

SUPPOTING INFORMATION

Highly Hydrogenated Graphene via Active Hydrogen Reduction of Graphene Oxide Reduction in Aqueous Phase at Room Temperature

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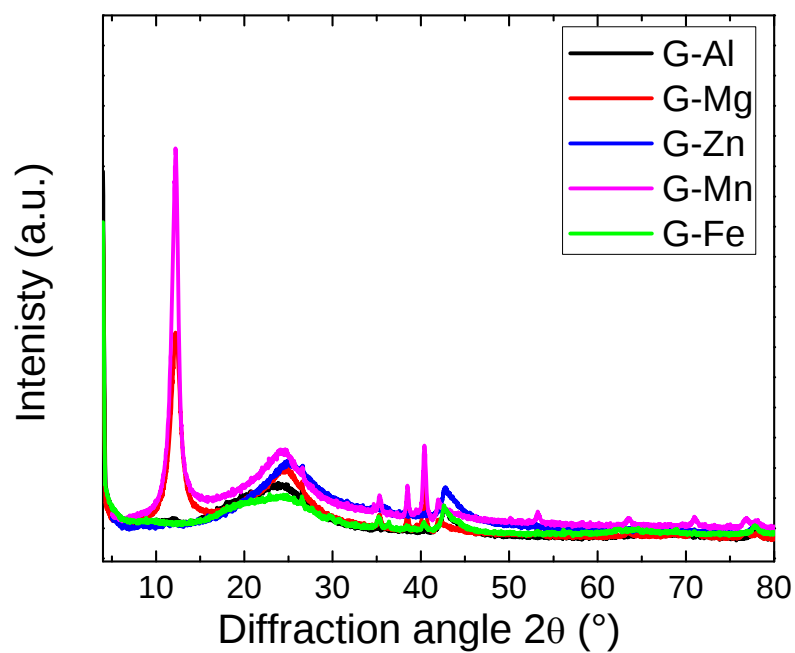
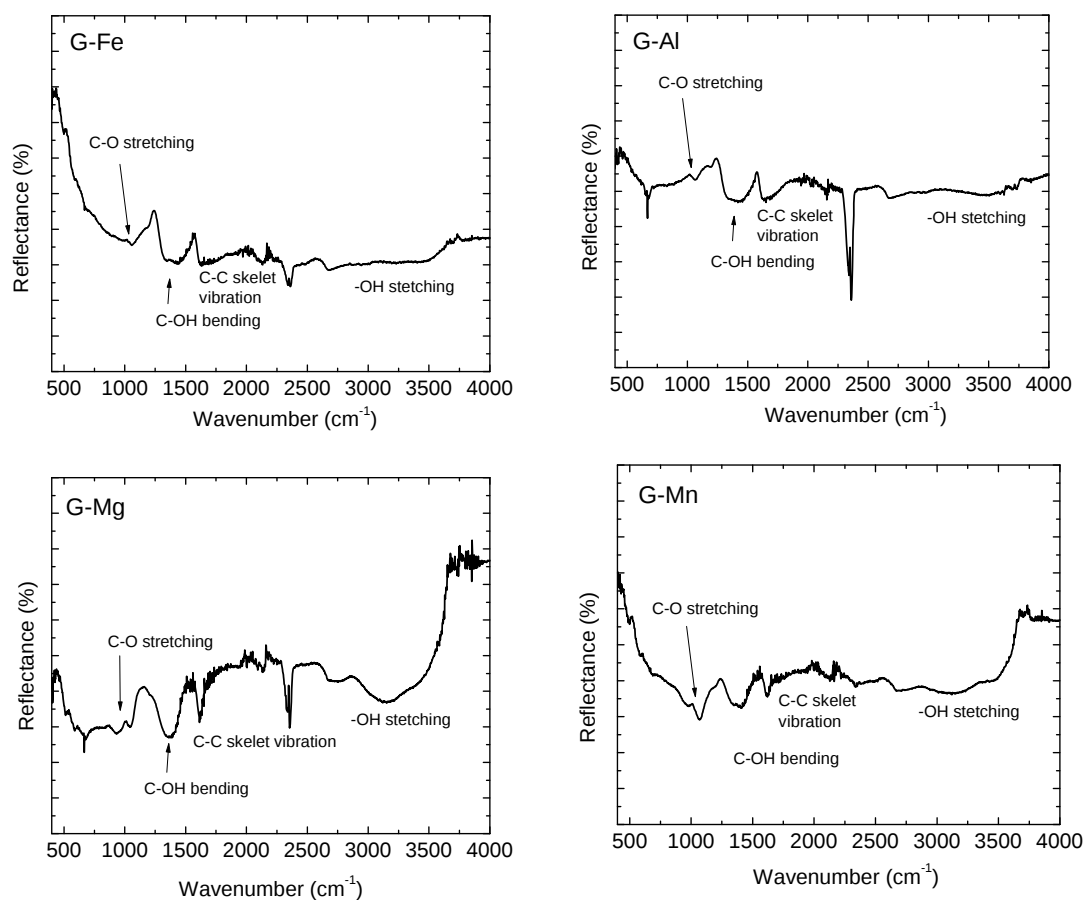


