SUPPORTING INFORMATION

Selective Visual Detection of Trace Trinitrotoluene Residues Based on Dual-Color Fluorescence of Graphene Oxide-Nanocrystals Hybrid Probe†

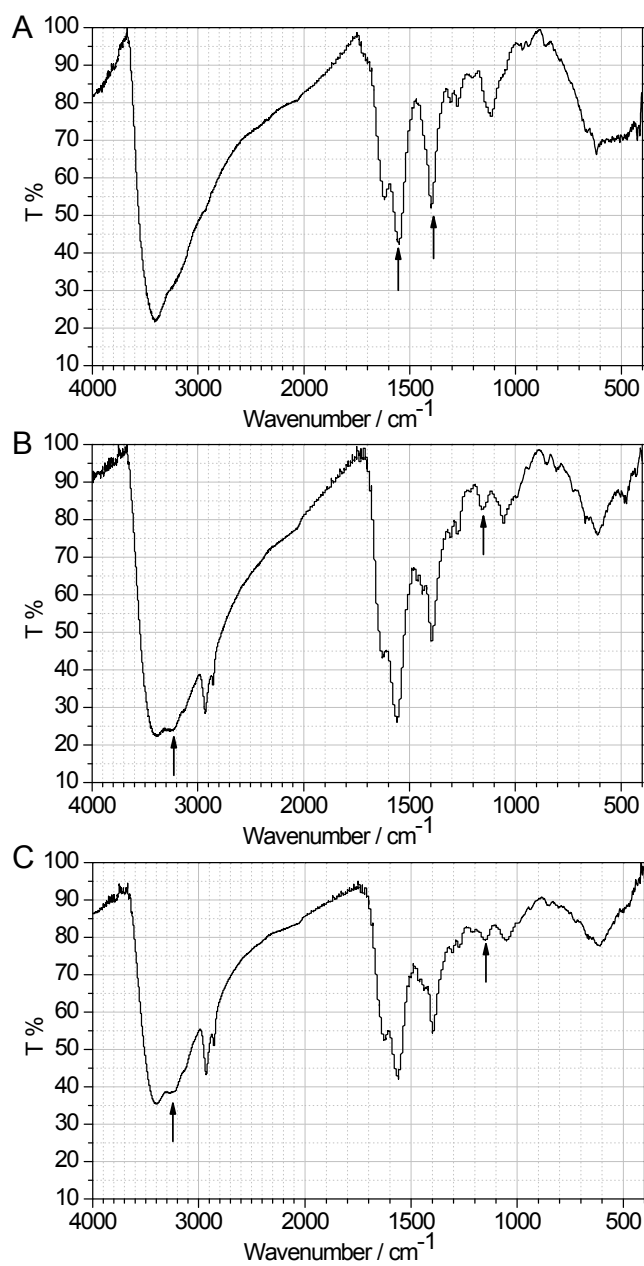Kui Zhang,‡[a] Lei Yang,‡[b] Houjuan Zhu,[a] Fang Ma,[a] Zhongping Zhang[a] and Suhua Wang*[a]

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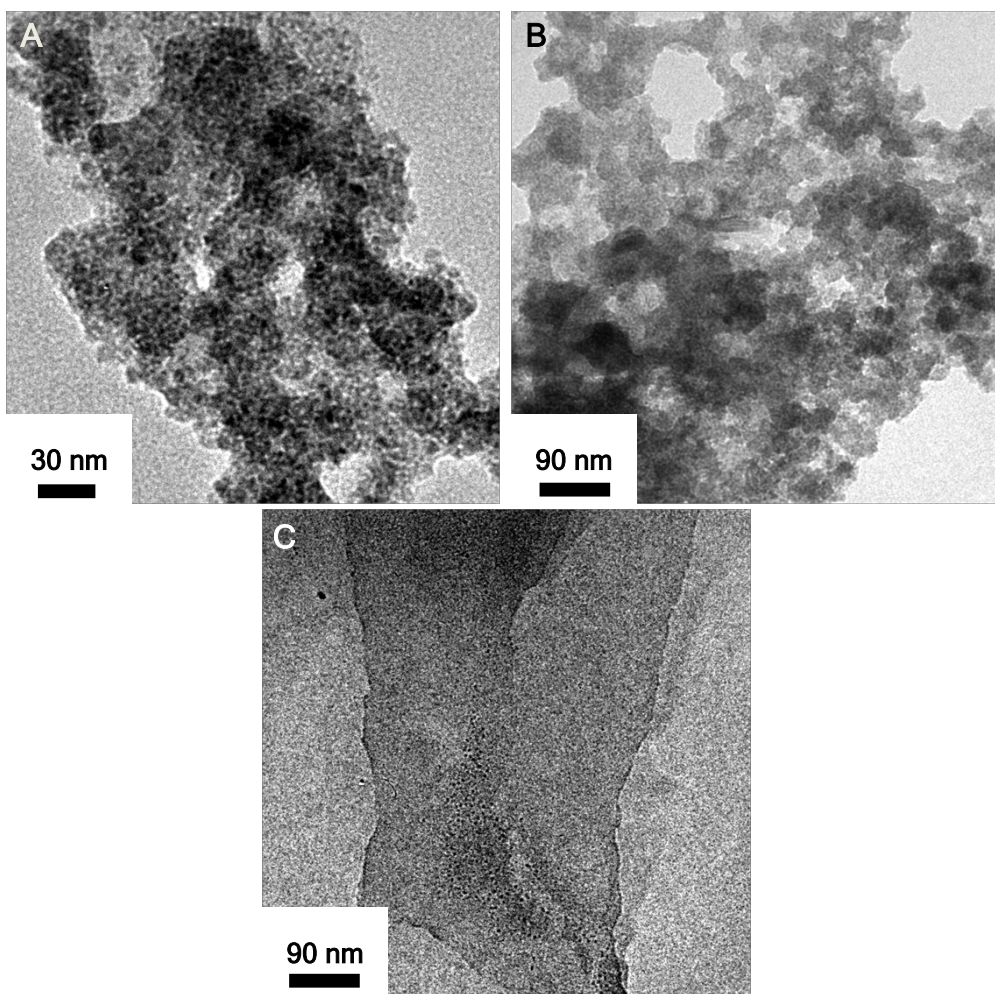
