Electronic Supplementary Material (ESI) for Nanoscale.

Support information

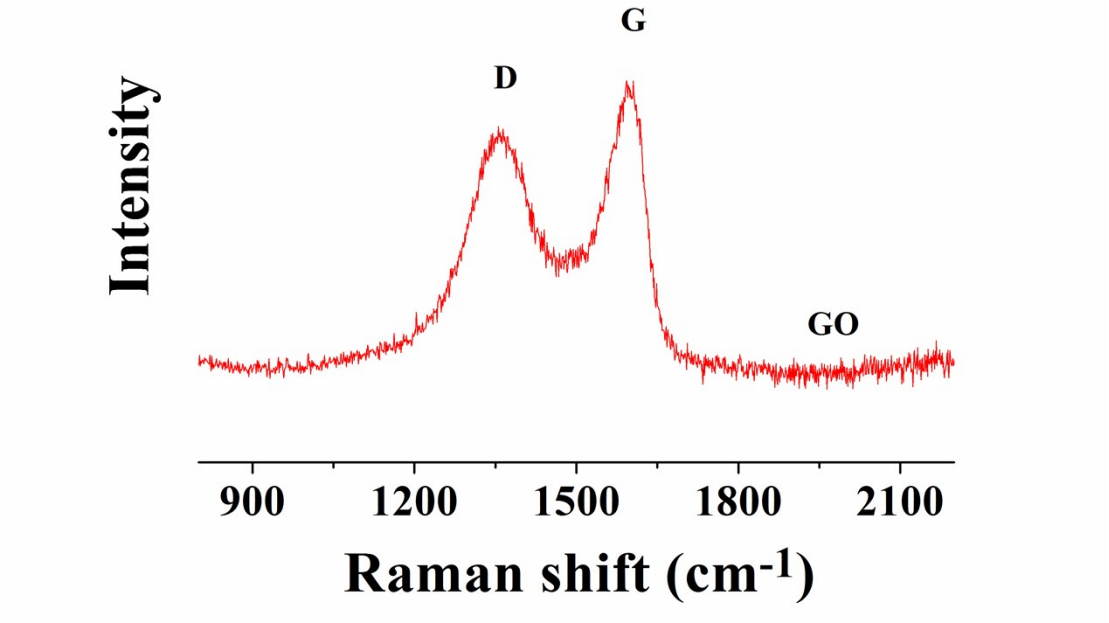


Figure. S1 Raman spectroscopy of GO.

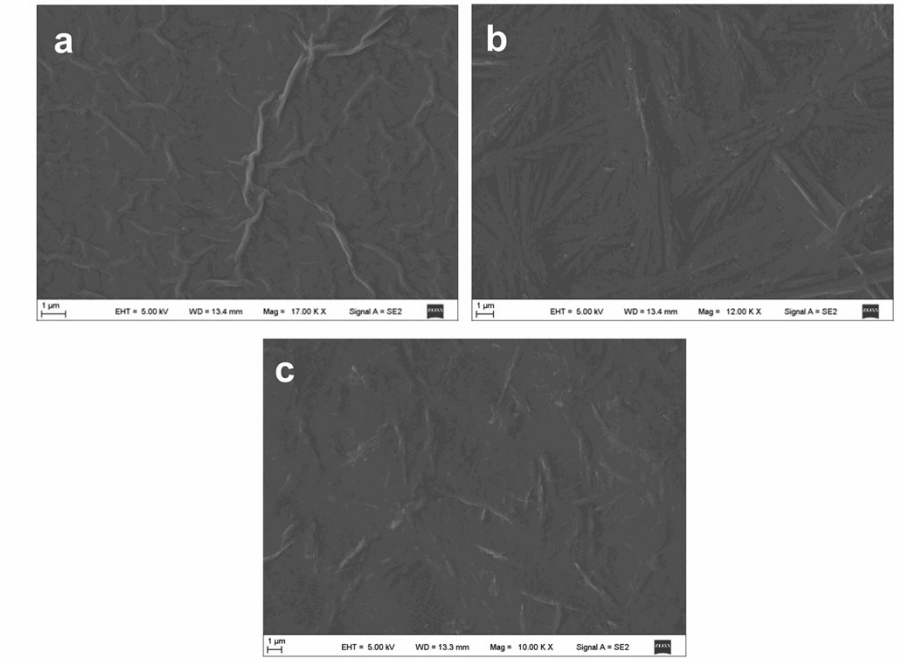


Figure. S2 SEM image of GO (a), NQS/GO without (b) and with (c) addition of 1 mM sarcosine.

