

Supplementary Information

Regulation of photoluminescence properties of graphene quantum dots via hydrothermal treatment

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Supplementary Figures

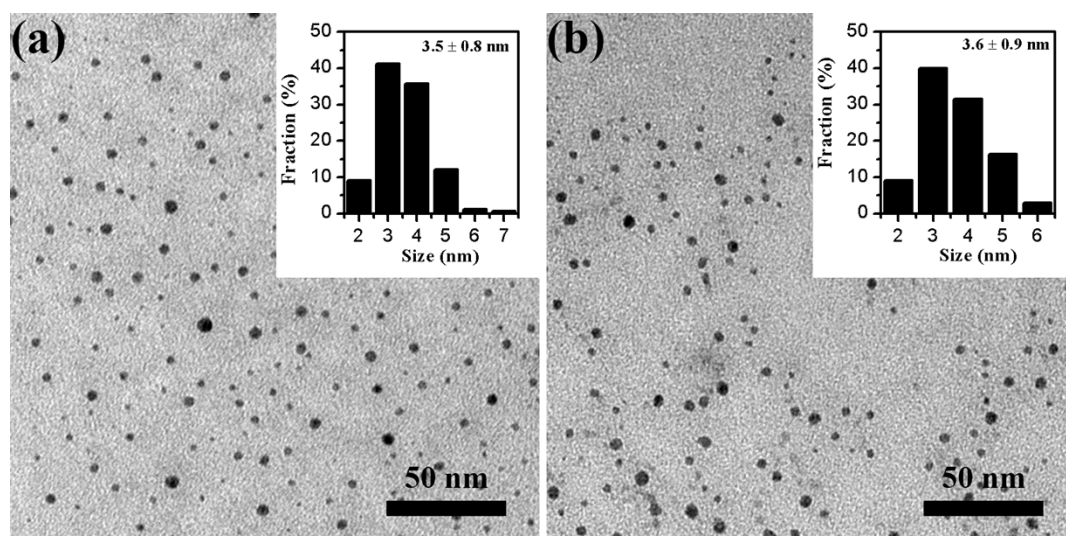


Fig. S1 TEM images of GQDs prepared from graphite powder before (a) and after (b) hydrothermal treatment. Inset: the corresponding size distribution.

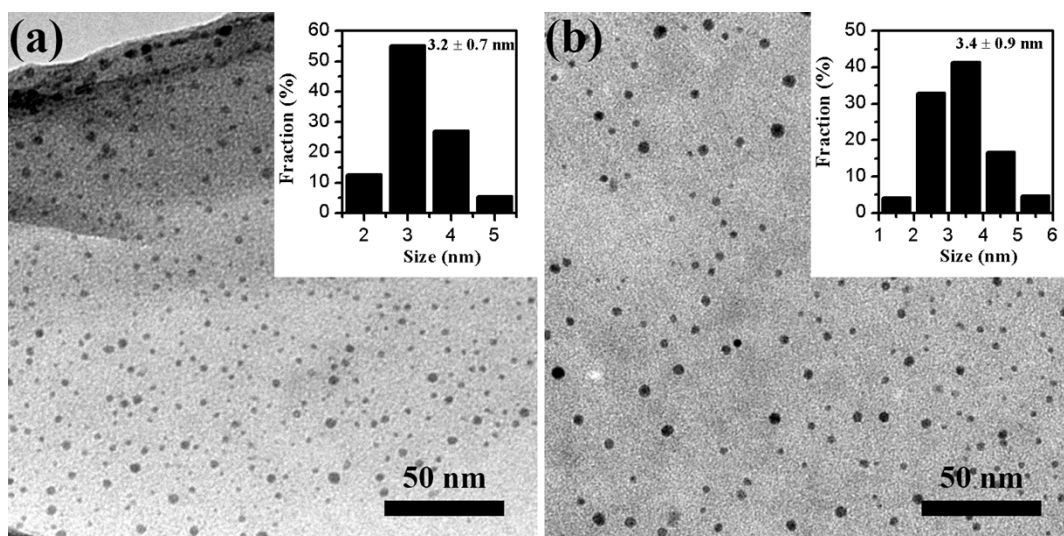


Fig. S2 TEM images of the GQDs prepared from GO (a) and RGO (b). Inset: the corresponding size distribution.

