Electronic Supplementary Material (ESI) for Journal of Materials Chemistry C

Supporting Information

Rational Surface Modification of Mn_3O_4 Nanoparticles to Induce Multiple Photoluminescence and Room Temperature Ferromagnetism

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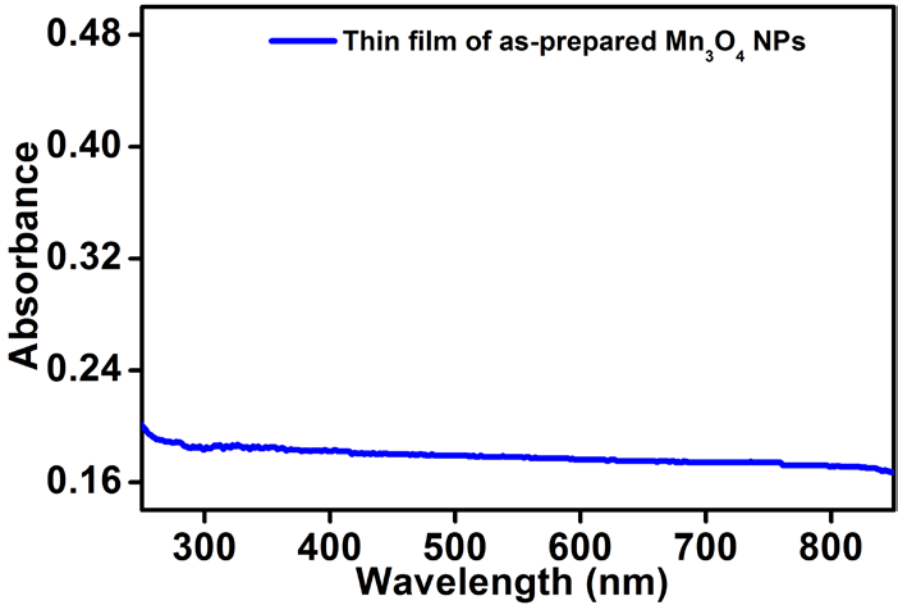

Figure S1. UV-vis absorption spectrum of as- prepared Mn_3O_4 NPs thin film on quartz plate.

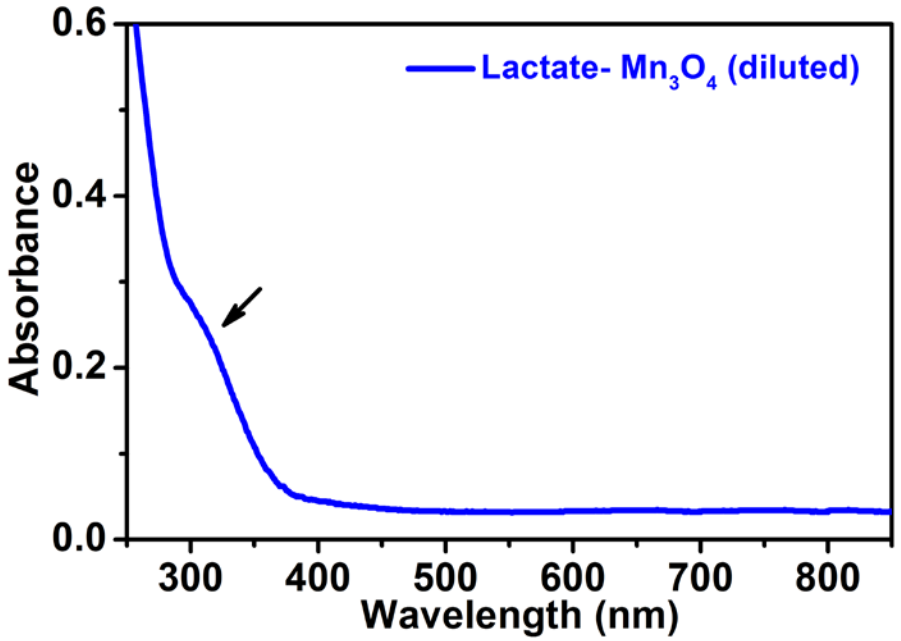

Figure S2. UV-vis absorption spectrum of diluted solution of Lactate-Mn_3O_4 NPs.

