Electronic Supplementary Material (ESI) for RSC Advances
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Colloidal synthesis of ultrathin γ-Fe_2O_3 nanoplates

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Electronic Supplementary Information

Fig. S1 (A) Magnetization measurements of γ-Fe_2O_3 nanoplates at room temperature (300 K); (B) Thermogravimetric analysis of the synthesized iron oxide nanoplates.

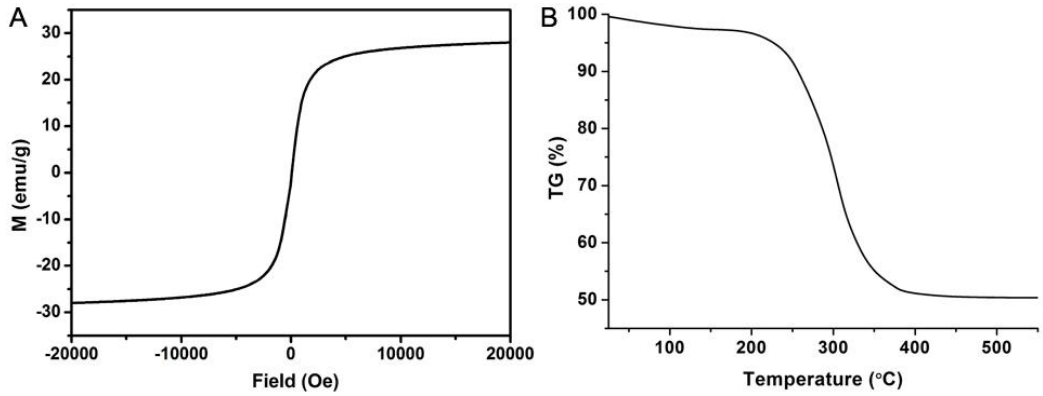

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Fig. S2 TEM images of nanoplates synthesized under different reaction temperatures: (A) 170 ºC, (B) 210 ºC, and (C) 320 ºC.

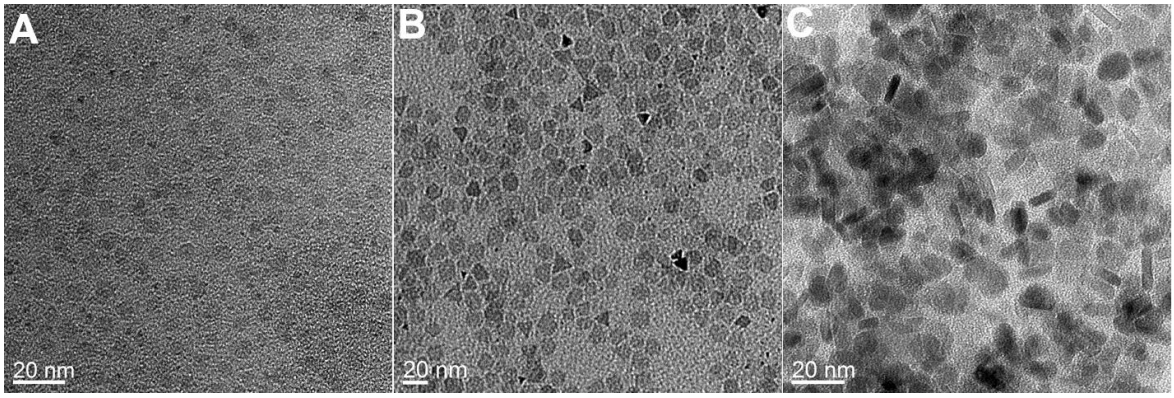

Fig. S3 FTIR spectra of iron oleate (I) (blue line) and that treated with 250 μL dodecanol (0.2 mmol iron oleate) (red line), and for reference purpose, pure dodecanol FTIR spectrum is shown in black. Upon addition of dodecanol, a new peak at 1589 cm^{-1} was observed, indicating coordination mode of iron carboxylate has changed.

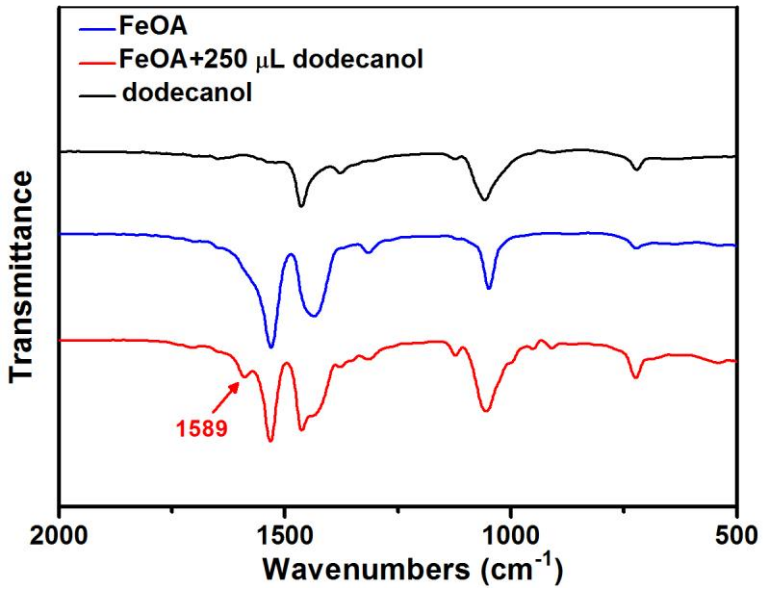

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Fig. S4 TEM image showing iron oxide morphologies synthesized with iron oleate (I) without adding any surfactant molecules such as OA or sodium oleate.

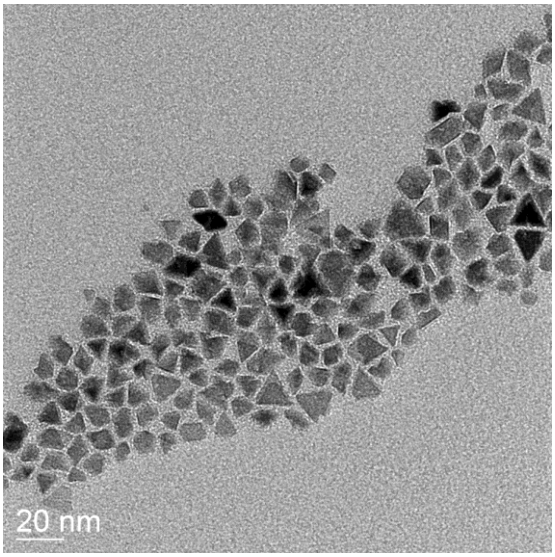

Fig. S5 TEM images showing iron oxide morphologies synthesized with iron oleate (II) (A) and with the addition of sodium methoxide (B).