Supporting Information

Size- and Shape-Controlled Synthesis and Properties of Magnetic-Plasmonic Core-Shell Nanoparticles

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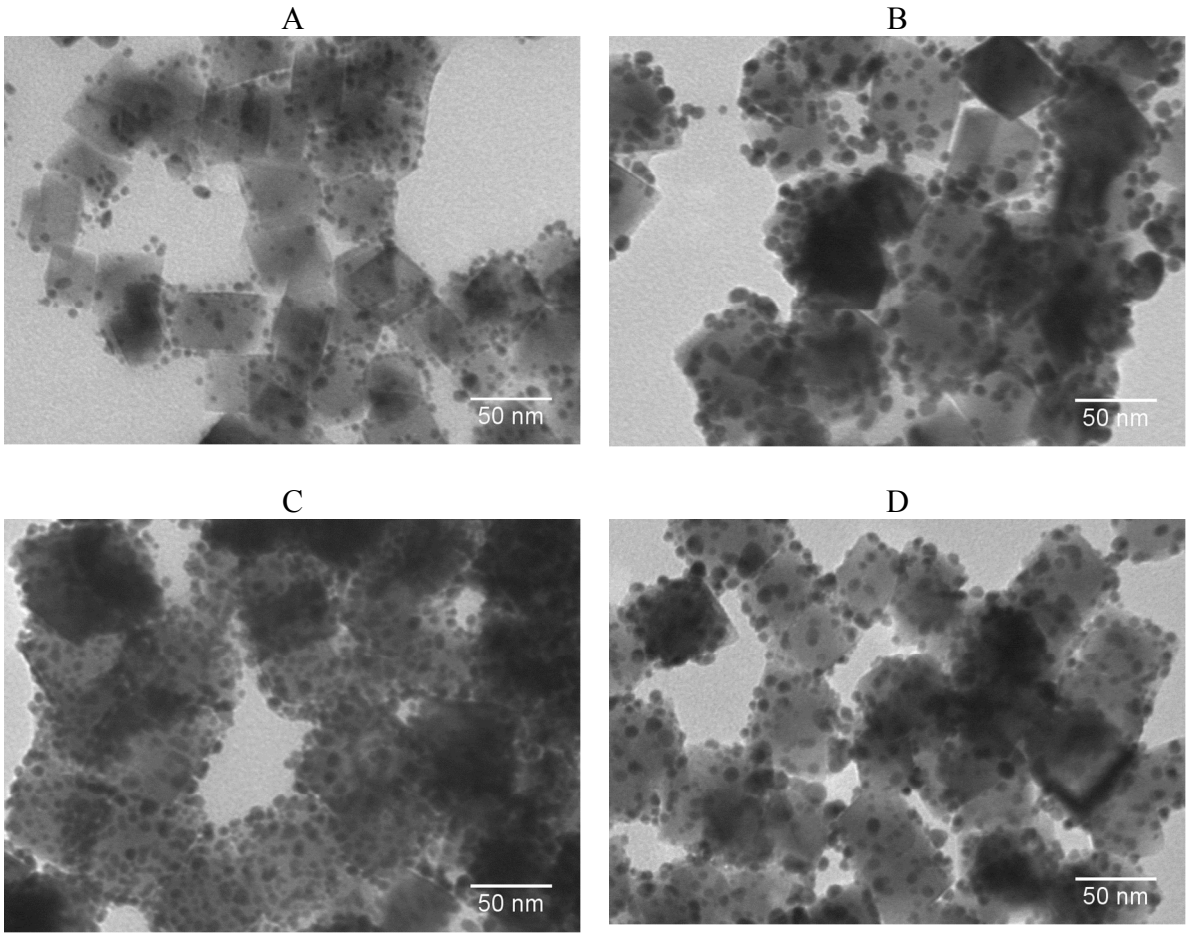

Figure S1. The effect of PEI concentration on the adsorption of Au seed on IO NPs. (A) 0 mg/mL, (B) 5 mg/mL, (C) 15 mg/mL of PEI, and (D) 30 mg/mL of PEI.