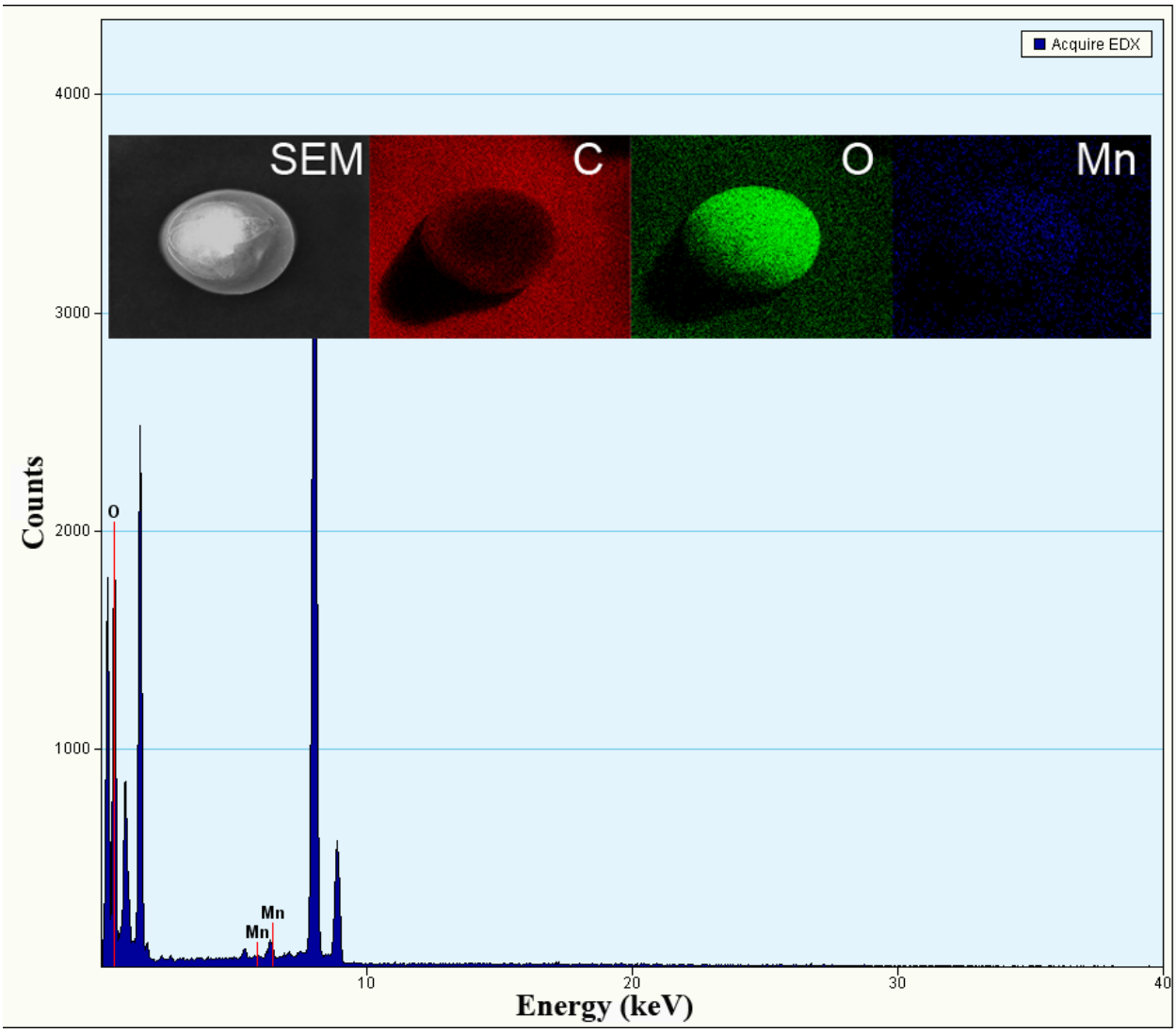

Figure S3. The EDX spectrum of T-Mn_3O_4 NPs shows the elemental composition of the NPs. Inset shows the SEM image of the T-Mn_3O_4 NPs sample. EDX maps of C K, O K, and Mn L lines are also shown in the inset.

