

Supporting Information

for

HEPES-involved Hydrothermal Synthesis of Fe₃O₄ Nanoparticles and Their Biological Application

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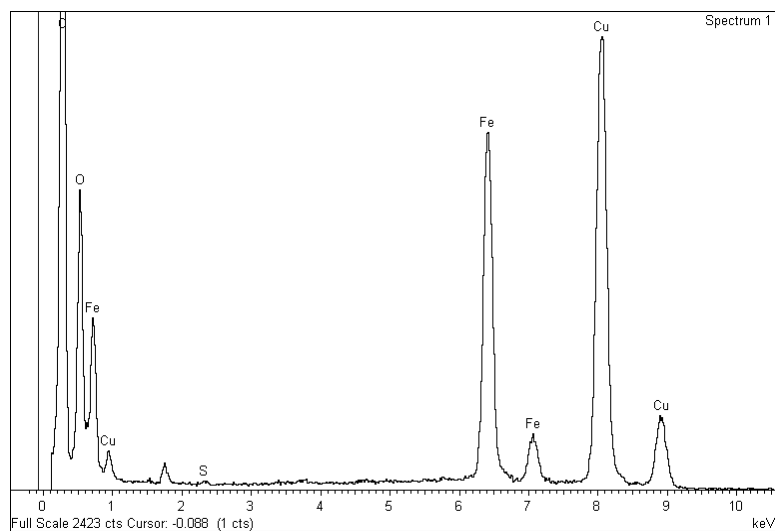


Figure S1. The EDX spectrum of Fe_3O_4 nanoparticles prepared by hydrothermal method from FeCl_2 precursor in HEPES buffer solution when HEPES/ FeCl_2 molar ratio was 1:1 (S1).

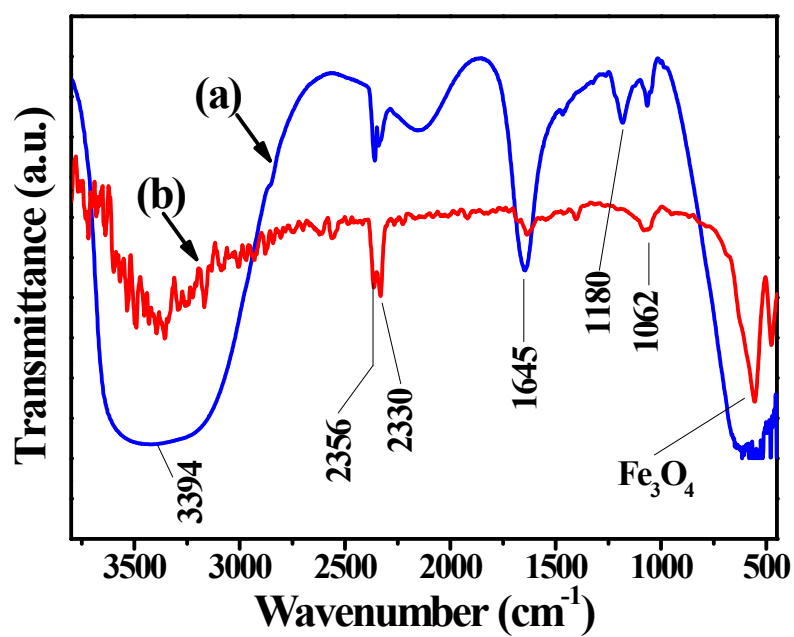


Figure S2. FT-IR spectra of HEPES (a) and the as-synthesized Fe₃O₄ nanoparticle (S1) (b).

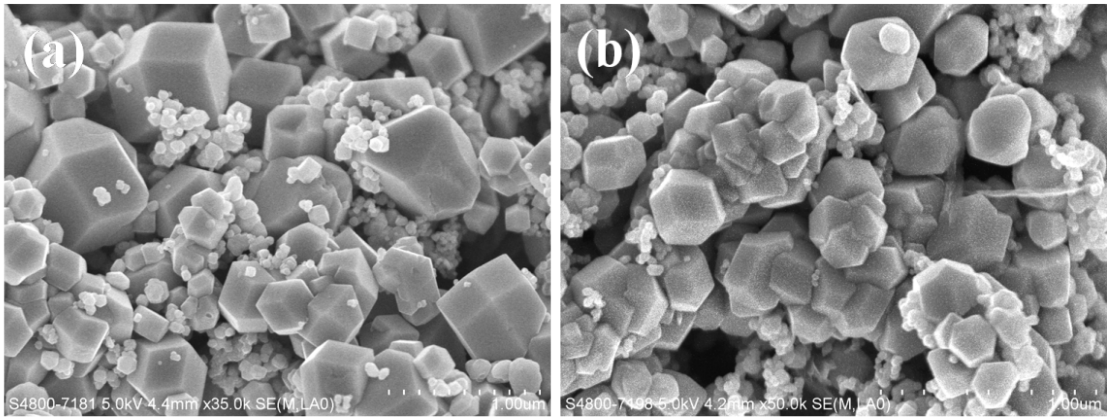


Figure S3. SEM images of the as-prepared products synthesized with the different molar ratio of HEPES and Fe of 2 (a, **S3**) and 5 (b, **S4**), respectively.

