Supplementary materials

Carbon dots-quinoline derivative nanocomposite: facile synthesis and application as a “turn-off” fluorescent chemosensor for detection of Cu\(^{2+}\) ions in tap water

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Figure S1. $^1$H NMR spectra of compound 3 in DMSO-$d_6$. 
Figure S2. $^{13}$C NMR spectra of compound 3 in CD$_2$Cl$_2$. 

![13C NMR spectra of compound 3 in CD$_2$Cl$_2$.](image)
Figure S3. Mass spectra of compound 3.
Figure S4. $^1$H NMR spectra of Q in DMSO-$d_6$. 
Figure S5. $^{13}$C NMR spectra of Q in DMSO-$d_6$. 
Figure S6. Mass spectra of compound Q.
Figure S7 UV-vis absorption spectra of 2.00 mL 0.80 mg L$^{-1}$ CDs (a), Q (b) and CDs-Q (c) react with 1.2 μM Cu$^{2+}$. (d) UV-vis absorption spectra of the CDs-Q with different concentration of Cu$^{2+}$ (0 μM, 0.1 μM, 0.3 μM, 0.6 μM, 0.9 μM, 1.2 μM and 1.5 μM)
Figure S8 Influence of temperature (a) and pH (b) on the fluorescence intensity of the system at 464 nm. (Conditions: 2.00 mL 0.80 mg mL$^{-1}$ CDs-Q, $C_{Cu^{2+}} = 5 \times 10^{-7}$ M).