

Supporting Information

Carbonization conditions influence the emission characteristics and the stability against photobleaching of nitrogen doped carbon dots

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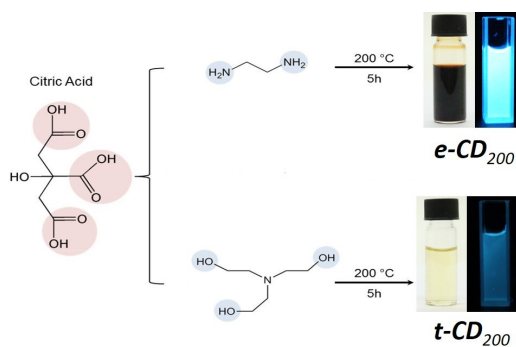


Figure S1. Synthetic approach towards *e-CD*₂₀₀ and *t-CD*₂₀₀, and photographs of the purified reaction products under daylight (left) and UV light (right).

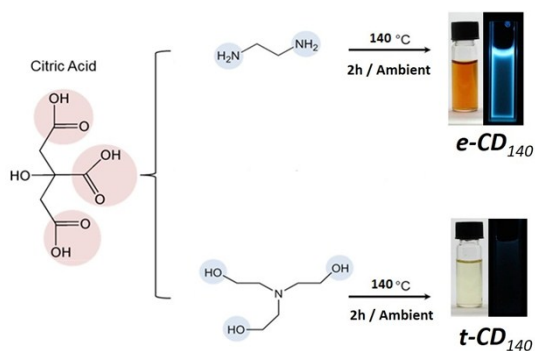


Figure S2. Synthetic approach towards *e-CD*₁₄₀ and *t-CD*₁₄₀, and photographs of the purified reaction products under daylight (left) and UV light (right).

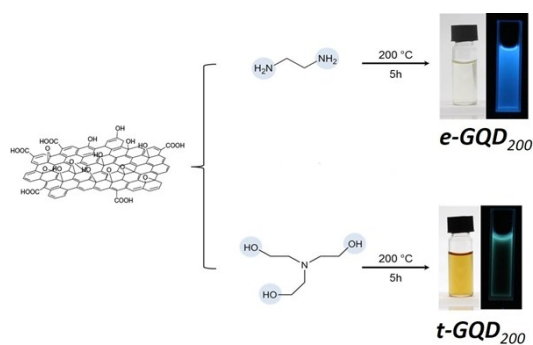


Figure S3. Synthetic approach towards *e-GQD*₂₀₀ and *t-GQD*₂₀₀, and photographs of the purified reaction products under daylight (left) and UV light (right).

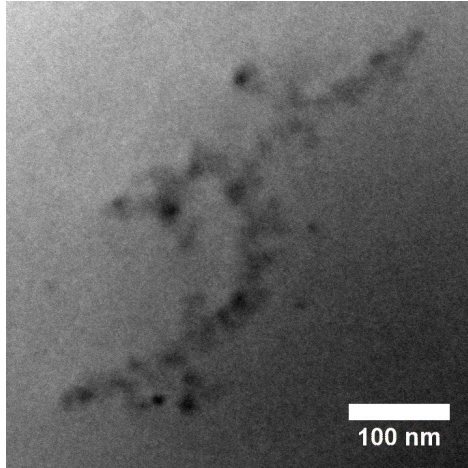


Figure S4. TEM image of aggregated $t\text{-GQD}_{200}$.

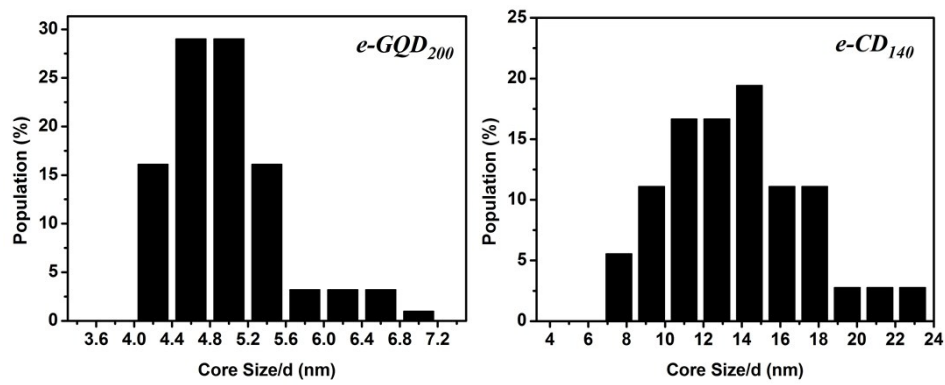


Figure S5. Size distribution histograms of $e\text{-GQD}_{200}$ and $e\text{-CD}_{140}$.

