Supplementary Material (ESI) for *Nanoscale*

Electronic Supplementary Information (ESI)

Synthesis of Reduced Graphene Oxide-anatase TiO_2 Nanocomposite and Its Improved Photo-Induced Charge Transfer Properties

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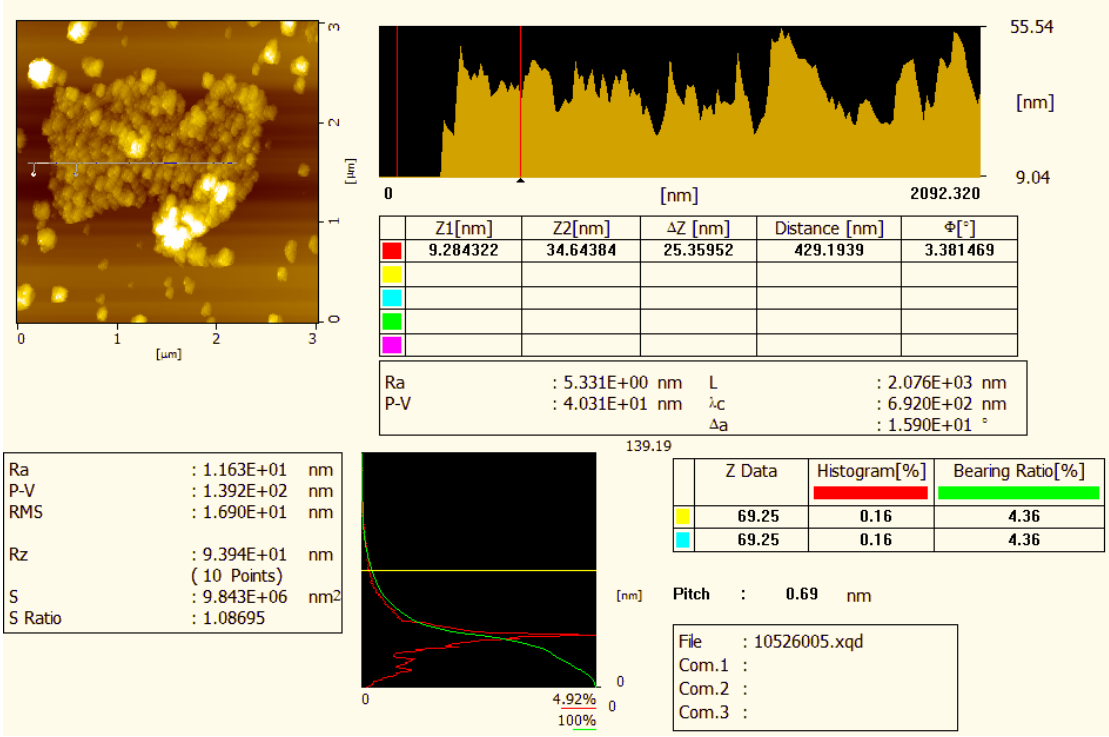

Fig. 1S AFM image and height profiles along the line shown in AFM image of RGO-anatase TiO_2.