Figure S-1. X-ray diffraction of G-M samples.



.Figure S-2. FT-IR spectra of G-Mg, G-Al, G-Fe and G-Mn sample.

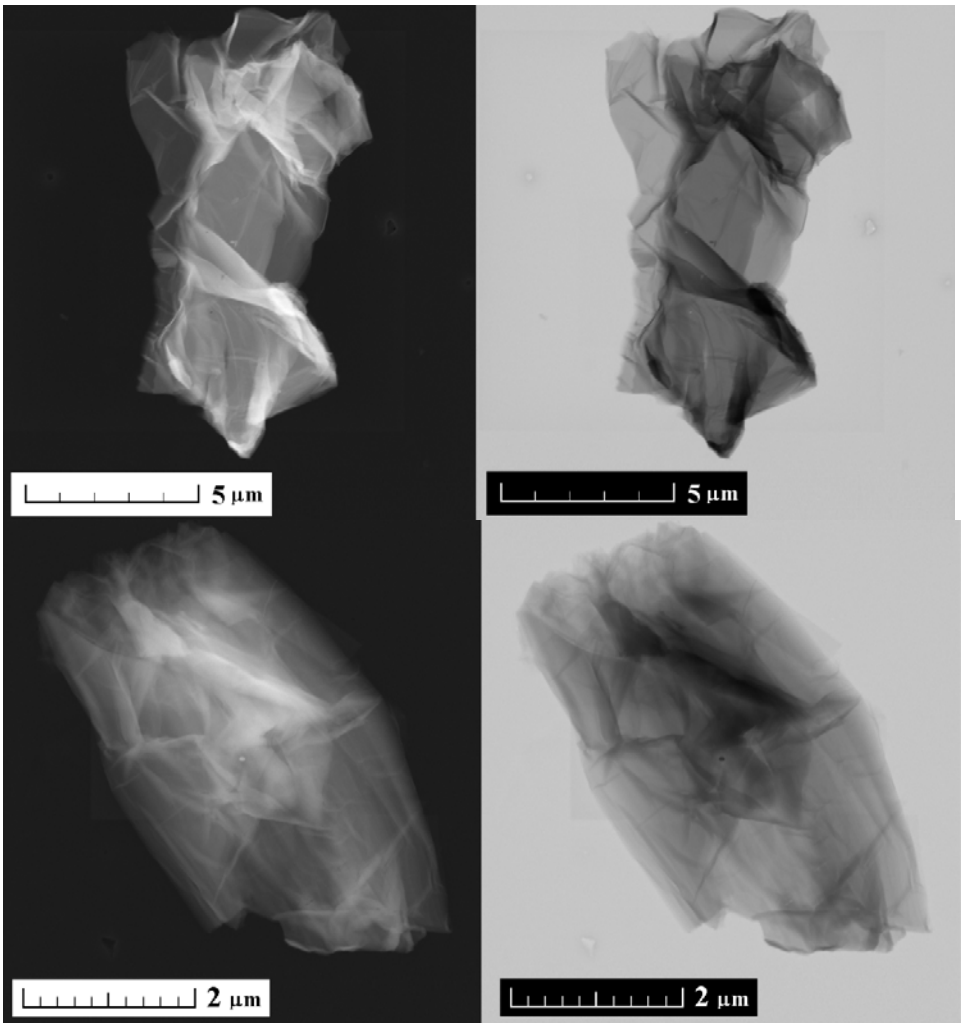


Figure S-3. Electron microscopic images of starting material, HO-GO.

