Supporting Information:

Bio-Physical Insights into Interaction of Biocompatible Iron Oxide Nanoparticles with Biomolecules: Microcalorimetric and Spectroscopic Evaluation

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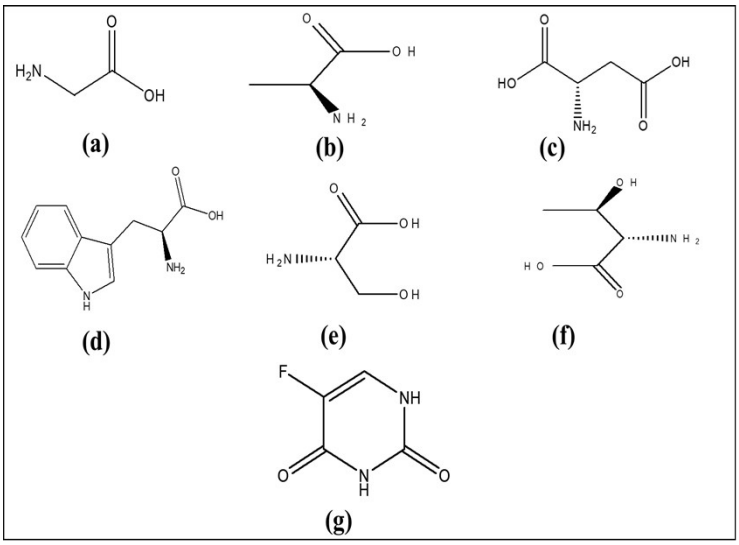

Fig. S1. Chemical structures of **(a)** Glycine **(b)** Alanine **(c)** Aspartic acid **(d)** Tryptophan **(e)** Serine **(f)** Threonine **(g)** 5- Fluorouracil

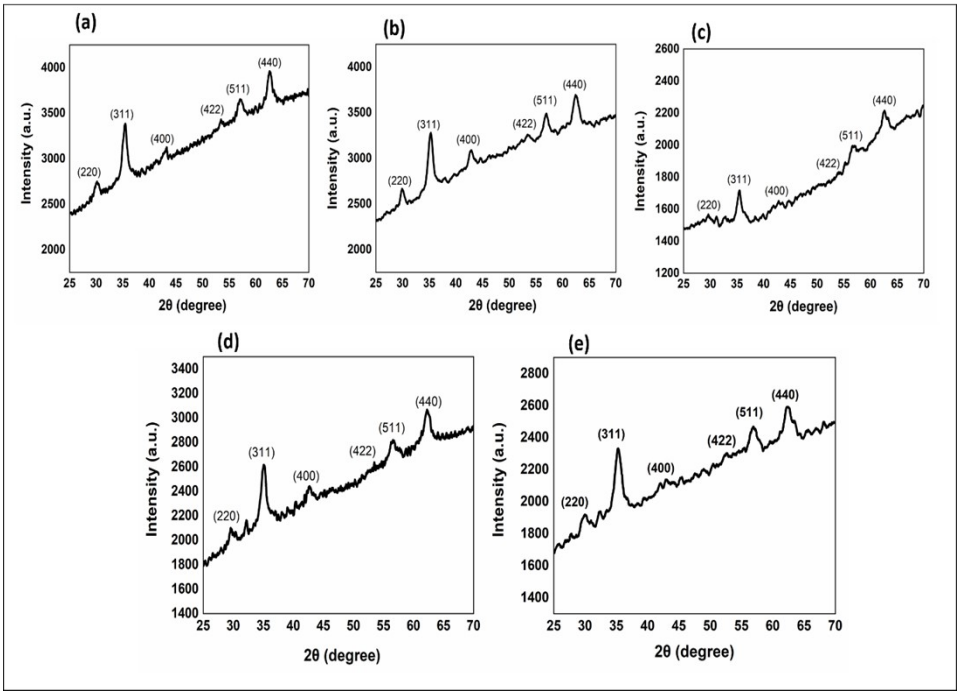

Fig. S2. Representation of XRD pattern of **(a)** Alanine IONPs, **(b)** Aspartic Acid IONPs, **(c)** Tryptophan IONPs, **(d)** Serine IONPs, and **(e)** Threonine IONPs

