

†Electronic Supplementary Information (ESI)

Luminomagnetic bifunctionality of Mn²⁺-bonded graphene oxide /reduced graphene oxide two dimensional nanosheets

Amandeep,^{‡a} Garima Kedawat,^{‡b} Pawan Kumar,^{a,c} Avaneesh Anshul,^{a,d} Abhay D. Deshmukh,^{a,e} Om Pal Singh,^{a,c} R. K. Gupta,^f S. S. Amritphale,^d Govind Gupta,^a V. N. Singh^a and Bipin Kumar Gupta^{*a}

^aCSIR-National Physical Laboratory, Dr K S Krishnan Road, New Delhi, 110012, India.

^bDepartment of Physics, Kalindi College, University of Delhi, New Delhi, 110008, India

^cAcademy of Scientific and Innovative Research (AcSIR), CSIR–National Physical Laboratory campus, New Delhi–110012, India

^dCSIR-Advanced Materials and Processes Research Institute, Bhopal, 462024, India

^eEnergy Material and Devices Laboratory, Department of Physics, RTM Nagpur University, Nagpur, 440033, India

^fDepartment of Chemistry, Pittsburg State University, Pittsburg, KS, 66762, USA

* *Corresponding author. Tel.: +91-11-45609385, Fx: +91-11-45609310*

E-mail address: bipinbhu@yahoo.com

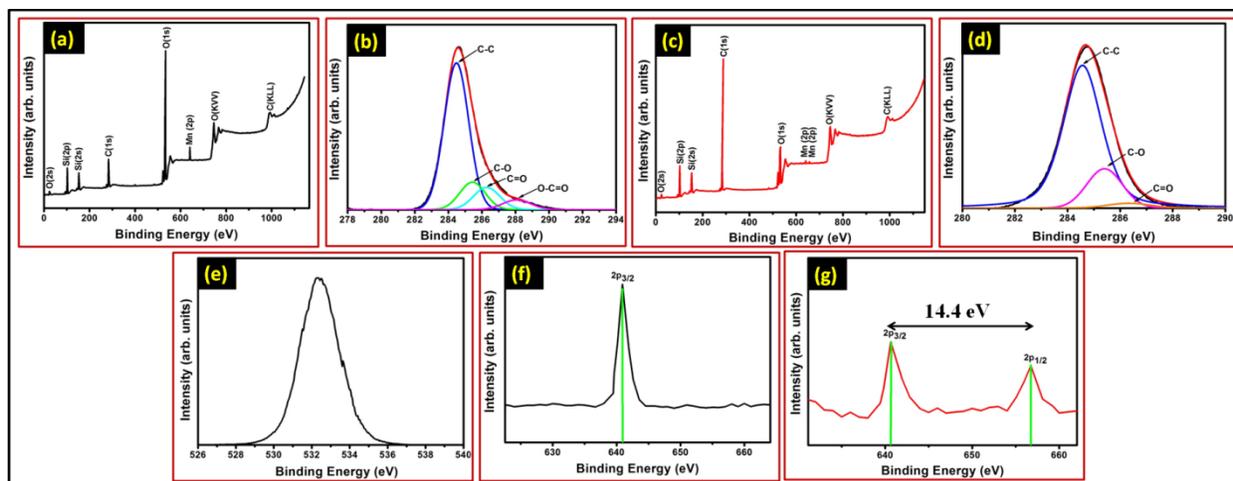


Figure S1: (a) XPS spectrum of MnGO10 composite, (b) high resolution spectra of C1s region for MnGO10 composite, (c) XPS spectrum of MnRGO10 composite, (d) high resolution spectra of C1s region for MnRGO10 composite, (e) core level peak of O1s for MnGO10 composite, (f) high resolution core level peak of Mn2p for MnGO10 composite and (g) high resolution core level peak of Mn2p for MnRGO10 composite.

