

Supporting Information

Fluorescent carbon dots for sensitive detection of Cr(VI) in aqueous media and its application in test papers

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Table S1 Comparison of different analysis methods for Cr(VI) detection.

| Detection methods | Materials | Linear range (μM) | Detection limit (μM) | Ref. |
|--------------------|---|-----------------------------------|--------------------------------------|-----------|
| Colorimetric assay | DPC- AuNPs | 0.05–20 | 0.3 | 10 |
| Fluorescence | SiQDs@PAMAM-OH | 25–128 | 0.2 | 41 |
| Electrochemistry | Ti/TiO ₂ NT/Au electrode | 0.10–105 | 0.03 | 42 |
| Fluorescence | Cu-NCs | 0.2–60 | 0.065 | 43 |
| Fluorescence | Hydrophilic ionic compound | 5.0–1400 | 0.89 | 44 |
| Fluorescence | CdTe quantum dots | 0.2–20 | 154 | 45 |
| Electrochemistry | Fe ₃ O ₄ /MoS ₂ /GCE | 0.5–328 | 0.5 | 46 |
| Fluorescence | Carbon dots | 1.0–400 | 0.24 | This work |

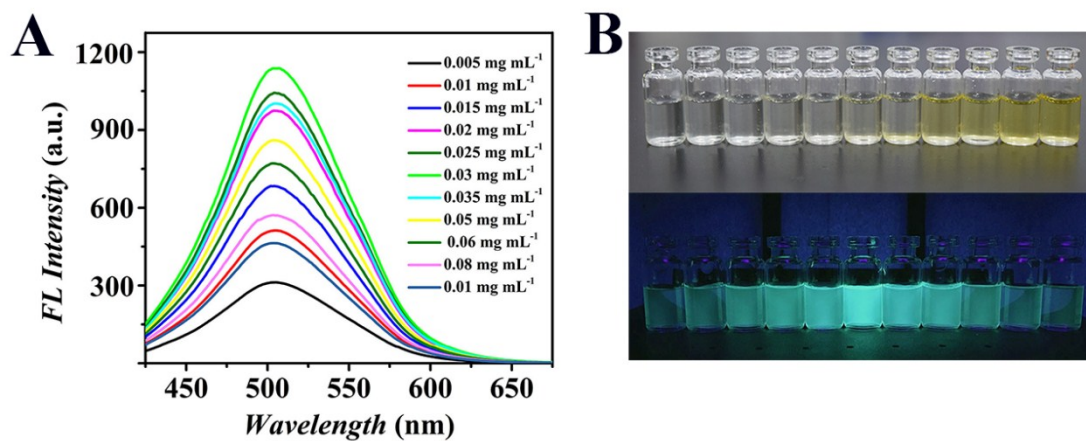


Figure. S1 (A) Fluorescence emission spectra of PCDs at different concentrations from 0.005 to 0.01 mg mL⁻¹. (B) Photographs of different concentrations of PCDs solution (from left to right: 0.005, 0.01, 0.015, 0.02, 0.025, 0.03, 0.035, 0.05, 0.06, 0.08, 0.1 mg mL⁻¹) taken under white light (top) and under 365 nm UV light (bottom).