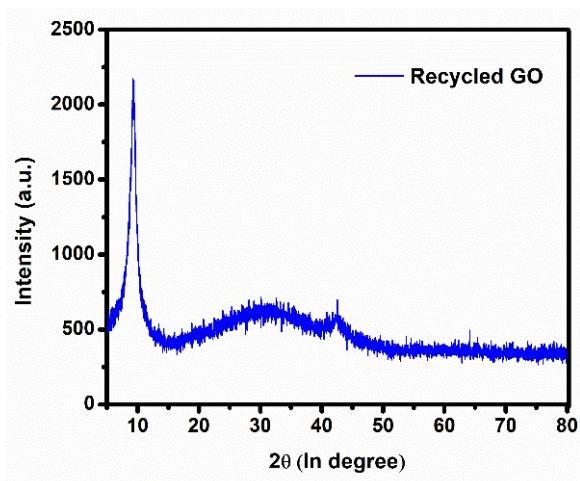
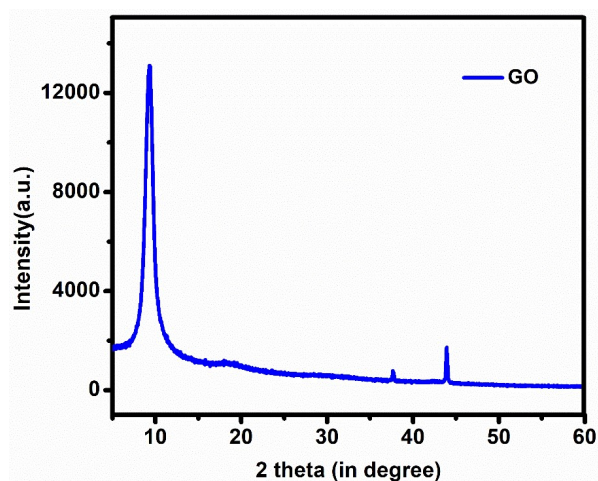
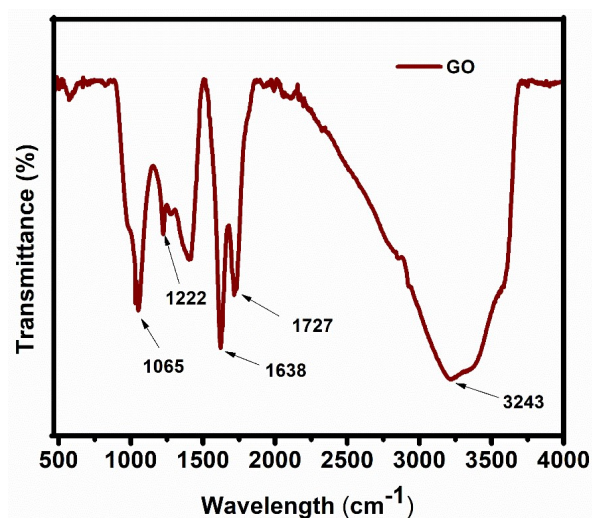


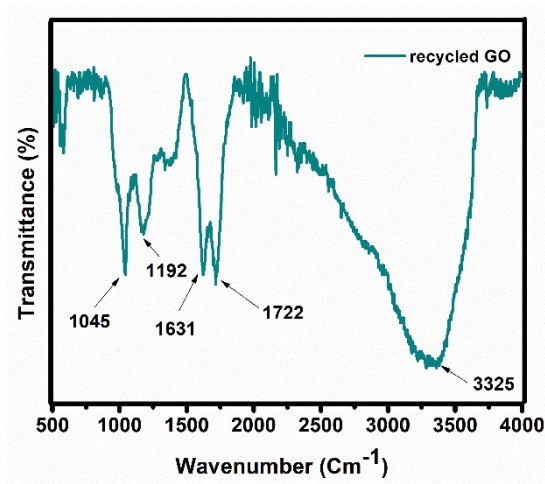
**Figure S1:** Preparation of Graphene oxide by improved Hummer's method (IHM)<sup>[1]</sup>