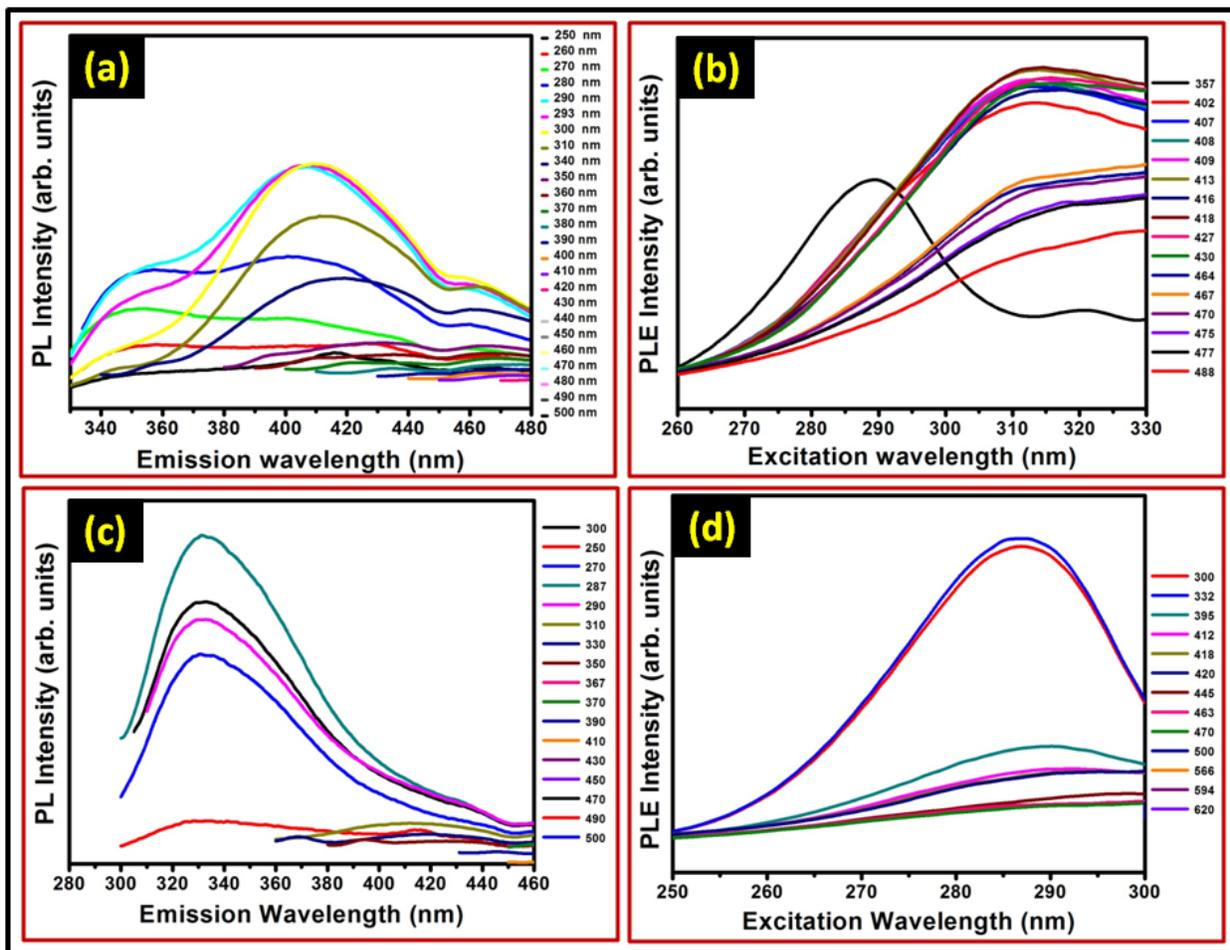


Figure S2: PL emission spectra for MnGO10 composite, (b) PLE spectra for MnGO10 composite at different monitoring and excitation wavelengths, respectively, (c) PL emission spectra for MnRGO10 composite and (d) PLE spectra for MnRGO10 composite at different monitoring and excitation wavelengths, respectively.

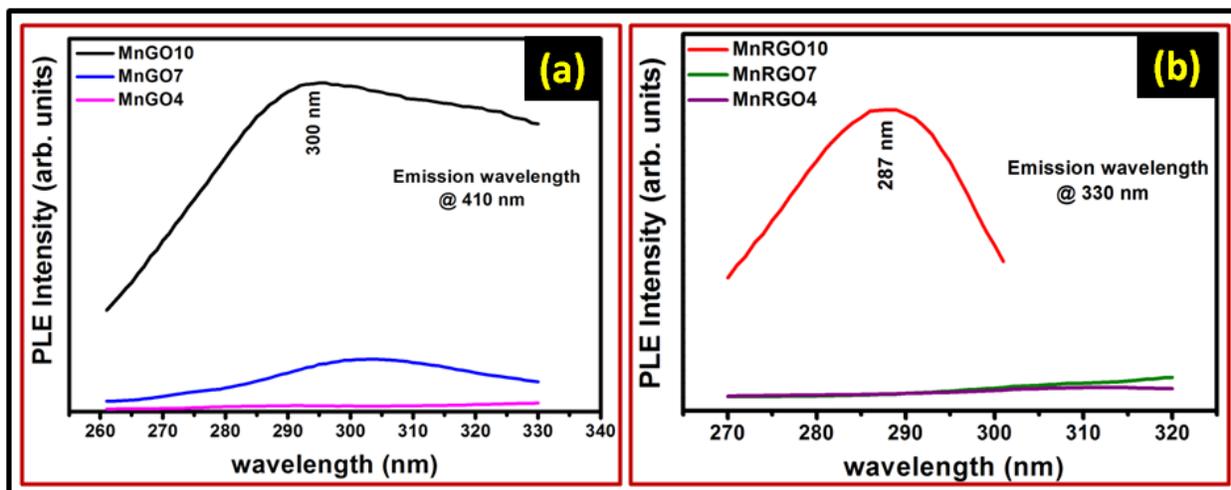


Figure S3: PLE spectra for (a) MnGO and (b) MnRGO composite at different pH values (4, 7 and 10).