

Supporting Information

One-Pot Synthesis of Large Scale Graphene Nanosheets from Graphite-Liquid Crystal Composite via Thermal Treatment

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Figure S1. Optical images of a GOx (left image) and GNSs (right image) suspension in water.

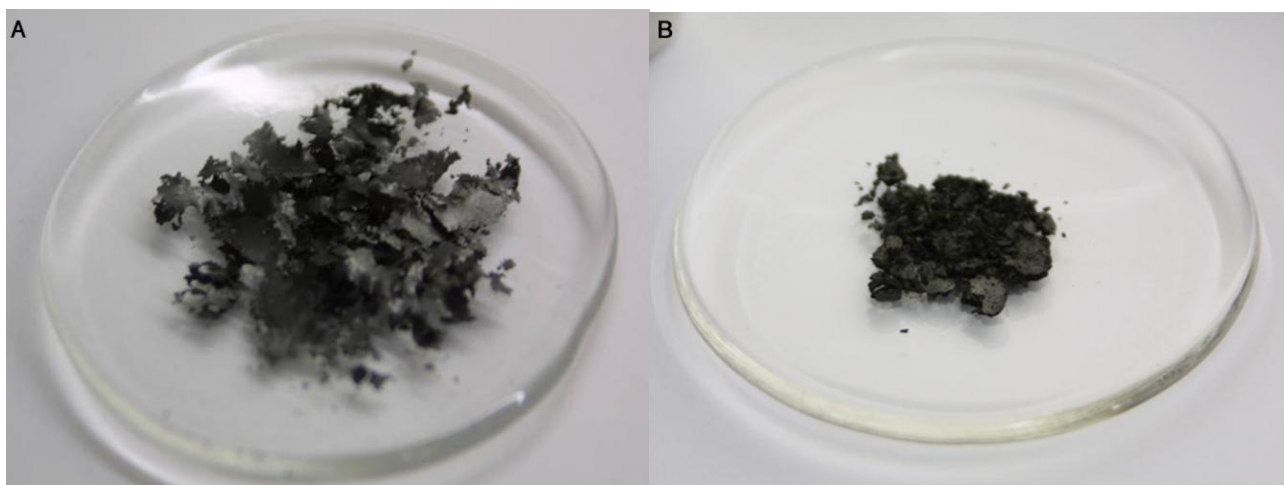


Figure S2. Photomicrographs of (A) flake like graphite-ILC composite (30/70 w/w graphite/ILC) as starting material and (B) large scale synthesized GNSs.

