

Electronic Supplementary Information (ESI)

**ZnO/carbon quantum dots nanocomposites: one-step fabrication and superior photocatalytic ability for toxic gas degradation under visible light at room temperature**

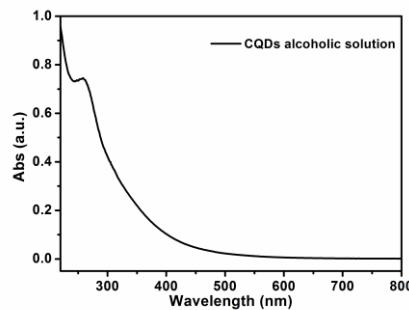
Hang Yu,<sup>a</sup> Hengchao Zhang,<sup>a</sup> Hui Huang,<sup>a</sup> Yang Liu,<sup>a\*</sup> Haitao Li,<sup>a</sup> Hai Ming,<sup>a</sup> and Zhenhui Kang<sup>a\*</sup>

<sup>a</sup> Institute of Functional Nano & Soft Materials (FUNSOM) and Jiangsu Key Laboratory for Carbon-Based Functional Materials and Devices, Soochow University, Suzhou 215123, China

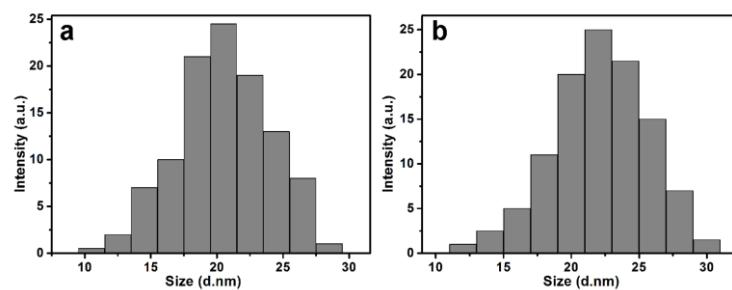
\* Corresponding authors: Fax: +86-512-6588-2846.

E-mail: [yangl@suda.edu.cn](mailto:yangl@suda.edu.cn) (Y. Liu)

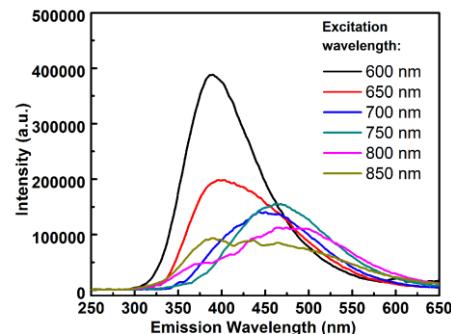
E-mail: [zhkang@suda.edu.cn](mailto:zhkang@suda.edu.cn) (Z. Kang)



**Fig. S1.** The UV-vis spectrum of CQDs alcoholic solution.



**Fig. S2.** The size histograms of (a) pure ZnO nanoparticles and (b) ZnO-CQDs nanocomposites.



**Fig. S3.** Up converted PL spectra of CQDs.