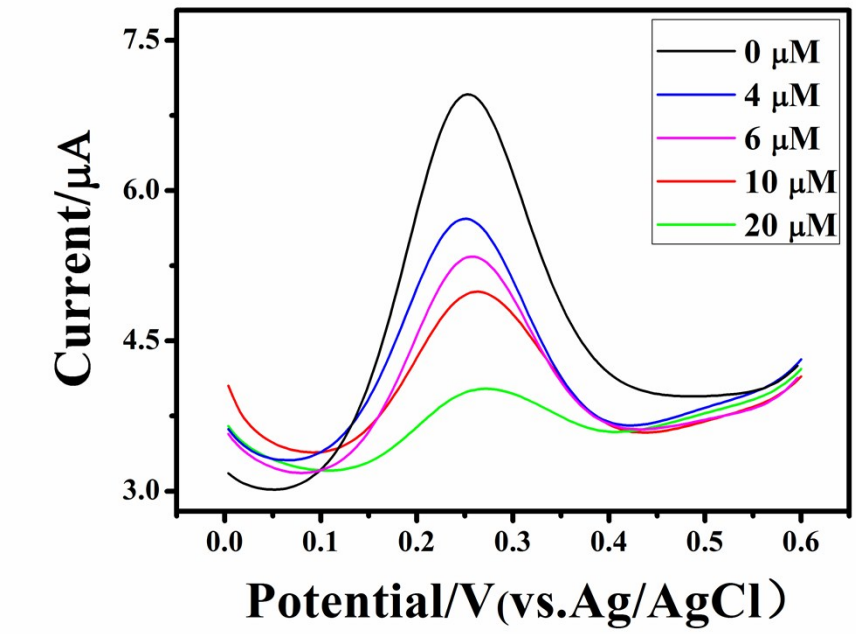


Fig. S3 DPVs of 1.0 mM $K_3[Fe(CN)_6]/K_4[Fe(CN)_6]$ containing 0.1 M KCl on NQS/GO GCE with addition of 0, 4, 6, 10 and 20 μM sarcosine, respectively.

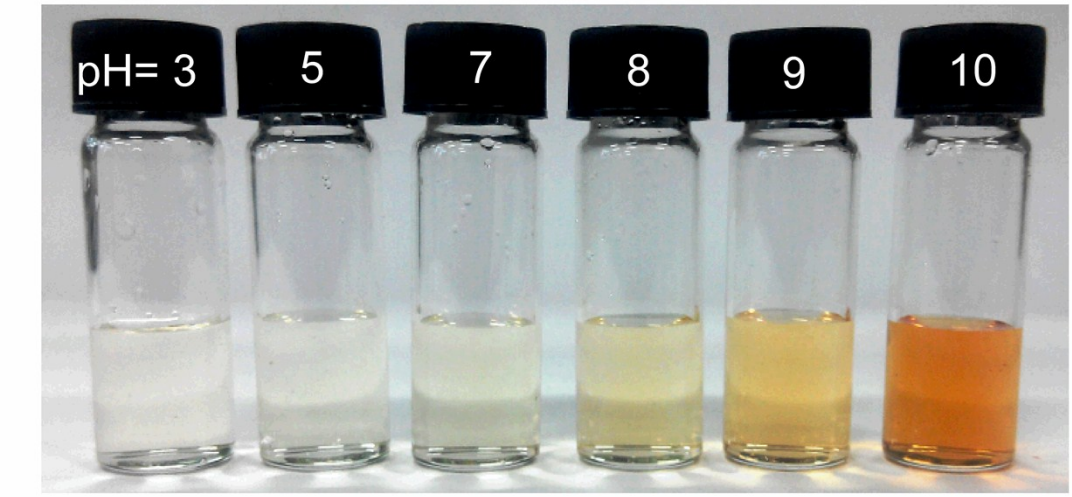
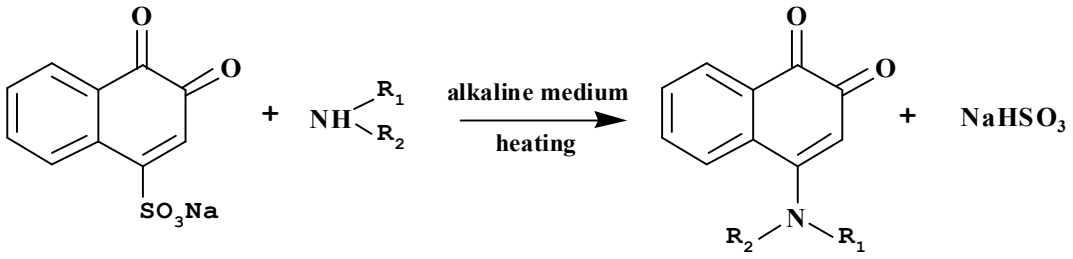


Figure. S4 Photograph of 0.1 mM sarcosine in NQS/GO solution with different pH values of 3, 5, 7, 8, 9 and 10.

Table. S1 Electrochemical parameters of redox probe of 1 mM $K_3[Fe(CN)_6]/K_4[Fe(CN)_6]$ on different electrodes

Parameters	Bare GCE	GO/GCE	NQS/GCE	NQS/GO GCE
R_{ct} (Ω)	116	217	262	301
K_{app} (cm s^{-1})	4.59×10^{-7}	2.45×10^{-7}	2.03×10^{-7}	1.77×10^{-7}



NQS **priamry or secondary amines** **highly chromgenic product**

Scheme S1 Reaction scheme of amines with NQS.