
Cu-Doped Carbon Dots as Catalysts for the Chemiluminescence Detection of Glucose

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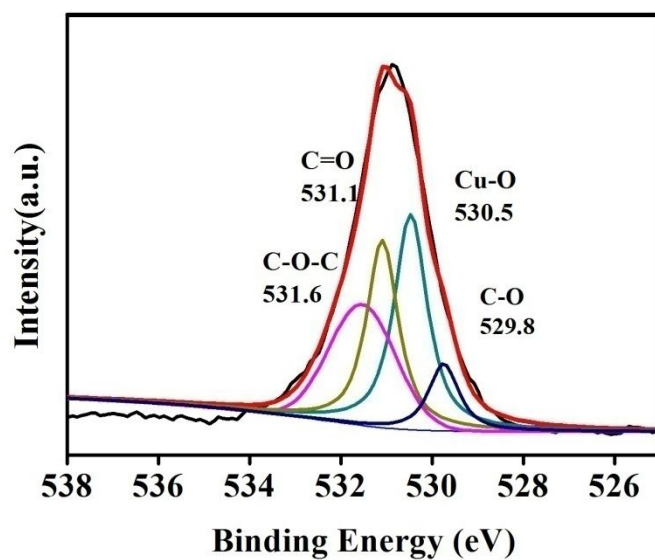


Figure S1. XPS High-Resolution Survey of o1s of Cu-CDs.

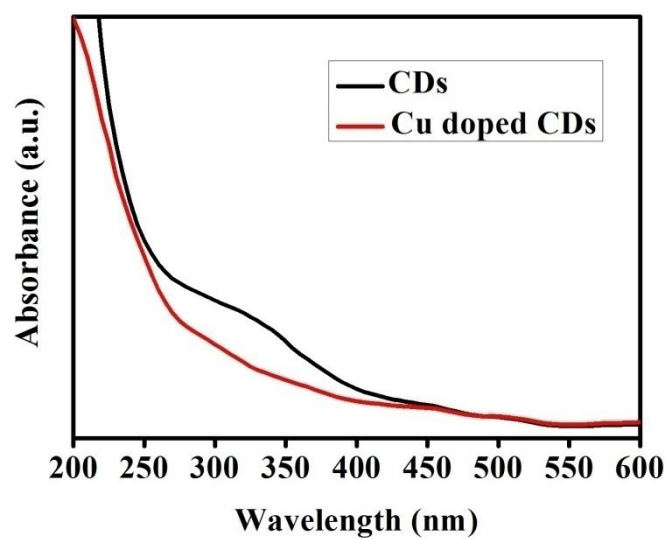


Figure S2. The UV-vis Spectrum of the As-prepared the Bare CDs and Cu-CDs.

