

## Electronic Supplementary Information

Direct liquid phase synthesis of ordered L1<sub>0</sub> FePt colloidal particles with  
high coercivity using an Au nanoparticles seeding approach

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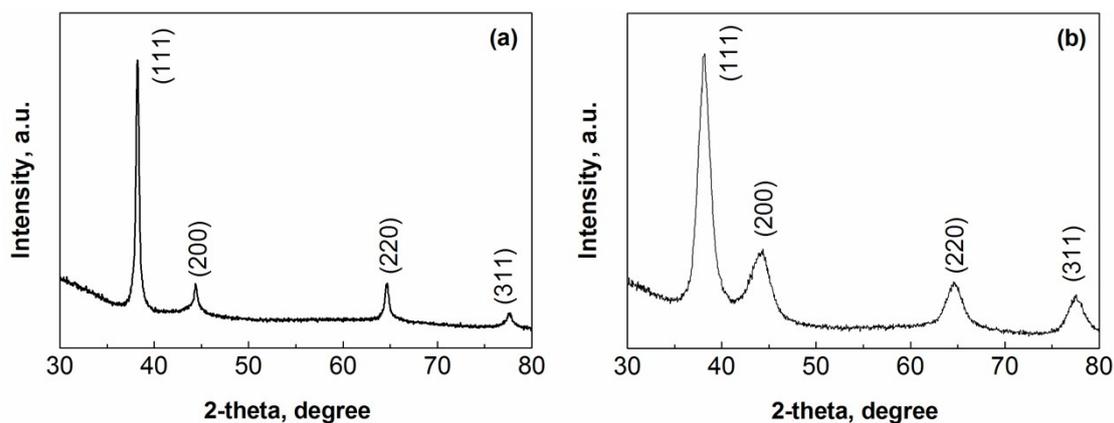
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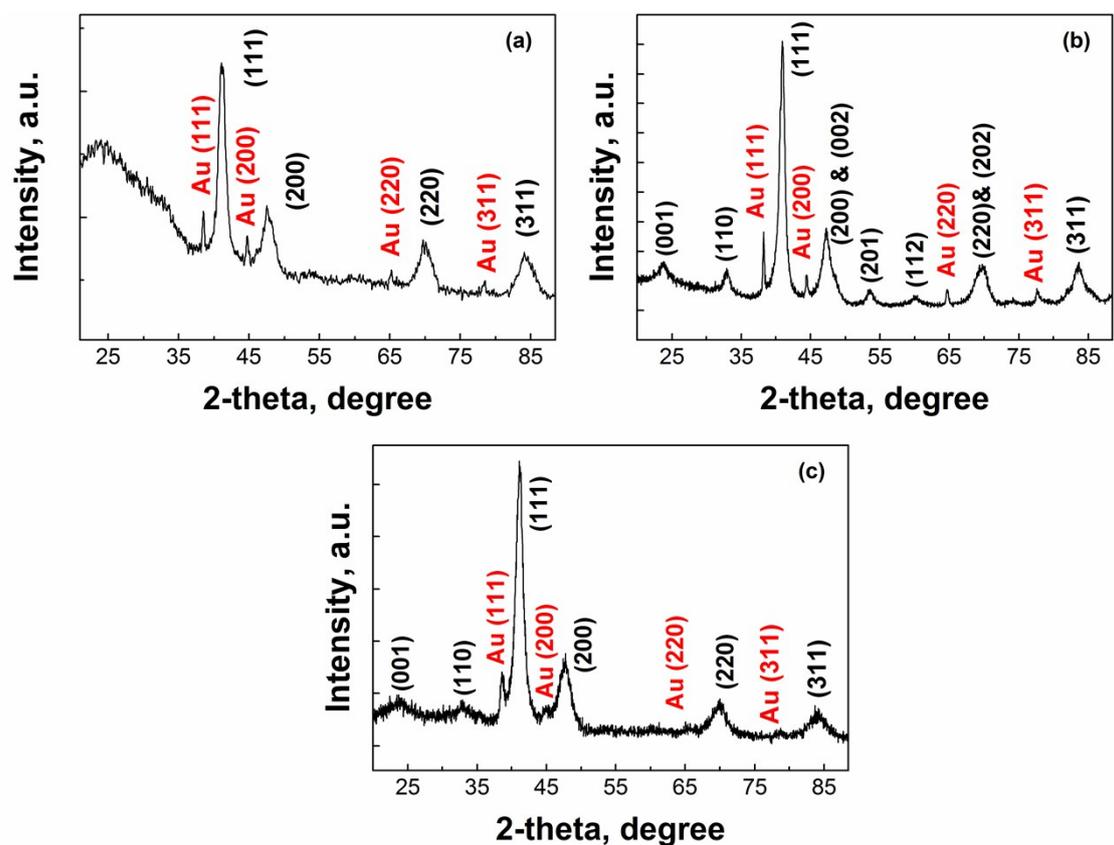
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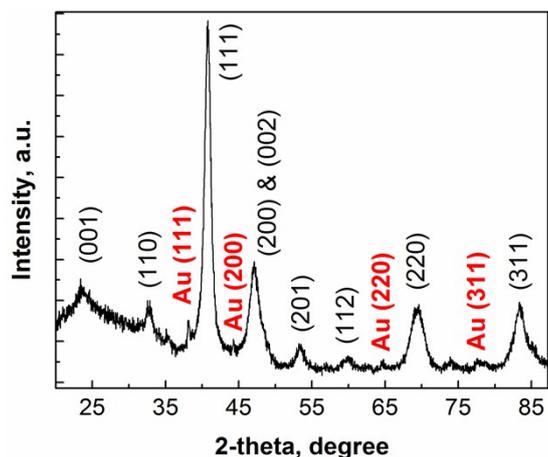
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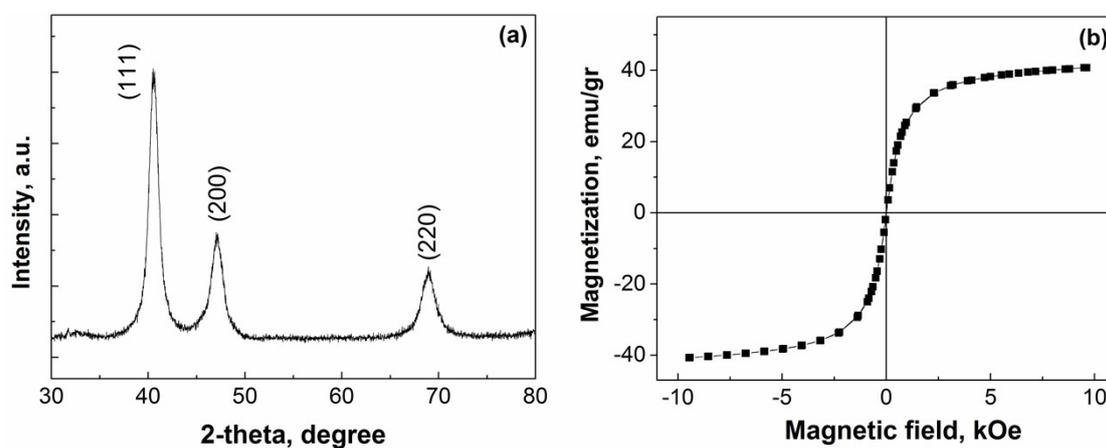
**Figure S1.** XRD patterns from organophilic Au nanoparticles capped with oleyl amine molecules (a) 11.8 nm and (b) 5.9 nm mean diameter estimated according to Scherrer equation.