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Fig. S1 Infrared transmission spectra of (A) mercaptoacetic acid capped nanocrystals, (B) HMD-capped NCs, and (C) the nanohybrid probe.

**Fig. S2** TEM images of (A) MPA-capped NCs, (B) the nanohybrid probe, and (C) FGO.
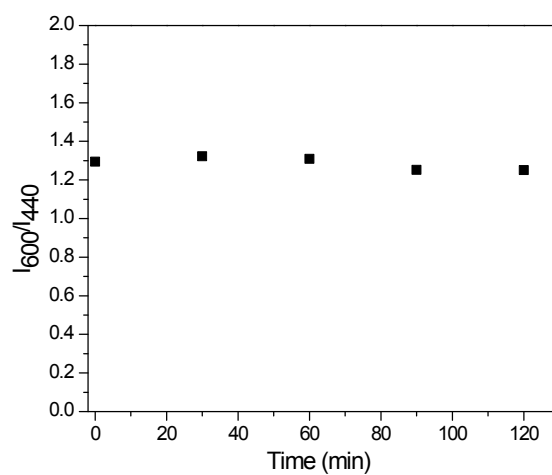
Fig. S3 The stability of relative fluorescence intensity of the nanohybrid probe at 600 nm versus that at 440 nm. The change of the relative intensity is not significant (< 5%) in 2 hours.