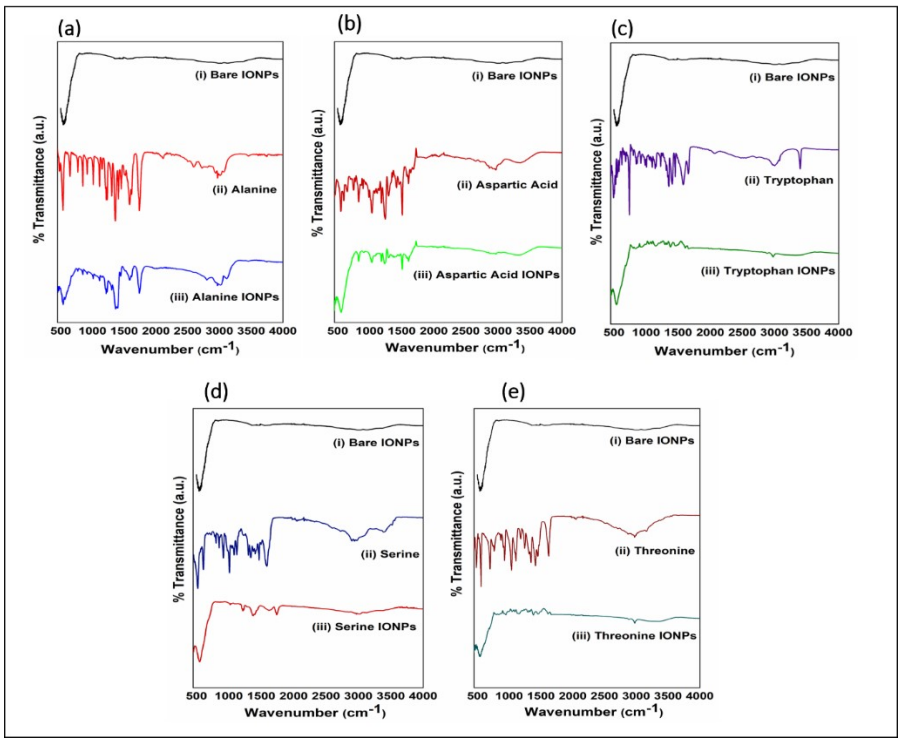

Fig. S3. Comparative representation of **(a)** FTIR spectra of (i) Bare IONPs (ii) Alanine (iii) Alanine IONPs, **(b)** FTIR spectra of (i) Bare IONPs (ii) Aspartic Acid (iii) Aspartic Acid IONPs, **(c)** FTIR spectra of (i) Bare IONPs (ii) Tryptophan (iii) Tryptophan IONPs, **(d)** FTIR spectra of (i) Bare IONPs (ii) Serine (iii) Serine IONPs, and **(e)** FTIR spectra of (i) Bare IONPs (ii) Threonine (iii) Threonine IONPs

