

Supplementary Information for

## **Engineering Nitrogen-Doped Carbon Quantum Dots: Investigating the Role of Dopant Isomer Configuration**

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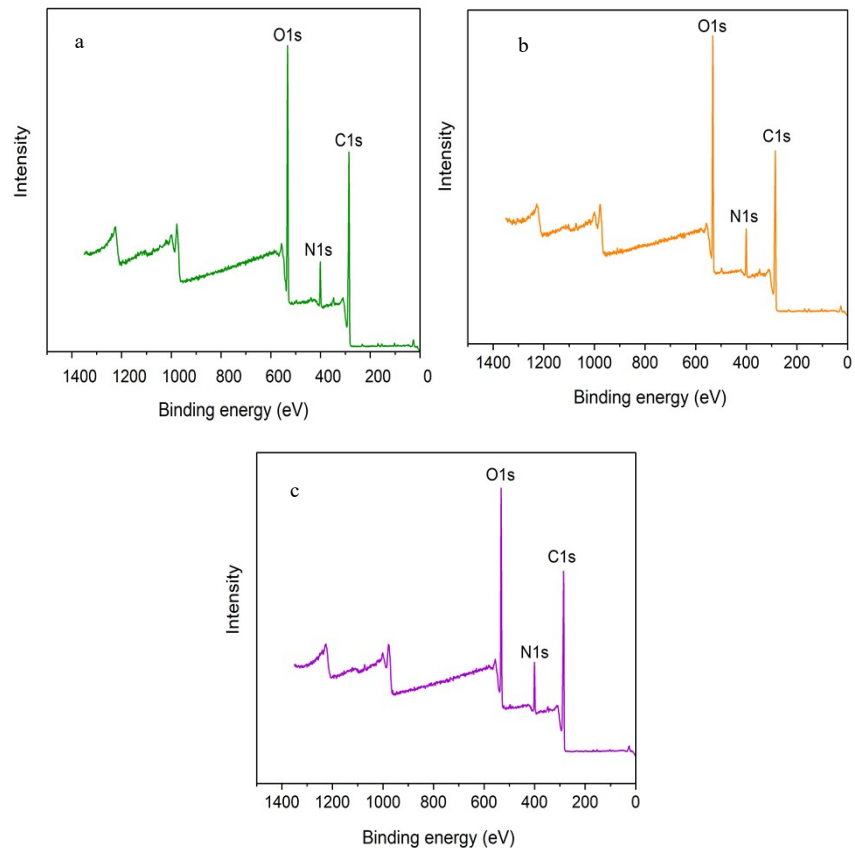


Figure S1. XPS survey for three distinct nanoparticles derived from different isomers of phenylenediamine:

a) OP:CA, b) MP:CA, c) PP:CA.