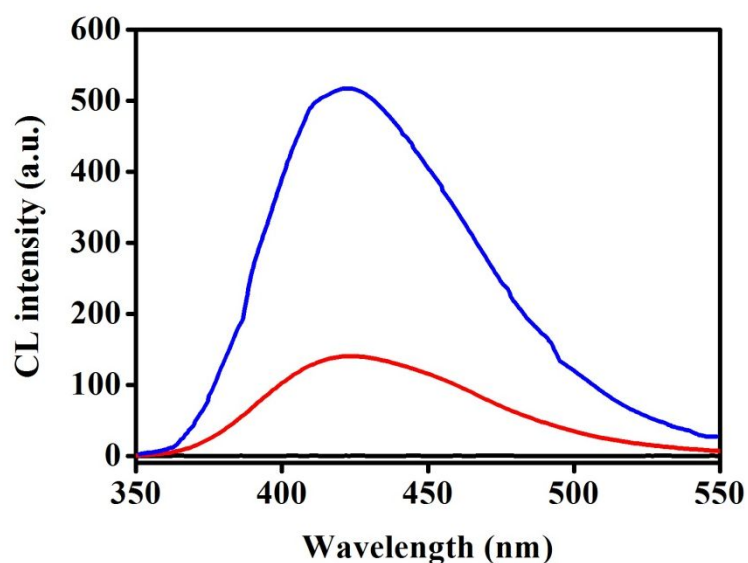


Figure S3. Feasibility of CL Biosensor Based Cu-CDs. Black Line: H_2O_2 +Luminol; Red Line: Luminol+Cu-CDs; Blue Line: H_2O_2 +Luminol+Cu-CDs. The Concentration of Luminol, Cu-CDs, and H_2O_2 was 0.75 mM, $1.0 \text{ mg} \cdot \text{mL}^{-1}$, 1125 μM , Respectively.

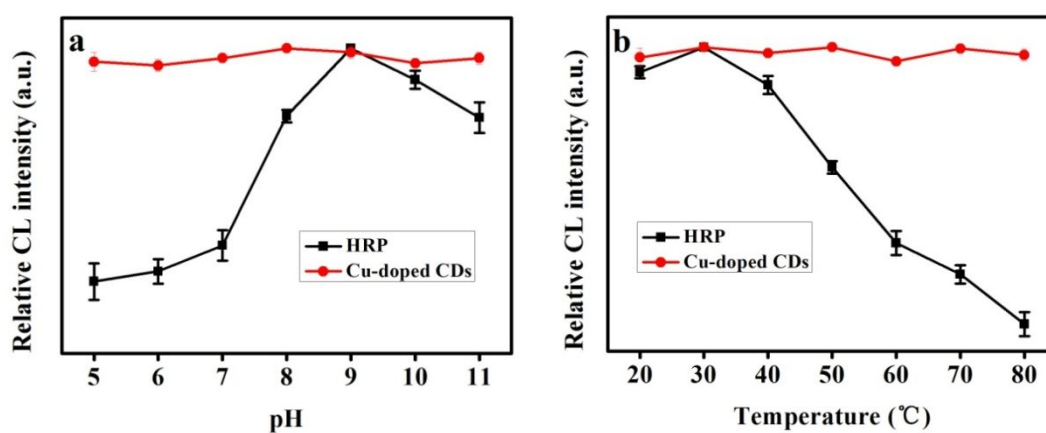


Figure S4. The Performance of the Catalytic Ability of HRP and Cu-CDs.