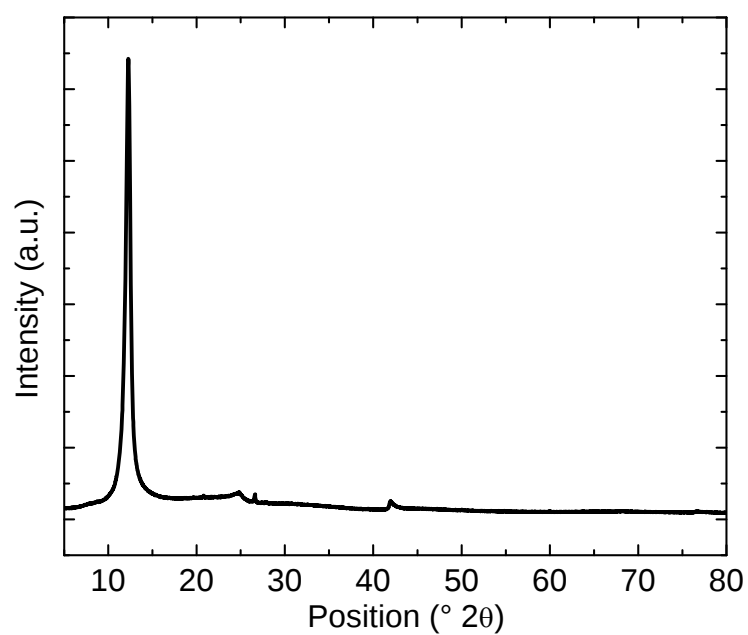


Figure S-4. X-ray diffraction of starting material (graphite oxide). The position of (001) reflection correspond to 0.7197 nm interlayer spacing.

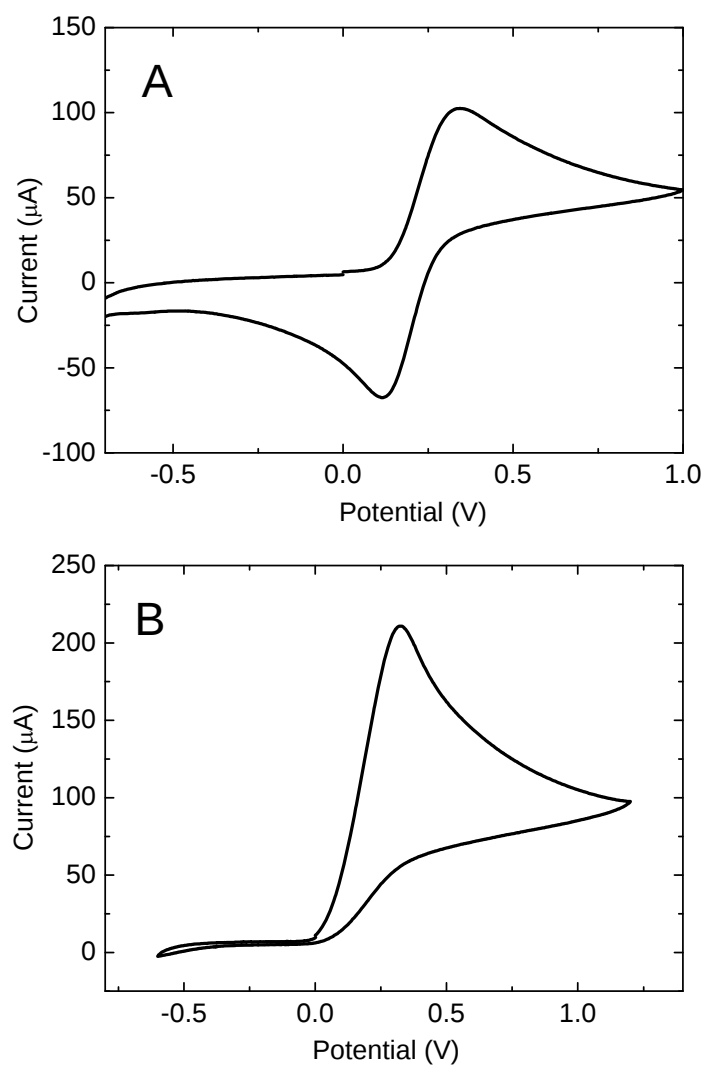


Figure S-5. Cyclic voltammetry of 10 mM $\text{K}_4[\text{Fe}(\text{CN})_6]$ at starting material (HO GO) surface. (B) Cyclic voltammetry of 10 mM ascorbic acid at HO-GO surface. Conditions: PBS buffer (50 mM, pH, 7.2); scan rate was 100 mV.s^{-1} .

