Fluorographite to Hydroxy Graphene to Graphene: A Simple Wet Chemical Approach for Good Quality Graphene

Uruniyengan Rajeena, Mohammed Akbar, Poovanthinthodyil Raveendran, Resmi M. Ramakrishnan

a Department of chemistry, SreeNeelakanta Govt. Sanskrit College, Pattambi. Affiliated to University of Calicut., Kerala, India-679306.
b Department of Chemistry, University of Calicut, Kerala, India-673635.

Figure S1. a) AFM image of GR. b) Thickness profile of the GR sheet (red scanning line)
Figure S2: Adsorption and desorption isotherm of GR
Figure S3: a) CV curves of GCE and GR/GCE in 0.1M KCl containing 5mM [Fe (CN)₆]⁴⁻/₃⁻ at 50 m Vs⁻¹ b) CV curves at different scan rate (2 mV s⁻¹ to 100 mV/ s⁻¹) c) Plot of current versus square root of scan rate.

Figure S4: a) Amperometric responses of GR/GCE to successive addition of AA into PBS buffer. (Inset: linear curves of oxidation current versus concentration ) b) magnified portion of the amperometric response curve.
**Figure S5:** a) Amperometric responses of GR/GCE to successive addition of DA into PBS buffer (inset: linear curves of oxidation current versus concentration) b) magnified portion of the amperometric response curve.

**Figure S6:** a) Amperometric responses of GR/GCE to successive addition of UA into PBS buffer (inset: linear curves of oxidation current versus concentration) b) magnified portion of the amperometric response curve.