Fig. S.1: Deconvoluted XPS specrum of GO sample; **a)** C (1s) and **b)** O (1s)
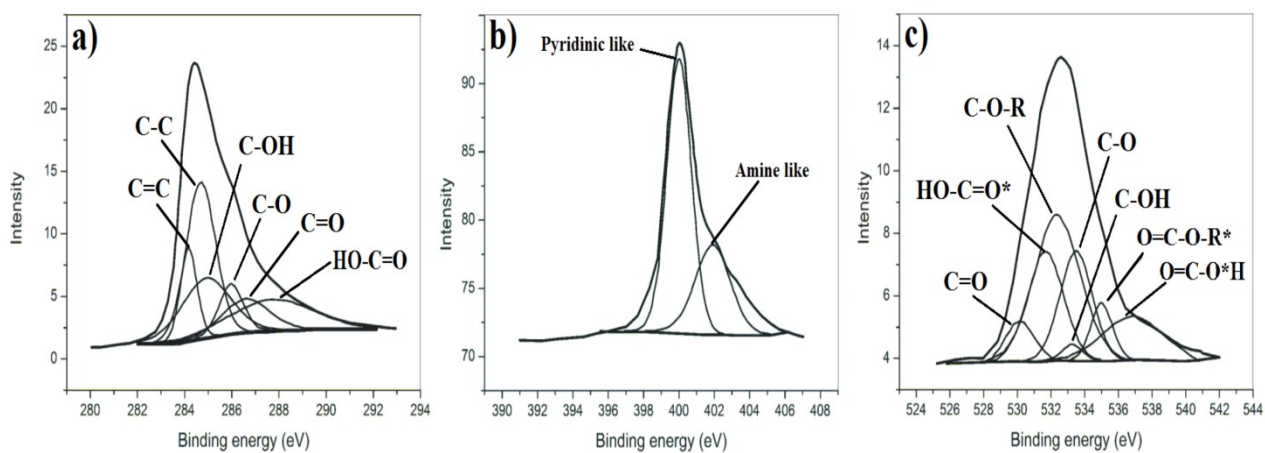

Fig. S.2: Deconvoluted XPS spectrum of FGO sample; **a)** C(1s), **b)** N(1s) and **c)** O(1s)
