Electronic Supplementary Information

Size Dependent Magnetic Hyperthermia of Octahedral Fe$_3$O$_4$ Nanoparticles

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Fig. S1 Projection of octahedral Fe$_3$O$_4$ MNPs along different direction and the definition of particle size.
Fig. S2 (a) TEM image for 16 nm spherical Fe$_3$O$_4$ MNPs with size distribution inserted. (b) SAR values of 16 nm spherical Fe$_3$O$_4$ MNPs and 22 nm octahedral Fe$_3$O$_4$ MNPs. The two kinds of MNPs have the same volume.
Fig. S3 Hysteresis loops of octahedral Fe$_3$O$_4$ MNPs measured in gel suspension.

Fig. S4 Simulated hysteresis loop for 60 nm octahedral Fe$_3$O$_4$ MNP along different directions. The angle values in the figure refer to different angle between external magnetic field and the pole direction of octahedral Fe$_3$O$_4$ MNP.
Fig. S5 Hydrodynamic size of 43 nm CTAB capped octahedral Fe$_3$O$_4$ MNPs.