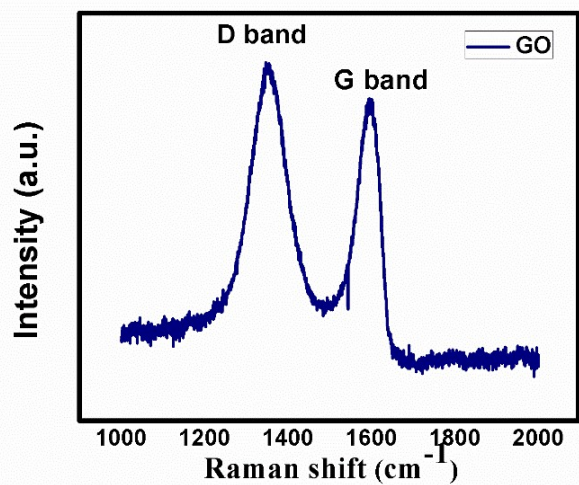
**Figure S2a.** X-ray diffraction pattern of GO



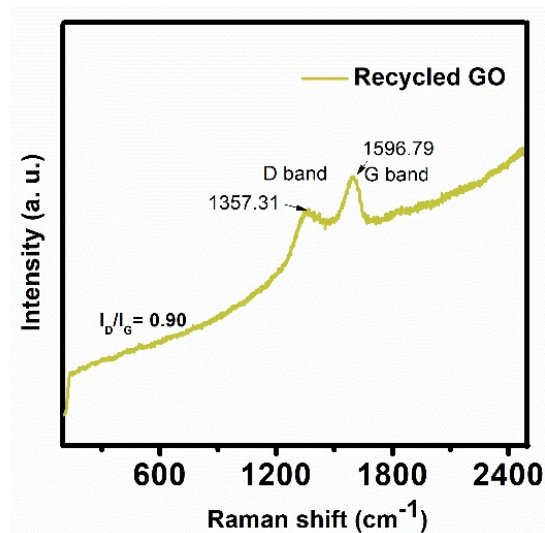
**Figure S2b.** X-ray diffraction pattern of recycled GO