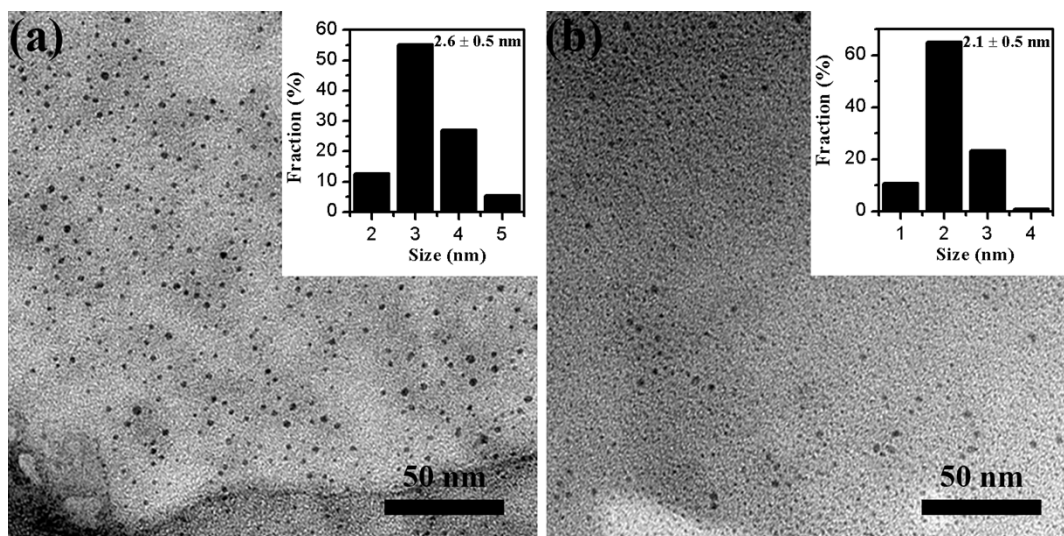


Fig. S3 TEM images of the GQDs prepared from carbon fibers at 80 (a) and 120 °C (b). Inset: the corresponding size distribution.

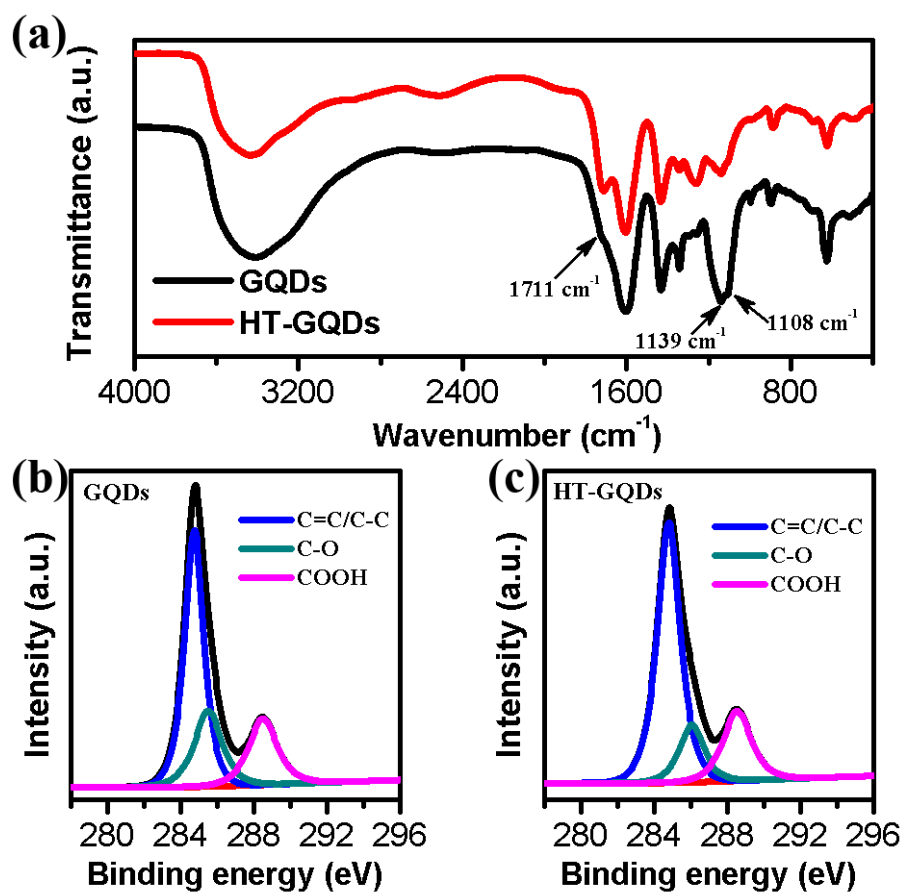


Fig. S4 FTIR (a) and C 1s XPS spectra (b, c) of GQDs and HT-GQDs prepared from graphite powder at 100 °C.