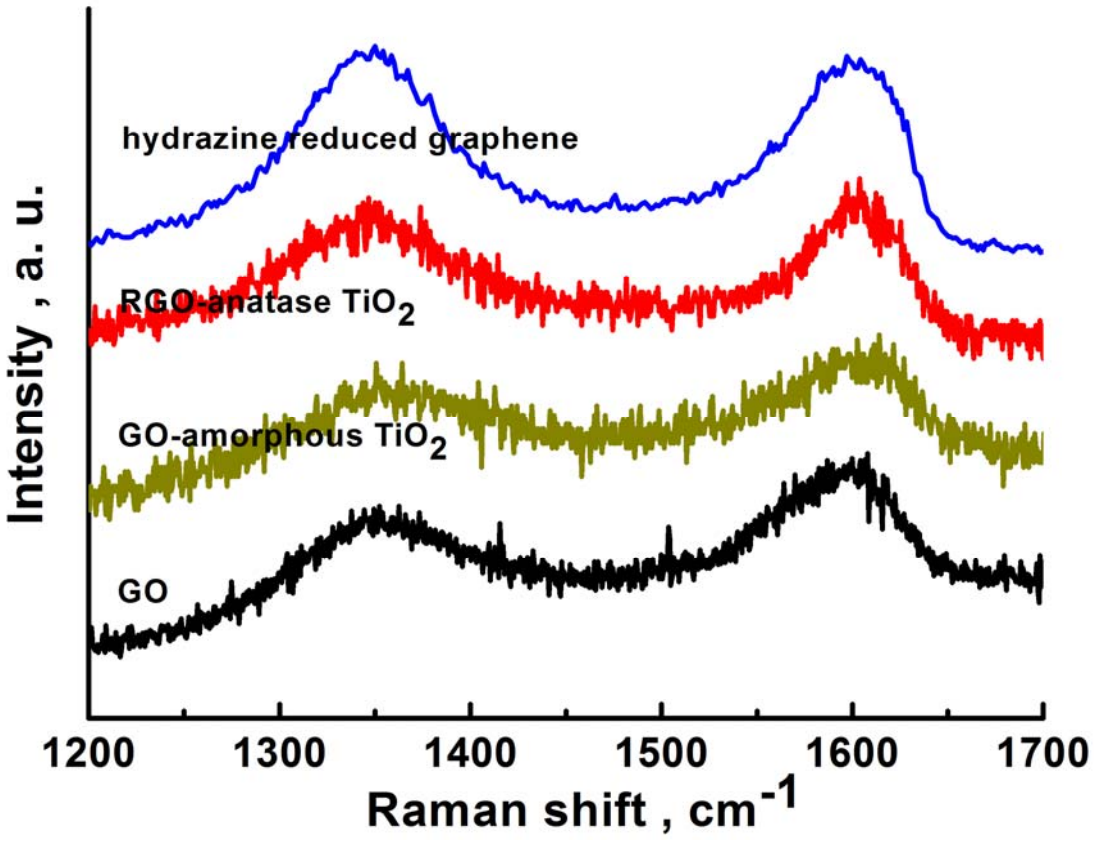

Fig. 2S Raman spectra of GO, GO-amorphous TiO_2, RGO-anatase TiO_2 and hydrazine reduced graphene, respectively. The synthesis of hydrazine reduced graphene was carried out as follows: To the 100 mL of homogeneous GO dispersion (0.25 mg/mL), 35 μL hydrazine solution (>50% w/w) and 400 μL of ammonia solution (25% w/w) were added. After being vigorously shaken or stirred for a few minutes, the mixture was stirred for 1 h at 95 °C.

