Electronic Supplementary Information

Halide Ion-Mediated Growth of Single Crystalline Fe Nanoparticles

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Sample	Fe(CO) ₅ amount (mL)	OAm amount (mL)	NPs size (nm)
А	0.7	1	12.5
В	0.3	1	10
С	1.4	1	17
D	1.4	3	13

Table S1. The size control of the as-synthesized Fe NPs by varying the $Fe(CO)_5$ and OAm amount.



Figure S1. TEM images of the Fe NPs synthesized in the presence of NH_4Br (A), $FeCl_2$ (B) and $(NH_4)_2SO_4$ (C) respectively.



Figure S2. XRD pattern of the Fe NPs synthesized in the presence of NH₄Br or FeCl₂.



Figure S3. XRD pattern of the Fe NPs synthesized in the presence of $(NH_4)_2SO_4$.