

## Electronic Supplementary Information

# One-step Hydrothermal Synthesis and Optical Properties of PEG-passivated Nitrogen-doped Carbon Dots

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### Supporting Figures:

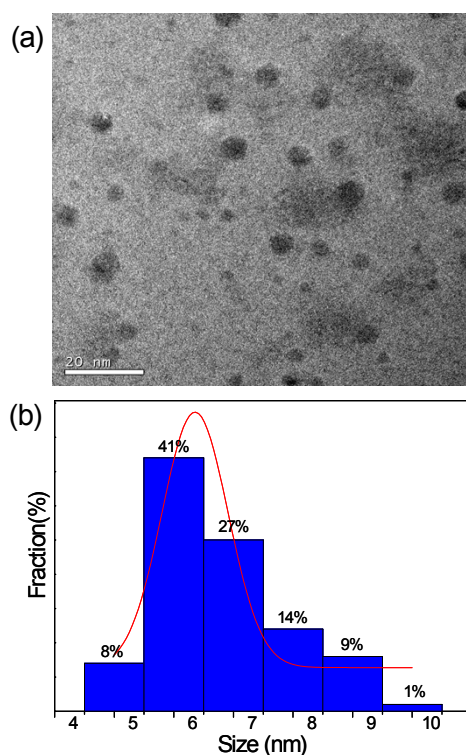


Fig. S1 (a) TEM image of NCDs. (b) Corresponding size distribution analysis of NCDs.

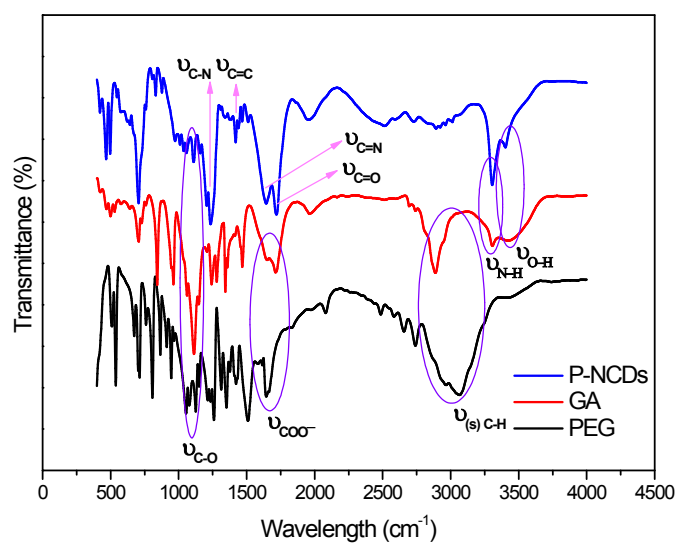


Fig. S2 FT-IR data of P-NCDs and raw materials.

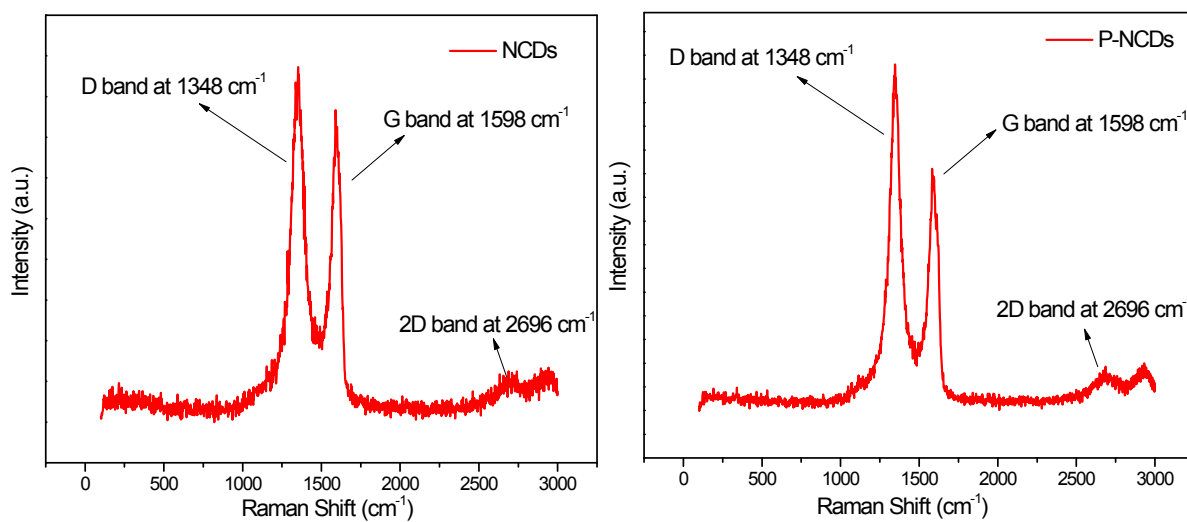


Fig. S3 Raman spectra of NCDs and P-NCDs.

