

## Supporting Information

### Ag-doped g-C<sub>3</sub>N<sub>4</sub> film electrode: Fabrication, characterization and photoelectrocatalysis property

Fanjing Qi<sup>a,b</sup>, Yibing Li<sup>b</sup>, Yanbin Wang<sup>a</sup>, Yan Wang<sup>a</sup>, Shanshan Liu<sup>a</sup>, Xu Zhao<sup>a,\*</sup>

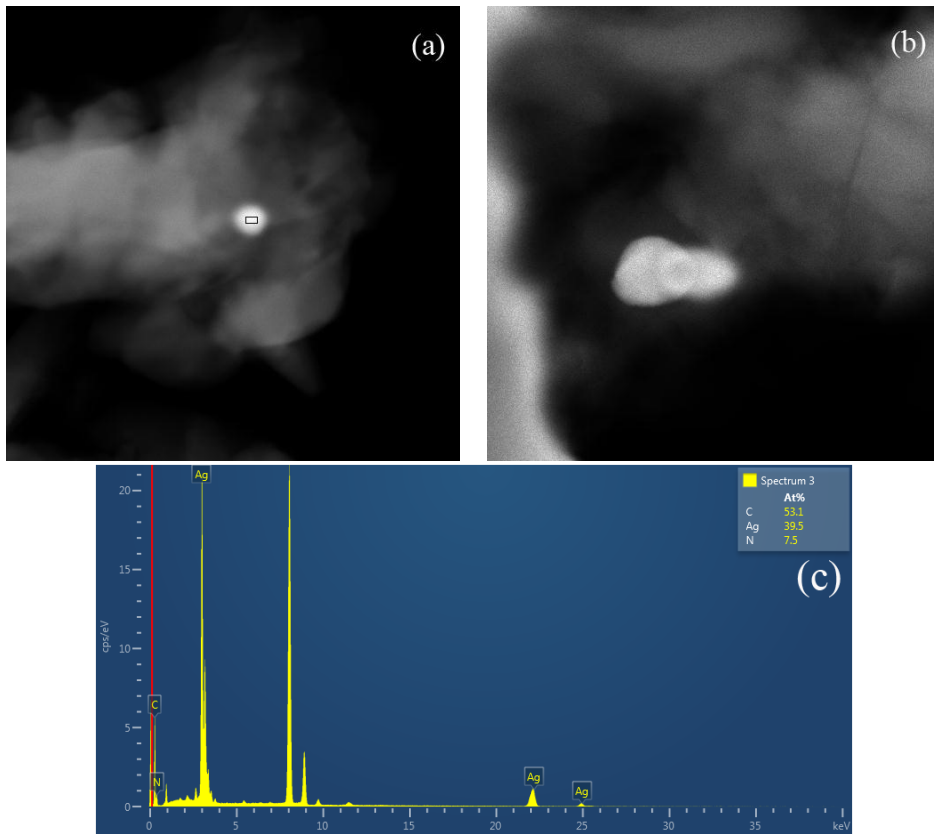
<sup>a</sup> Key Laboratory of Drinking Water Science and Technology, Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences, Beijing

