Supporting Information

Glutathione promoted Fenton degradation: a cocatalyst based on –HS/-S-S cycle with hydroxyl radicals

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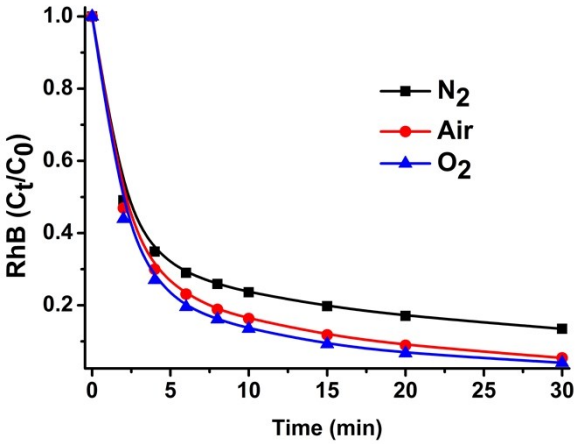

Figure S1. Time profiles of the RhB degradation under various systems in the Fe(III)/GSH/H_2O_2/RhB system. The initial pH value of the reactions was 3.0. Initial concentrations were: 20 μM RhB, 0.1 mM Fe(III), 0.1 mM glutathione, and 1 mM H_2O_2.

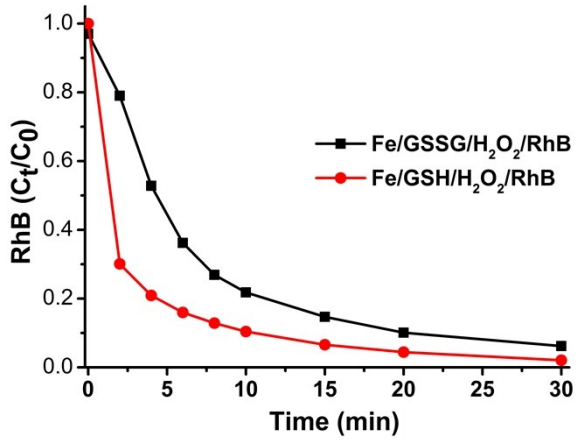

Figure S2. Time profiles of the RhB degradation in various systems. Initial concentrations: 20 μM RhB, 0.1 mM Fe(III), 0.1 mM glutathione, 0.1 mM oxidized glutathione and 1 mM H_2O_2. The initial pH value of the reactions was 3.0.

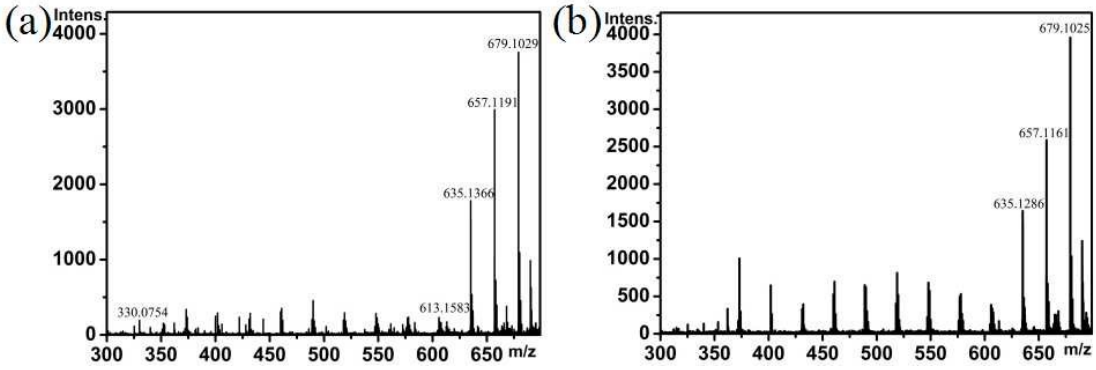

Figure S3. The electrospray ionization mass spectrometre analysis in the (A) Fe(III)/GSH/H_2O_2 system system; (B) Fe(III)/GSH/H_2O_2 system with isopropanol. Conditions: [Fe(III)] = 5 mM, [GSSG] = 5 mM, [H_2O_2] = 50 mM, pH 3.0.

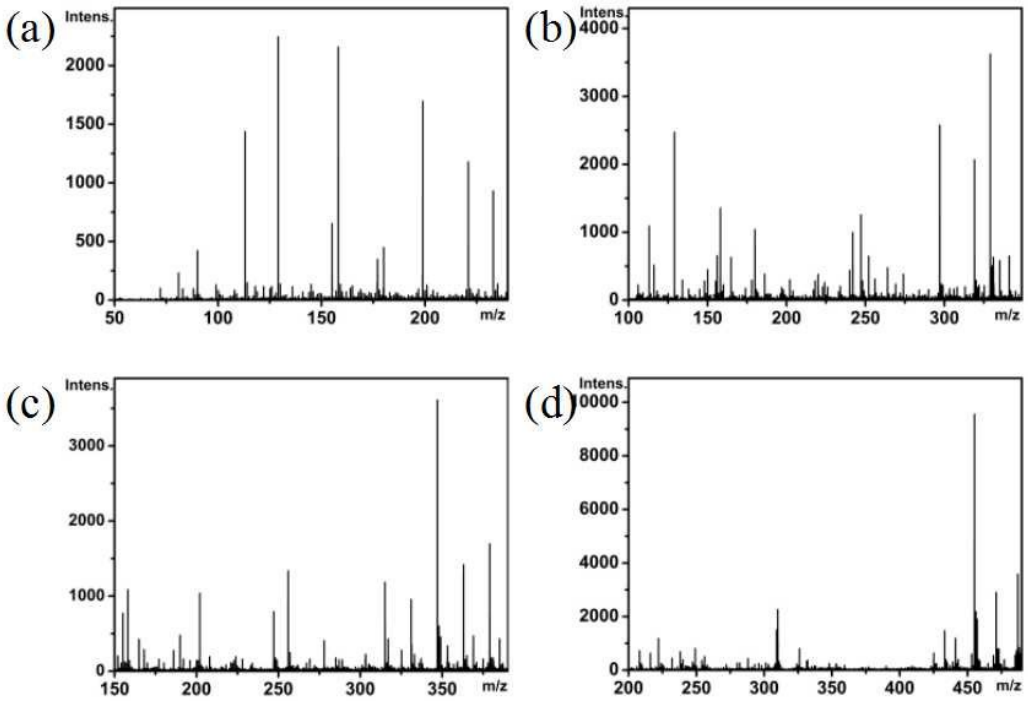

Figure S4. The electrospray ionization mass spectrometre analysis in different systems. (a) Fe(III)/3-MC/H_2O_2 system; (b) Fe(III)/DL-P/H_2O_2 system; (c) Fe(III)/TPN/H_2O_2 system; (d) Fe(III)/CTPR/H_2O_2 system. Conditions: [Fe(III)] = 5 mM, [2-MC] = 5 mM, [3-MC] = 5 mM, [DL-P] = 5 mM, [TPN] = 5 mM, [CTPR] = 5 Mm,, [H_2O_2] = 50 mM, pH 3.0.