

Support Information

Metal Ion-Mediated Synthesis and Shape-dependent Magnetic Properties of Single-Crystalline α - Fe_2O_3 Nanoparticles

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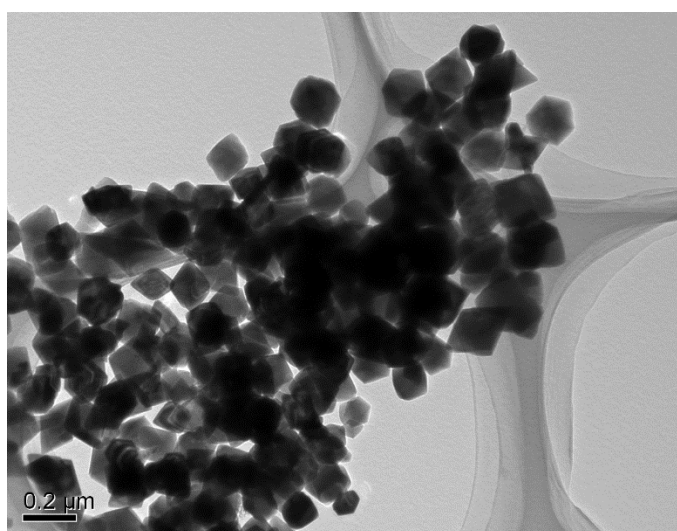


Figure S1 TEM image of the samples when the absence of ions additive.

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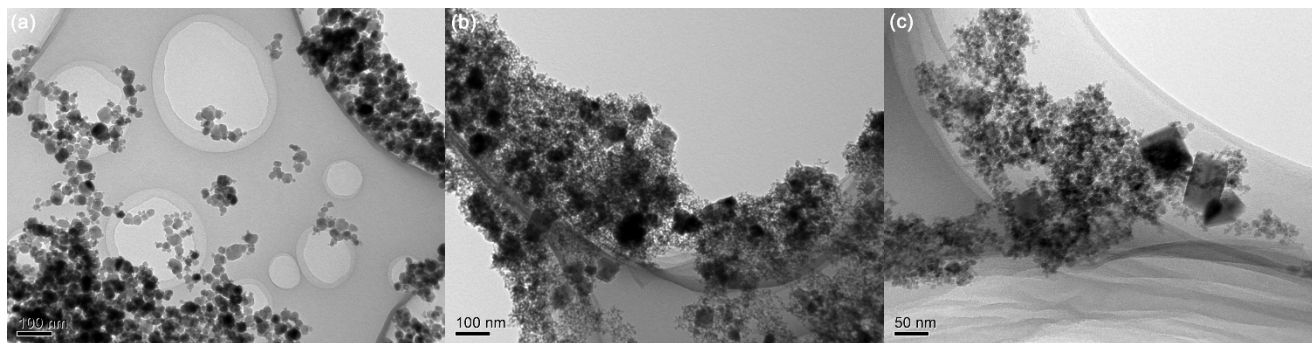


Figure S2 TEM images of the samples when the absence of the other metal ions: Ni ions (a), Mn ions (b), and Co ions (c).

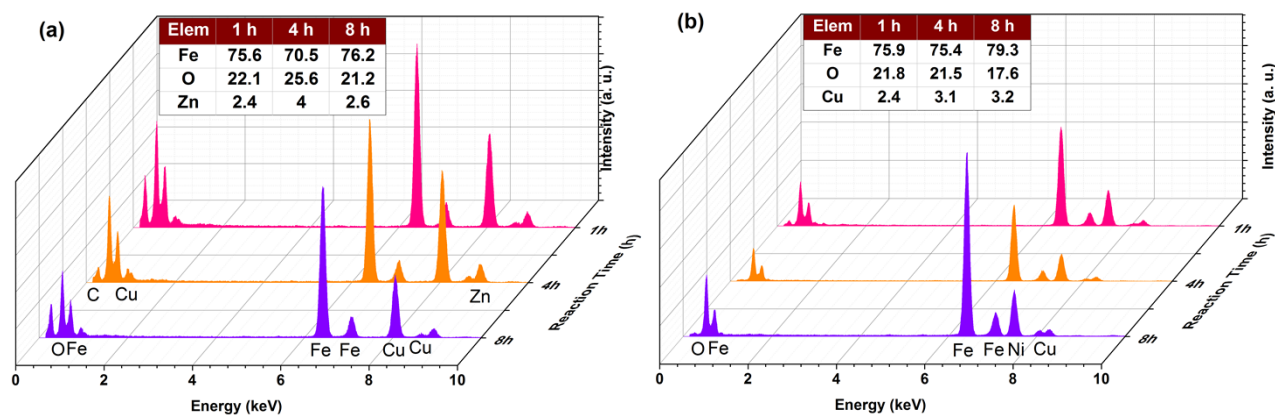


Figure S3 The EDX spectra of cubic α -Fe₂O₃ particles (a, C and Cu elements comes from the carbon films coated copper grid) and thorhombic α -Fe₂O₃ particles (b, the Ni element comes from the nickel grid) with different reaction times.