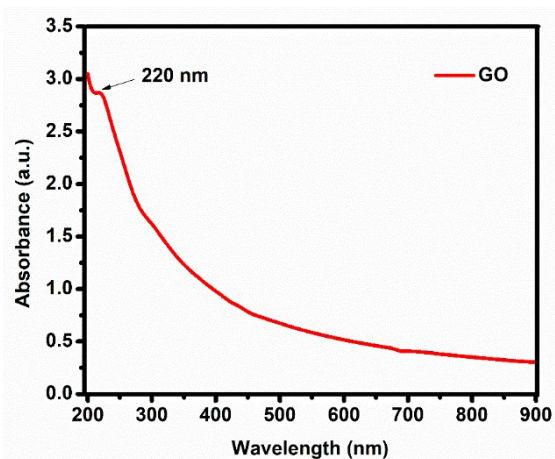
**Figure S2c.** FTIR spectra of GO



**Figure S2d** FTIR spectrum of Recycled GO

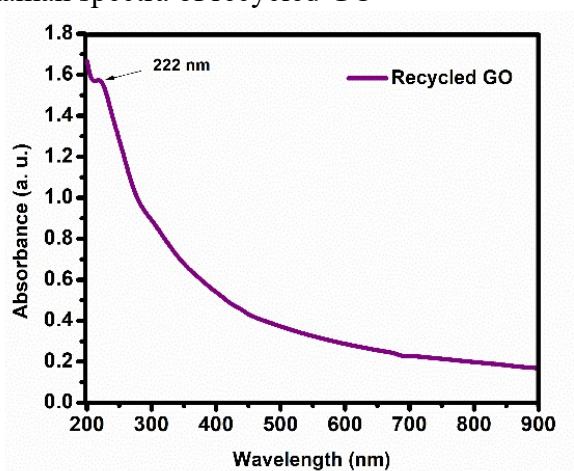


**Figure S2e.** Raman spectra of GO



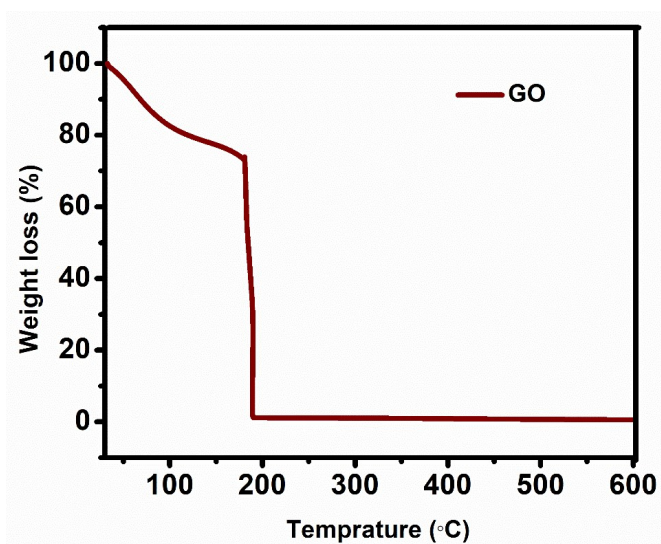
**Figure**

**S2f.** Raman spectra of recycled GO

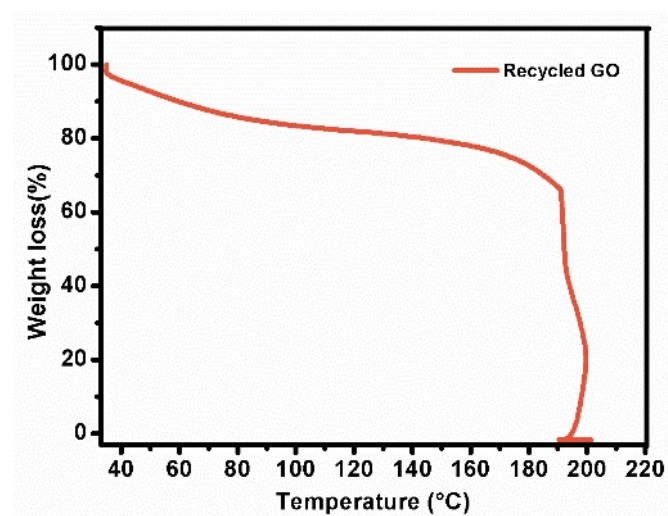


**Figure S2g.** UV–visible spectra of GO

**Figure S2h.** UV–visible spectrum of recycled GO

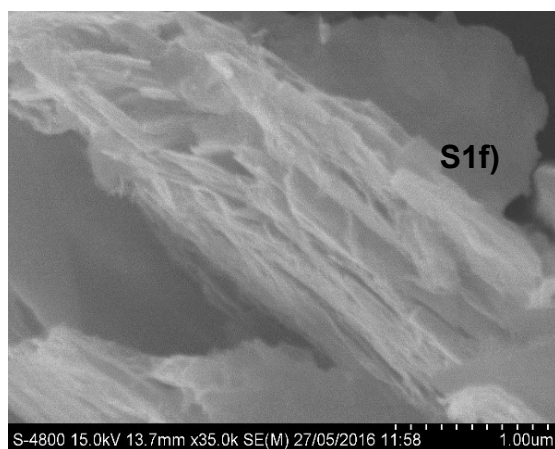


(TGA) of GO



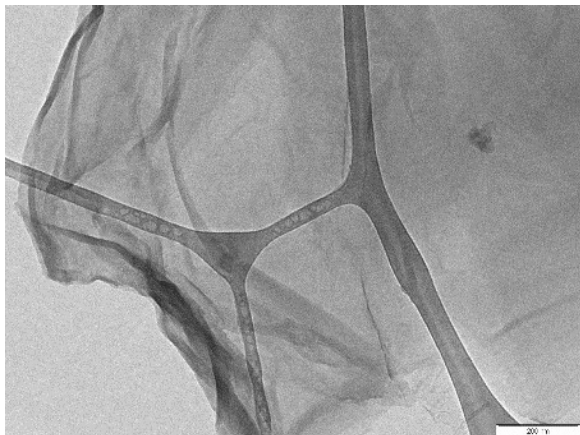
**Figure S2i.** Thermogravimetric analysis

**Figure S2j.** (TGA) of recycled GO

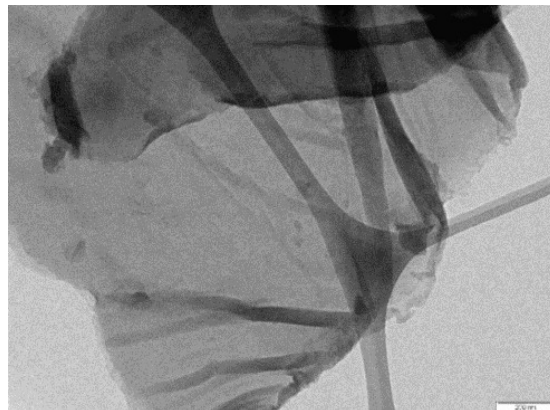




**Figure S2k.** Scanning electron microscope  
(SEM) images of GO, scale bar 1  $\mu\text{m}$ ;



**Figure S2m.** TEM analysis of recycled GO



**Figure S2l.** TEM analysis of GO