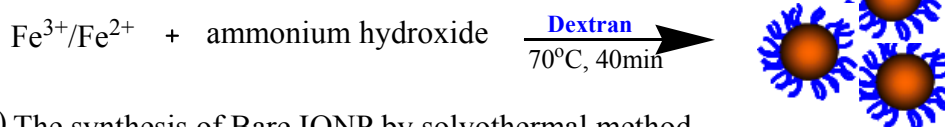
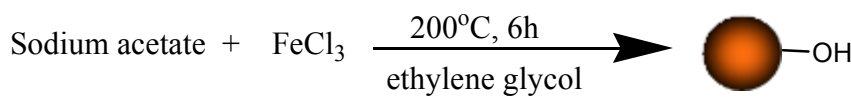


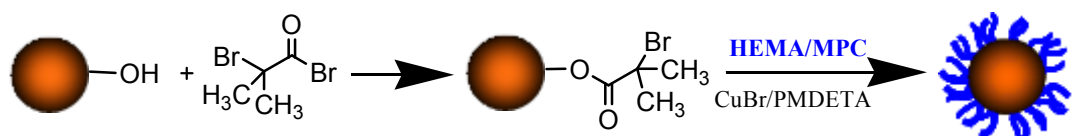
(A) The synthesis of Dextran IONP by coprecipitation method



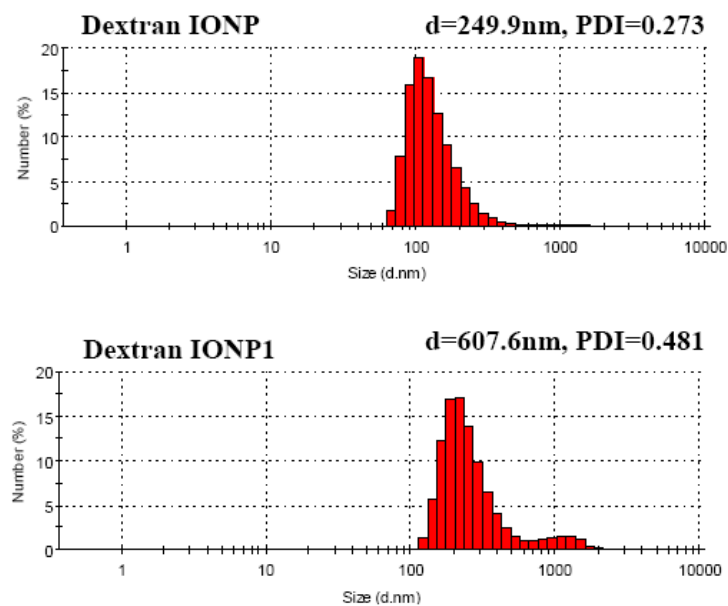
(B) The synthesis of Bare IONP by solvothermal method