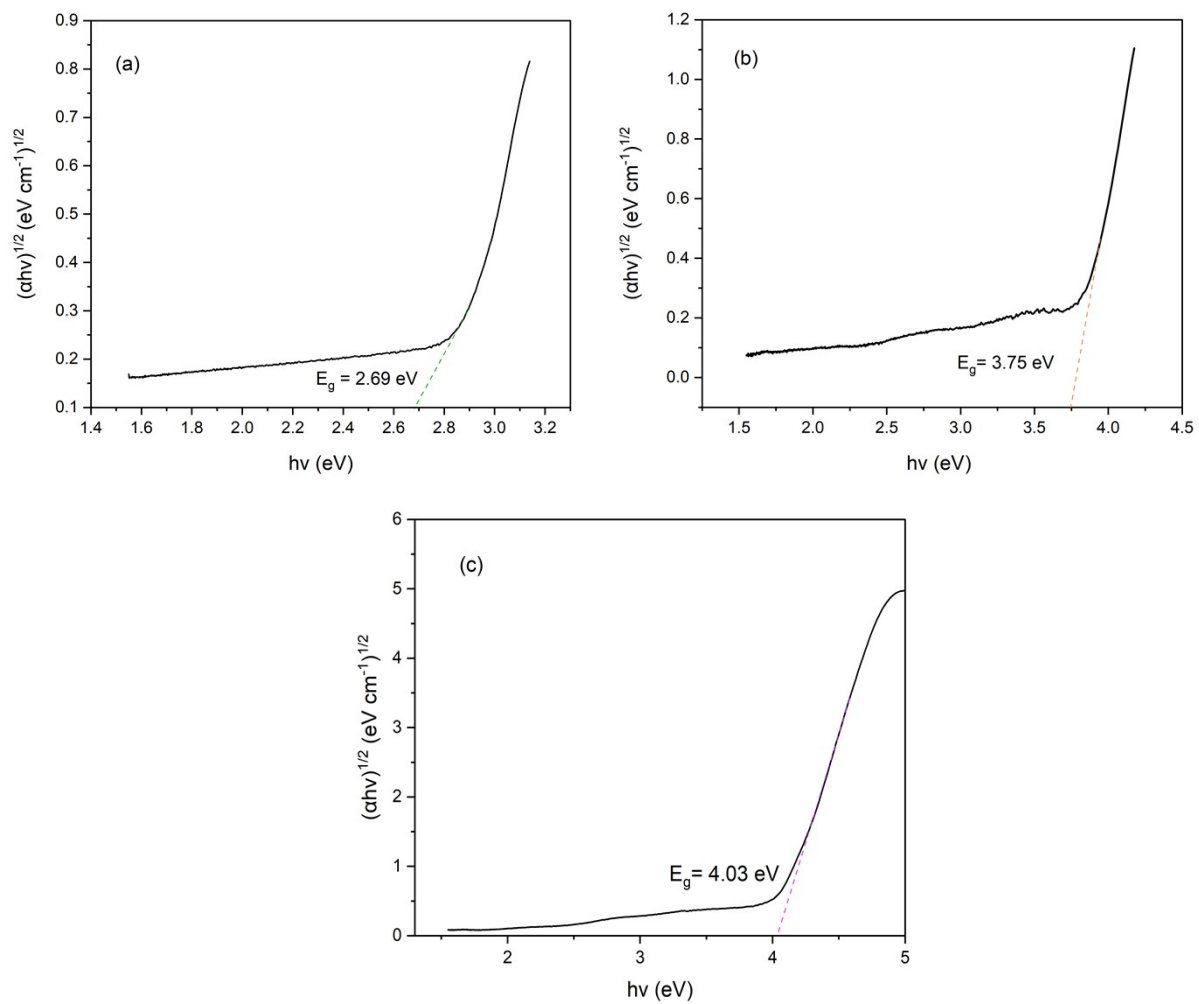


Figure S2. Tauc plots for three distinct nanoparticles derived from different isomers of phenylenediamine: a) OP:CA, b) MP:CA, c) PP:CA.