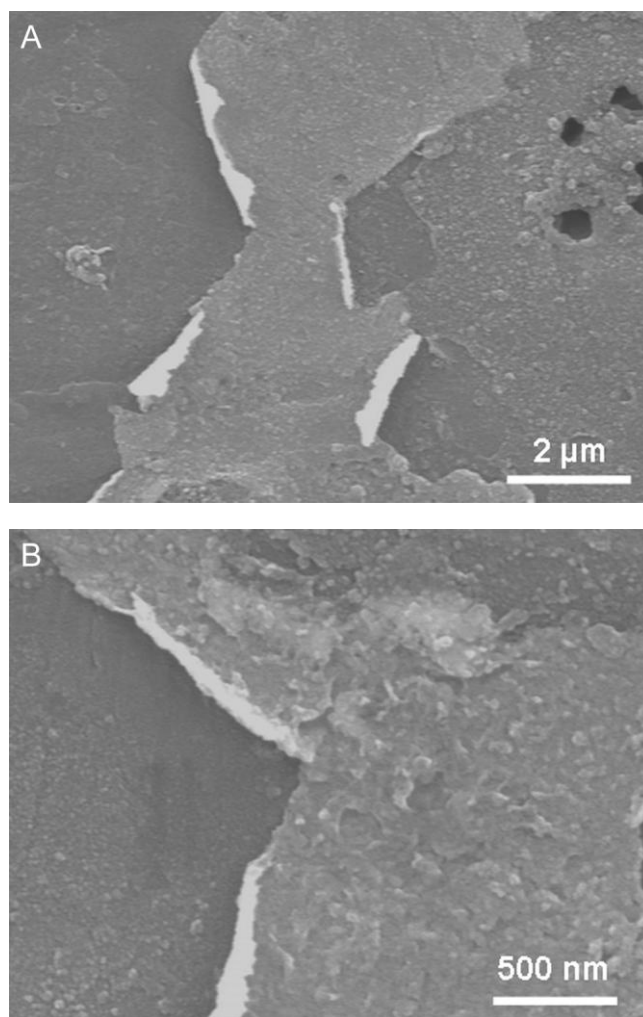


Figure S3. FESEM images of flake like graphite-ILC composite (30/70 w/w graphite/ILC) at (A) low magnification and (B) high magnification.