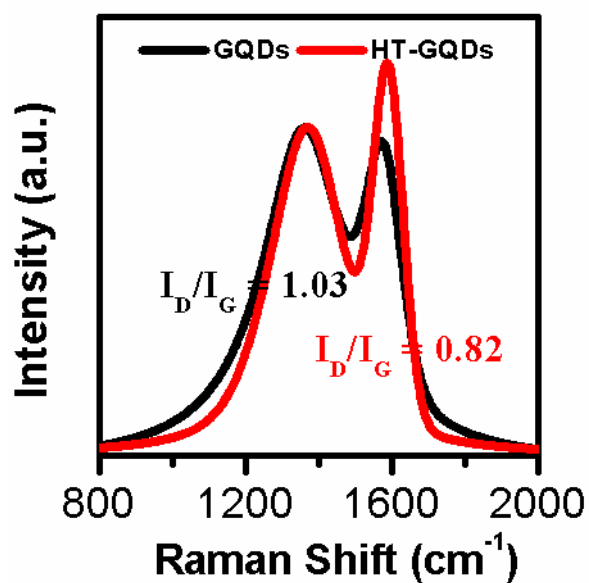


Fig. S5 Raman spectra of GQDs and HT-GQDs prepared from graphite powder at

100 °C.

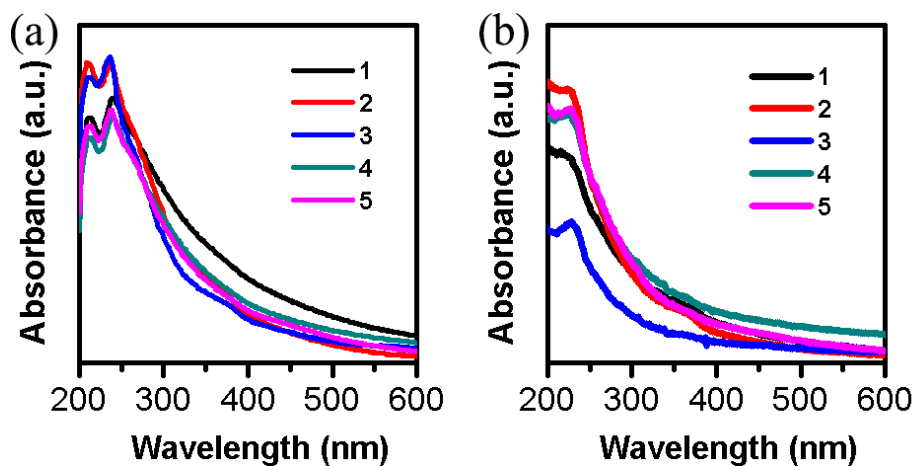


Fig. S6 UV-visible absorption spectra of various GQDs before (a) and after (b) hydrothermal treatment. (1-5) GQDs prepared from different carbonaceous materials or at different temperatures: carbon fibers at 80 °C (1); carbon fibers at 120 °C (2); GO at 100 °C (3); RGO at 100 °C (4); graphite powder at 100 °C (5).

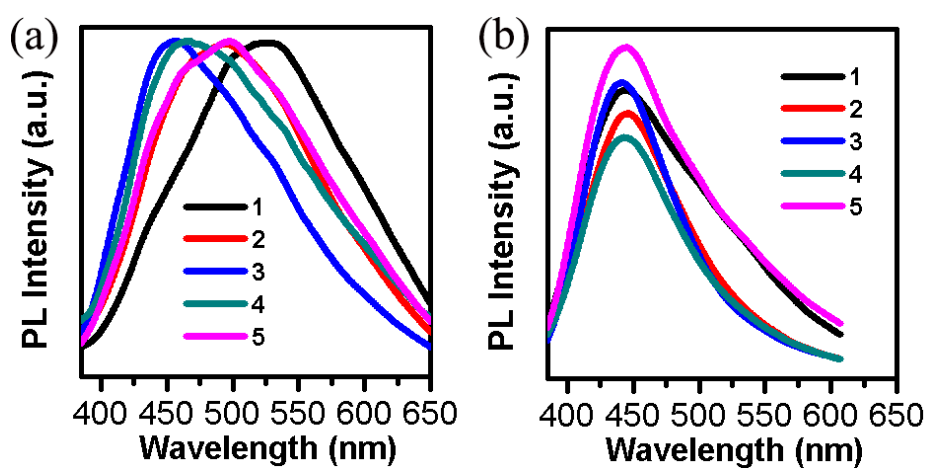


Fig. S7 PL spectra of various GQDs before (a) and after (b) hydrothermal treatment. (1-5) GQDs prepared from different carbonaceous materials or at different

temperatures: carbon fibers at 80 °C (1); carbon fibers at 120 °C (2); GO at 100 °C (3);
RGO at 100 °C (4); graphite powder at 100 °C (5).