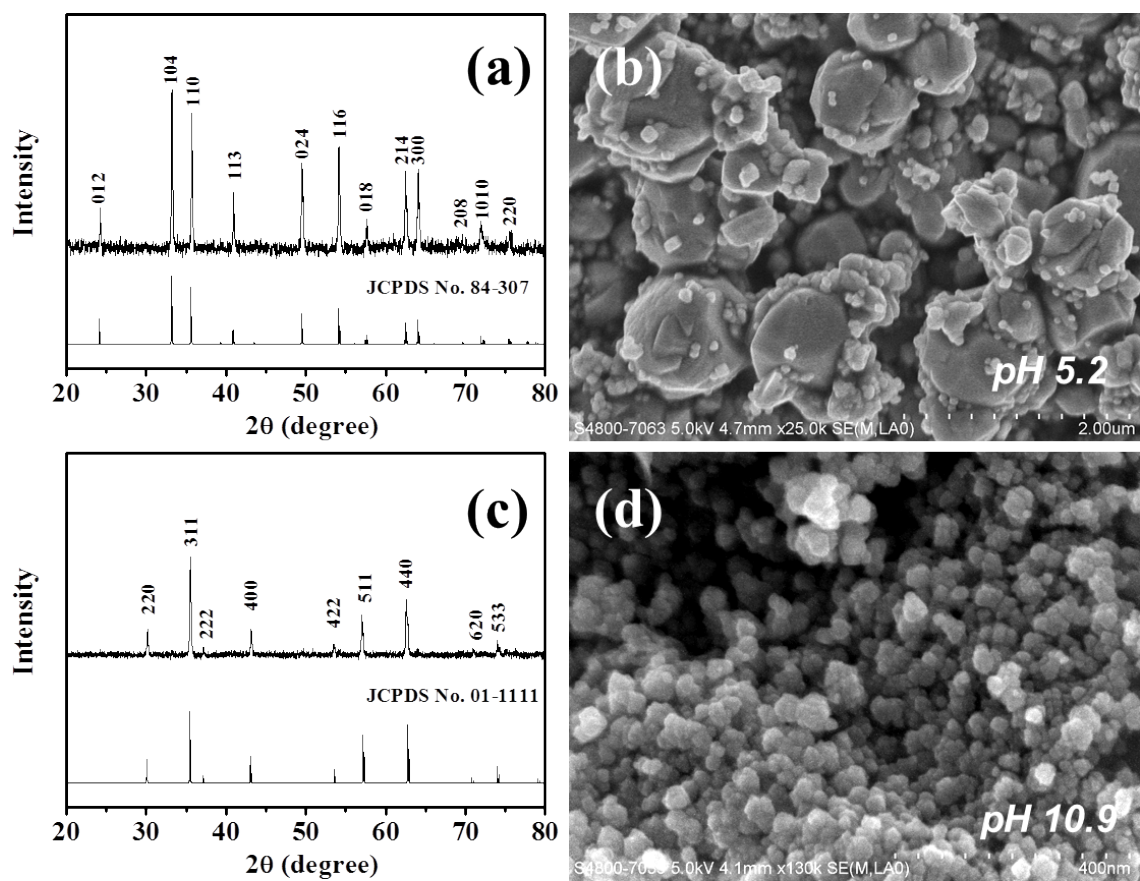


Figure S4. XRD patterns and SEM images of the as-prepared products in HEPES solutions with different pH values (a and b: S5; c and d: S6).

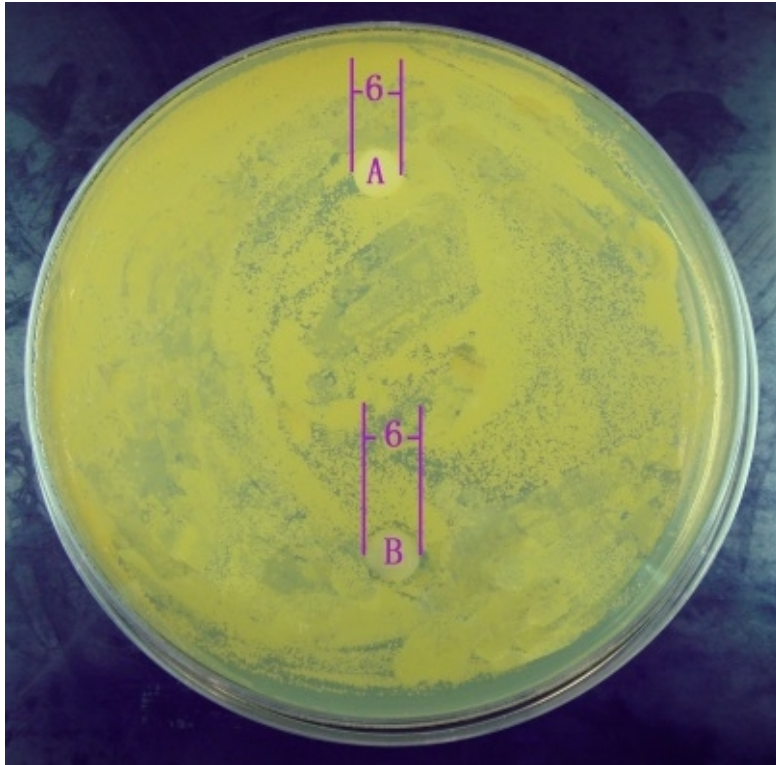


Figure S5. Agar plates of *S. aureus* bacterial growth in the presence of Fe_3O_4 nanoparticles.