

Supplementary information 1

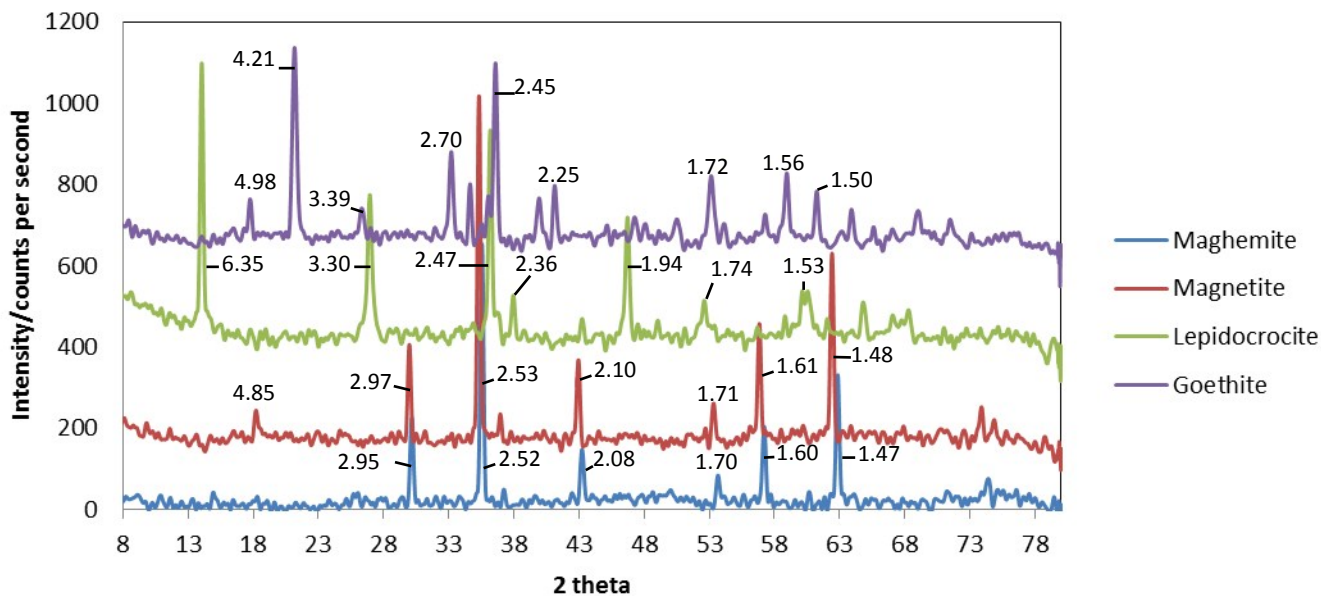


Fig. S1 XRD patterns for the synthetic iron oxides (Maghemite and Magnetite) and oxy-hydroxides (Lepidocrocite and Goethite). The specific peaks of each sample are indexed using d-spacing scale [Å].

Supplementary information 2

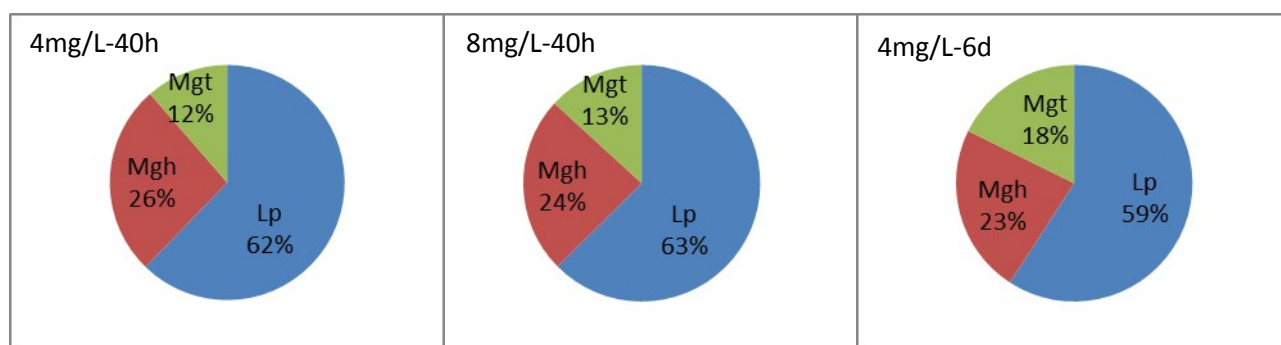


Fig. S2 Semi-quantitative XRD simulation of different oxides and oxy-hydroxides in the synthesized samples. Legend: Lp for lepidocrocite, Mgh for maghemite and Mgt for magnetite.