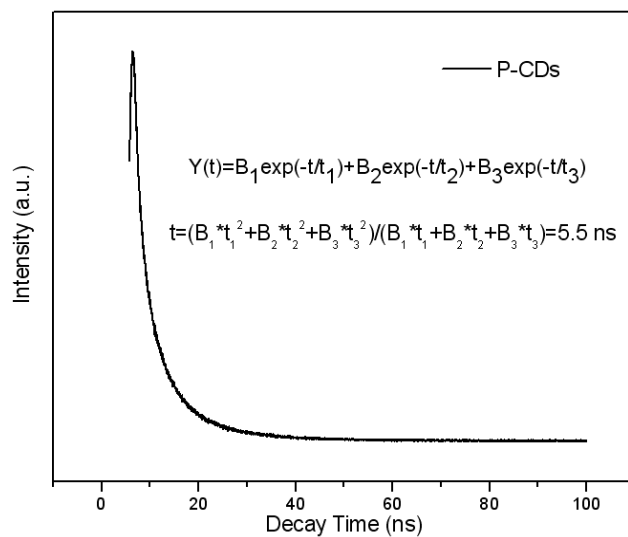


Fig. S4 Decay curve and lifetime of P-NCDs excited at the wavelength of 350 nm.

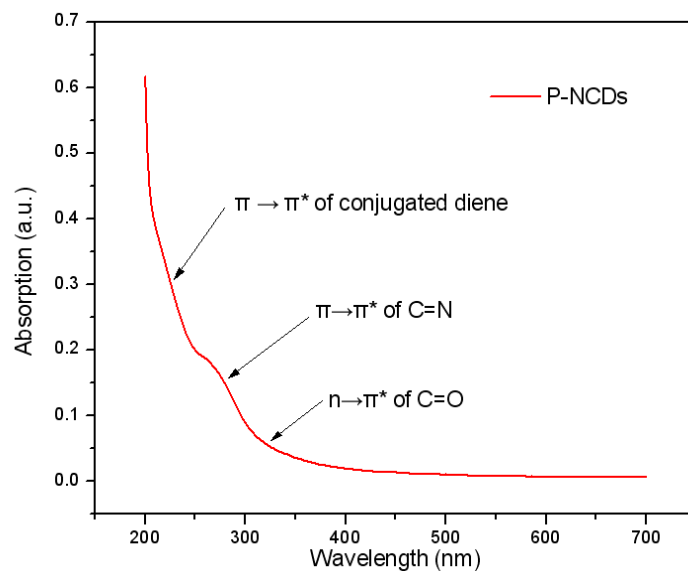


Fig. S5 The absorption curve of P-NCDs.

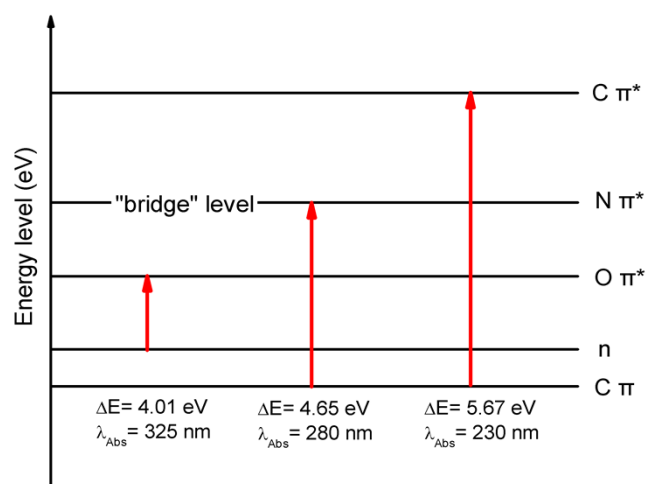


Fig. S6 A schematic illustrating the energy levels and absorption peaks of the P-NCDs.