# Multifaceted core-shell nanoparticles: superparamagnetism and biocompatiblity

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Figure SI-1: XPS spectra of Ni 2p obtained from pristine Ni nanoparticles.

**Supporting Information SI-2** 



Figure SI-2: Size distribution histogram of Ni nanoparticles



Figure SI-3: Magnified HRTEM image of NicoreAgshell nanoparticles showing the presence og Ag (111) plane.



Figure SI-4: EDX spectra obtained from  $\mathrm{Ni}_{\mathrm{core}}\mathrm{Ag}_{\mathrm{shell}}$  nanoparticles.



Figure SI-5: Raw data of Zeta potential of colloidal Ni nanoparticles.



Figure SI-6: Raw data of Zeta potential of L-Tryptophan modified Ni Nanoparticles.

**Supporting Information SI-7** 



Figure SI-7: Magnified XRD of Ni\_core Au\_shell in the range  $2\theta$ =16<sup>0</sup>-27<sup>0</sup>.



**Figure SI-8:** (A) Temparature dependent magnetization (applied magnetic field = 150 Oe) for zero field cooled measurement (ZFC, Curve 1) and for field cooled measurement (FC, Curve 2), (B) Field dependent magnetization at 300K (Curve 1) and 10 K (Curve 2) for crude Ni nanoparticles.