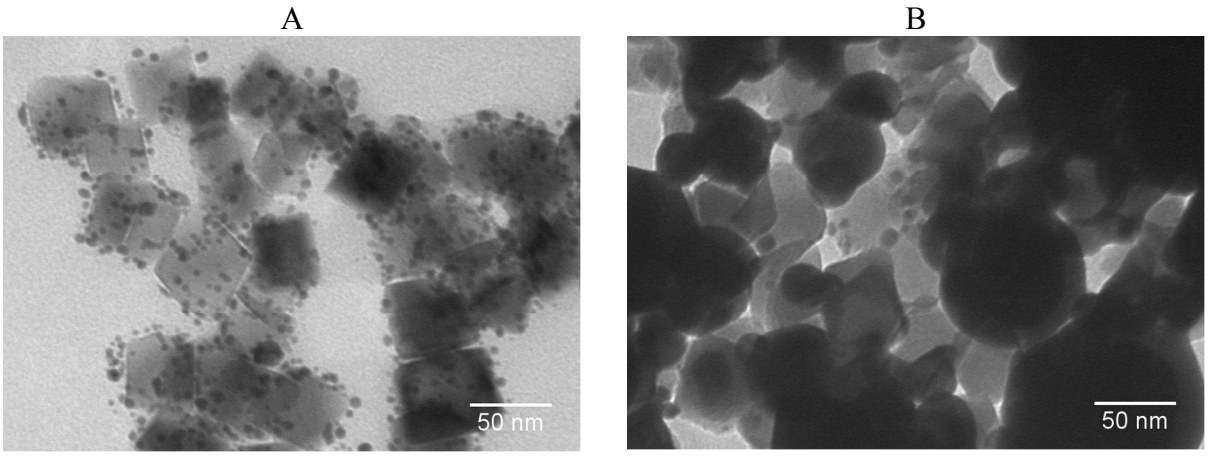

Figure S2. (A) TEM image of Au-seeded IO NPs with low density of Au seeds. (B) TEM image of the resultant NPs using the Au-seeded IO NPs shown in (A).

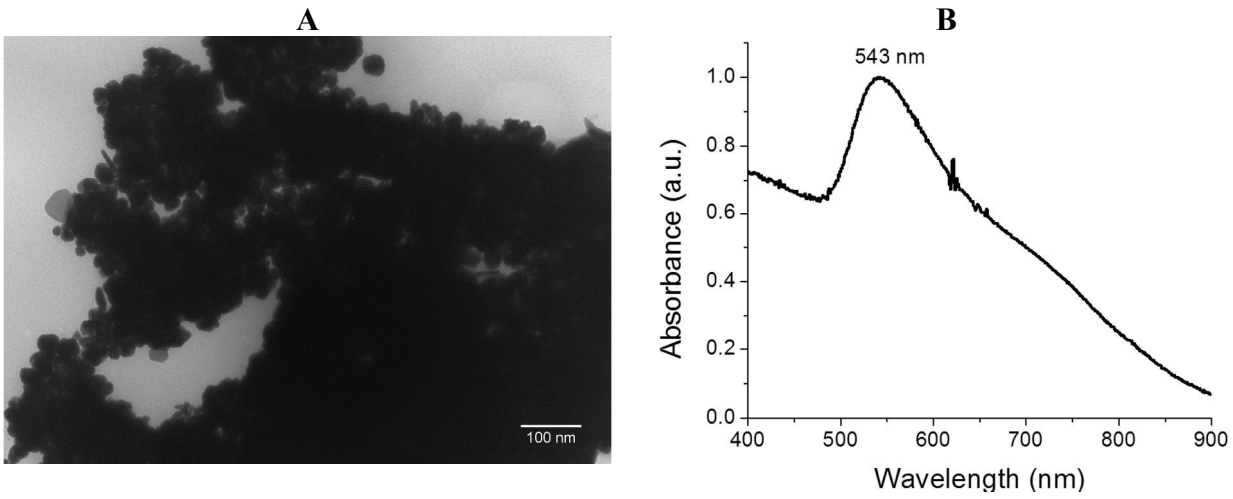

Figure S3. TEM image (A) and absorption spectrum (B) of IO-Au NPs prepared by adding 1000 μL of Au-seeded IO NPs into a 5 mL of growth solution for making IO-Au NSPs.