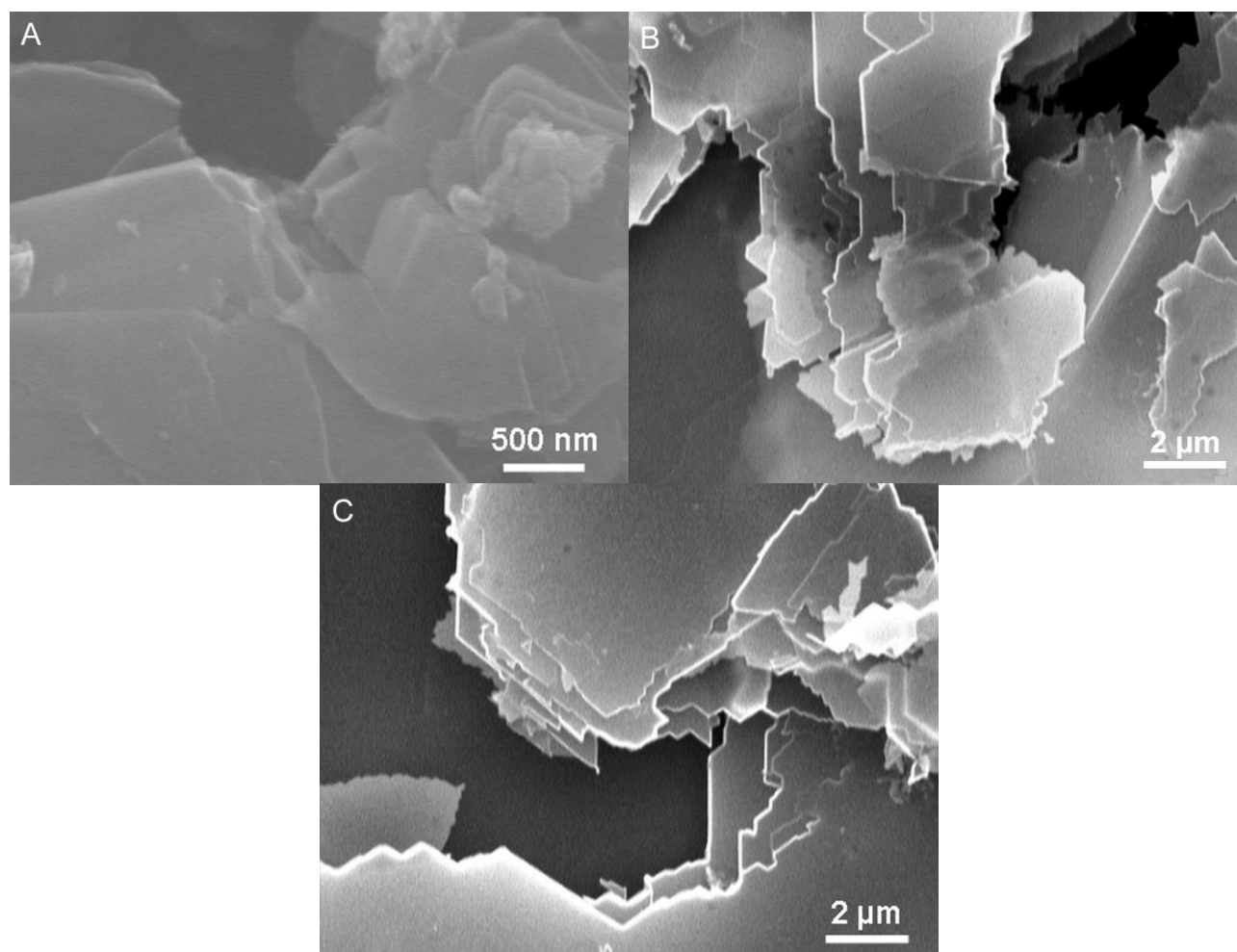


Figure S4. FESEM and SEM images of the produced GNSs at different magnification. The synthesis condition: thermal treatment of graphite-ILC composite with ratio of 70/30 (w/w).