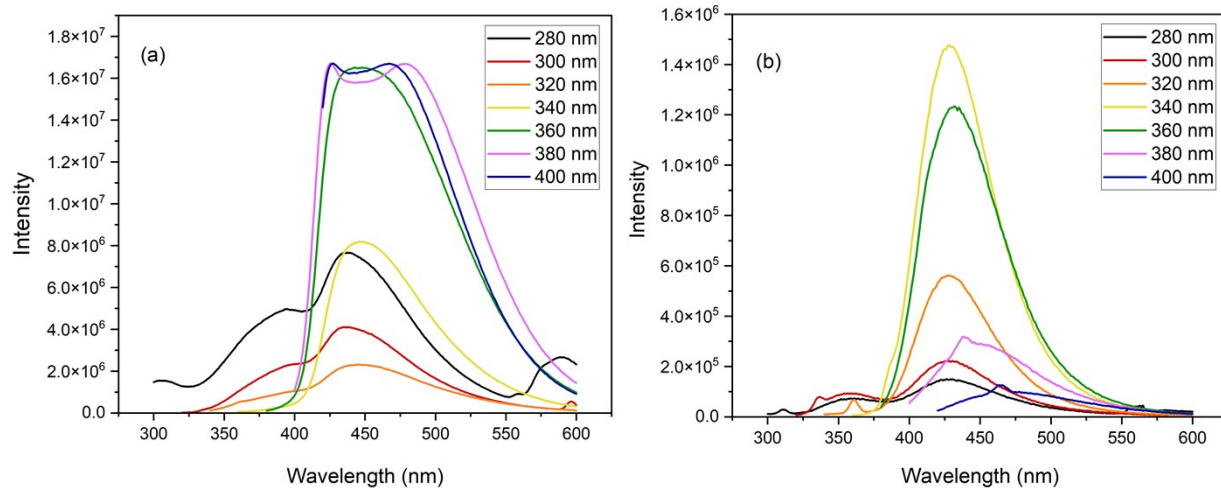


Figure S3. Emission spectra of N-CQDs: a) OP:CA, b) MP:CA

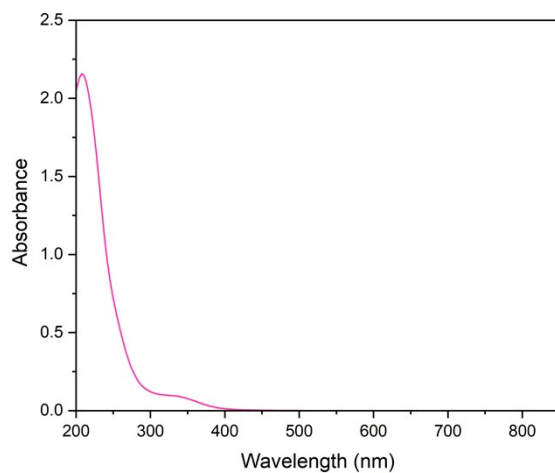


Figure S4. UV-Vis spectra of un-doped CQDs

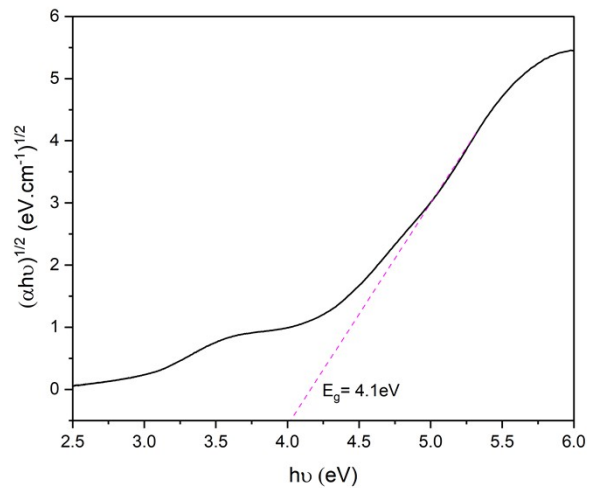


Figure S5. Tauc plot for un-doped CQDs

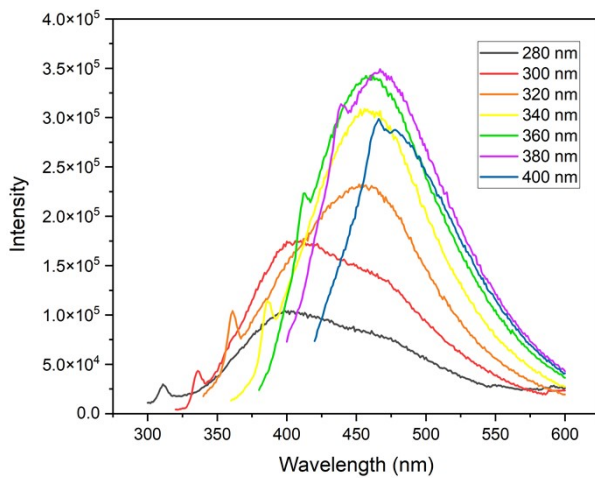


Figure S6. Emission spectra of un-doped-CQDs

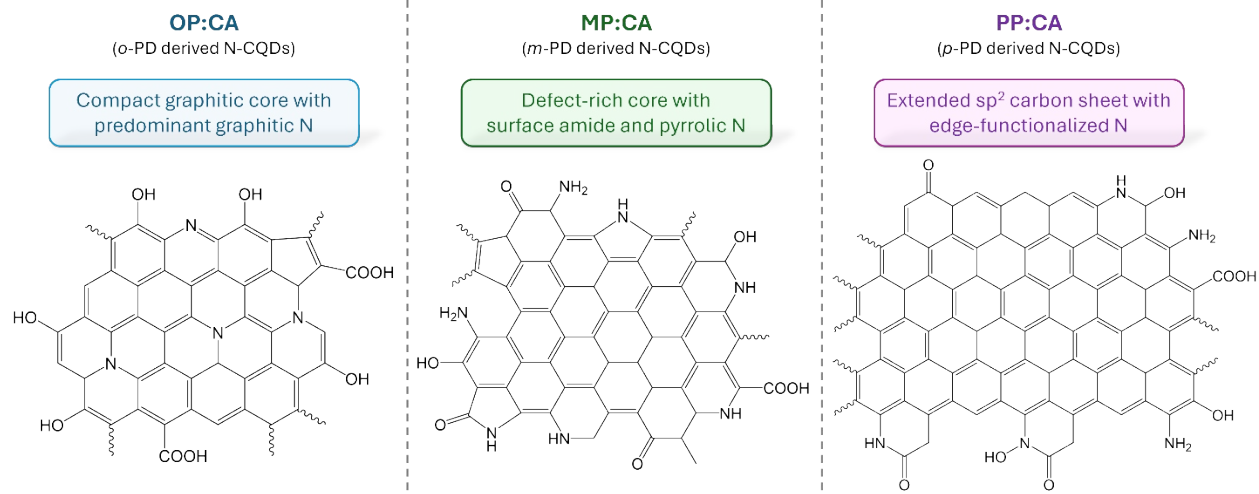


Figure S7. Proposed molecular-level structural models for the core of nitrogen-doped carbon nanomaterials synthesized from citric acid and phenylenediamine isomers.