



Supporting Information

for

Magnetic-field-assisted synthesis of anisotropic iron oxide particles: Effect of pH

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EDX spectrum, TEM micrographs, histogram of nanoparticle diameters, and scheme of the experimental setup

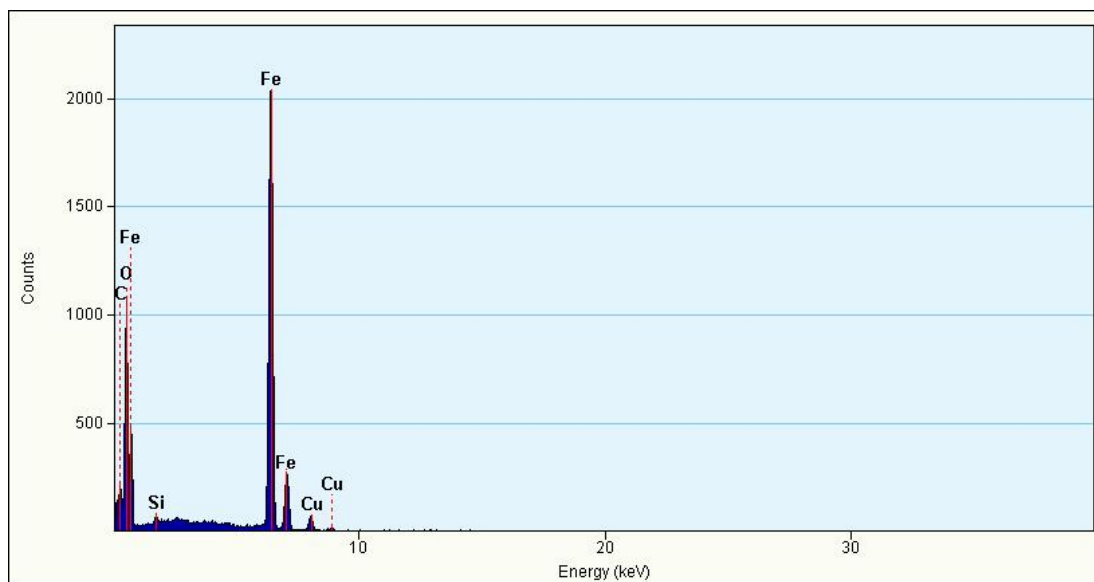


Figure S1: Energy-dispersive X-ray (EDX) spectrum for the sample synthesized at 1.3 M NaOH ($R = 2.1$) under magnetic field of 0.4 T at 20 °C.

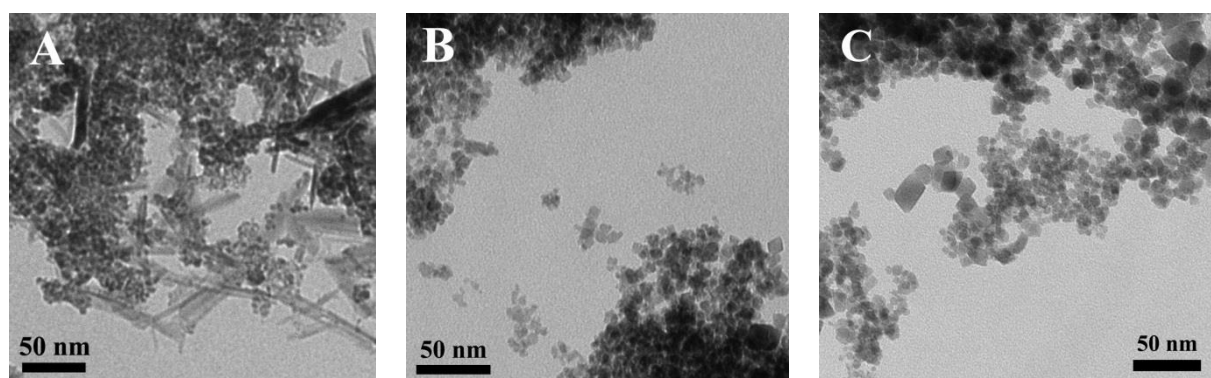


Figure S2: TEM micrographs of nanostructures synthesized at different molar ratios R of OH^- ions to the total amount of iron (Fe^{3+} and Fe^{2+}) ions in the mixture: 2.4 (A), 2.8 (B), 3.3 (C) under magnetic field of 0.4 T at 20 °C. pH of the samples after synthesis: 6.3 (A), 9 (B), 12 (C).