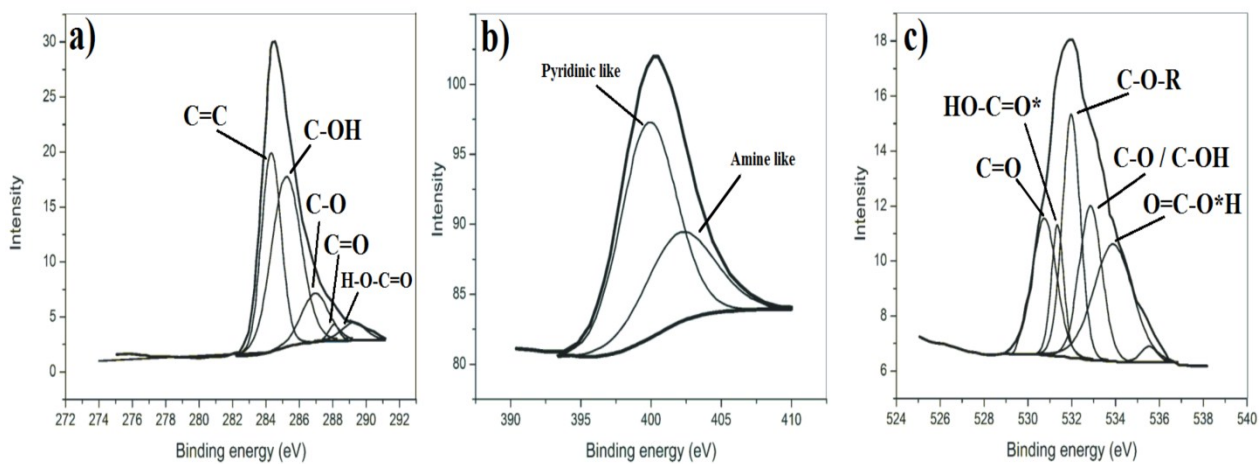

Fig. S.3: Deconvoluted XPS spectrum of RFGO sample; **a)** C(1s), **b)** N(1s) and **c)** O(1s)
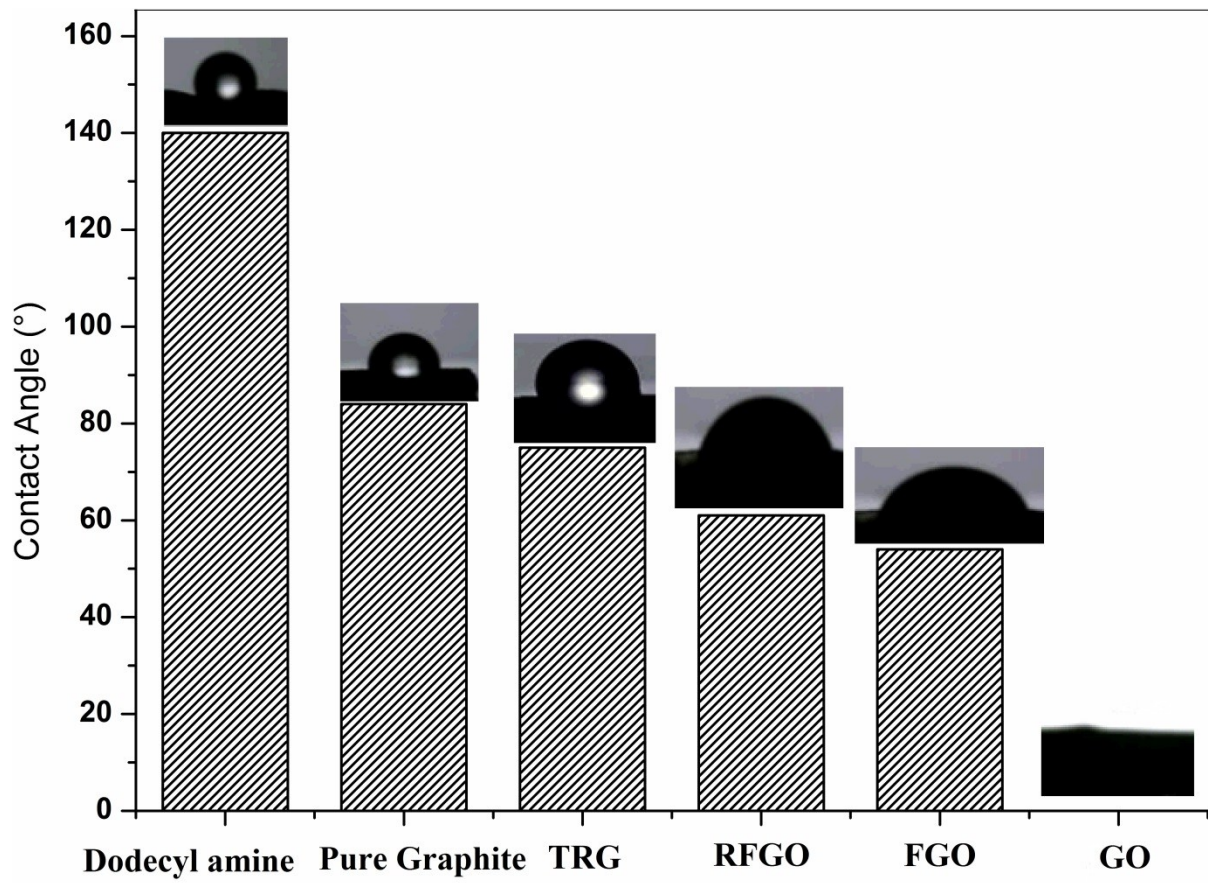
Fig. S.4: Contact angle masurments of the all samples