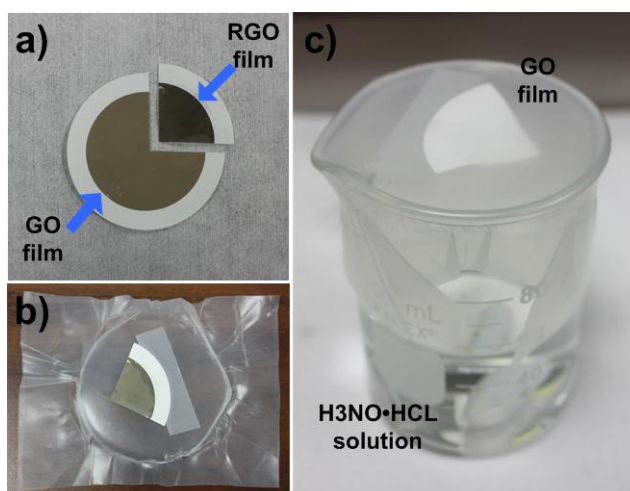
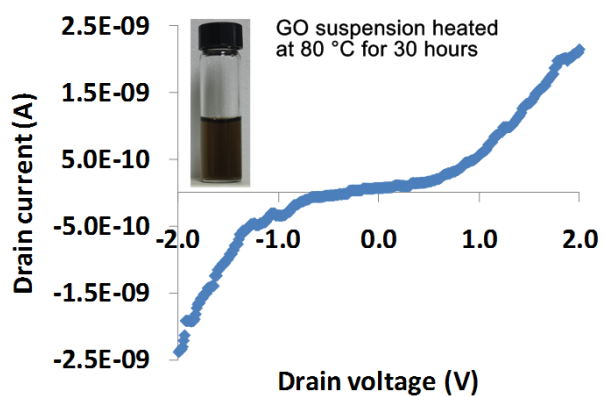


Electronic supplementary information (ESI)



**Fig. S1** Fabrication of RGO films. a) Comparison of GO film and RGO film, the color of the film changed to dark brown after reduction. b) The GO film was attached to the backside of a beaker cover. (c) The GO film was placed inside a beaker containing  $\text{H}_3\text{NO}\cdot\text{HCL}$  solution and the film was reduced by the  $\text{H}_3\text{NO}\cdot\text{HCL}$  vapour.



**Fig. S2** Direct current measurement result of GO suspension heated at 80°C for 30 hours (without  $\text{H}_3\text{NO}\cdot\text{HCL}$ ) with  $V_d$  ramping from -2.0 to +2.0 V. The inset digital image shows the GO suspension after heating.