Supporting Information

Eco-friendly synthesis of size-controllable amine-functionalized graphene quantum dots with antimycoplasma property

Feng Jiang,[ab] Daiqin Chen,[ab] Ruimin Li, [ab] Yucheng Wang,[c] Guoqiang Zhang,[ab] Shumu Li, [ab] Junpeng Zheng,[ab] Naiyan Huang,[c] Ying Gu,[c] Chunru Wang,[a] Chunying Shu*[,a]

Content:

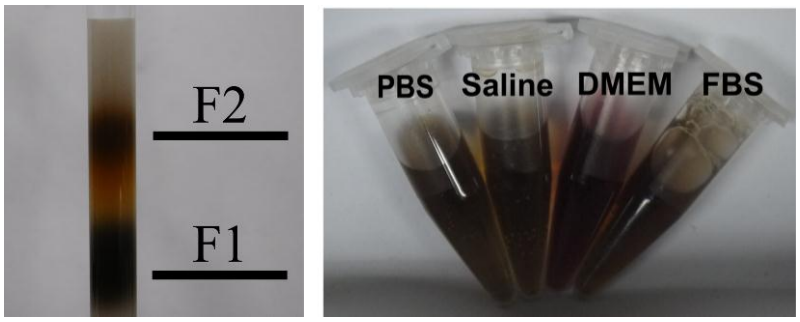


Figure S1. Sephadex G-25 gel column chromatography for the separation of GQDs (left) and photograph of F2 dispersed in PBS, saline, DMEM and FBS at concentration of 0.5 mg/mL.

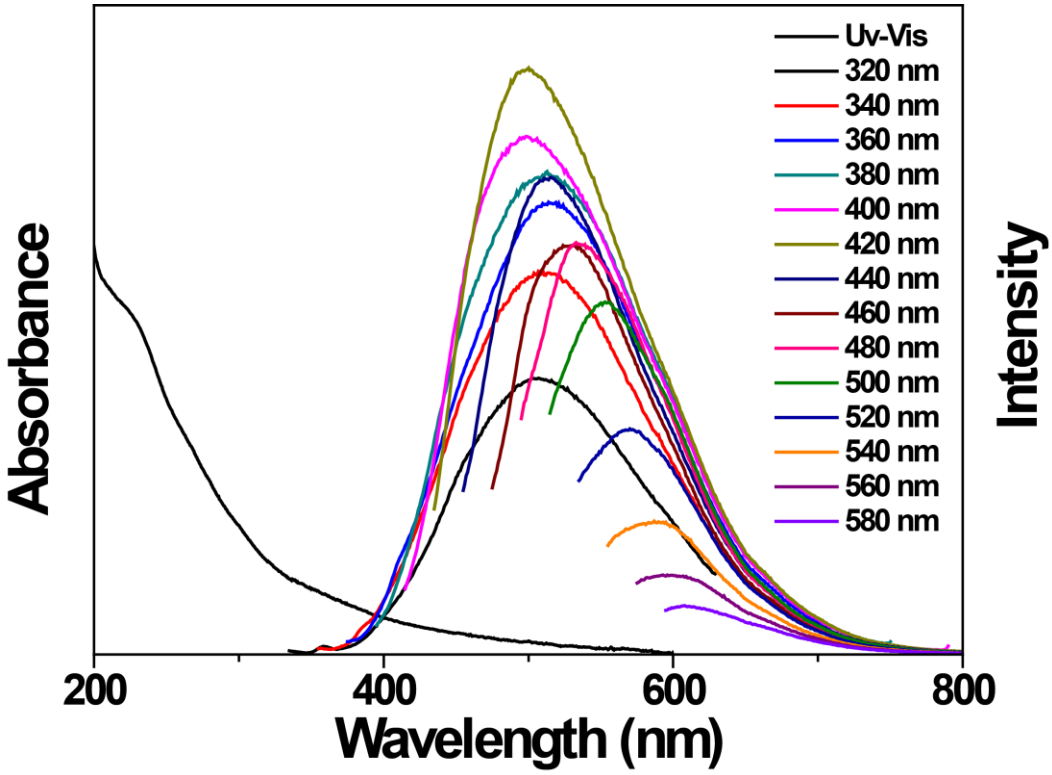
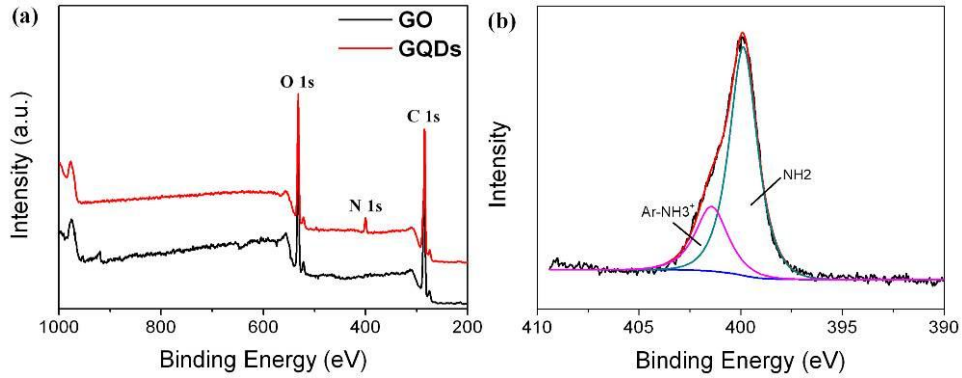


Figure S2. UV-Vis absorption spectra (left) and fluorescent spectra (right) of F1 in aqueous solution.