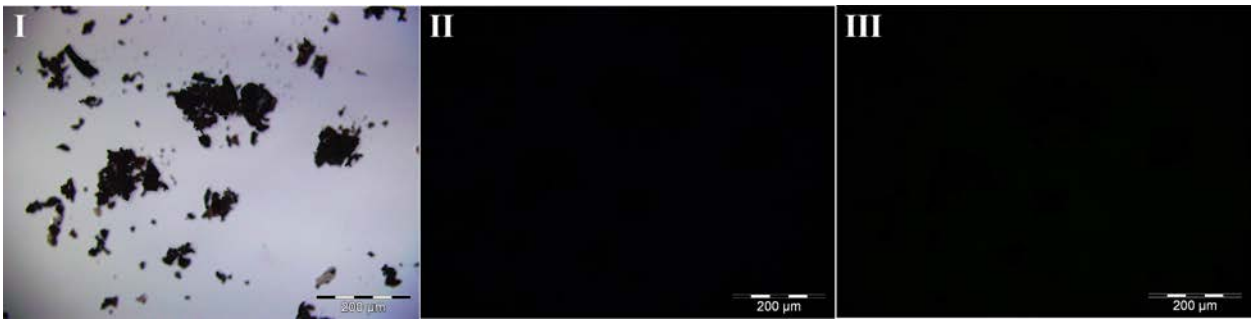

Figure S4. Shows the fluorescence microscopic images of powder as-prepared Mn_3O_4 NPs under irradiation of white light (I, bright field) and light of two different wavelengths of 365 (II) and 436 nm (III), respectively.

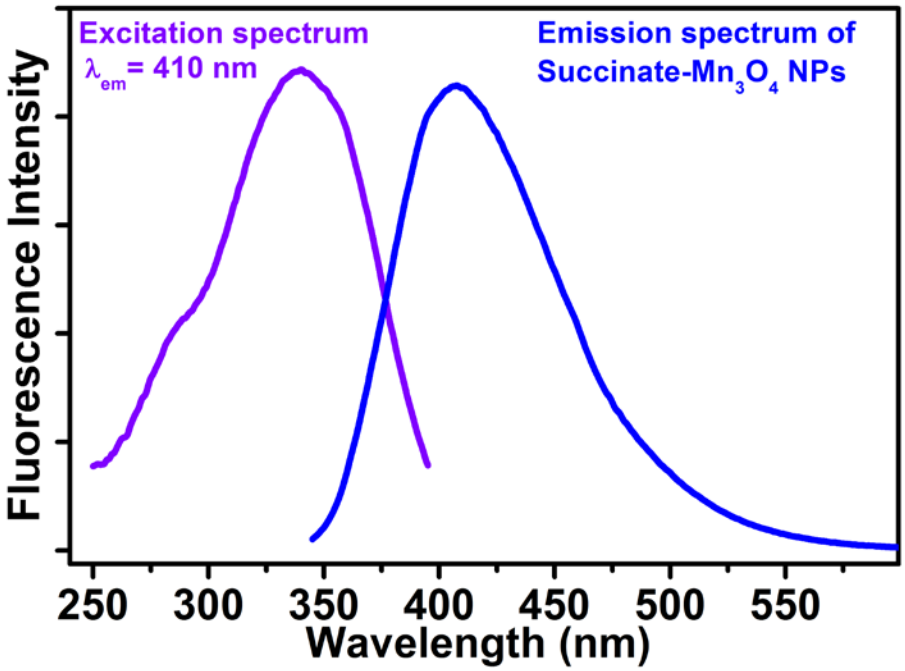

Figure S5. Steady-state excitation and PL spectra (λexcitation=330 nm) collected from Succinate-Mn_3O_4 NPs.

