Supporting Information

Raman Enhancement and Photo-Bleaching of Organic Dyes in the Presence of Chemical Vapor Deposition-Grown Graphene

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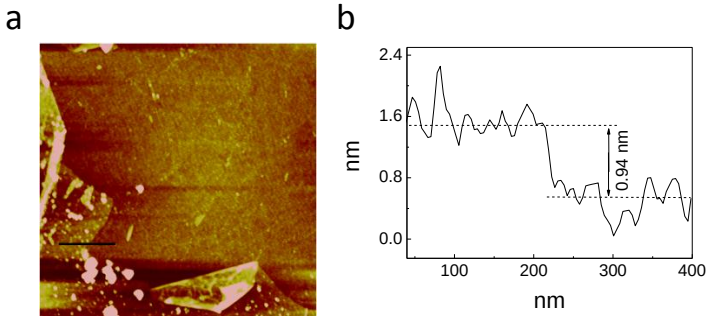

Figure S1. (**a**) Topographic AFM and **(b**) cross section of a graphene piece on a Gr/FITC/APTES/SiO_2/Si sample. The sample was washed in acetone for 12 h. The height of the single layer graphene was higher than the expected 0.34 nm, which is well documented in the literature [1].

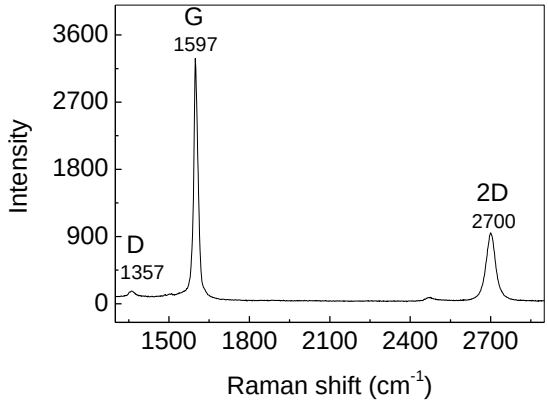

Figure S2. Raman spectrum of a single layer graphene transferred on the SiO_2/Si substrate.

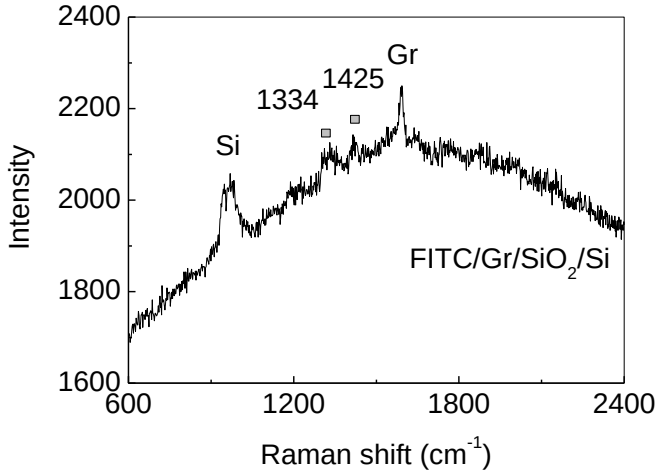

Figure S3.Raman-FL spectra of FITC adsorbed on the surface of grapheme (FITC/ Gr/SiO_2/Si).

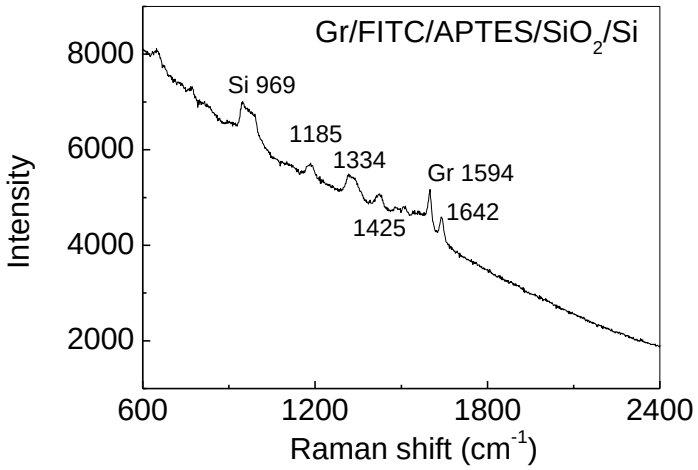

Figure S4. Raman-fluorescence spectra of FITC in the presence of graphene (Gr/FITC/APTES/SiO_2/Si). The sample was the same one in Figure 2b. The spectrum was integrated for 10 min.

Reference

1. Zhao, S.C.; Surwade, S.P.; Li, Z.T.; Liu, H.T. Photochemical oxidation of CVD-grown single layer graphene. *Nanotechnology*__2012__, *23*, 355703.