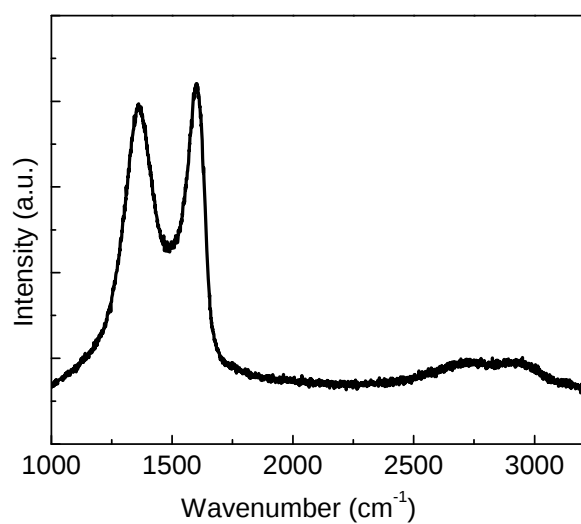


Figure S-6. Raman spectra of starting material, HO-GO. D/G ratio of 0.94; Crystallite size of 20.5 nm.

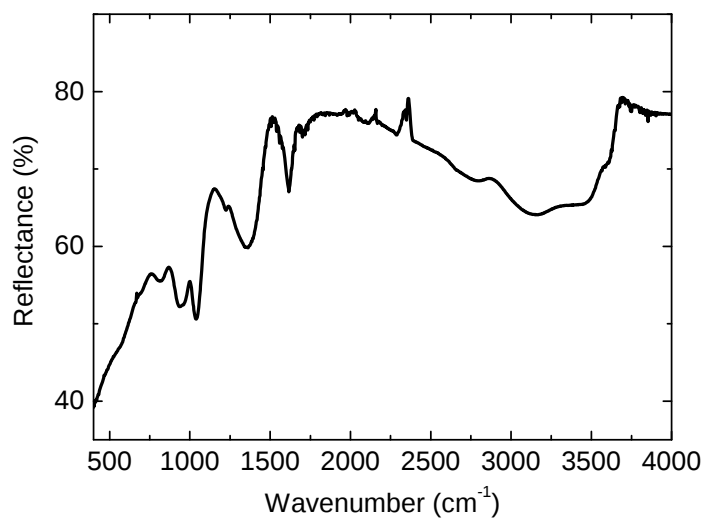


Figure S-7. FTIR spectra of starting material, HO-GO.

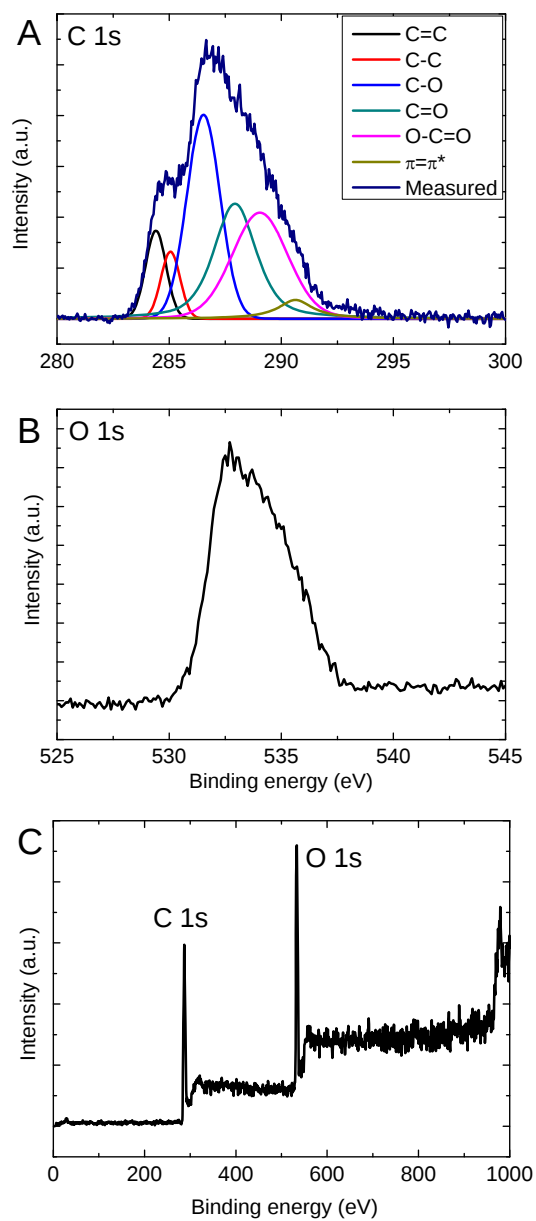


Figure S-8. X-ray photoelectron spectra of starting material, HO-GO. A) High resolution XPS of C 1s; B) HR-XPS of O1s; C) survey scan of HO-GO.