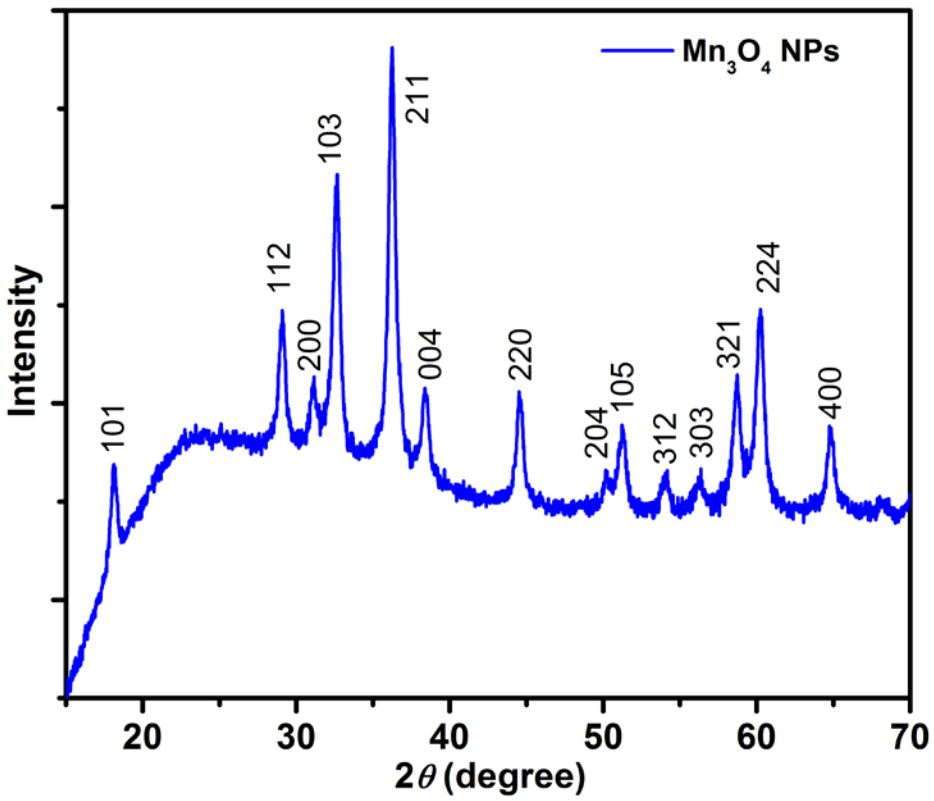

Figure S6. XRD pattern of as-prepared Mn_3O_4 NPs. All diffraction peaks in the figure is perfectly indexed in the literature to the tetragonal structure of Mn_3O_4 NPs (hausmannite).

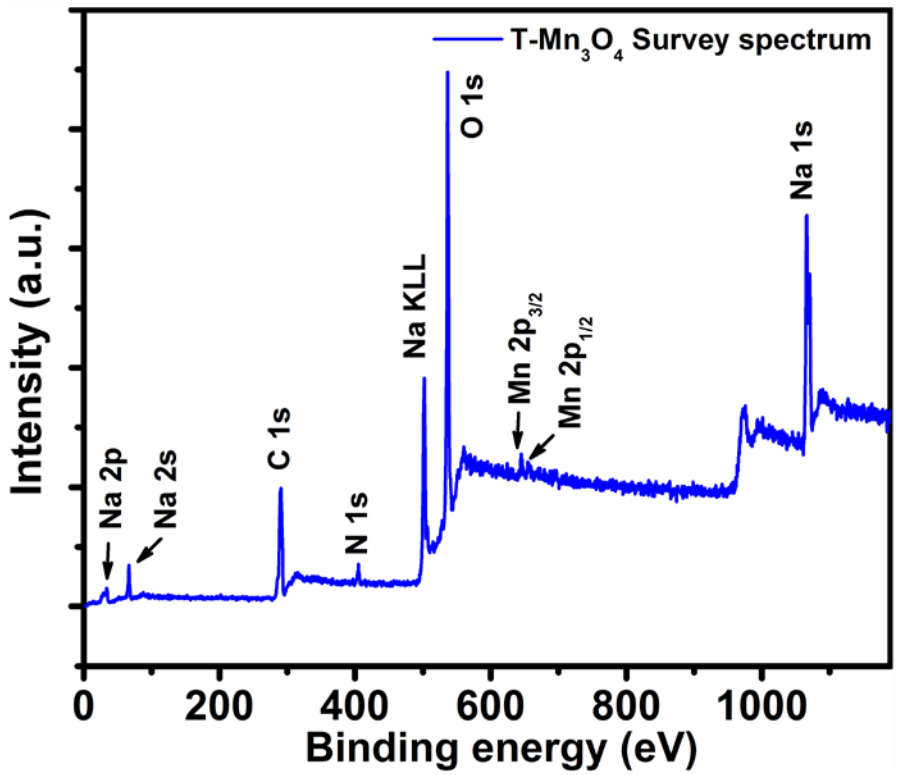

Figure S7. XPS survey spectrum of T-Mn_3O_4 NPs.