Electronic Supplementary Material (ESI) for RSC Advances.

Supporting Information

Simple preparation of Graphene Quantum Dots with Controllable Surface states from Graphite

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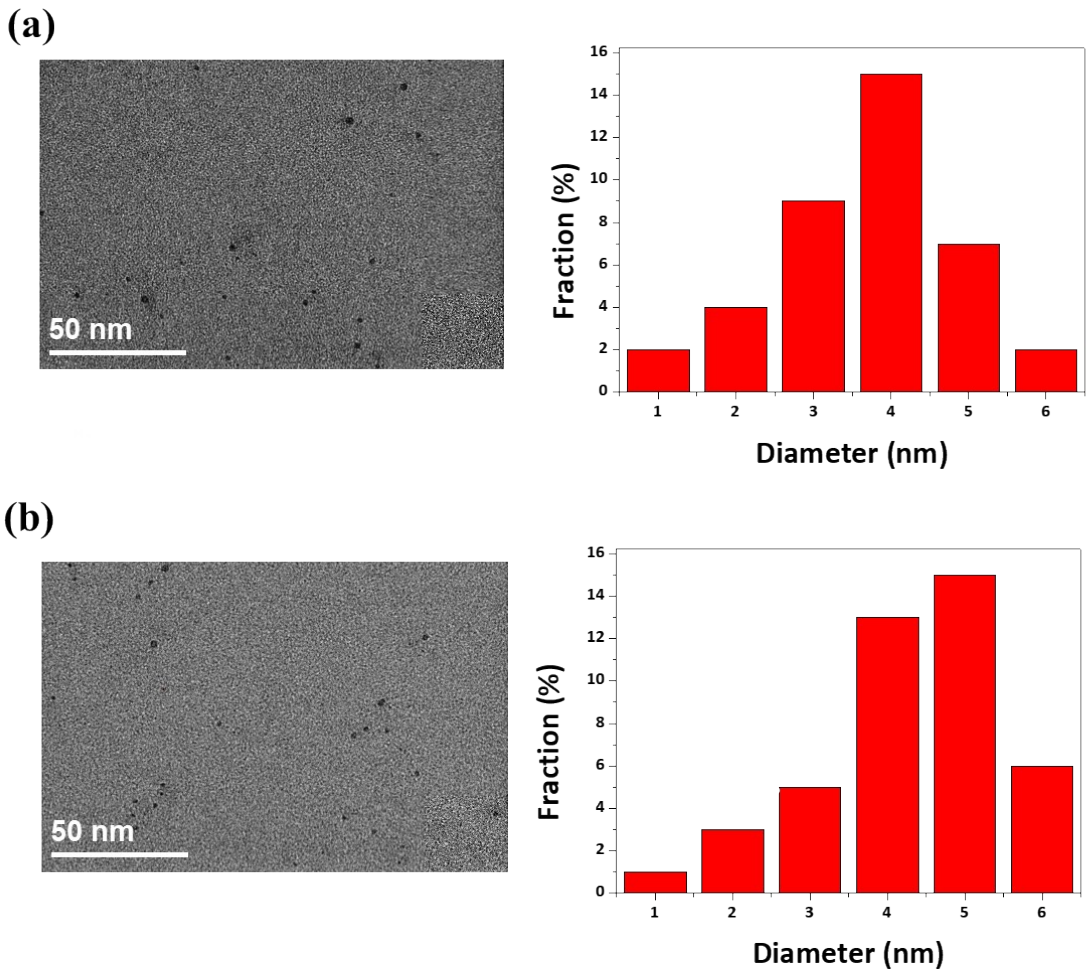

Fig. S1 The TEM images of on-GQDs (a) and off GOQDs (b), the size distribution histogram of on-GQDs (a), the size distribution histogram of off-GOQDs (b)

