

Supporting Information

Wild jujube-based fluorescent carbon dots for highly sensitive determination of oxalic acid

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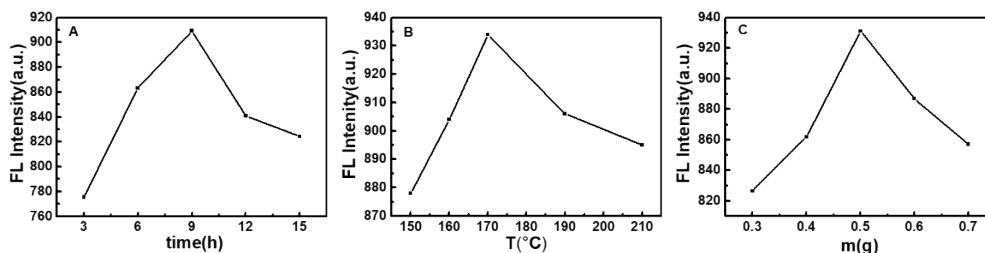


Fig. S1 (A) The effects of reaction time on the fluorescence intensity of CDs. (Wild jujube: 1.0 g, DL-tryptophan: 0.5 g, reaction temperature: 170 °C). (B) The effects of reaction temperature on the fluorescence intensity of CDs. (Wild jujube: 1.0 g, DL-tryptophan: 0.5 g, reaction time: 9 h). (C) The effects of the amount of DL-tryptophan on the fluorescence intensity of CDs. (Wild jujube: 1.0 g, reaction temperature: 170 °C, reaction time: 9 h).

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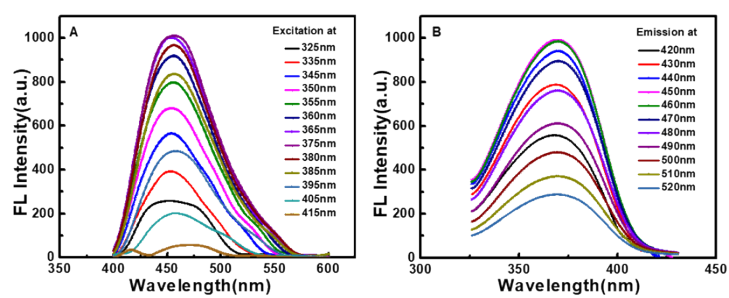


Fig. S2 (A) Fluorescence emission spectra of CDs with the excitation wavelength increasing from 325 to 415 nm. (B) Fluorescence excitation spectra of CDs with the emission wavelength increasing from 420 to 520 nm.

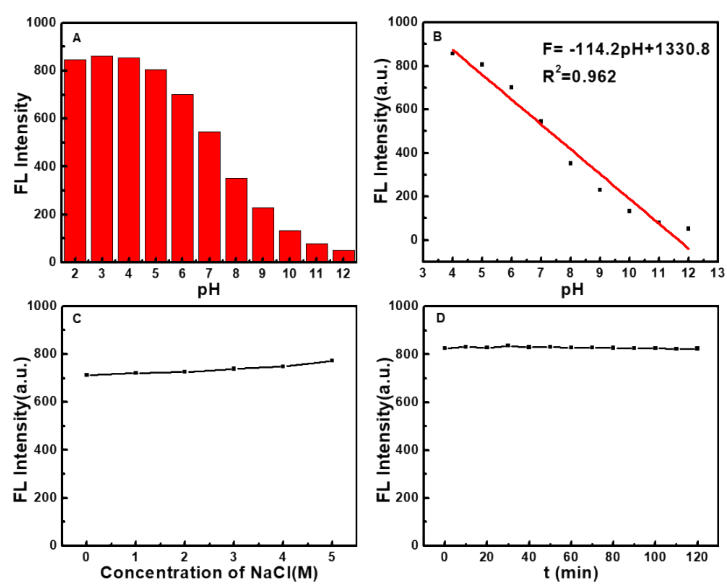


Fig. S3 (A) Fluorescence intensity of CDs in different pH. (B) The relationship between the fluorescence intensity of CDs and pH variation in the range of 4.0-12.0. (C) The effects of the concentration of NaCl on the fluorescence intensity of CDs. (D) The stability of CDs under UV light illumination.

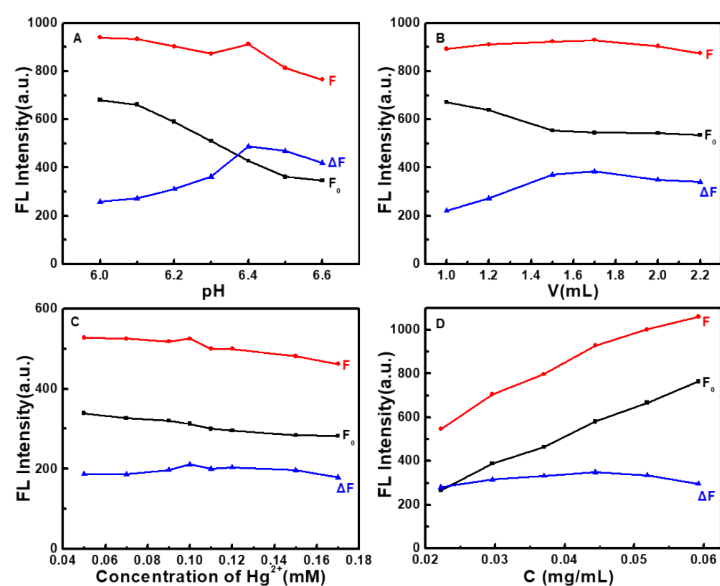


Fig. S4 (A) The effect of pH on the fluorescence intensity. (CDs: 0.044 g L⁻¹, Hg²⁺: 0.1 mM, OA: 0.02 g L⁻¹, Na₂B₄O₇-H₃BO₃-NaCl: 1.7 mL) (B) The effect of the amount of Na₂B₄O₇-H₃BO₃-NaCl on the fluorescence intensity. (CDs: 0.044 g L⁻¹, Hg²⁺: 0.1 mM, OA: 0.02 g L⁻¹, Na₂B₄O₇-H₃BO₃-NaCl: pH 6.4.) (C) The effect of the concentration of Hg²⁺ on the fluorescence intensity. (CDs: 0.044 g L⁻¹, OA: 0.02 g L⁻¹, Na₂B₄O₇-H₃BO₃-NaCl: pH 6.4, 1.7 mL) (D) The effect of the concentration of CDs on the fluorescence intensity. (Hg²⁺: 0.1 mM, OA: 0.02 g L⁻¹, Na₂B₄O₇-H₃BO₃-NaCl: pH 6.4, 1.7 mL). (F: the fluorescence intensity of CDs-Hg²⁺-OA, F₀: the fluorescence intensity of CDs-Hg²⁺, ΔF = F - F₀).