

## Supporting Information

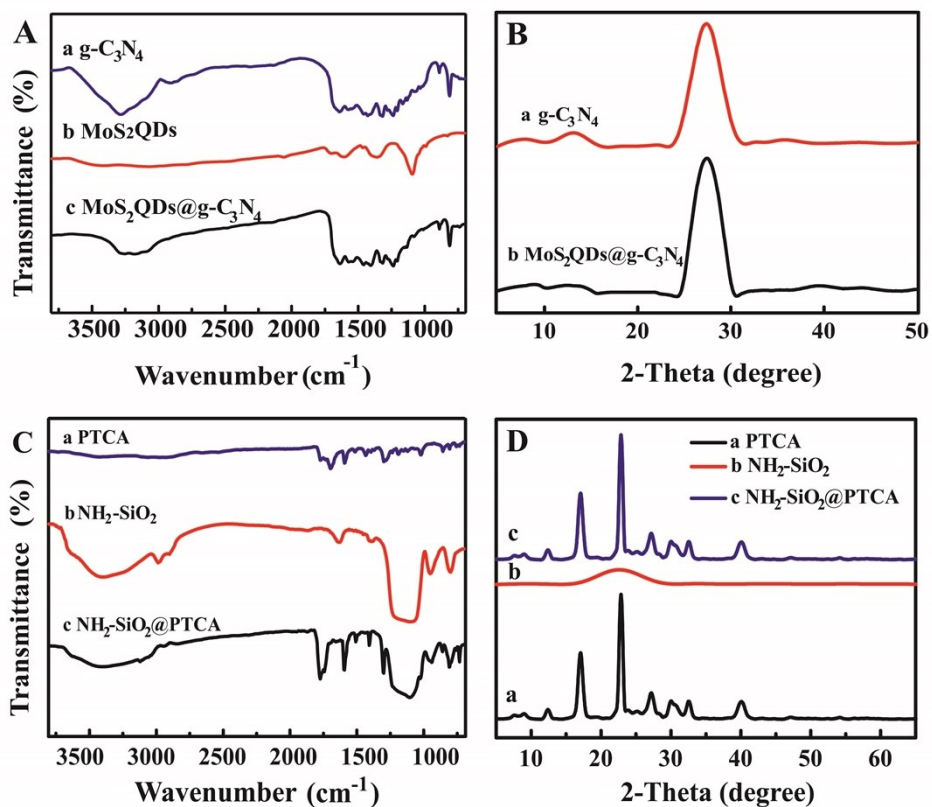
### **A novel electrochemiluminescence sensor based on the resonance energy transfer from MoS<sub>2</sub>QDs@g-C<sub>3</sub>N<sub>4</sub> to NH<sub>2</sub>- SiO<sub>2</sub>@PTCA for glutathione assay**

*Jingxian Li,<sup>a</sup> Xueling Shan,<sup>a,b</sup> Ding Jiang,<sup>a,b</sup> Yuru Wang,<sup>a</sup> Zhidong Chen\*<sup>a,b</sup>*

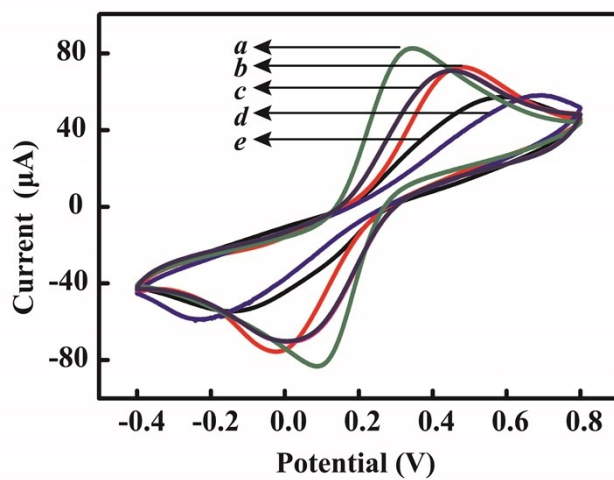
<sup>a</sup>Jiangsu Key Laboratory of Advanced Catalytic Materials and Technology, School of  
Petrochemical Engineering, Changzhou University, Changzhou 213164, China.

<sup>b</sup>Advanced Catalysis and Green Manufacturing Collaborative Innovation Center,  
Changzhou University, Changzhou 213164, China.

Corresponding author E-mail: \*Z. Chen: [zdchen@cczu.edu.cn](mailto:zdchen@cczu.edu.cn)

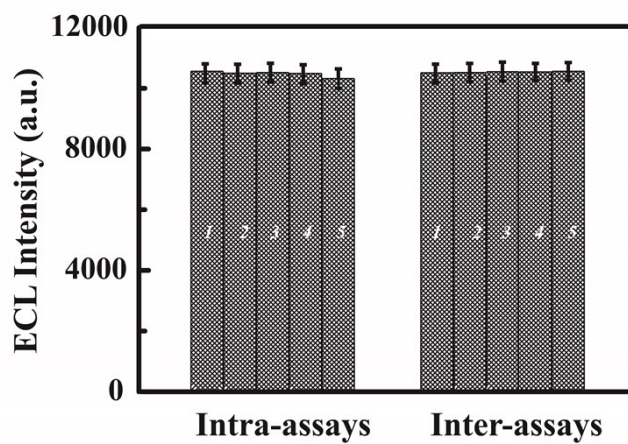


**Figure S1.** FT-IR spectrum (A) of (a) g-C<sub>3</sub>N<sub>4</sub>, (b) MoS<sub>2</sub>QDs and (c) MoS<sub>2</sub>QDs@g-C<sub>3</sub>N<sub>4</sub>. XRD pattern (B) of (a) g-C<sub>3</sub>N<sub>4</sub> and (b) MoS<sub>2</sub>QDs@g-C<sub>3</sub>N<sub>4</sub>. FT-IR (C) and XRD (D) of (a) PTCA, (b) NH<sub>2</sub>-SiO<sub>2</sub> (c) NH<sub>2</sub>-SiO<sub>2</sub>@PTCA



**Figure S2.** CV diagram of of GCE (a), NH<sub>2</sub>-SiO<sub>2</sub>@PTCA/GCE (b), MoS<sub>2</sub>QDs@g-C<sub>3</sub>N<sub>4</sub>/GCE (c), NH<sub>2</sub>-SiO<sub>2</sub>@PTCA/MoS<sub>2</sub>QDs@g-C<sub>3</sub>N<sub>4</sub>/GCE (d) and GSH/NH<sub>2</sub>-

SiO<sub>2</sub>@PTCA/MoS<sub>2</sub>QDs@g-C<sub>3</sub>N<sub>4</sub>/GCE (e)



**Figure S3.** Reproducibility of the ECL sensor.

**Table S1.** Application of the ECL sensor for GSH determination in commercial samples

Sample	Initial amount (nM) <sup>[a]</sup>	Found amount (nM)	Recovery (%)	RSD (%) (n=3)
Commercial medicines	10	9.6	96	3.1
		9.8	98	
		10.2	102	

<sup>[a]</sup>The information of initial content of GSH was obtained from the commercial liquid drug.