# Supporting Information

## Rapid preparation of N,B-codoped carbon quantum dot based films with strong two-photon absorption and optical limiting effect

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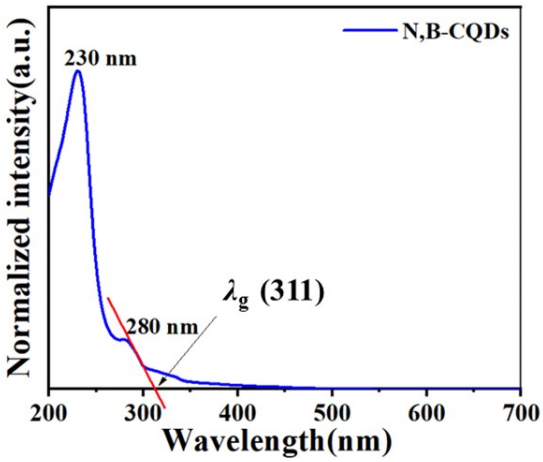


Fig. S1 UV-vis spectrum of N,B-CQDs

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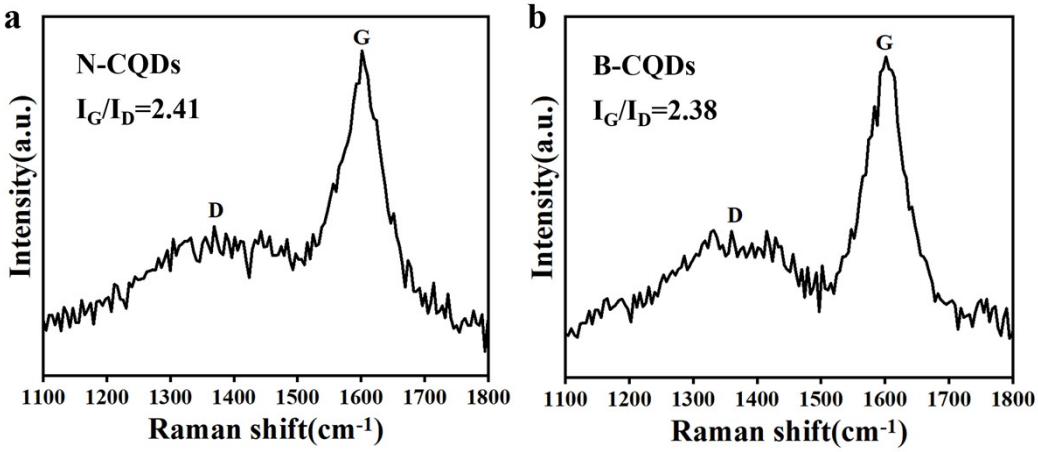


Fig. S2 Raman spectra of N-CQDs and B-CQDs

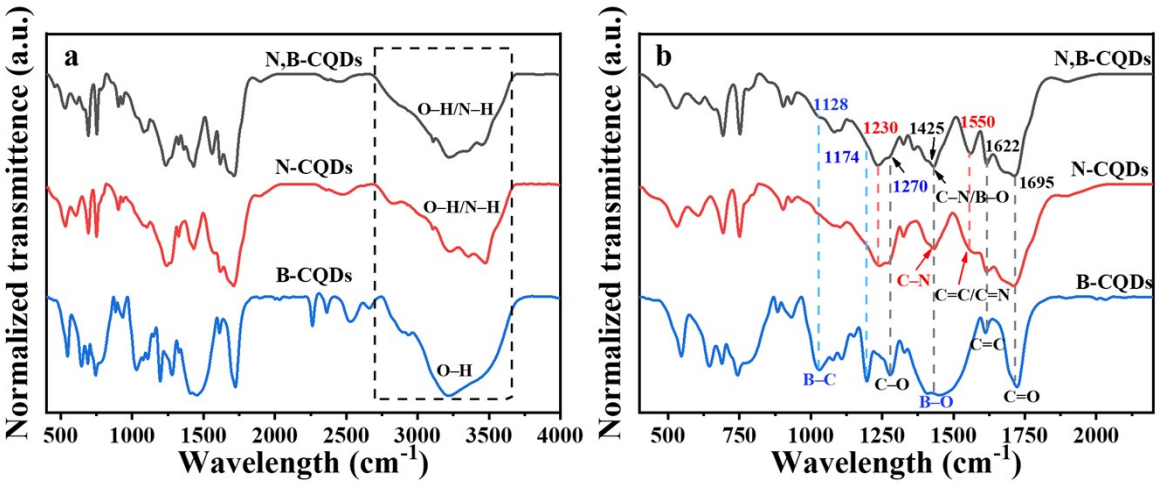


Fig. S3 FTIR spectra of (a) N,B-CQDs, N-CQDs, and B-CQDs, and (b) their 500–2000 cm$^{-1}$ range