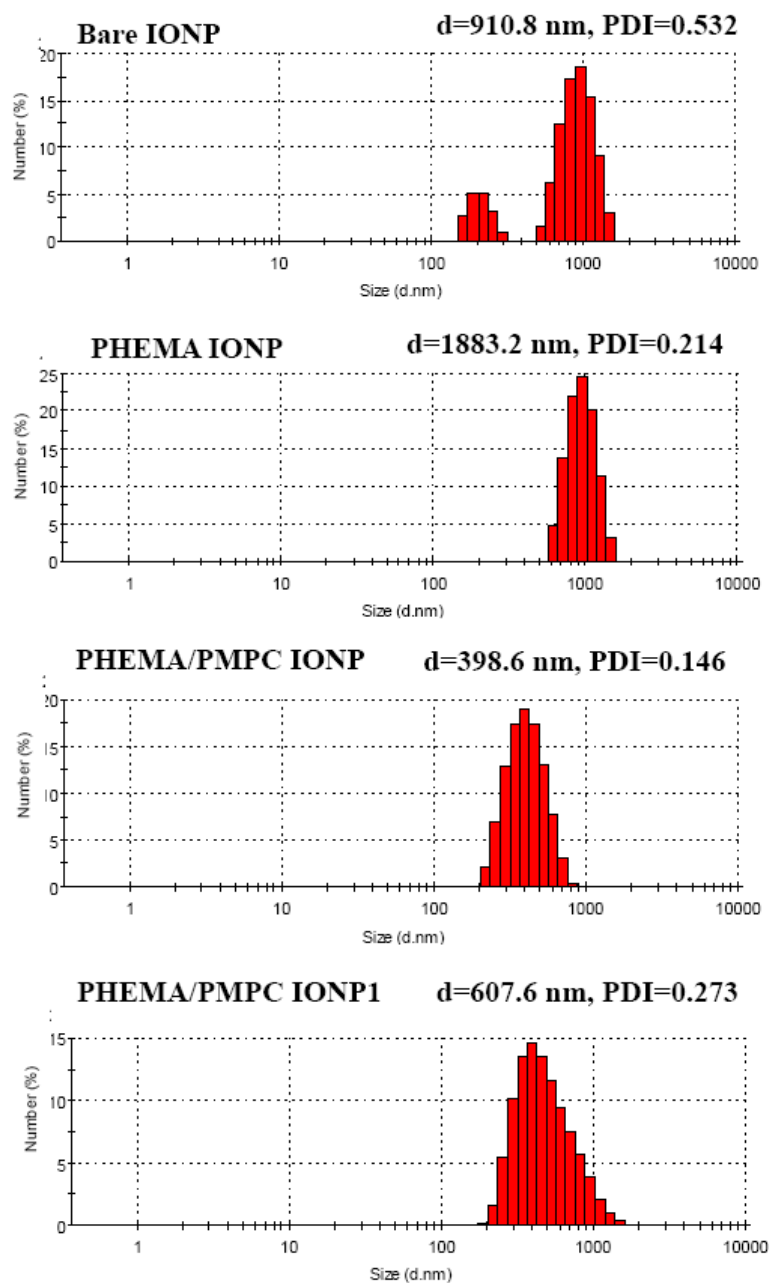
(C) The synthesis of PHEMA/PMPC IONP by graft from method



**Fig S1.** Synthetic routes of the Dextran IONP, Bare IONP and PHEMA/MPMC IONP.



**Fig. S2.** The DLS measurement of Dextran IONP



**Fig. S3.** The DLS measurement of Bare IONP and PHEMA/PMPC IONP

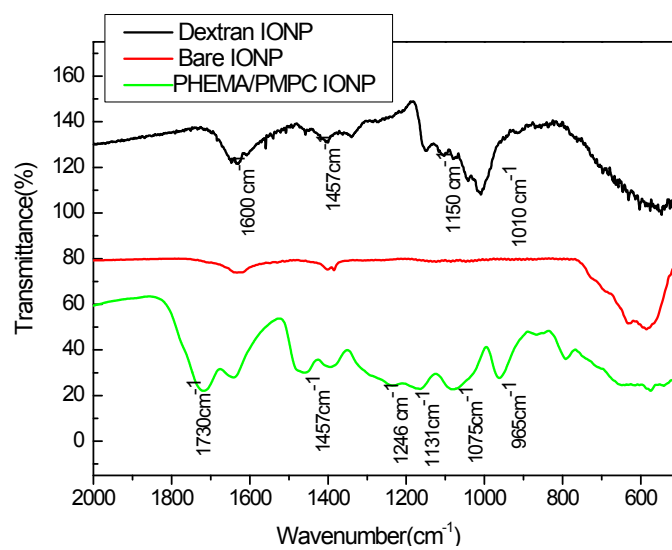


Fig.S4 FTIR spectra of iron oxide samples.