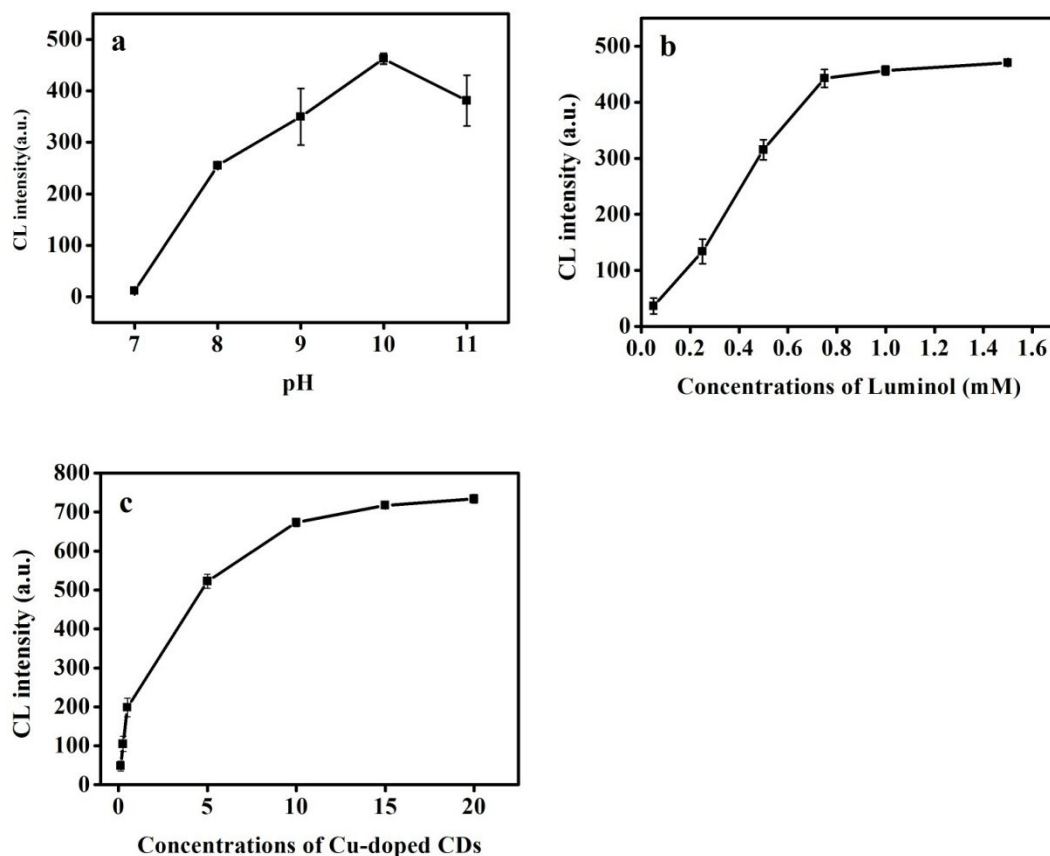


Figure S5. Effect of pH (a), Luminal (b) and Cu-CDs Concentration (c) on the Proposed CL Biosensor for the H_2O_2 Detection.

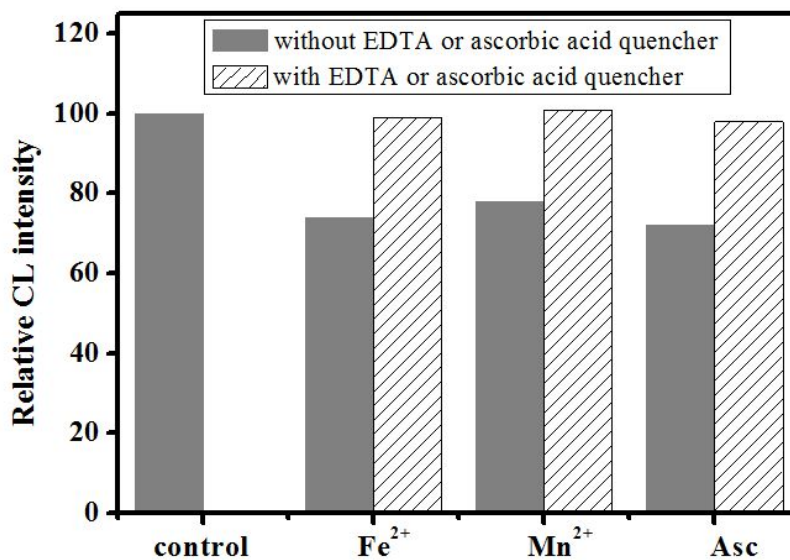


Fig. S6 CL intensity of the proposed CL system in the absence and in the presence of EDTA or 4-hydroxy-2,2,6,6-tetramethyl-N-oxygen-piperidine. Experimental conditions: Fe^{2+} , Mn^{2+} , and ascorbic acid (Asc) $40 \mu M$; EDTA and 4-hydroxy-2,2,6,6-tetramethyl-N-oxygen-piperidine $2.5 mM$.

Table S1. Measure Value and Recoveries of the Determination of Glucose in Human Serum Samples Using the Proposed CL Sensor.

Sample	Measure value (mmol · L ⁻¹)	Added (mmol · L ⁻¹)	Found (mmol · L ⁻¹)	Recovery (%)	RSD (%)
serum 1	4.80	2.59	7.54	105.8	5.41
	4.80	4.61	9.37	99.1	8.16
serum 2	7.66	3.82	11.51	100.8	2.83
	7.66	7.26	15.46	107.4	6.57
serum 3	8.07	4.15	11.69	87.2	4.92
	8.07	6.04	14.85	112.2	6.55