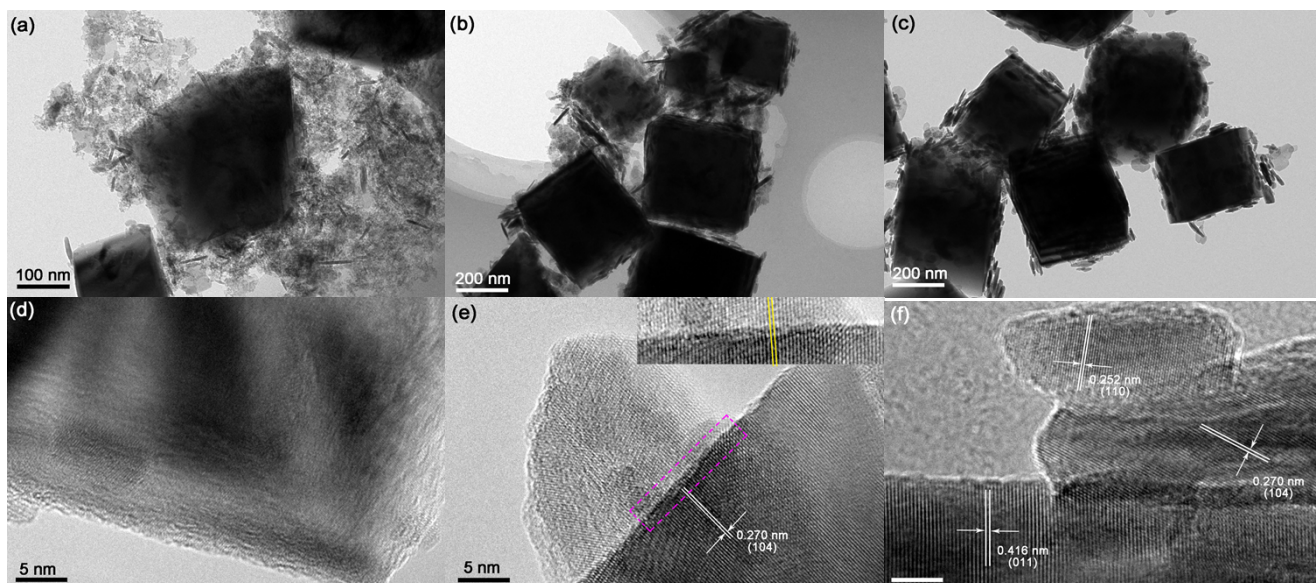


Figure S4 TEM and HRTEM images of morphology evolution of the cubic $\alpha\text{-Fe}_2\text{O}_3$ particles with different reaction time: (a, c) 1 h, (b, d) 4 h, and (d, f) 8 h, the scale bar is 5 nm.

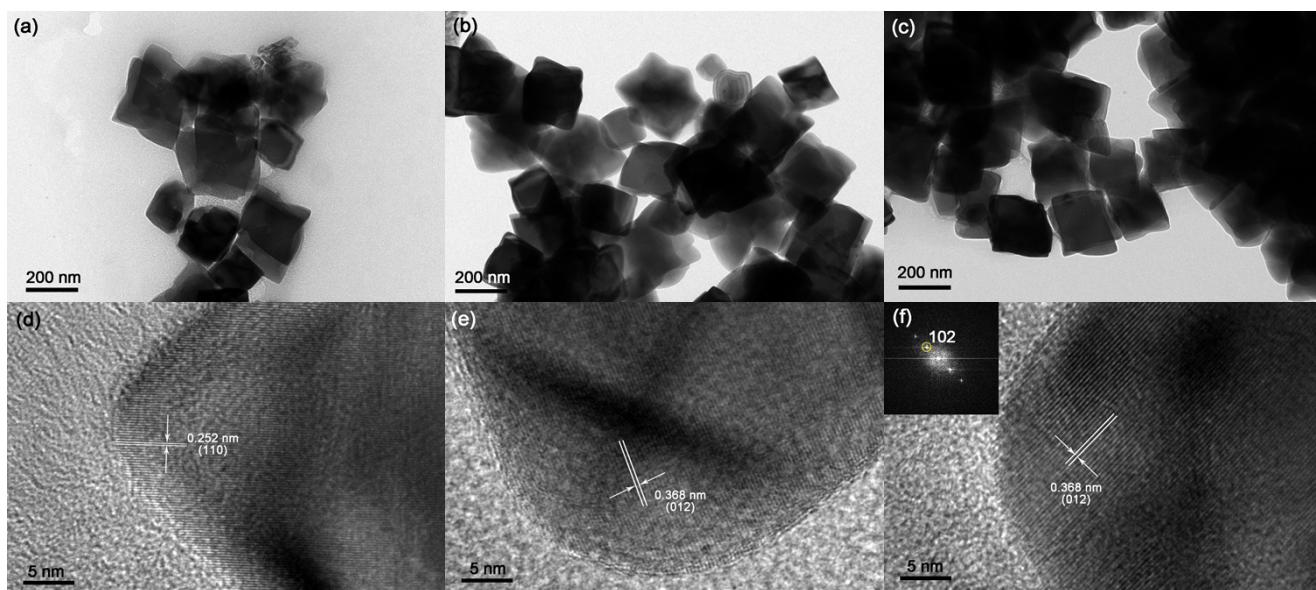


Figure S5 TEM and HRTEM images of morphology evolution of the thorhombic $\alpha\text{-Fe}_2\text{O}_3$ particles with different reaction time: (a, c) 1 h, (b, d) 4 h, and (d, f) 8 h.