## Nano Iron-copper alloys for tumor ablation: efficiently amplified oxidative stress through acid

## response

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Figure S1. The synthesis procedure of FC.



Figure S2. The Zeta potential of FC and FCB.



Figure S3. UV-vis absorption spectra of FC and FCB.



Figure S4. The SEM picture of FCB (left) and FC (right).



Figure S5. The relationship between weight and temperature of FC and FCB.



Figure S6. The TEM picture of FeNP (left) and CuNP (right).



Figure S7. The TEM picture of FC (left) and FCB (right) in the PBS solution of pH 6.5 for 20 h.



Figure S8. FeNP, CuNP and FCB in catalyzing the production of •OH from H<sub>2</sub>O<sub>2</sub> by the MB method.



**Figure S9.** Digital picture of Cu<sup>2+</sup> with new cuprous reagent (left) and Cu<sup>+</sup> with new cuprous reagent (right).



Figure S10. Confocal microscope image of the MCF-7 cells on FeNP, CuNP and FCB treated and their fluorescence was introduced by the  $\bullet$ OH. Scale bar: 100  $\mu$ m.



Annexin-V-FITC



Figure S11. Apoptosis of MCF-7 cells after incubation with 100µg/ml FeNP, CuNP or FCB.





Figure S13. Cell viability of L929 cells on the FeNP, CuNP in different concentrations.



Figure S14. The cytotoxicity of different cells in the treated of FCB.



Figure S15. The relative tumor weight of two groups of mice.