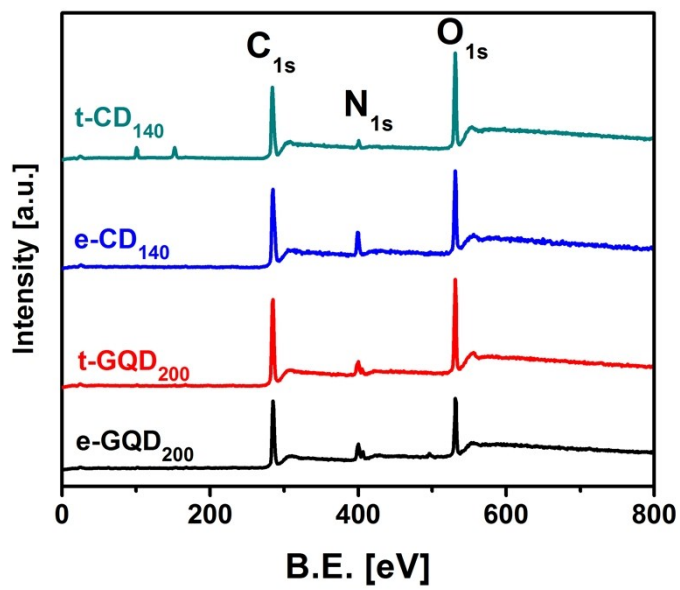


Figure S6. Full XPS spectra of $e\text{-CD}_{140}$, $e\text{-GQD}_{200}$, $t\text{-CD}_{140}$, and $t\text{-GQD}_{200}$

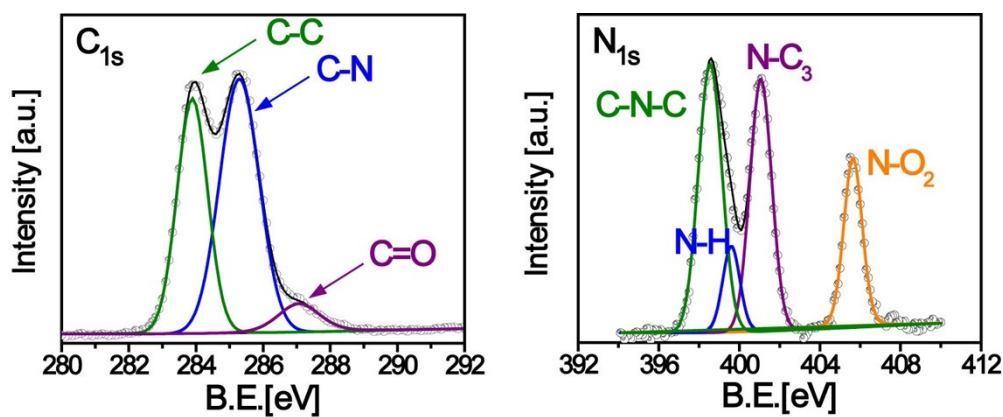


Figure S7. (a) High resolution C_{1s} XPS spectrum of *t*-GQD₂₀₀; (b) High resolution N_{1s} spectrum of *t*-GQD₂₀₀.

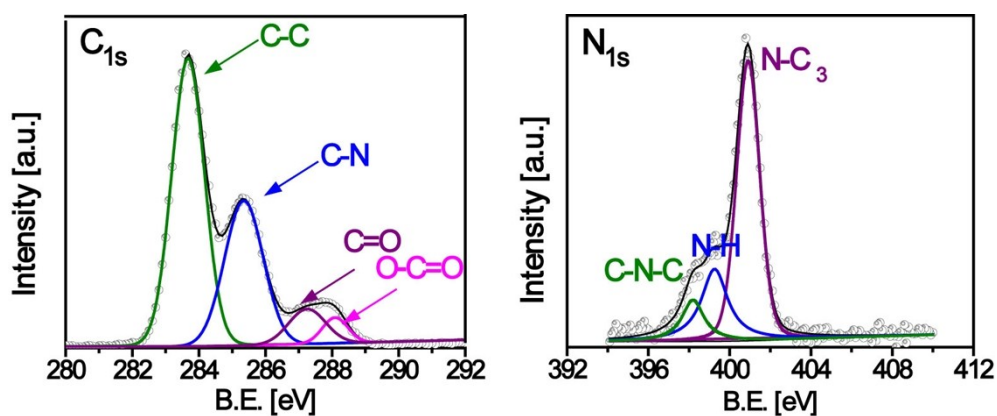


Figure S8. (a) High resolution C_{1s} XPS spectrum of *t*-CD₁₄₀; (b) High resolution N_{1s} spectrum of *t*-CD₁₄₀.

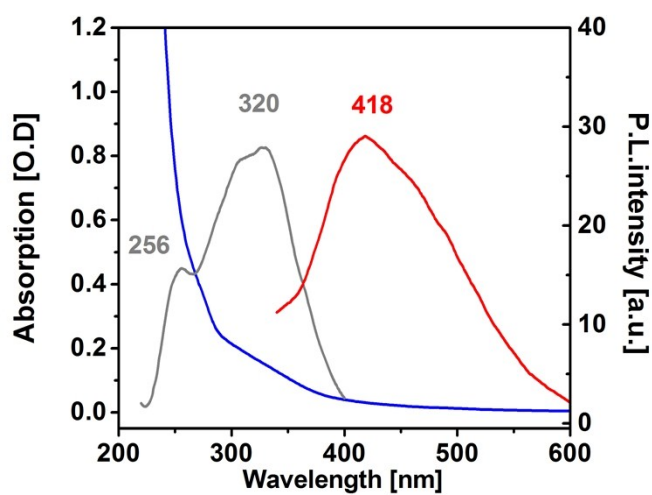


Figure S9. Optical spectra of *t*-GQD₂₀₀: Absorption (in blue), PLE (in gray), and PL (in red).