

Supporting information for

Crosslinked acetylated poly(vinyl alcohol-*co*-vinyl acetate) nanocomposites with graphene oxide and reduced graphene oxide: a new way to modify the property of nanocomposites

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Preparation of GO Sheets. GO sheets were synthesized by a modified Hummers method. Expandable graphite powders (5 g), potassium permanganate (15 g) and concentrated H_2SO_4 (115 mL) were mixed together. After keeping in the ice bath for 2 h, the reaction mixture was heated to 35 °C and stirred continuously for 0.5 h. 115 mL distilled water was slowly added to the reaction vessel, stirred for another 15 min and further diluted with 700 mL warm distilled water (40 °C) before adding 50 mL 30% H_2O_2 . The resulted suspension was filtered, washed with 5% HCl and dialyzed for 7 days in the dark. Subsequently, the wet form of GO was freeze-dried before use.

Characterization of GO Sheets.

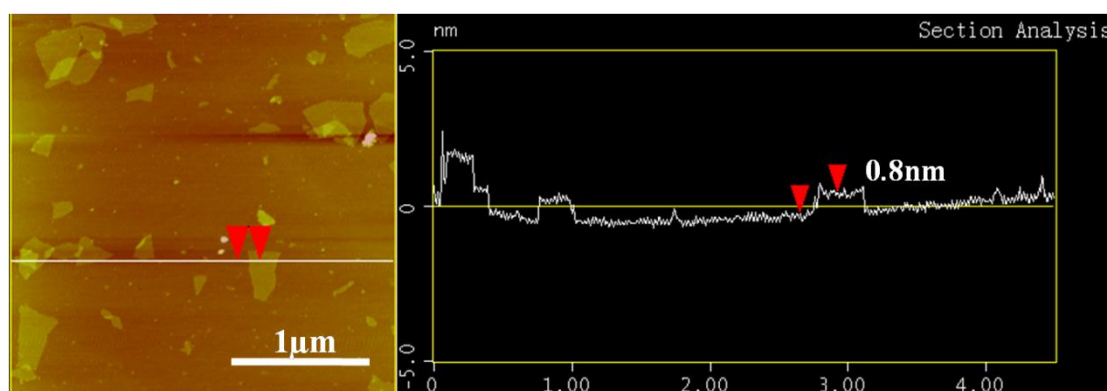


Fig. S1 AFM image of GO

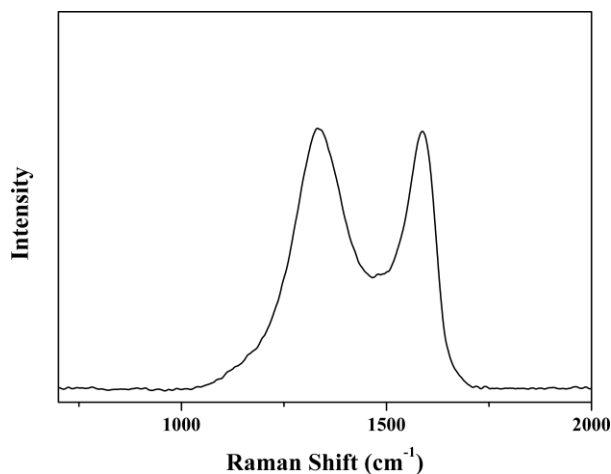


Fig. S2 Raman spectrum of GO

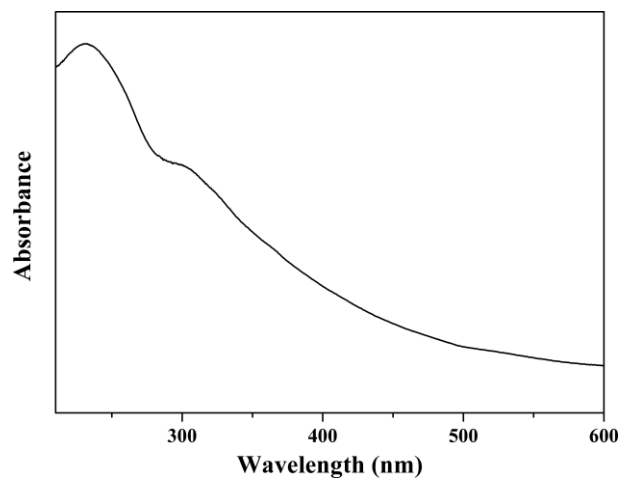


Fig. S3 UV-vis absorption spectrum of GO