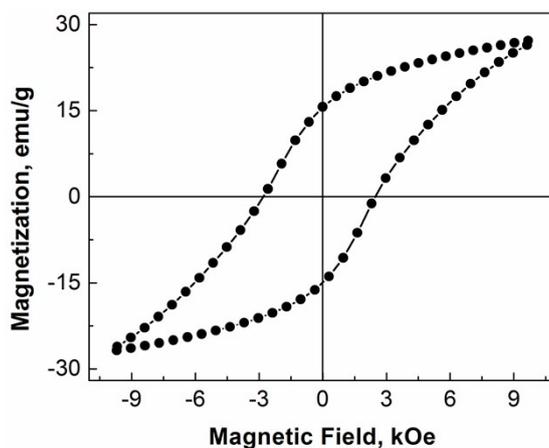
**Figure S2.** X-ray diffraction patterns from FePt nanoparticles synthesized in the presence of 12 nm Au nanoparticles in paraffin oil at 325 (a), 360 (b), 380 (c).



**Figure S3.** XRD pattern from  $L1_0$  FePt nanoparticles synthesized at 300 °C using 6 nm Au particles as seeds.



**Figure S4.** X-ray diffraction pattern (a) and magnetic hysteresis loop (b) at room temperature of the FePt particles prepared at 250 °C with 6 nm Au nanoparticles.



**Figure S5.** Room temperature magnetic hysteresis loop of  $L1_0$  FePt synthesized with 12 nm mean diameter Au particles seeds. The reaction took place at 360 °C for 90 min.