Supplementary Information

Hydrophobically Coated Superparamagnetic Iron Oxides Nanoparticles Incorporated into Polymer-Based Nanocapsules Dispersed in Water

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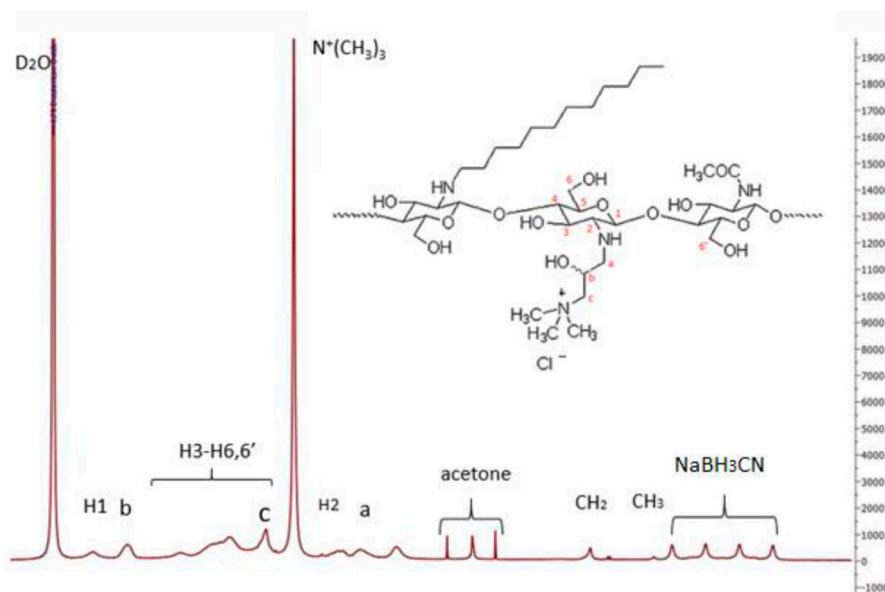* Correspondence: zapotocz@chemia.uj.edu.pl (S.Z.), kapusta@agh.edu.pl (C.K.)

Figure S1. NMR spectrum of the amphiphilic chitosan derivative containing quaternary ammonium and N-dodecyl groups.

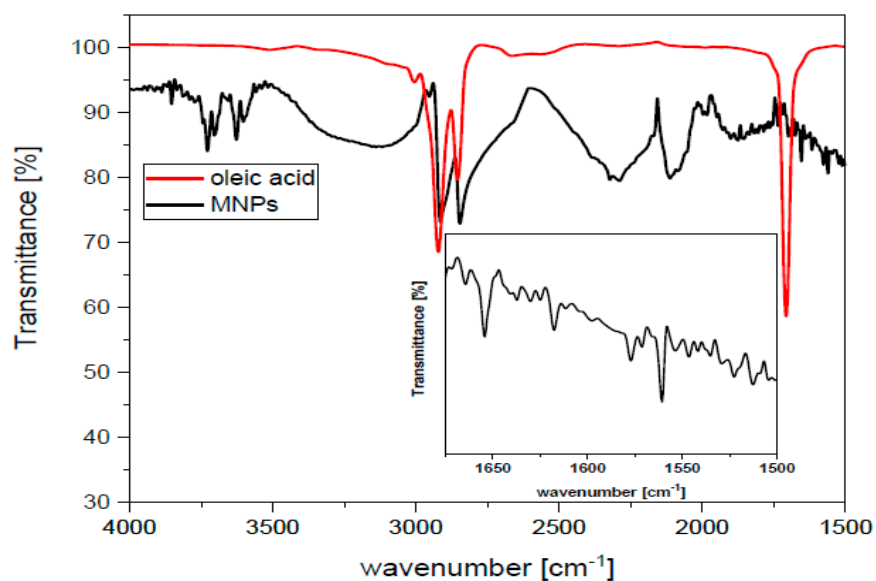**Figure S2.** FT-IR spectra of oleic acid and magnetic nanoparticles (MNPs) coated by oleic acid. The inset shows the magnified part of the spectrum.
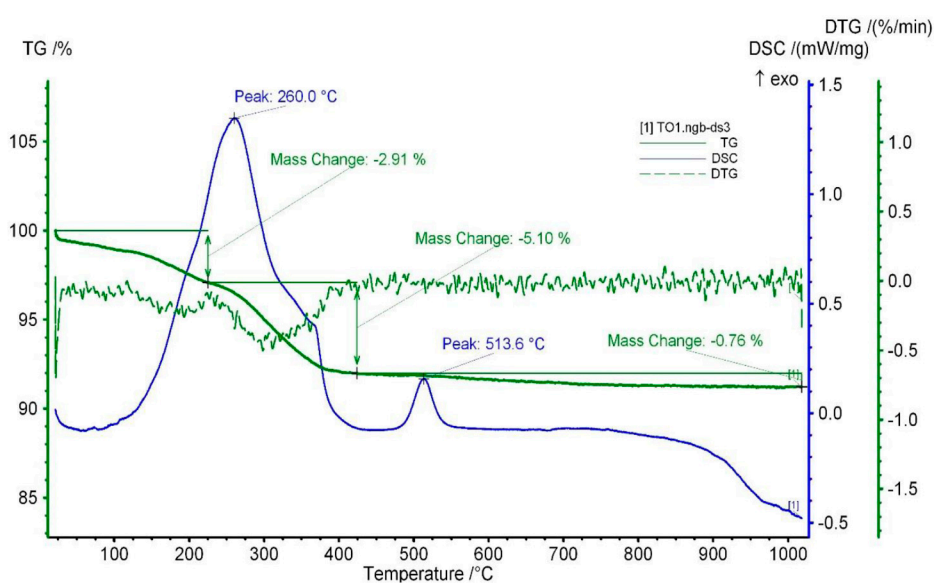