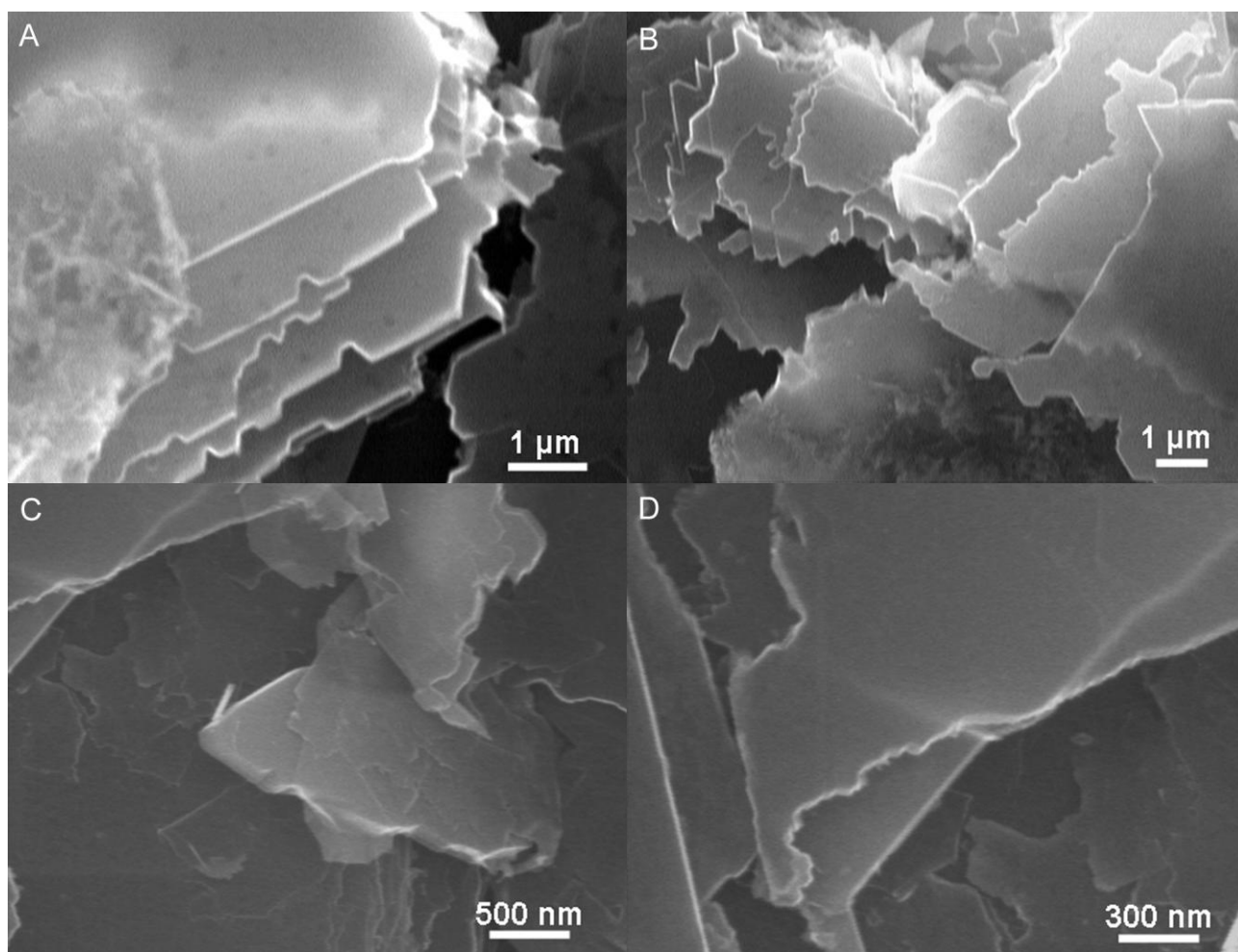


Figure S5. FESEM and SEM images of the produced GNSs at different magnification. The synthesis condition: thermal treatment of graphite-ILC composite with ratio of 50/50 (w/w).