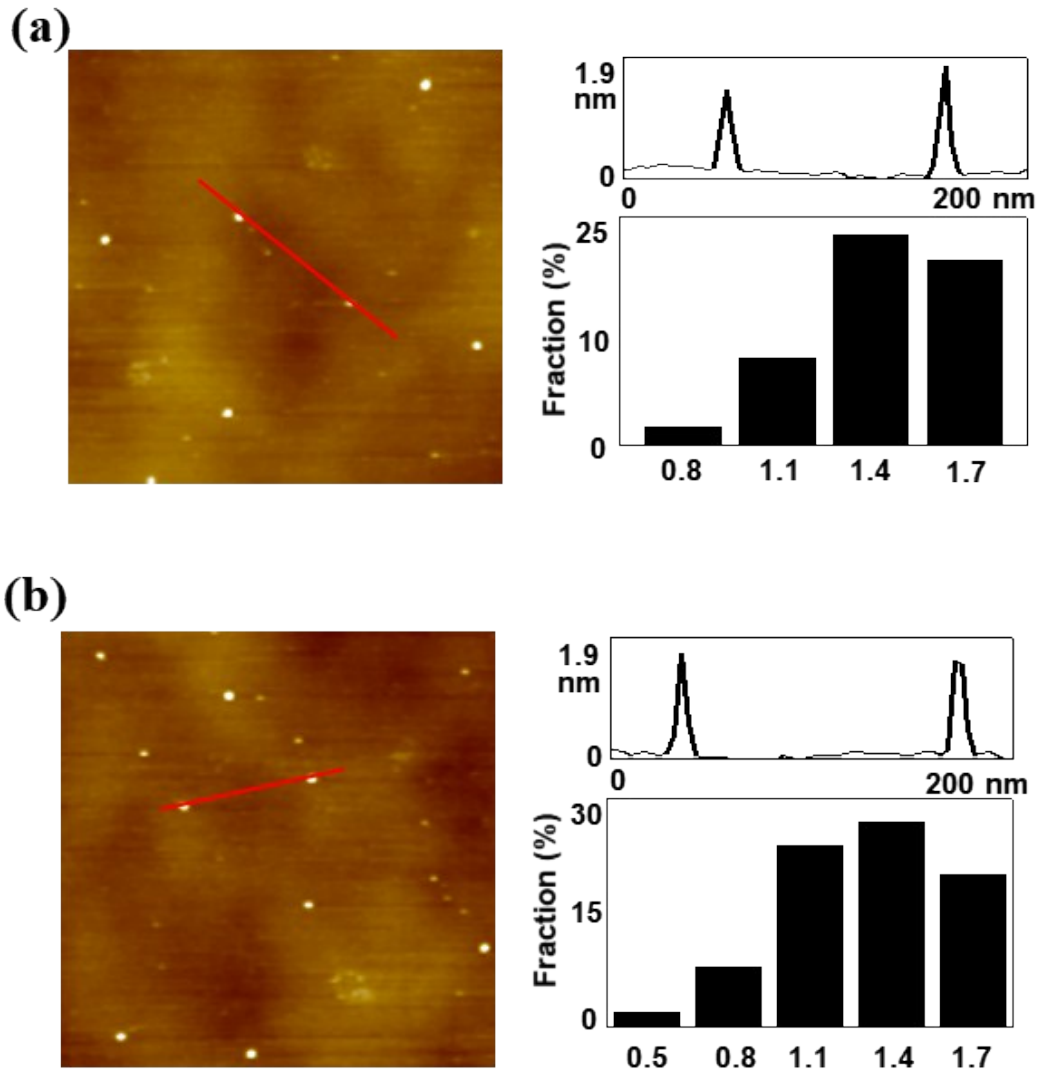

Fig. S2 AFM images and height profile, height distribution of on-GQDs (a), and off-GQDs (b)