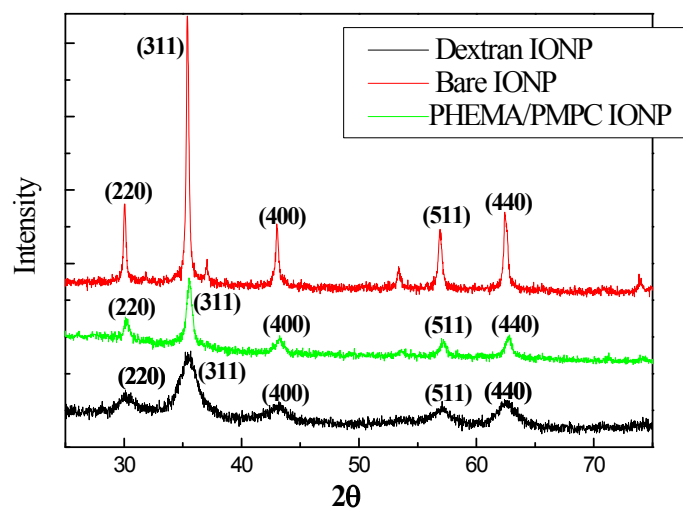
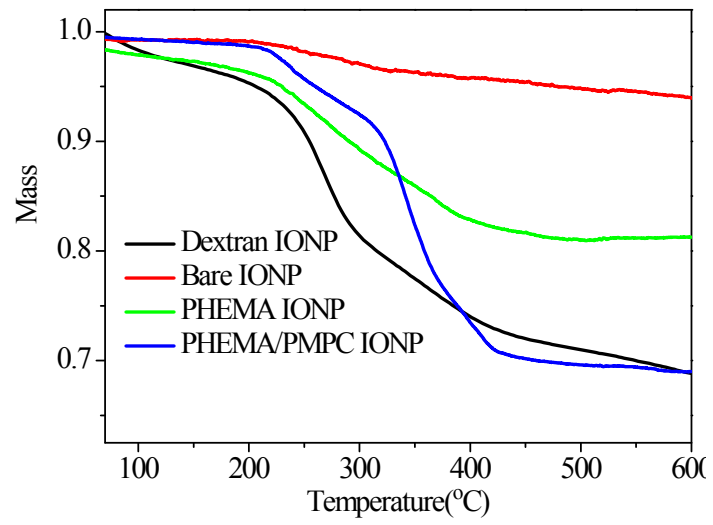
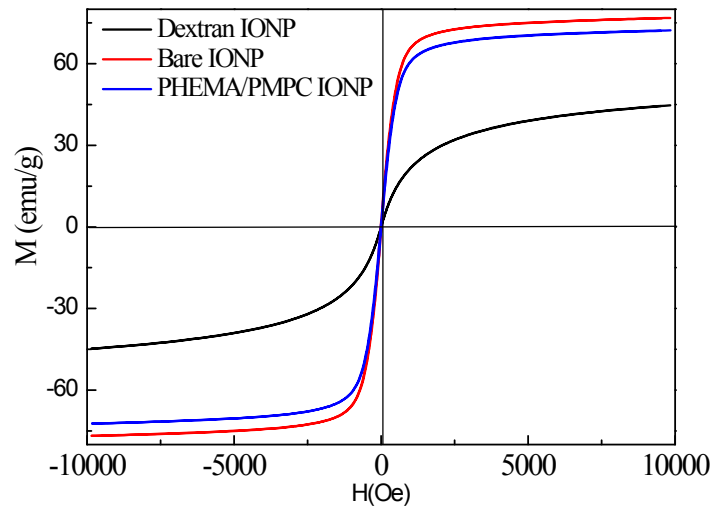


Fig. S5 Overlay of X-ray power diffraction patterns of the iron oxide nanoparticles.



**Fig.S6** The thermogravimetric analysis of iron oxide nanoparticle



**Fig.S7** The magnetic hysteresis loops of of iron oxide nanoparticle