High sensitive sensing of hydroquinone and catechol based on β-cyclodextrin modified carbon dots
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Fig. S1. Fluorescence spectra of C-dot and amono-6-OTs-β-CD mixed with the different ratio ([mono-6-OTs-β-CD]/[C-dot]v/v: (black) 3 : 1, (red) 4 : 1, (blue) 6 : 1, (pink) 9 : 1, (green) 12 : 1.
Fig. S2. Fluorescence spectra of the synthesized C-dot@β-CD at variety incubate time.
Fig. S3. (A) The stability of C-dot@β-CD at pH ranges from 5 to 12, (B) Stability of C-dot@β-CD in different concentrations of NaCl ranging from 0.1 mM to 1M, (C) Photostability of C-dot@β-CD, (D) Influence of different solvents (80% of total volume) on the fluorescence properties.
Fig. S4. UV–vis absorption of C-dot@β-CD(black), CC (red), HQ(blue) and C-dot@β-CD fluorescent emission(green).
Fig. S5. Time-resolved decay of C-dot@β-CD (black) with HQ (red), with CC (blue).
Fig. S6. Cell viability assay of human HeLa cells against C-dot@β-CD at arranged concentrations from 0.35-1.4 mg/mL.
Table S1. Time-resolved decay of C-dots in the absence and presence of catechol and hydroquinone

| Sample          | $\tau_1$ (ns) | Area (%) | $\tau_2$ (ns) | Area (%) | Average $\tau$ (ns) |
|-----------------|---------------|----------|---------------|----------|---------------------|
| C-dot@β-CD      | 13.65         | 64.08    | 3.38          | 35.92    | 9.96                |
| C-dot@β-CD + CC | 5.11          | 62.80    | 1.73          | 37.20    | 3.85                |
| C-dot@β-CD + HQ | 5.63          | 63.68    | 1.96          | 36.32    | 4.30                |