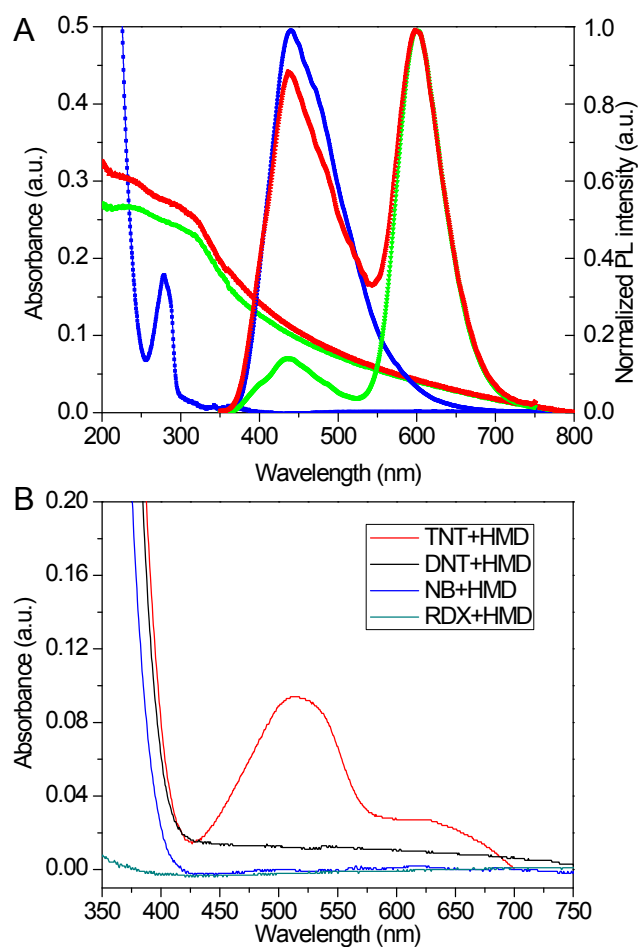
Fig. S4 (A) Absorption and fluorescence spectra of FGO, MPA-capped NCs, and the dual-color fluorescence nanohybrid probe solution, respectively. (B) Absorption spectra of 2 mM of TNT, DNT, NB, and RDX solution after adding 10 μL of HMD.
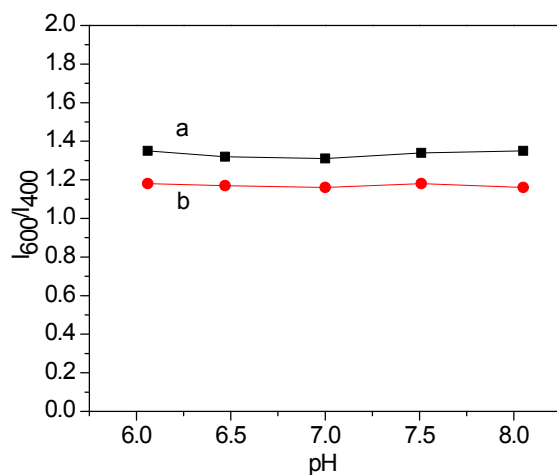
Fig. S5 Influence of pH values on the fluorescence quenching intensity ratio of (a) before and (b) after adding 25 µM of TNT.
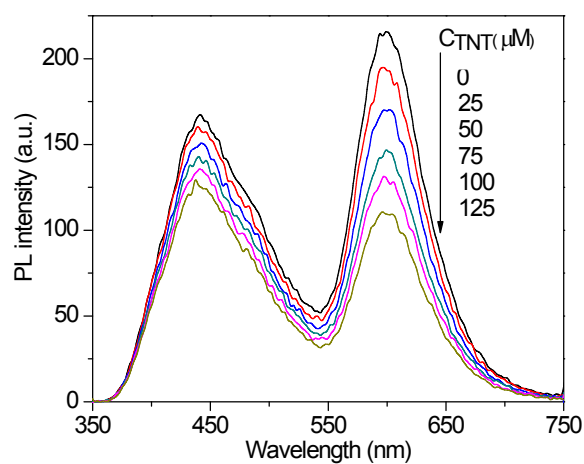
Fig. S6 The fluorescence spectra of the mixture of FGO and HMD-caped NCs upon the exposure to different concentrations of TNT. The concentrations of TNT from up to down are 0, 25, 50, 75, 100, 125 µM, respectively.