Table S1: Content of different atoms calculated from the EDX spectrum.

Atom	Weight %	Atomic %
O	23.7	44.8
Fe	65.8	35.6
C	6.9	17.5
Cu	2.8	1.3
Si	0.7	0.7

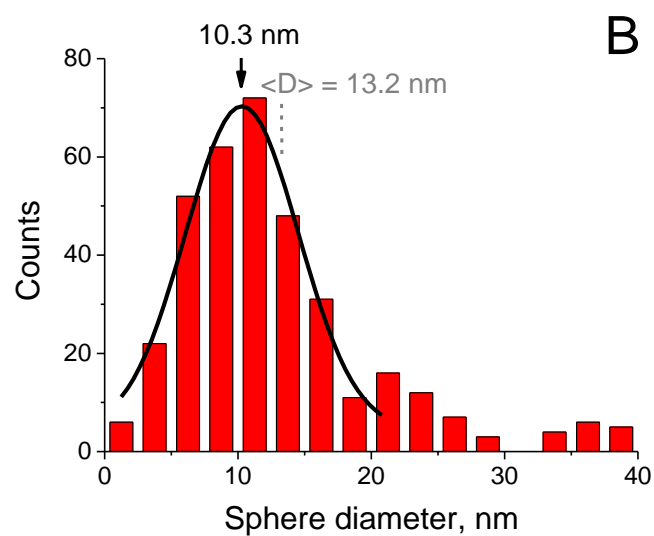
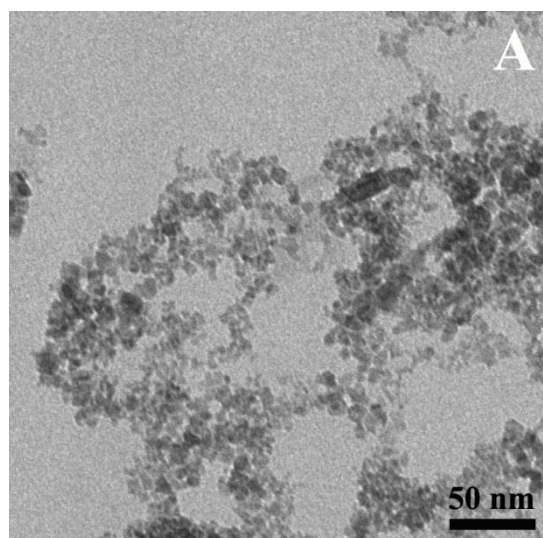


Figure S3: TEM micrograph (A) and histogram of nanoparticles diameters (B) for the sample synthesized at 5 M NaOH ($R = 8$) in the absence of magnetic field at 20 °C.

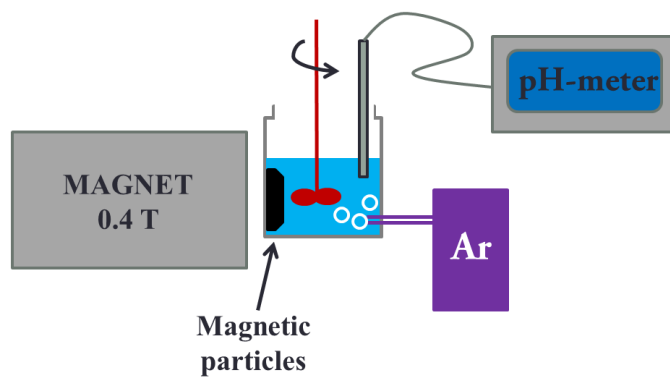


Figure S4: Experimental setup used for the synthesis of magnetite nanorods.