Electronic Supplementary Information

Carbon Dots Prepared in Different Solvents with Controllable Structures: Optical Properties, Cellular Imaging and Photocatalysis

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Fig. S1. TEM images of (a) ZIF-8 rhombic dodecahedra, and (b) and (d) N-doped porous carbons without and with treatment of diluted nitric acid. HRTEM images of (c) and (e) N-doped porous carbons without and with treatment of diluted nitric acid.
Fig. S2. Raman spectra of (1) N-doped porous carbons, (2) N-doped porous carbons treated by diluted nitric acid, (3) CDs-w, (4) CDs-d, and (5) CDs-m.
Fig. S3. FTIR spectra of (1) N-doped porous carbons, (2) N-doped porous carbons treated by diluted nitric acid, (3) CDs-w, (4) CDs-d, and (5) CDs-m.
Fig. S4. Raman spectra of (a) commercial graphite with and without treatment of diluted nitric acid, and (b) N-doped porous carbons prepared by carbonization of ZIF-8 at 1100 °C with and without treatment of diluted nitric acid.
Fig. S5. Steady state PL spectra of methanol and samples originated from methanol by solvothermal treatment at 120 °C and 200 °C.
Fig. S6. TEM images of three CD samples and corresponding particle size distribution histograms of CDs measured from the TEM images (inclusion of Figure 2d, e, and f) using Nano Measurer software.
Fig. S7. Particle size distribution of CDs-w (bottom), CDs-d (middle) and CDs-m (top) measured by dynamic light scattering.
Fig. S8. Time-resolved PL spectra of (a) CDs-w, (b) CDs-d, and (c) CDs-m in water under 405 nm excitation.
Fig. S9. Steady state PL spectra of CDs in water prepared via solvothermal treatment (a) in ethanol and (b) in diethylformamide at 120 °C and (c) hydrothermal treatment at 180 °C.
Fig. S10. Viability of Hela cells incubated with CDs at different concentrations