

Electronic Supplementary Information

NIR Upconversion Characteristics in Carbon Dots for Selective Detection of Glutathione

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A. Statistical analysis

Table S1. Linear fitting of quenching of upconversion fluorescence of CD by Cu²⁺ (0.5-70 μM)

Equation	$y = ax + b^x$		
Weight	No weight in		
Residual sum of squares	1.54827E-4		
Pearson's r	-0.98445		
Adj-R Square	0.95885		
		Value	Standard Error
F	Intercept	0.36419	0.0207
	Slope	-0.0022	2.27176E-4

*Courtesy: OriginPro8.5

Table S2. Linear fitting of quenching of upconversion fluorescence of CD by Cu²⁺ (70-110 μM)

Equation	$y = ax + b^x$		
Weight	No weight in		
Residual sum of squares	0.00986		
Pearson's r	-0.99276		
Adj-R Square	0.98351		
		Value	Standard Error
F	Intercept	0.98688	0.02054
	Slope	-0.01139	5.20752E-4

*Courtesy: OriginPro8.5

Table S3. Calibration curve for GSH detection

Equation	$y = ax + b^x$		
Weight	No weight in		
Residual sum of squares	2271.116		

Pearson's r	0.99664		
Adj-R Square	0.99254		
		Value	Standard Error
F	Intercept	61.51352	7.21978
	Slope	5.46766	0.14987

*Courtesy: OriginPro8.5