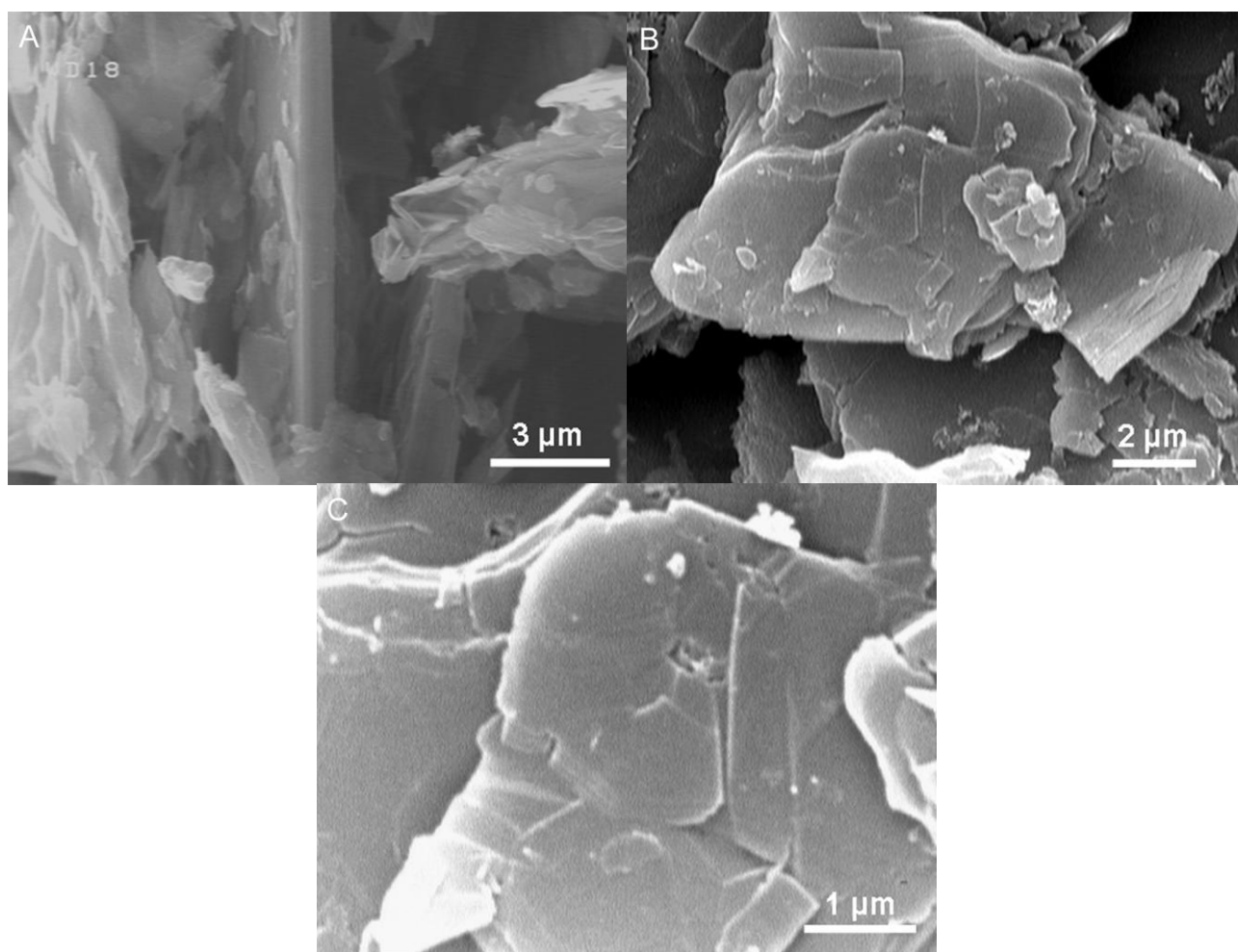


Figure S6. FESEM and SEM images of the natural graphite at different magnification.

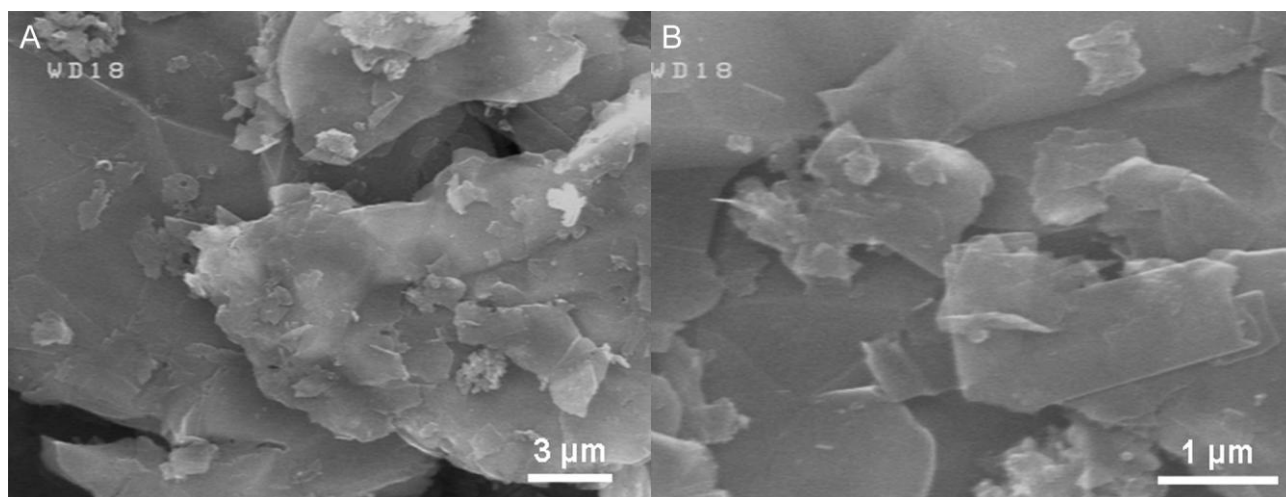


Figure S7. FESEM images of the blank sample at different magnification. The synthesis condition: thermal treatment of natural graphite.