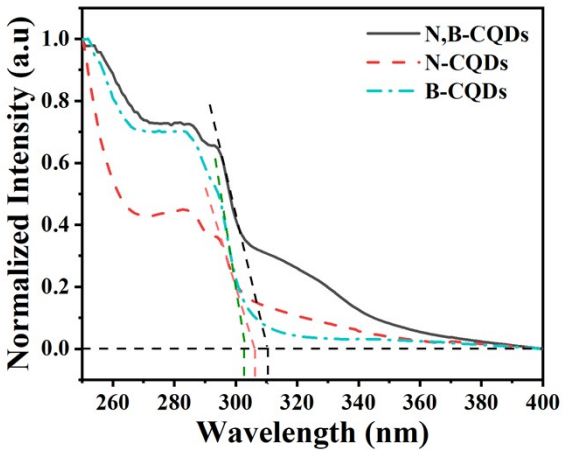


Fig. S4 UV-Vis spectra of N,B-CQDs, N-CQDs, and B-CQDs

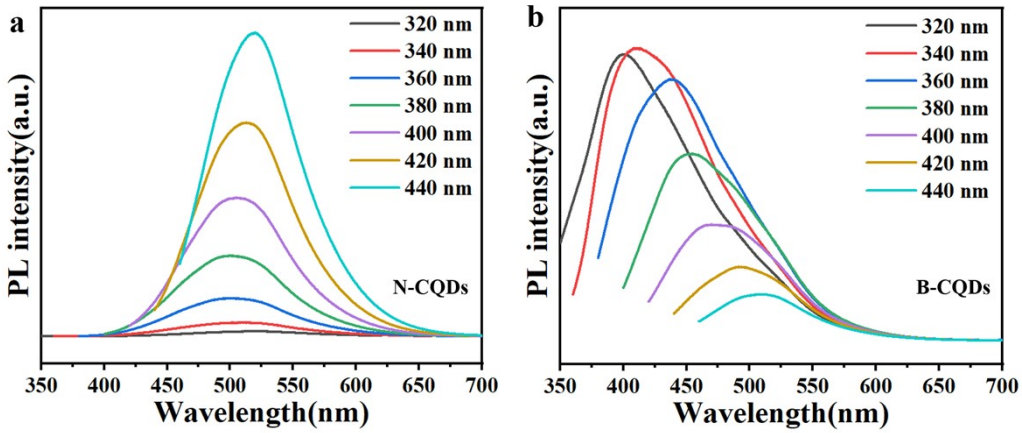


Fig. S5 PL spectra of (a) N-CQDs and (b) B-CQDs

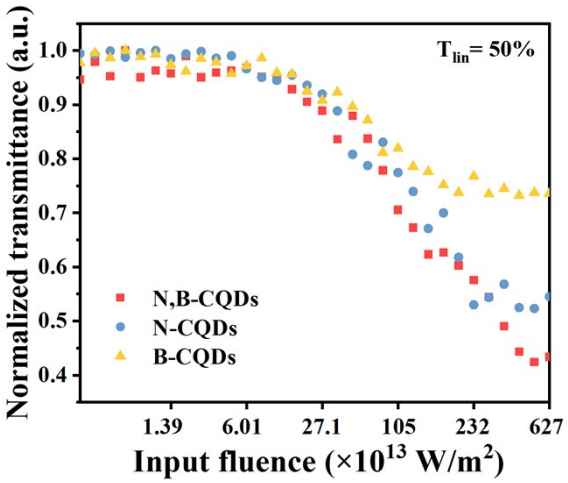


Fig. S6 Optical limiting curves of N,B-CQD, N-CQD, and B-CQD solutions

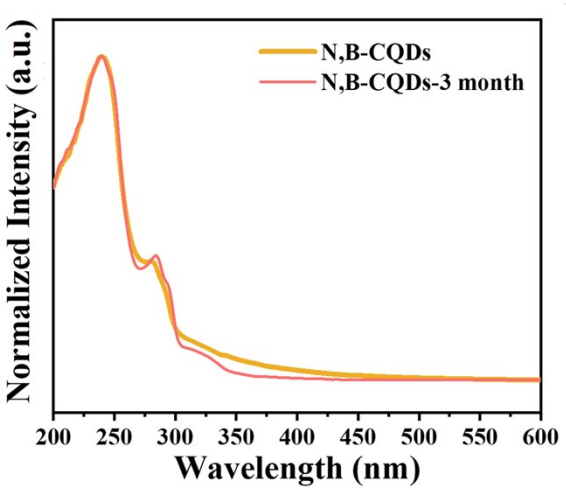


Fig.S7 UV-vis spectra of N,B-CQDs kept for three months

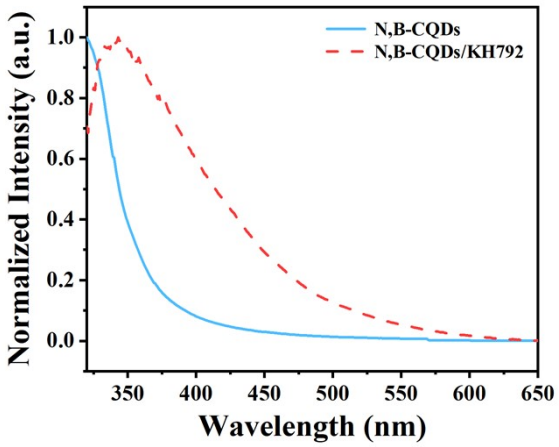


Fig.S8 UV-vis spectra of N,B-CQDs solution and N,B-CQDs/KH792 film at 320–650 nm