Supplementary Material (ESI) for Journal of Materials Chemistry

Supporting Information

One-step preparation of nanowires using facile ultrafiltration technique: the case for biomedical chitosan and/or iron oxide nanowires

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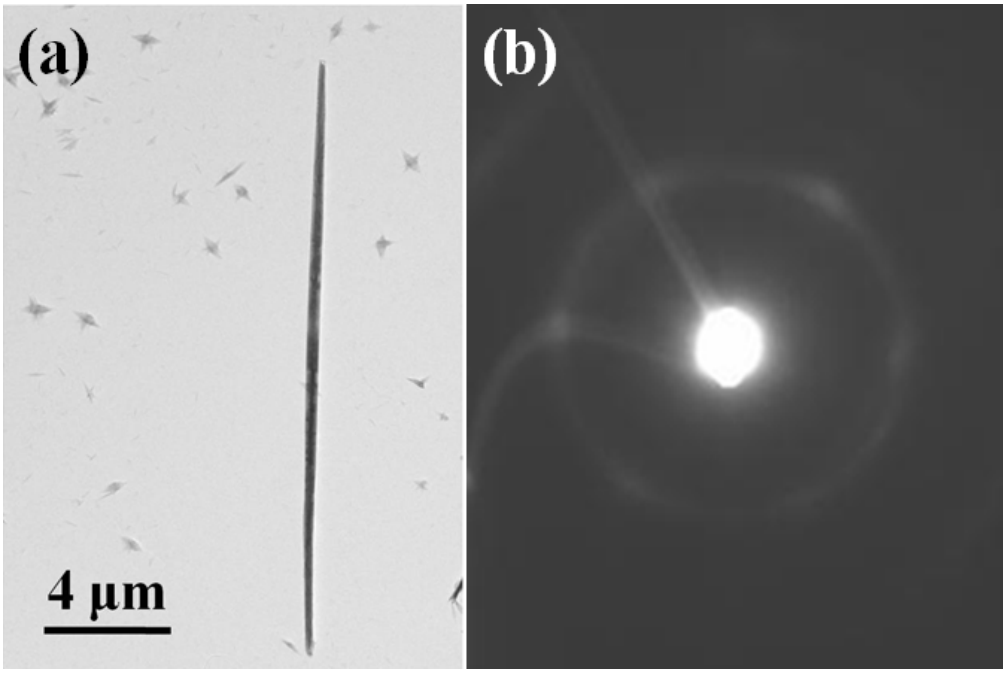


Figure S1. (a) TEM image of an individual magnetic nanowire about 19 um long and 400 nm wide, and (b) its selected area electron diffraction (SAED) pattern taken on this individual wire. The irregularly arranged spots and unclear ring indicate the existence of chitosan coating on the surface.