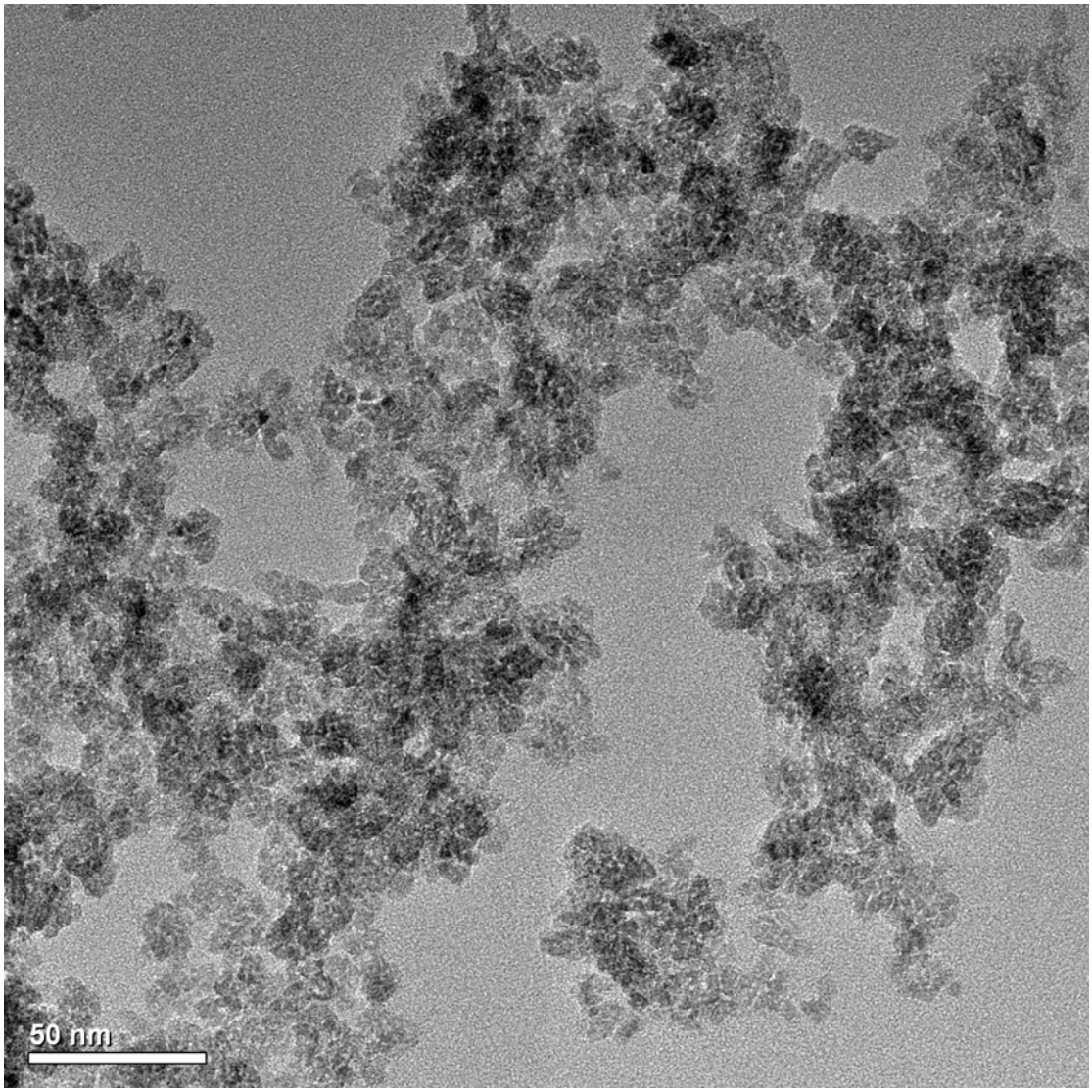

Fig. 3S TEM image of anatase TiO_2.

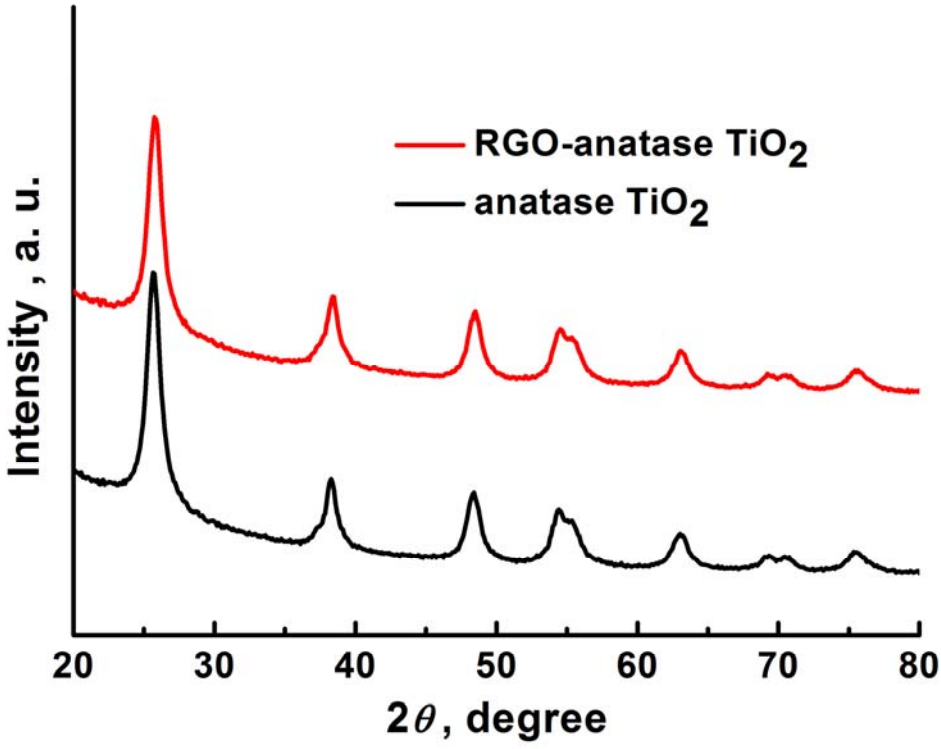

Fig. 4S XRD patterns of anatase TiO_2 and RGO-anatase TiO_2. It can be seen that for both situations, TiO_2 is in pure anatase phase and the crystallize size of TiO_2 are almost the same.