

## Supplementary Materials

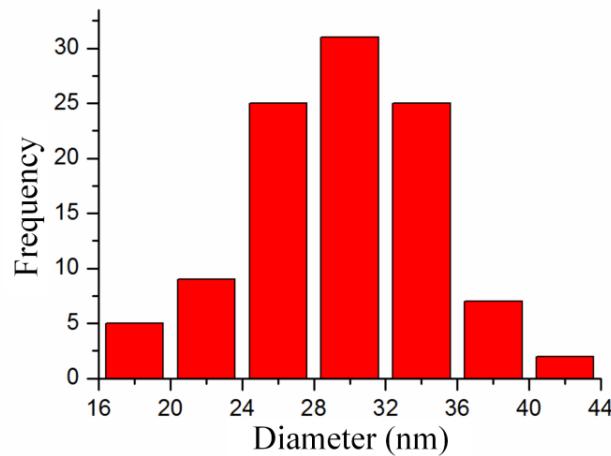


Fig. A1. Distribution of as-prepared  $\text{Fe}_3\text{O}_4$  particles sizes.

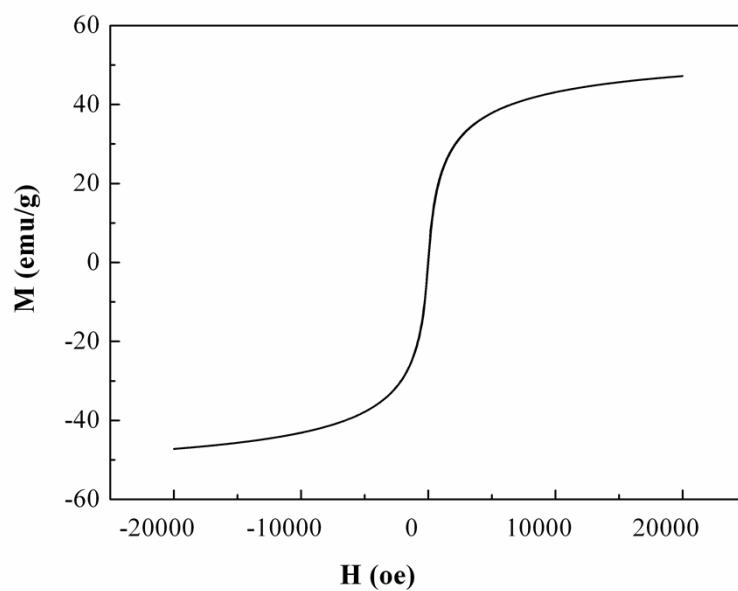


Fig. A2. Magnetization curve of as-prepared particles.

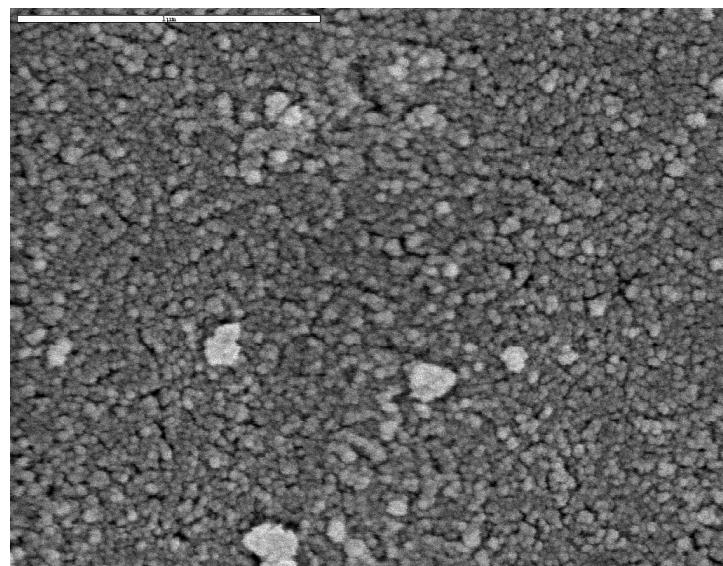


Fig. A3. SEM image of Fe<sub>3</sub>O<sub>4</sub> nanoparticles after reaction without H<sub>2</sub>O<sub>2</sub>.

