Supplementary materials

## Ultrafast Carrier Dynamics of Carbon Nanodots in Different pH Environments

Laizhi Sui <sup>1,2</sup>, Wuwei Jin <sup>1,3</sup>, Suyu Li <sup>1,2</sup>, Dunli Liu <sup>1,2</sup>, Yuanfei Jiang <sup>1,2</sup>, Anmin Chen

<sup>1,2\*</sup>, Hang Liu <sup>1,2</sup>, Ying Shi <sup>1,2</sup>, Dajun Ding <sup>1,2</sup>, Mingxing Jin <sup>1,2\*</sup>

1.Institute of Atomic and Molecular Physics, Jilin University, 2699 Qianjin Street, Changchun, 130012, China

2.Jilin Provincial Key Laboratory of Applied Atomic and Molecular Spectroscopy (Jilin University), 2699 Qianjin Street, Changchun 130012, China

3. College of Mathematics, Jilin University, 2699 Qianjin Street, Changchun, 130012, China

Corresponding authors: amchen@jlu.deu.cn and mxjin@jlu.edu.cn

## Table of contents in Supporting Information:

the fourth component

Fig. S1. Transmission electron microscopy graph of C-dots
Fig. S2. 3D PL intensities as a function of excitation and emission wavelength of C-dots dispersion at pH (a) 1.5 (b) 4.0 (c) 7.0 (d) 8.0 (e) 9.0.
Fig. S3. Normalized EADS comparison of C-dots at pH 1.5, 7.0, 9.0 by global fitting (a) the first component (b) the second component (c) the third component (d)



Fig. S1.Transmission electron microscopy graph of C-dots



Fig. S2. 3D PL intensities as a function of excitation and emission wavelength of C-dots dispersion at pH (a) 1.5 (b) 4.0 (c) 7.0 (d) 8.0 (e) 9.0.



Fig. S3. Normalized EADS comparison of C-dots at pH 1.5, 7.0, 9.0 by global fitting (a) the first component (b) the second component (c) the third component (d) the fourth component