Supporting information

Nitrogen-doped biomass-derived carbon dots for fluorescent determination of Sunset Yellow

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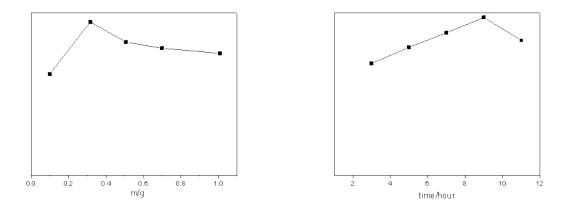


Fig. S1 Optimization of synthesis conditions. (A) Effect of the mass of lycium ruthenicum.(B) The impact of reaction time.

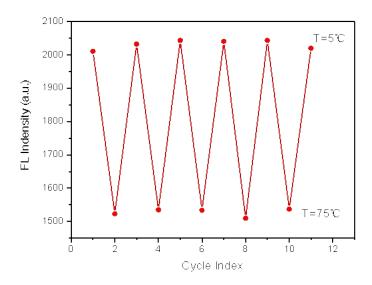


Fig. S2 Temperature reversibility study of N- CDs between temperature 5 °C to 75 °C.

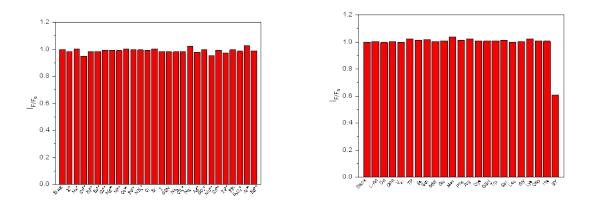


Fig. S3 The fluorescence response of N- CDs towards different metal ions, anions and molecules. The final concentration of ions was 25μ M. (Excitation wavelength: 367 nm; F₀ and F are the fluorescence intensity of N-CDs in the absence and presence of various additives.)

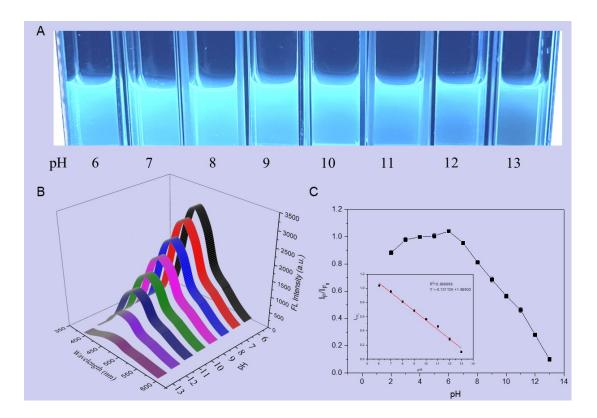


Fig. S4 (A) Photographs of the corresponding N-CDs in BR buffer solutions with pH = 6-13 under 365 nm UV light. (B) Fluorescence spectra of the N-CDs indifferent pH values of BR solution with excitation wavelength at 367 nm. (C) Fluorescent intensity of N-CDs in BR buffer solutions with various pH values (inset: a linear relationship between PL intensity and pH).