## **Core-shell structure of chemically synthesized FePt nanoparticles:** a comparative study

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Fig. S1  $Fe^{0} Pt^{II}$  dioctylether method: (a) X-Ray diffraction patterns recorded on as-made and annealed nanoparticles; (b) TEM micrograph of as-made nanoparticles; (c) diameter distribution of as-made nanoparticles.



**Fig. S2** *Fe<sup>0</sup> Pt<sup>II</sup> dibenzylether* method: (a) X-Ray diffraction patterns recorded on as-made and annealed nanoparticles; (b) TEM micrograph of as-made nanoparticles; (c) diameter distribution of as-made nanoparticles.



Fig. S3 Fe<sup>ll</sup> Pt<sup>ll</sup> diphenylether method: (a) X-Ray diffraction patterns recorded on as-made and annealed nanoparticles; the black spot indicates that these both peaks from FePt alloy superimpose on (400) diffraction pattern of silicon substrate; the star indicates (311) diffraction pattern due to iron oxide (either Fe<sub>3</sub>O<sub>4</sub> or γ-Fe<sub>2</sub>O<sub>3</sub>); (b) TEM micrograph of as-made nanoparticles; (c) diameter distribution of as-made nanoparticles.



Fig. S4 Fe<sup>-II</sup> Pt<sup>II</sup> dioctylether method: X-Ray diffraction patterns recorded on as-made and annealed particles.



Fig. S5  $Fe^{II} Pt^{II} TEG$  method: (a) X-Ray diffraction patterns recorded on as-made and annealed nanoparticles; black spots indicate peaks coming from (311) diffraction pattern of silicon substrate; (b) TEM micrograph of as-made nanoparticles.