100085, China

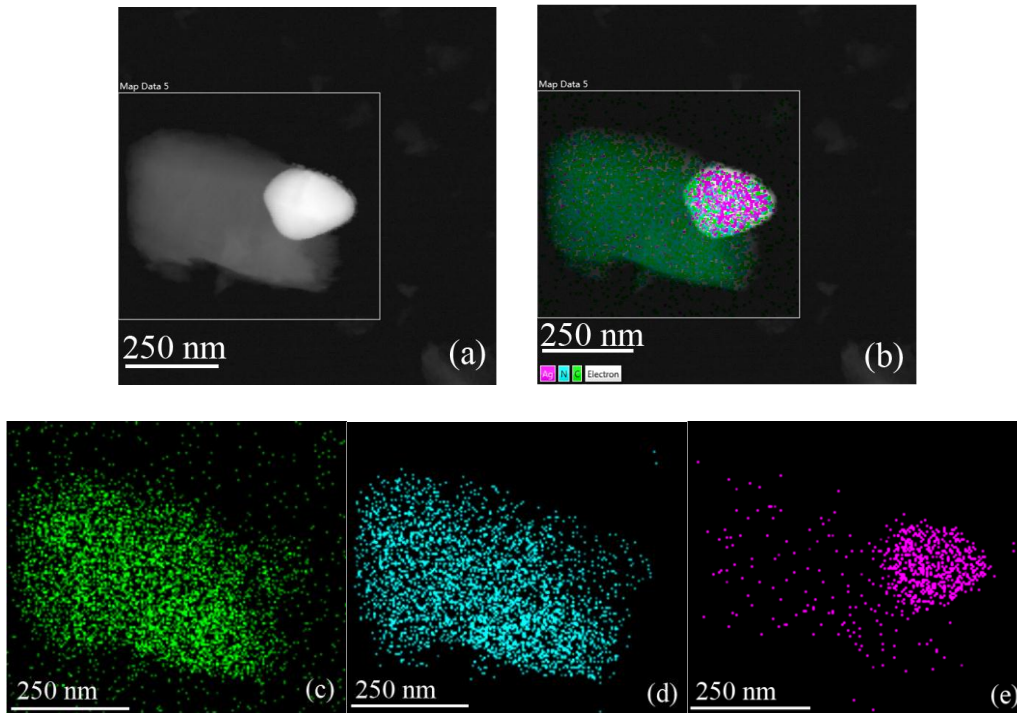
<sup>b</sup> School of Civil Engineering, Hebei University of Technology, Tianjin 300401, China

\*Corresponding author: E-mail address: zhaoxu@rcees.ac.cn; Tel.: 86-010-62849667; Add: P.O. Box 2871, 18 Shuangqing Road, Haidian District,

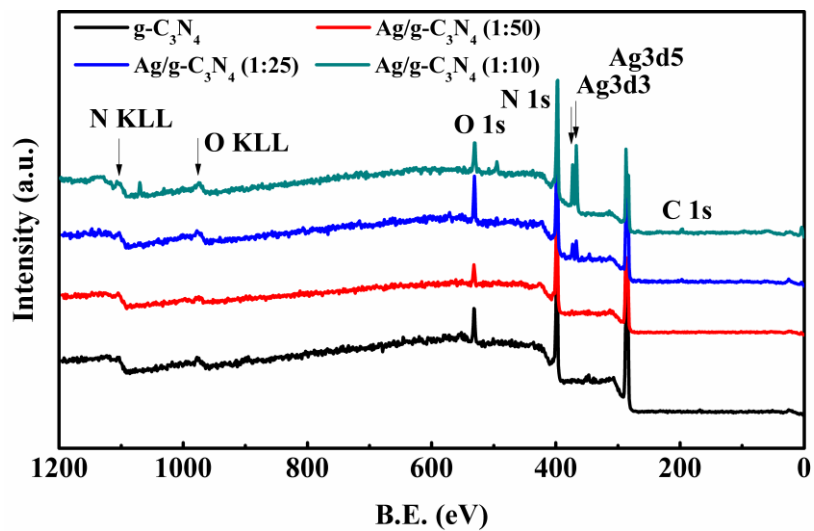
Beijing, 10085, P.R. China.



**Figure S1.** The EDS image of Ag/g-C<sub>3</sub>N<sub>4</sub>(1:10) (a) Ag/g-C<sub>3</sub>N<sub>4</sub>×120K; (b) Ag/g-C<sub>3</sub>N<sub>4</sub>×400K



**Figure S2.** The STEM spectra and corresponding element mappings of Ag/g-C<sub>3</sub>N<sub>4</sub> (1:10). (a) The STEM spectra of Ag/g-C<sub>3</sub>N<sub>4</sub> (1:10); (b) all corresponding element mappings of Ag/g-C<sub>3</sub>N<sub>4</sub> (1:10); (c) C mapping; (d) N mapping; (e) Ag mapping



**Figure S3** XPS survey spectrum of pure g-C<sub>3</sub>N<sub>4</sub> and Ag/g-C<sub>3</sub>N<sub>4</sub> composite