Electronic Supplementary Material (ESI) for RSC Advances.

Supporting Information

Facile one-step hydrothermal synthesis of monolayer and turbostratic bilayer n-doped graphene quantum dots using sucrose as a carbon source

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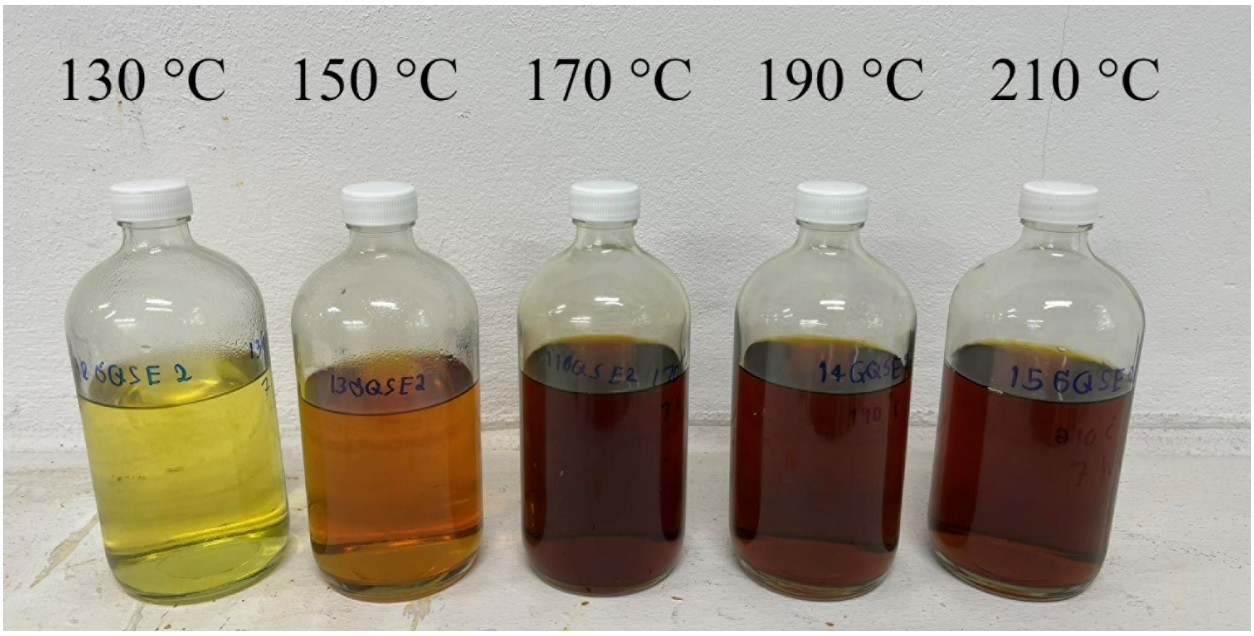

Figure S1 Photograph of NGQDs which prepared by hydrothermal at various temperatures.

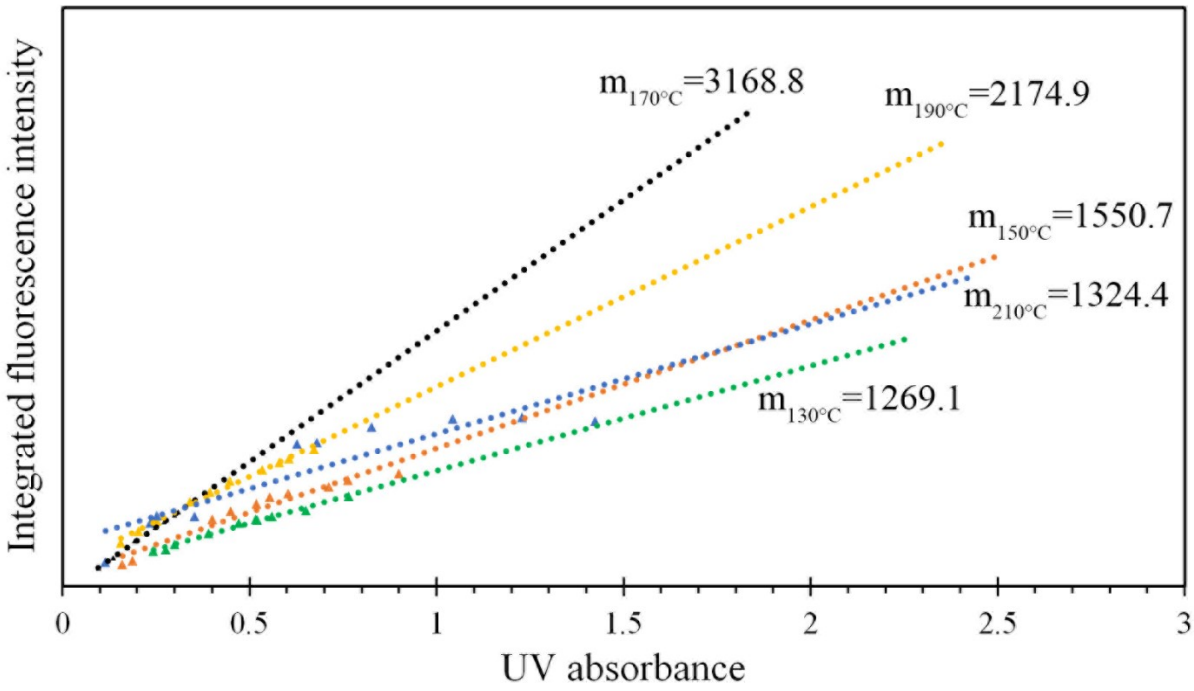

Figure S2 Relationship between integrated fluorescence intensity and UV absorbance of the NGQDs which prepared by hydrothermal at 130 °C, 150 °C, 170 °C, 190 °C and 210 °C using the exciation and absorbance wavelength of 360 nm.