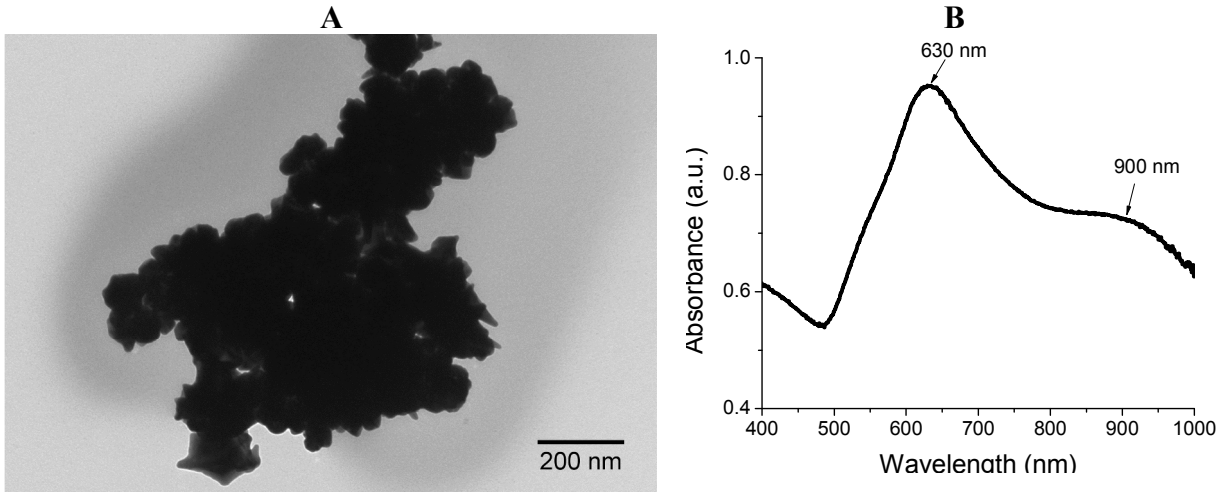

Figure S4. TEM image (A) and absorption spectrum (B) of IO-Au NPs prepared by adding 600 μL of Au-seeded IO NPs into a 5-mL growth solution during the synthesis of IO-Au NSTs.

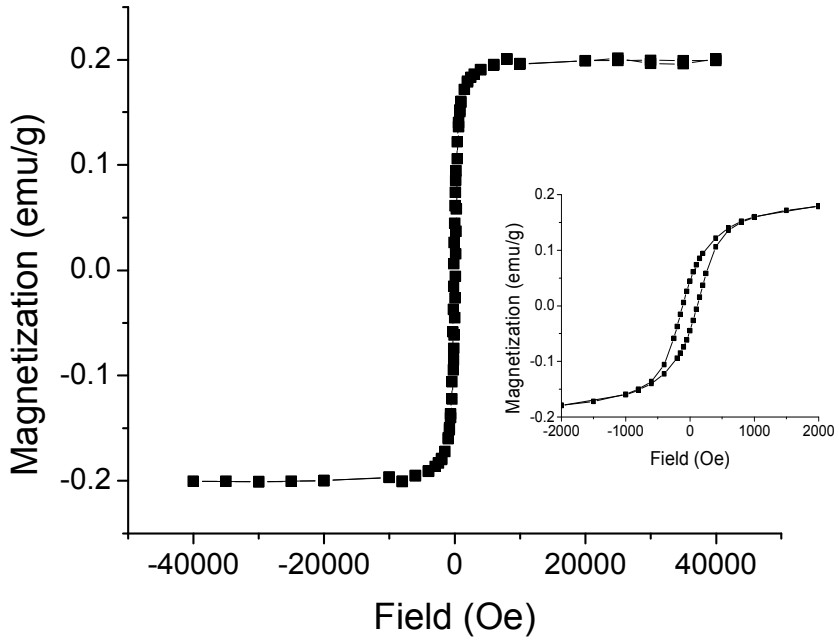

Figure S5. The quantitative magnetization as a function of applied field for the 145 nm IO-Au core-shell NPCs at 300 K. Inset shows the hysteresis loop under low magnetic field.