

## Supporting Information

### **Acid Orange 7 degradation using methane as the sole carbon source and electron donor**

Ya-Nan Bai<sup>1,2,3</sup>, Xiu-Ning Wang<sup>4</sup>, Fang Zhang<sup>2</sup>, Raymond Jianxiong Zeng<sup>2,3,4\*</sup>

<sup>1</sup> School of Applied Meteorology, Nanjing University of Information Science and Technology, Nanjing 210044, China

<sup>2</sup> Fujian Provincial Key Laboratory of Soil Environmental Health and Regulation, College of Resources and Environment, Fujian Agriculture and Forestry University, Fuzhou, Fujian 350002, China

<sup>3</sup> Advanced Laboratory for Environmental Research and Technology, USTC-CityU, Suzhou, P. R. China

<sup>4</sup> CAS Key Laboratory of Urban Pollutant Conversion, Department of Applied Chemistry, University of Science and Technology of China, Hefei 230026, P. R. China

\* Corresponding author:

Prof. Raymond J. Zeng at [rzeng@ustc.edu.cn](mailto:rzeng@ustc.edu.cn). Tel/Fax: +86 591 83303682

## Isotope tracer experiments

The initial concentration of  $^{13}\text{CH}_4$  in the headspace was 0.27238 mmol in day 0. After 12-day of AO7 degradation, the concentration of  $^{13}\text{CH}_4$  decreased to 0.2684 mmol, indicating that  $\sim 3.99 \mu\text{mol}$  of  $^{13}\text{CH}_4$  was consumed.

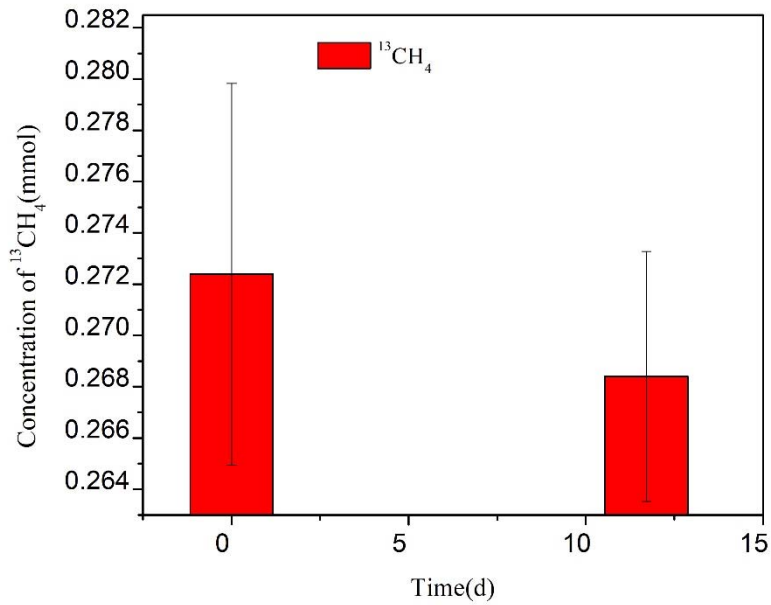


Fig.S1. The concentration of  $^{13}\text{CH}_4$  in isotope tracer experiment.