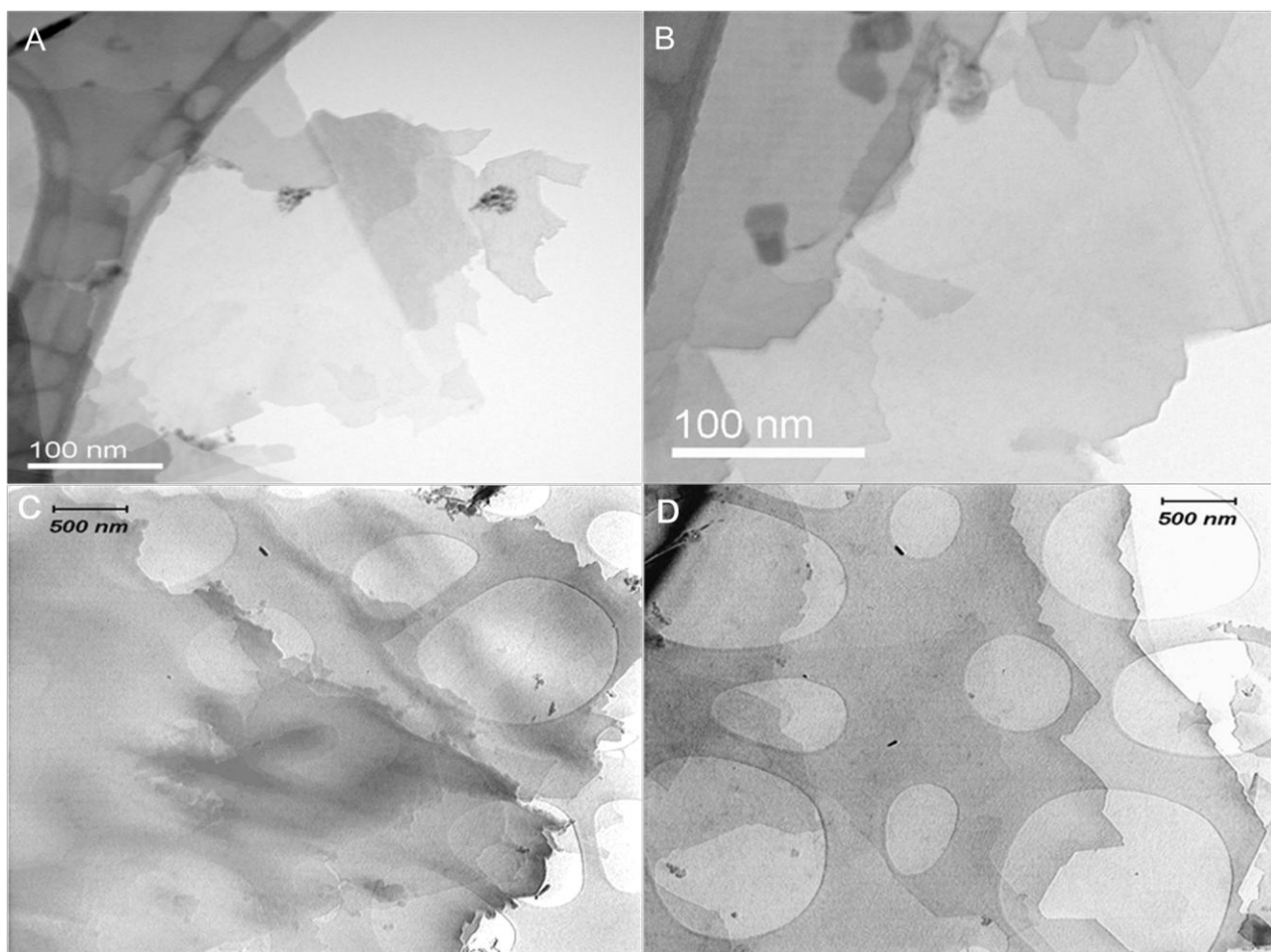


Figure S8. HR-TEM (A-B) and TEM (C-D) images of the produced GNSs with thermal treatment of graphite-ILC composite with ratios of (A)-(B) 30/70 (w/w) and (C)-(D) 50/50 (w/w).