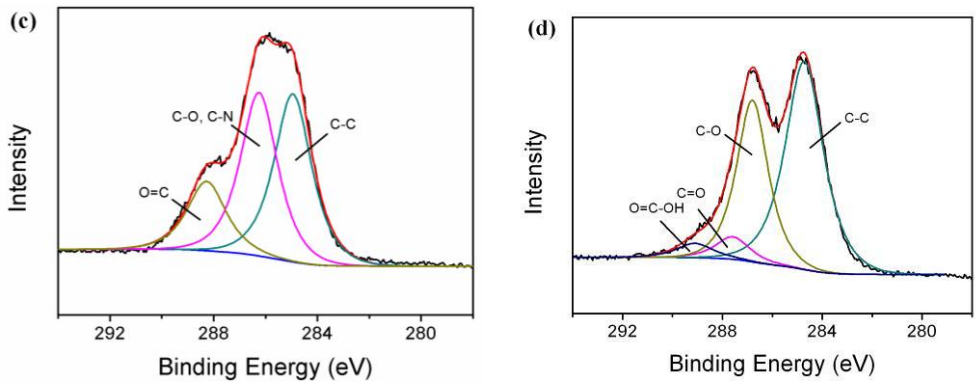


Figure S3.XPS spectra of GO and GQDs (a), and curve fitting for N 1s binding energy of GQDs (b), curve fitting for C 1s of GQDs (c) and GO (d).

Table S1 Percentage of chemical elements in GO and GQDs

Sample	C (at. %)	O (at. %)	N (at. %)
GO	70.9	29.1	0
GQDs	56.6	34.5	8.9

Table S2 Fitting of C1s binding energy for GO and GQDs.

Bond (C1s)	Binding energy (eV)	GO	GQDs
C-C	284.8±0.1	56%	44%
C-O, C-N	286.5±0.3	35%	37%
C=O, O=C-R (R=NH_2, OH)	288.2-290	9%	19%

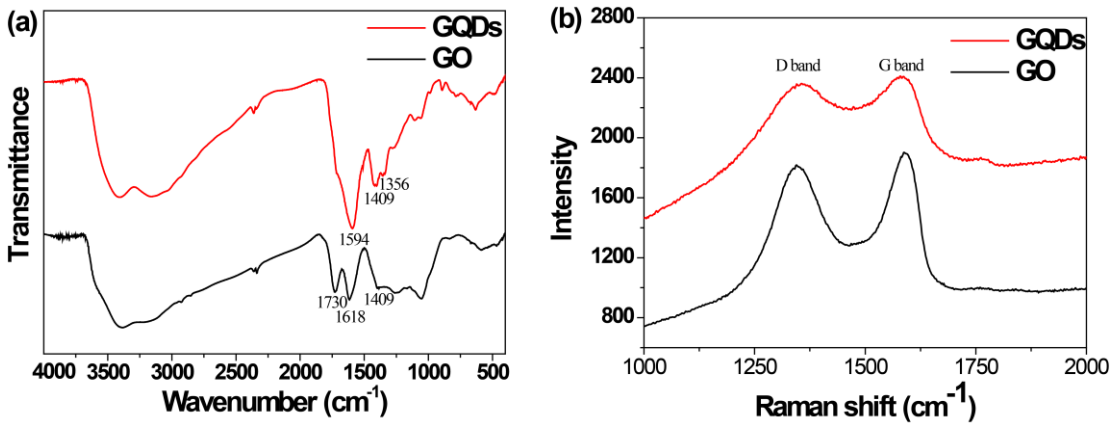


Figure S4 (a) FT–IR spectra and (b) Raman spectra of GO and GQDs.

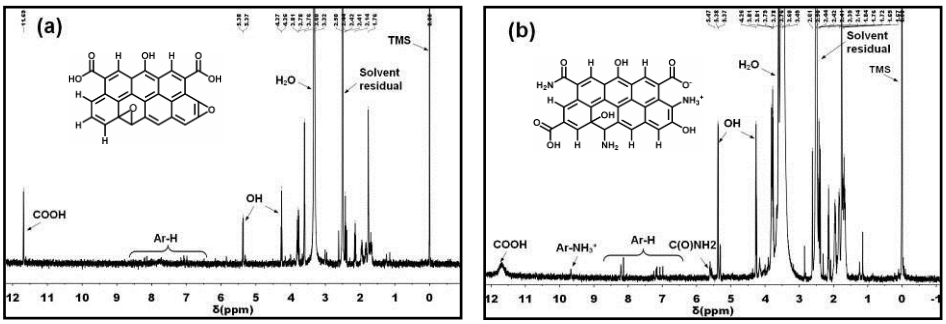


Figure S5 ^{1}H NMR spectra of GO (a) and GQDs (b) in DMSO-d_6 with proposed structural fragment in inset.