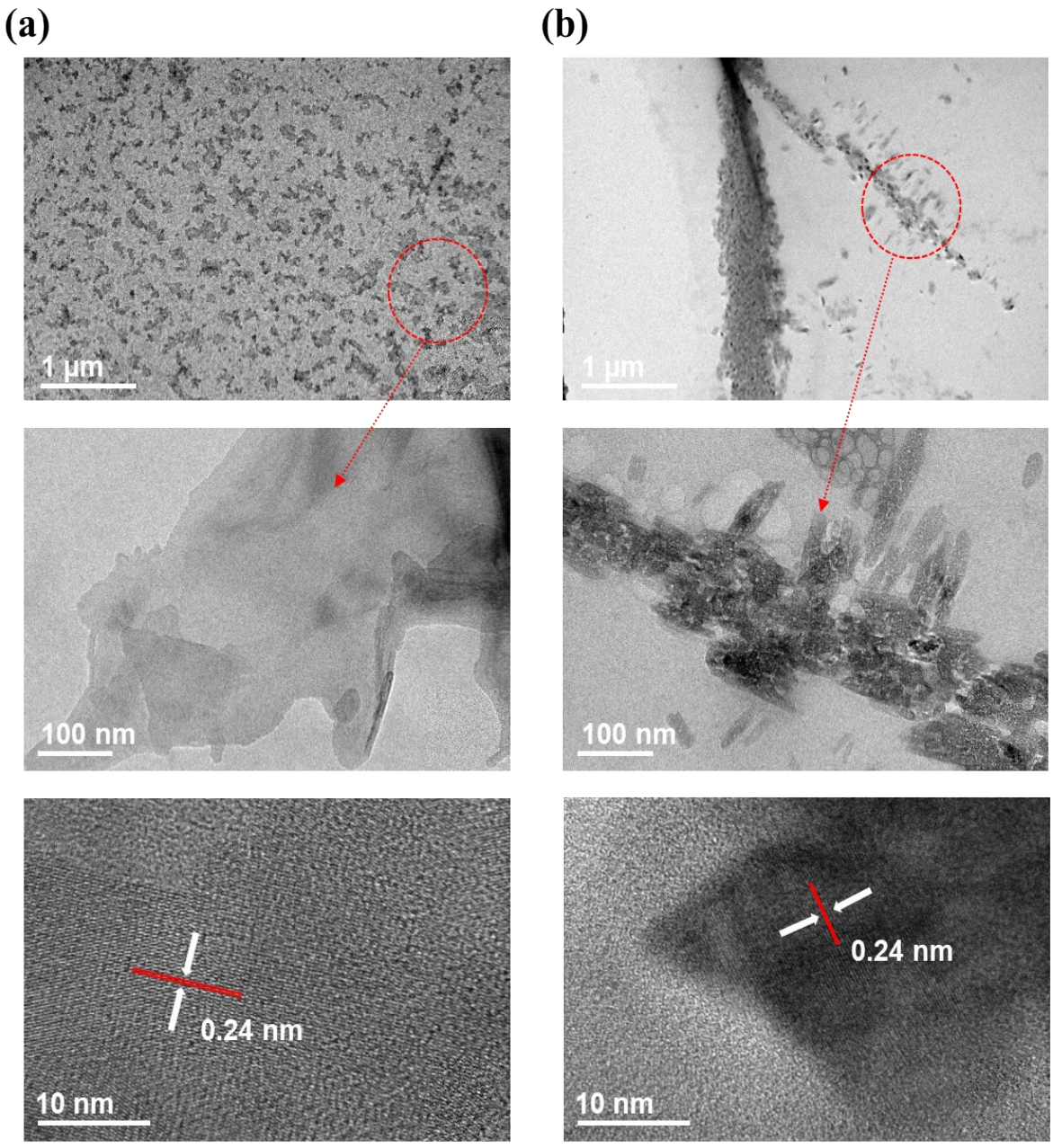

Fig. S3 TEM and HR-TEM images of large and small graphene sheet by laser ablation after 5 min sonication (a) on and (b) off.