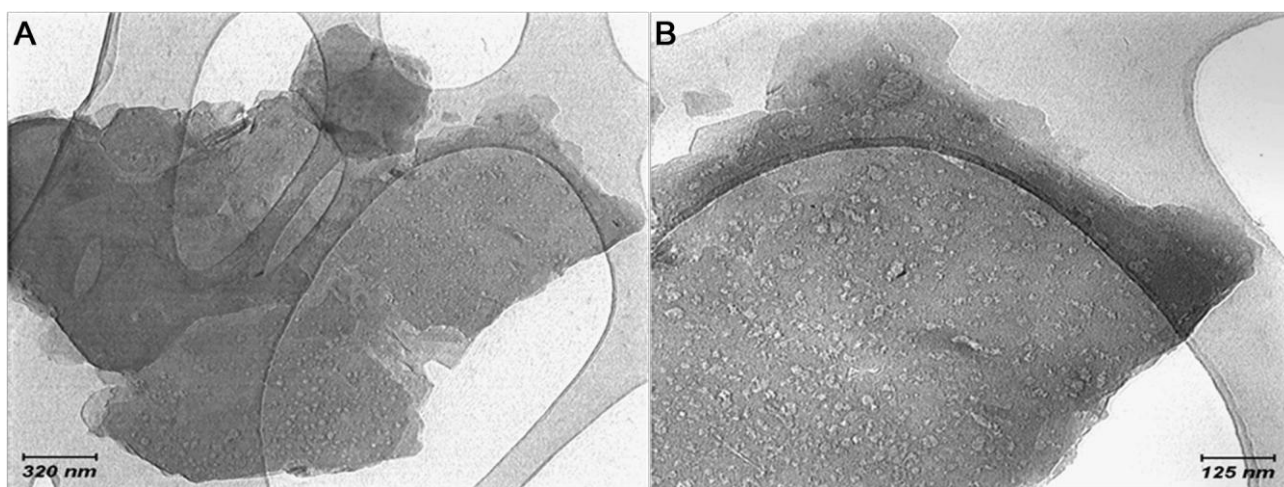


Figure S9. TEM images of flake like graphite-ILC composite (30/70 w/w graphite/ILC) at (A) low magnification and (B) high magnification.

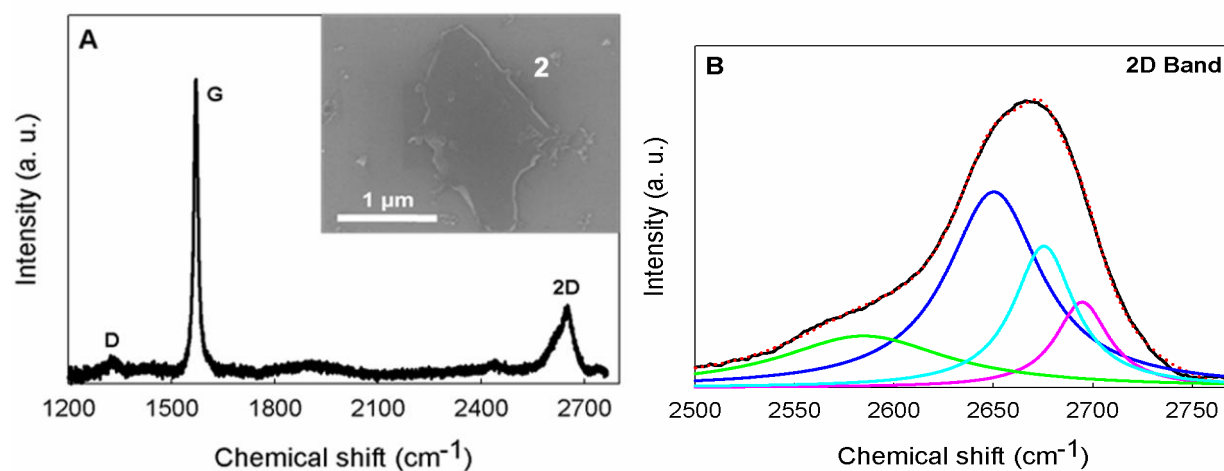


Figure S10. (A) Raman spectra of bi-layers GNS. Inset: magnified SEM images of sheets 2 in Figure 3a and (B) Deconvolution of the 2D band of Raman spectra for sheet 2 in Figure 3a to Lorentzian curves.