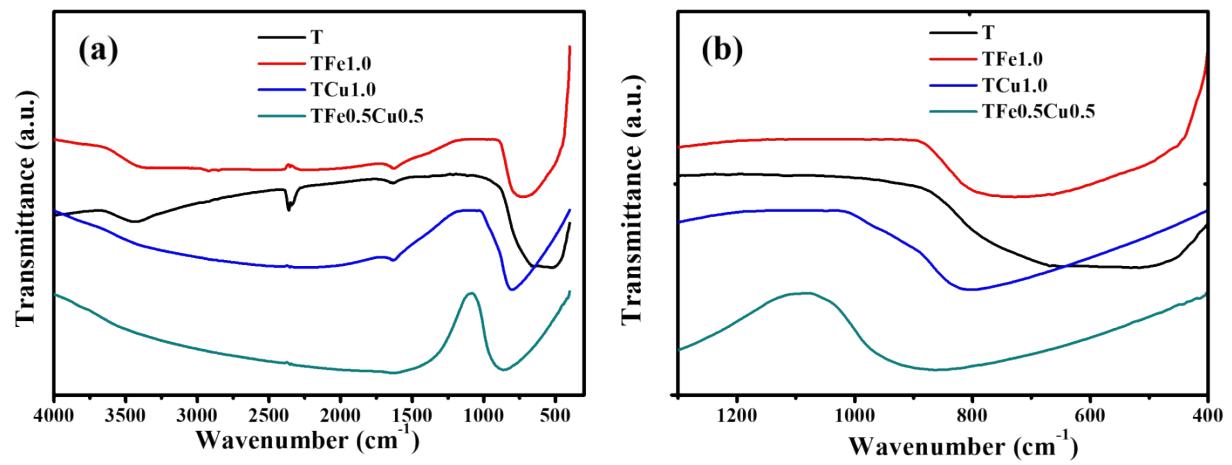


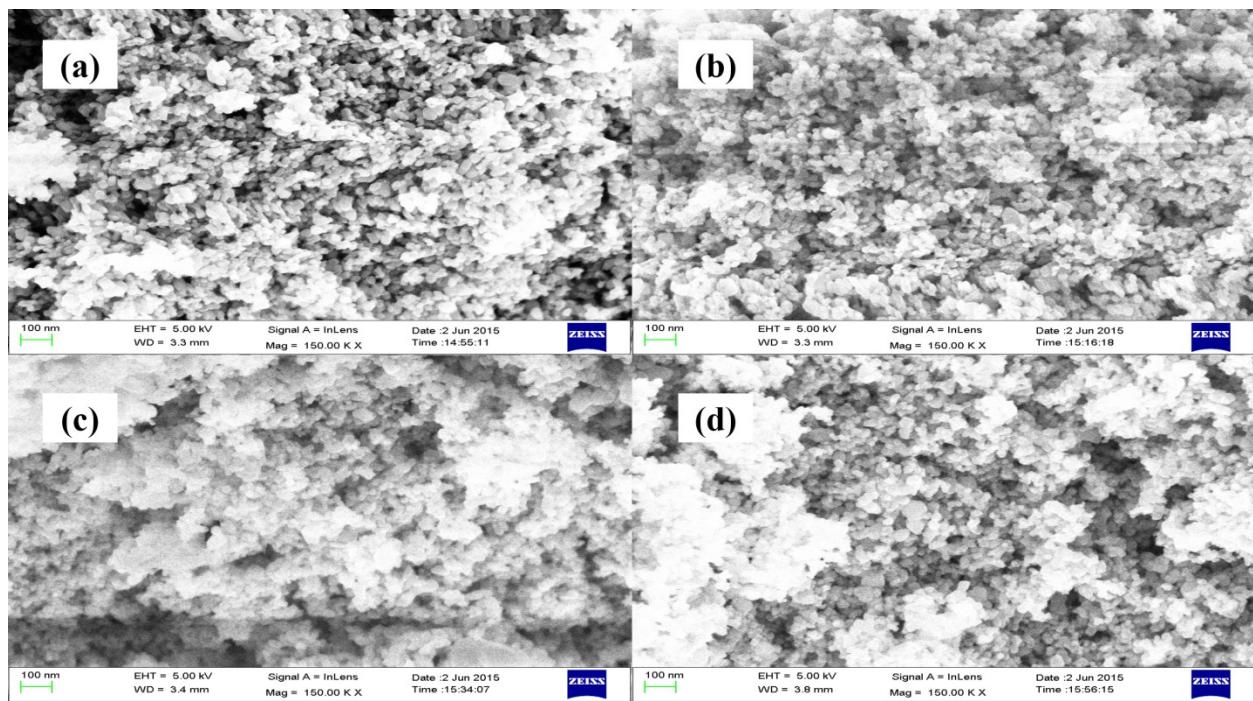
Supplementary Information



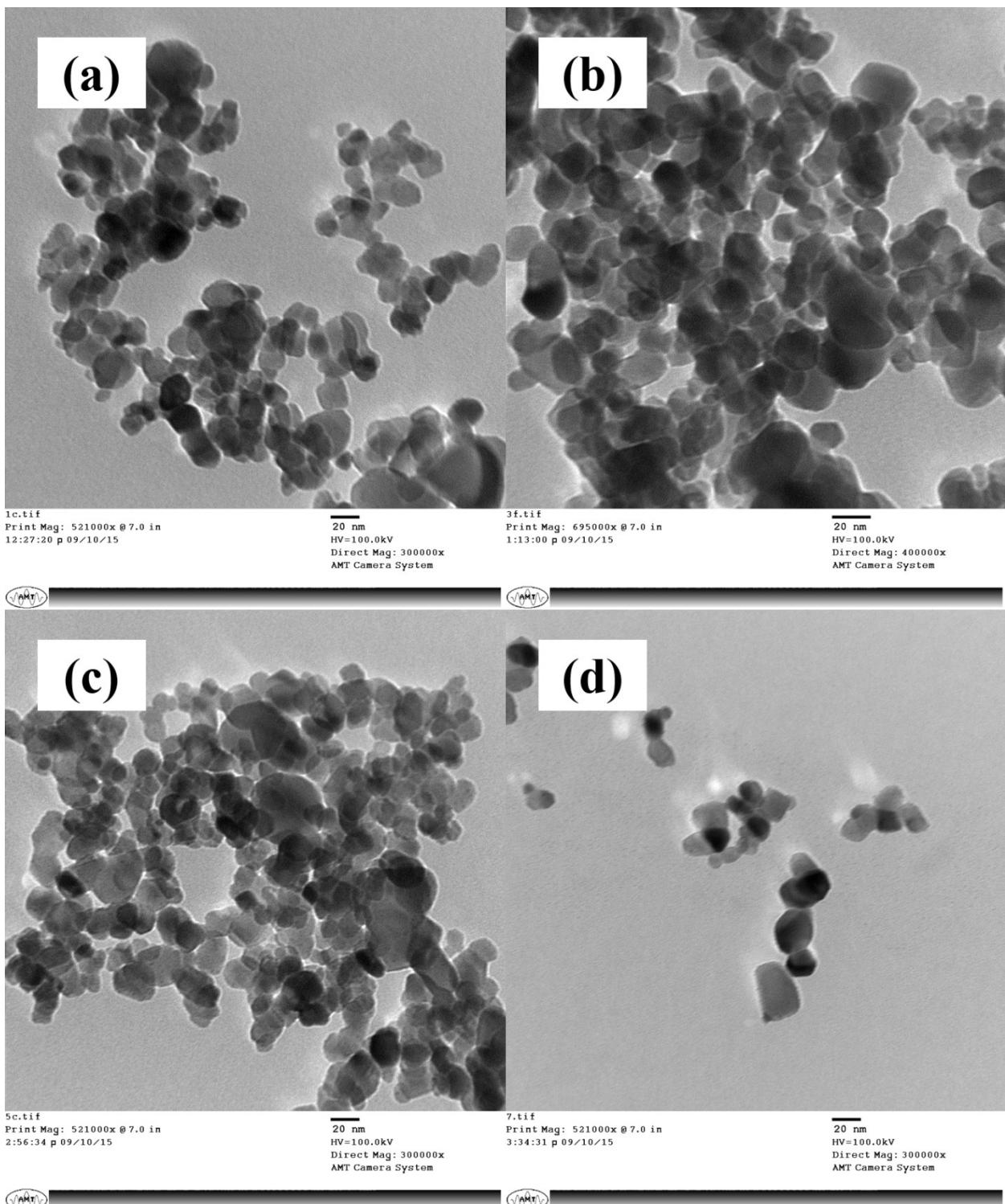
**Figure S1:** XRD pattern of pure  $\text{TiO}_2$ ,  $\text{TFe}_{2.0}$ ,  $\text{TCu}_{2.0}$ , and  $\text{TFe}_{1.0}\text{Cu}_{1.0}$



**Figure S2:** FTIR spectra (a) whole, and (b) finger print region of  $\text{TiO}_2$ ,  $\text{TFe}_{1.0}$ ,  $\text{TCu}_{1.0}$  and  $\text{TFe}_{0.5}\text{Cu}_{0.5}$



**Figure S3:** FESEM micrographs of (a) TiO<sub>2</sub>, (b) TFe<sub>1.0</sub>, (c) TCu<sub>1.0</sub>, and (d) TFe<sub>0.5</sub>Cu<sub>0.5</sub>



**Figure S4:** TEM micrographs of (a) TiO<sub>2</sub>, (b) TFe<sub>1.0</sub>, (c) TCu<sub>1.0</sub>, and (d) TFe<sub>0.5</sub>Cu<sub>0.5</sub>