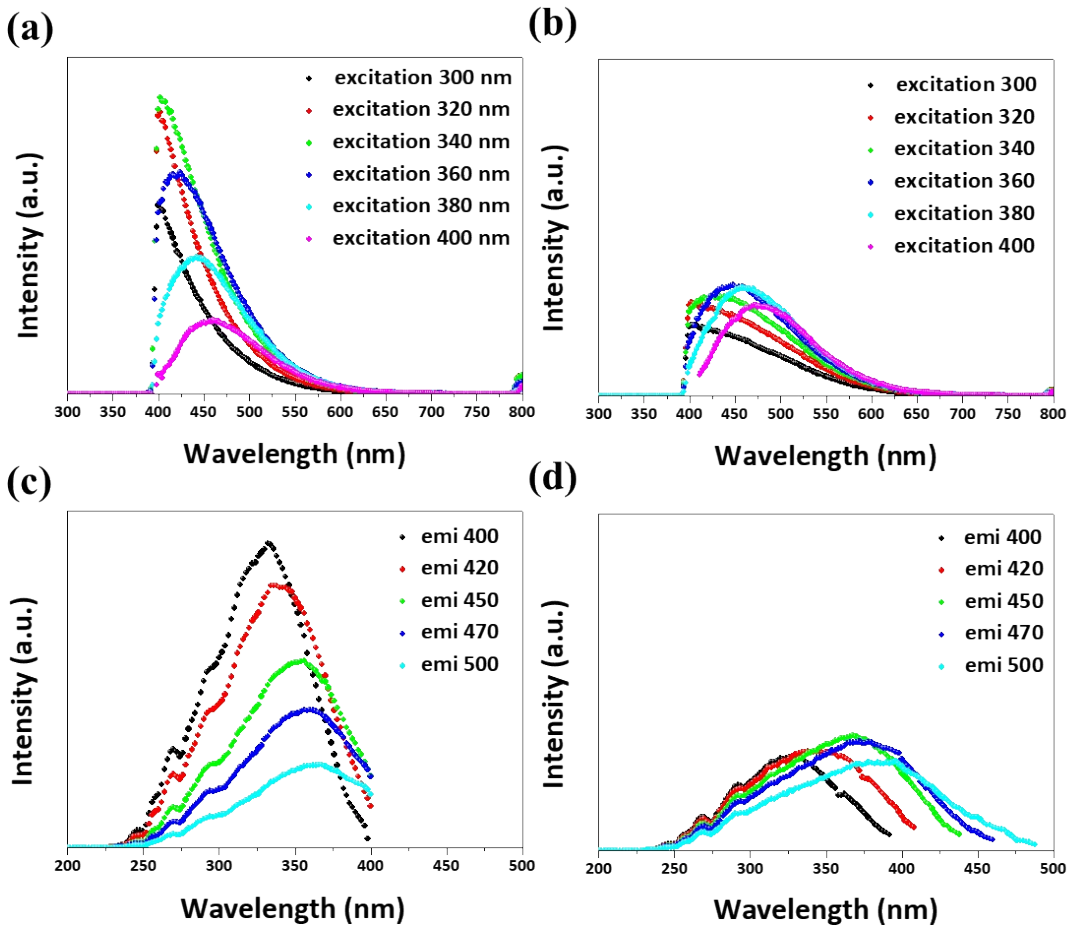

Fig. S4 Photoluminescence (PL) properties of on-GQDs (a) and off-GQDs (b), PL-excitation properties of on-GQDs (a) and off-GQDs (b)

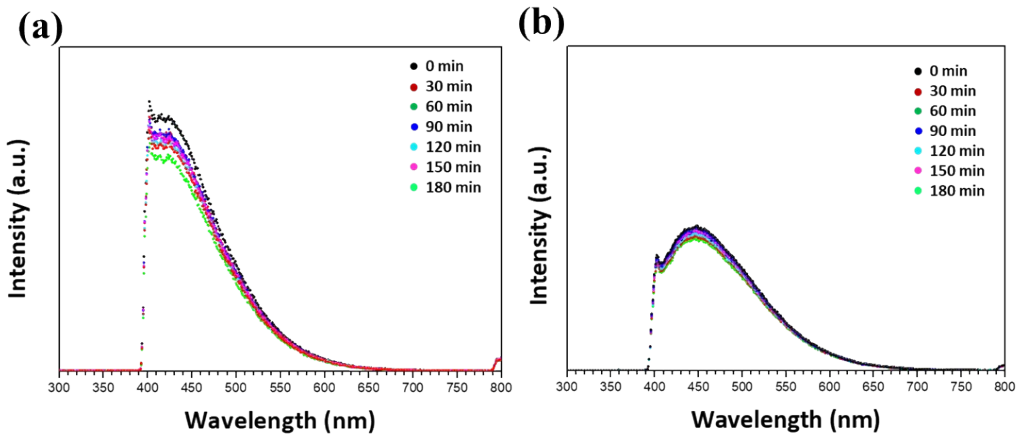

Fig. S5 Photo-stability of the on-GQDs (a), and off-GOQDs (b) under the UV lamp illuminations from 250 W for different time duration

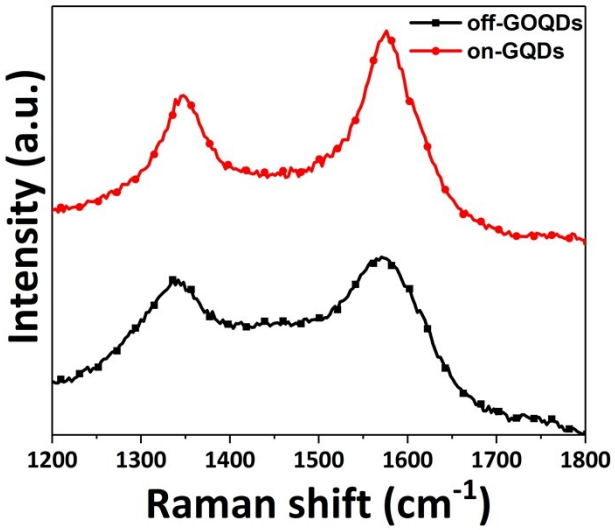

Fig. S6 Raman spectra of on-GQDs and off-GOQDs.

Table S1. XPS fraction of on-GQDs and off-GOQDs

	Peak Binding Energy (eV)	on-GQDs	off-GOQDs
C=C and C-C (%)	284.1	87.4	53.27
Hydroxyl, Carboxylate group (%)	286-288	12.6	46.73