Figure S3. Thermal analysis (TGA-DSC) of the magnetic nanoparticles coated by oleic acid.
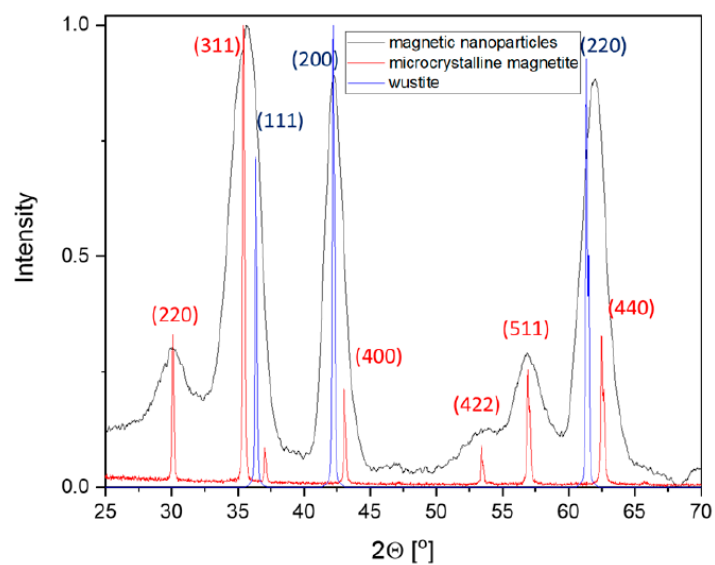
Figure S4. XRD diffraction patterns of magnetic nanoparticles, maghemite and wüstite.
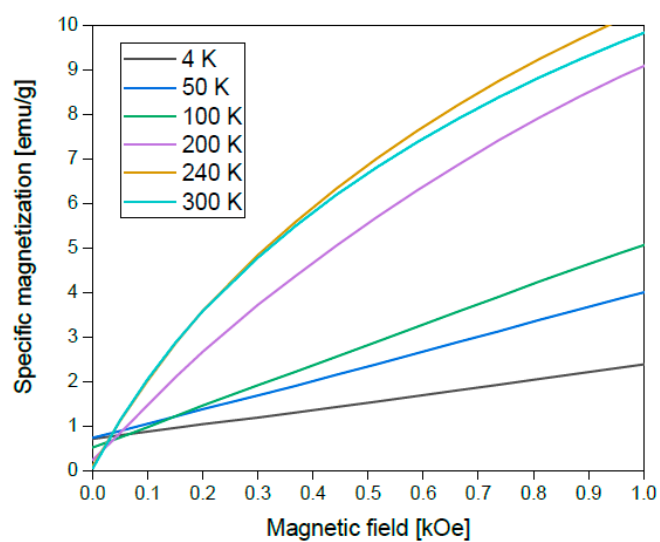

Figure S5. Virgin magnetization curves at 4–300 K temperature range.