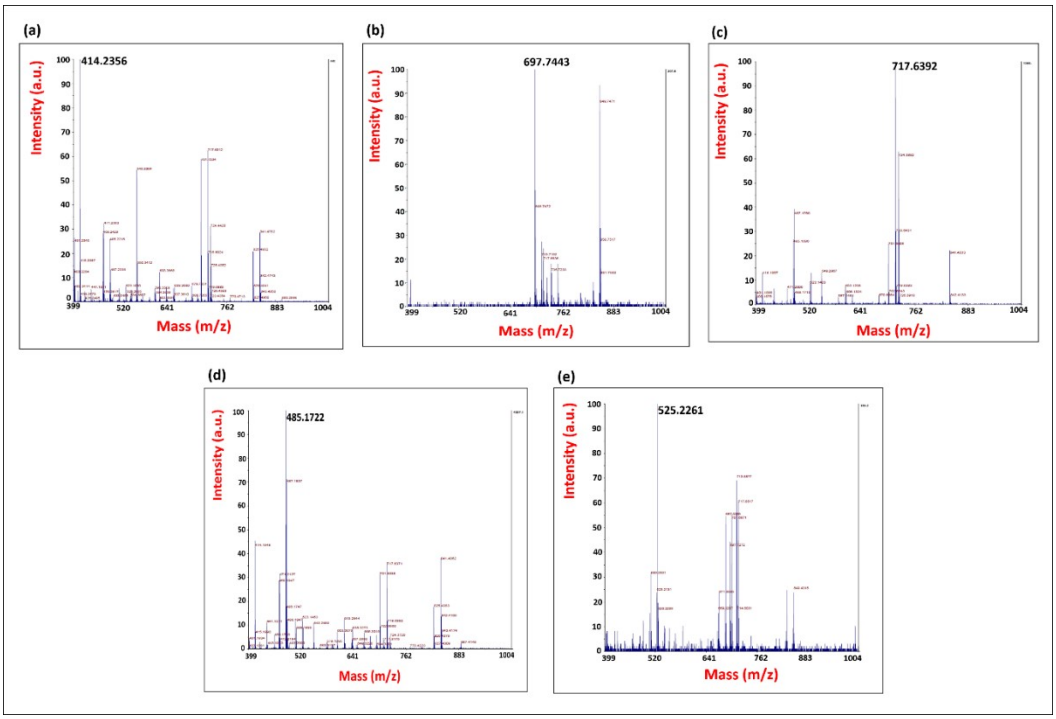

Fig.S4. MALDI-TOF mass spectra of **(a)** Glycine-coated IONPs, **(b)** Aspartic acid-coated IONPs, **(c)** Tryptophan-coated IONPs, **(d)** Serine-coated IONPs, **(e)** Threonine-coated IONPs

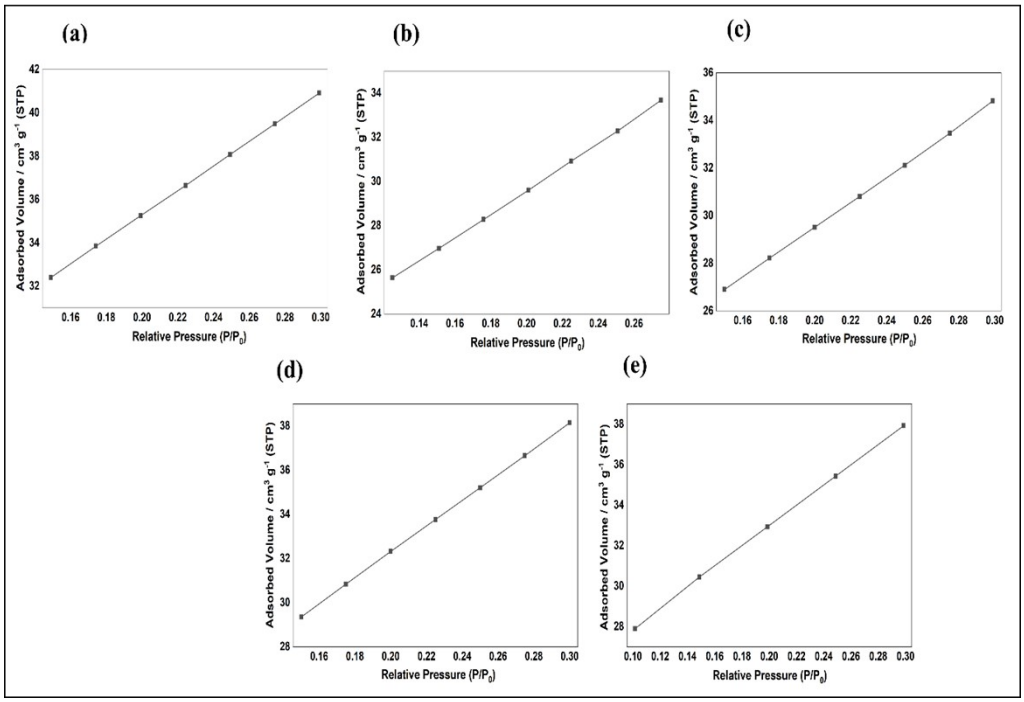

Fig. S5. BET: Specific surface area graph of **(a)** Alanine IONPs **(b)** Aspartic acid IONPs **(c)** Tryptophan IONPs **(d)** Serine IONPs **(e)** Threonine IONPs