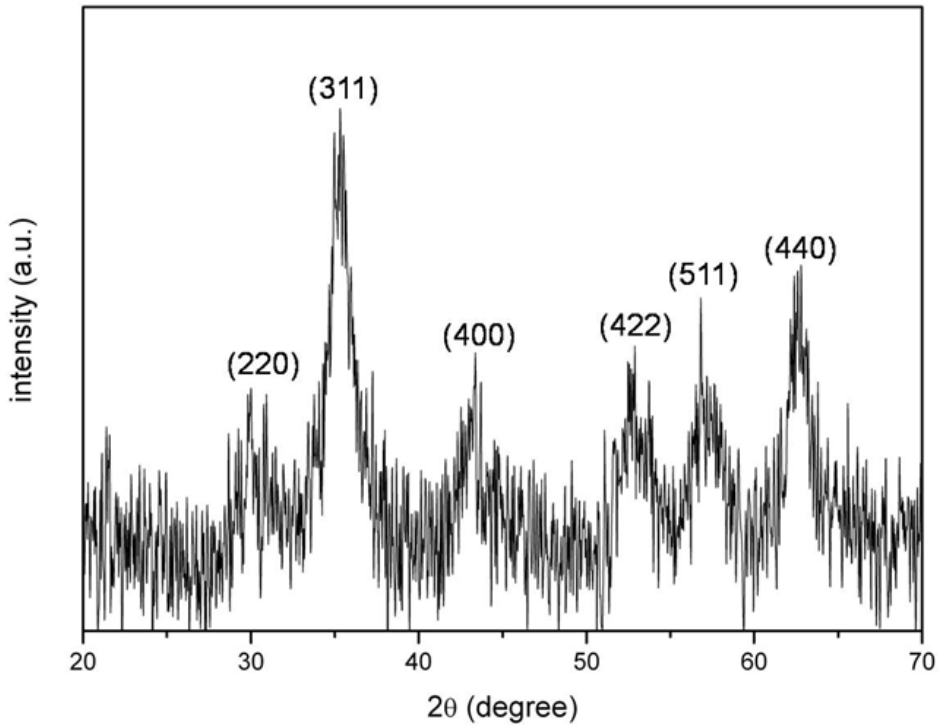


Figure S2. XRD pattern of iron oxide nanowires.

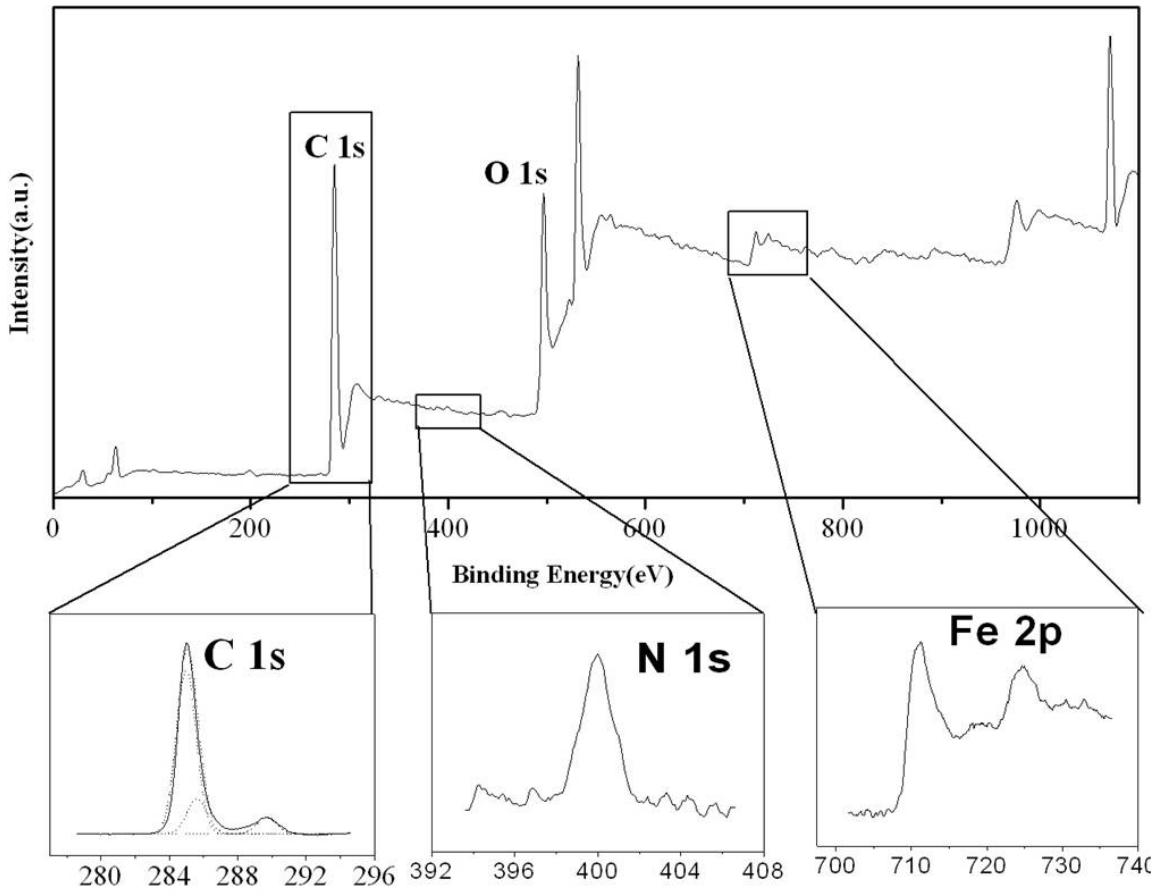
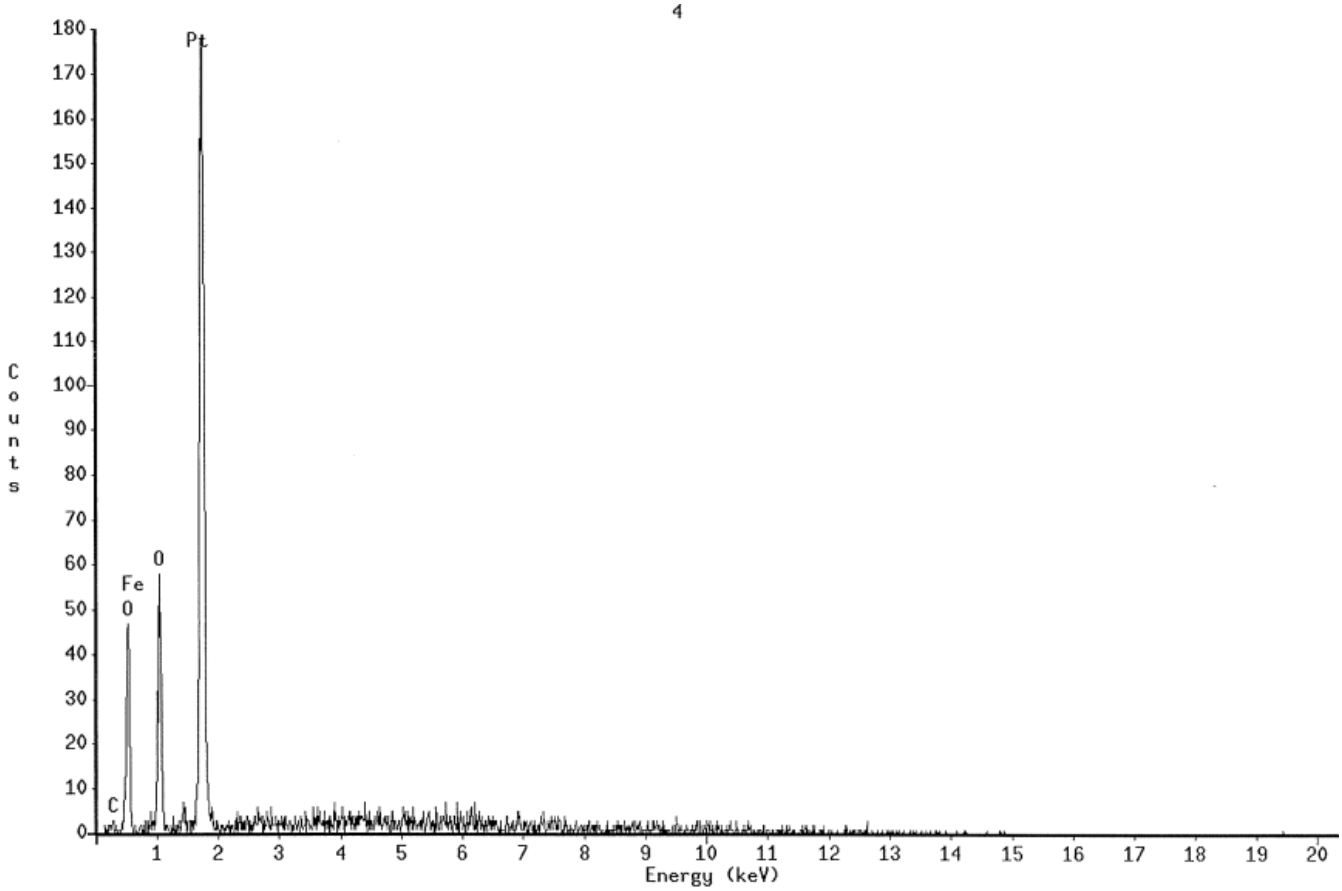


Figure S3. XPS spectra of iron oxide nanowires. The survey spectrum shows the elements present in chitosan-coated iron oxide nanowires, and the individual spectra show each elementary analysis of carbon, nitrogen, and iron.



Element	k-ratio (calc.)	ZAF	Atom %	Element Wt %	Wt % Err. (1-Sigma)
C -K	0.0272	2.037	7.74	5.54	+/- 1.70
O -K	0.5742	1.414	85.19	81.20	+/- 4.57
N -K	0.0211	1.625	4.12	3.43	+/- 1.72
Fe-K	0.0771	1.274	2.95	9.82	+/- 3.27
Total			100.00	100.00	

Figure S4. EDX analysis on the electron-beam-focused surfaces of chitosan-coated iron oxide nanowires.