Table S1 Relative yield of NGQDs which were synthesized by hydrothermal at various temperatures.

Type	Temperature (°C)	slope (m)	Relative yield to GQDs (times)
GQDs	170	648	1.0
NGQDs	130	1269.1	2.0
	150	1550.7	2.4
	170	3168.8	4.9
	190	2174.9	3.4
	210	1324.4	2.0

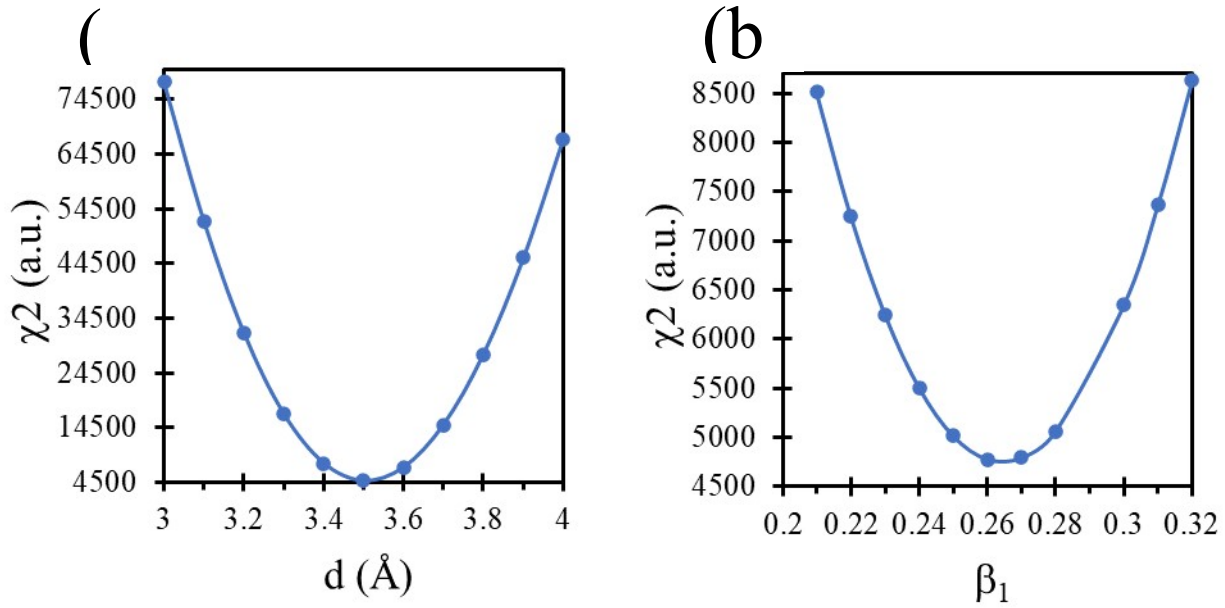

Figure S3 the chi-squared (χ^2) dependence on (a) interlayer spacing (d) and (b) occupancy (β_1) parameters for NGQDs

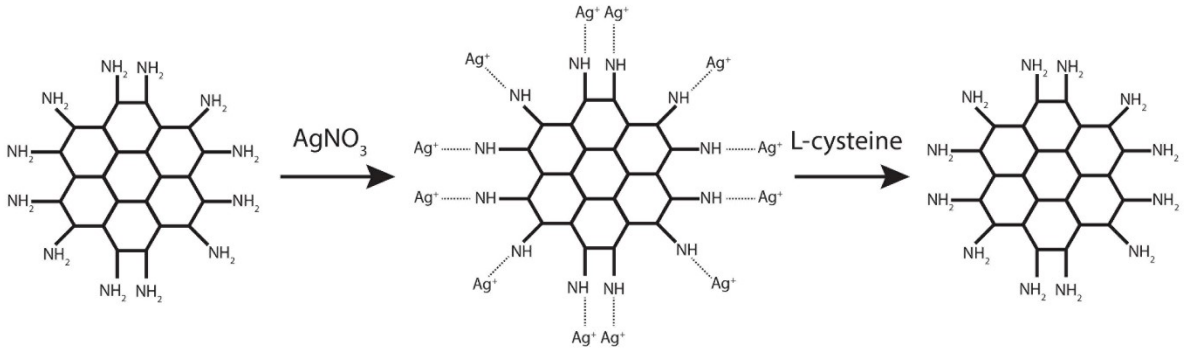

Figure S4 Schematic of the structure of NGQDs after addition of AgNO3 and L-cysteine, respectively.