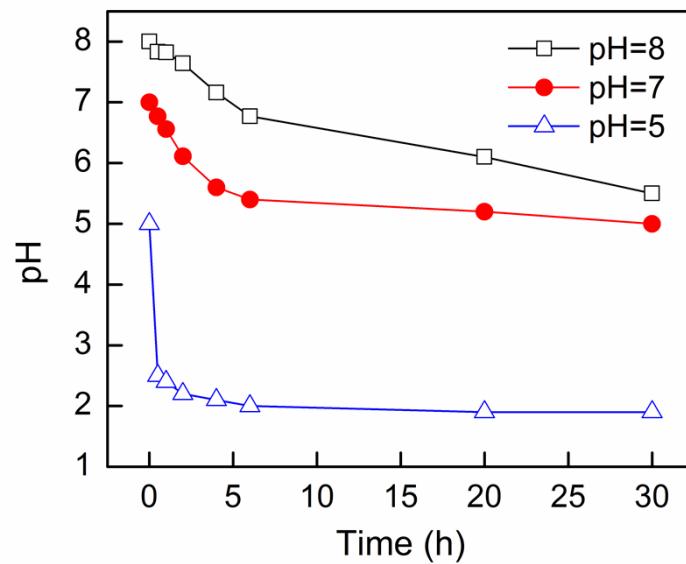


Fig. A4. Changes of pH value during reaction at the different initial pH values

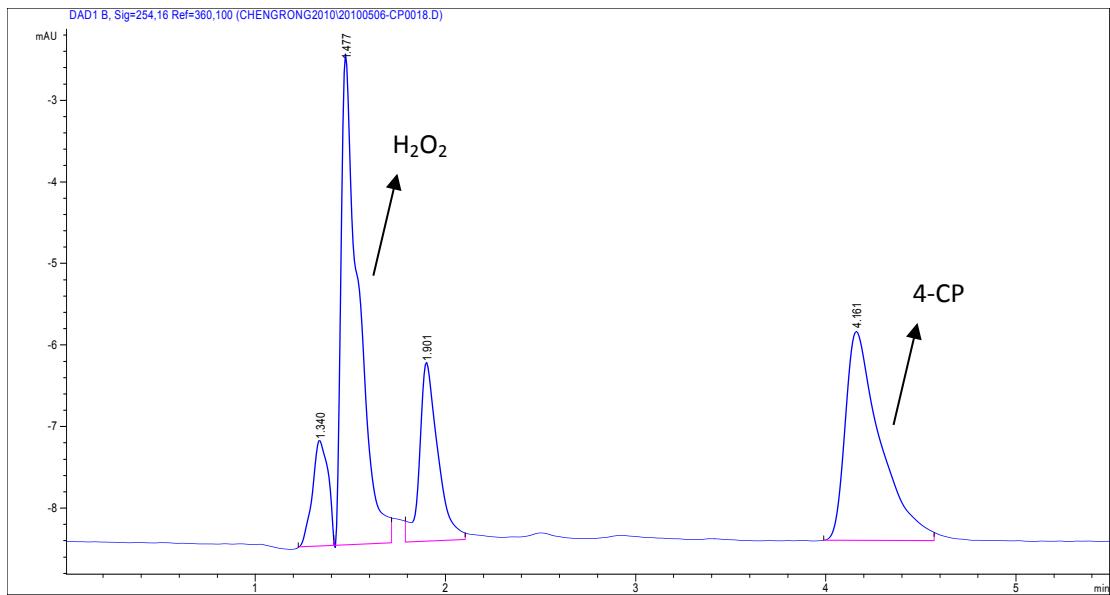


Fig. A5. HPLC spectrum of solutions after reaction