

Supporting Information

for:

Growth Mechanism and Size Control of FePt Nanoparticles Synthesized via $\text{Fe}(\text{CO})_x$ ($x < 5$)-Oleylamine and Platinum (II) Acetylacetonate

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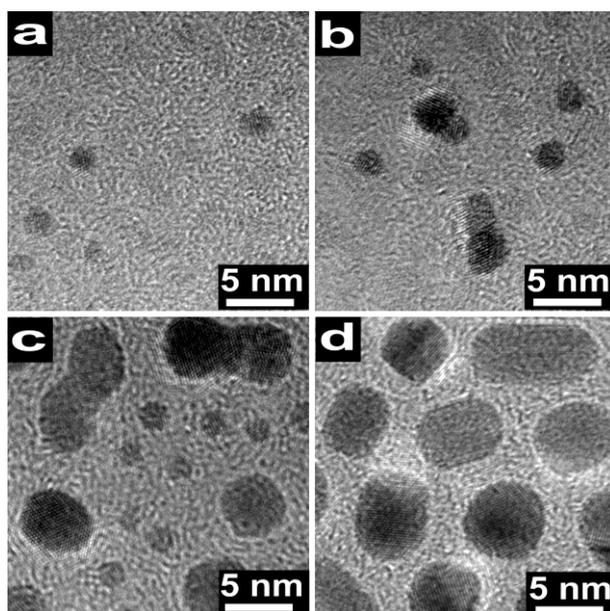


Figure S1. HRTEM images of FePt NPs synthesized from $\text{Fe}(\text{CO})_x$ -OAm at time points during synthesis: 220 °C (a), 280 °C (b) and refluxing at 280 °C for 60 min(c) and 240 min(d), selected from Figure. 3(a), (b), (c), and (d), respectively.

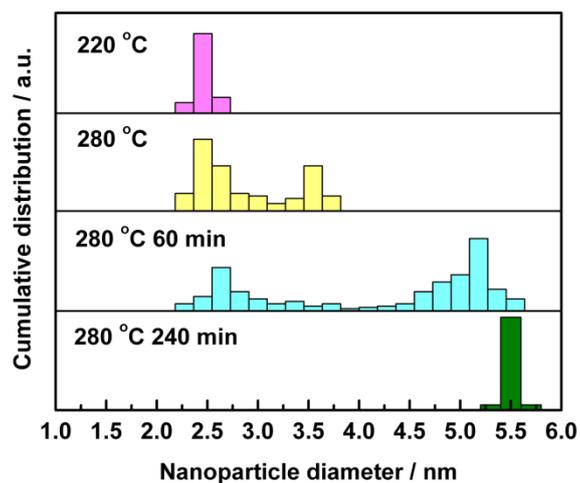


Figure S2. Size and size distributions of particles obtained at various stages using $\text{Fe}(\text{CO})_5\text{-OAm}$ prepared at $90\text{ }^\circ\text{C}$. (a)-(d) correspond to Figure 3 (a)-(d). (In each case, at least 400 particles were counted to determine the size and the size dispersion.)

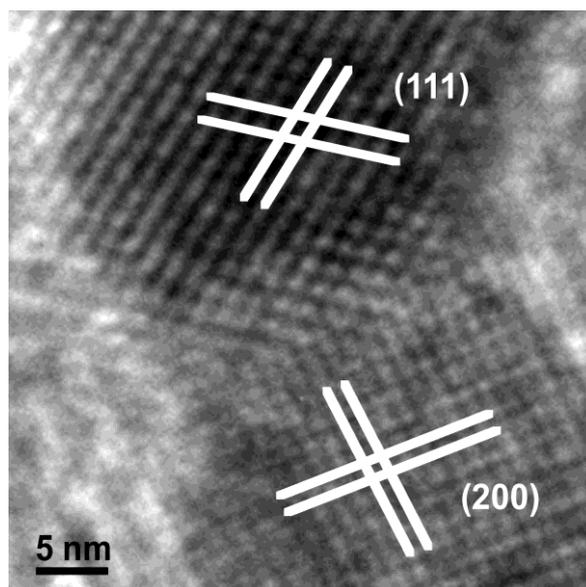


Figure S3. Enlarge HRTEM image of FePt nanoparticles shown in Figure 4c, showing a very apparent oriented-attached nanostructure

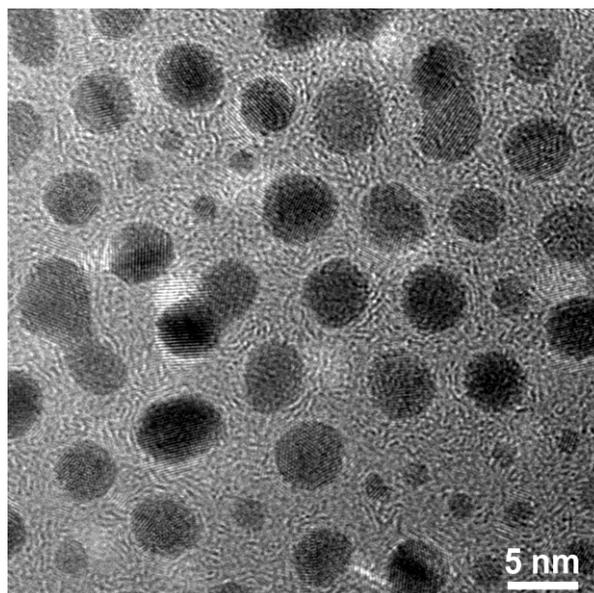


Figure S4. Photograph of FePt nanoparticles synthesized from $\text{Fe}(\text{CO})_x\text{-OAm}$ (prepared with $\text{OAm}:\text{Fe}(\text{CO})_5 = 1:1$ at 90°C) refluxing at 280°C for 60 min. These oriented-attached particles tend to be combined between two particles

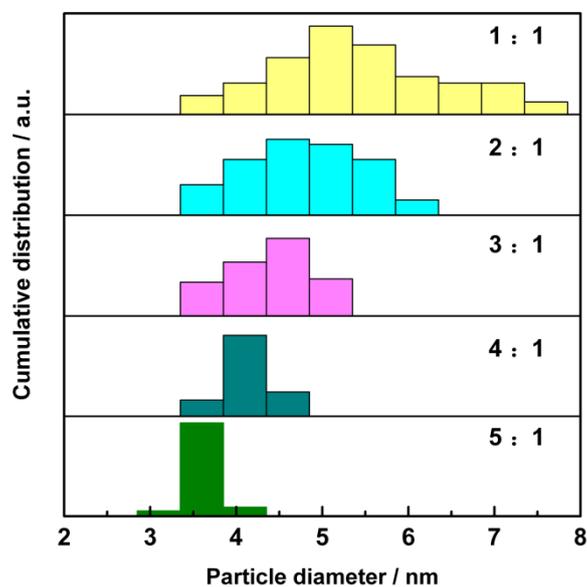


Figure S5. Size distributions of particles correspond to Figure 7 (a, b), (c, d), (e, f), (g, h) and (i, j), respectively. (In each case, at least 400 particles were counted to determine the size and the size dispersion.)