## **Supplementary information**

For

Effect of bamboo charcoal amendment on an AnMBR in aspect of anaerobic habitat and membrane fouling

Lu Ye<sup>a</sup>, Tian Xia<sup>a</sup>, Hui Chen<sup>a</sup>, Liangliang Ling<sup>a</sup>, Xiangyang Xu<sup>a,b,c</sup>, Pedro J.J. Alvarez<sup>d</sup>, Liang Zhu<sup>a,b,c,\*</sup>

<sup>a</sup>Institute of Environment Pollution Control and Treatment, Zhejiang University, Hangzhou 310058, China

<sup>b</sup>Zhejiang Province Key Laboratory for Water Pollution Control and Environmental Safety, Hangzhou 310058, China

<sup>c</sup>Zhejiang Provincial Engineering Laboratory of Water Pollution Control, 388 Yuhangtang Road, Hangzhou 310058, China

<sup>d</sup>Department of Civil and Environmental Engineering, Rice University, Houston, TX 77005, USA

\*Corresponding author: Liang Zhu

Address: Department of Environmental Engineering, Zhejiang University, No. 866 Yuhangtang Road, Hangzhou 310058, PR China.

Tel.: +86-571-88982343; Fax: +86-571 88982343

E-mail address: felix79cn@zju.edu.cn.

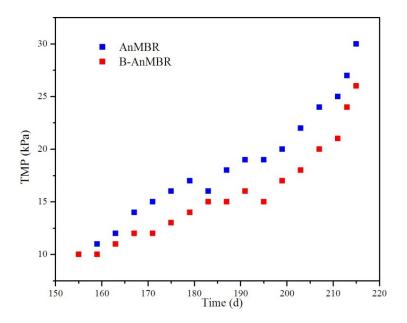


Fig. S1 The evolution of the TMP in the AnMBR and B-AnMBR

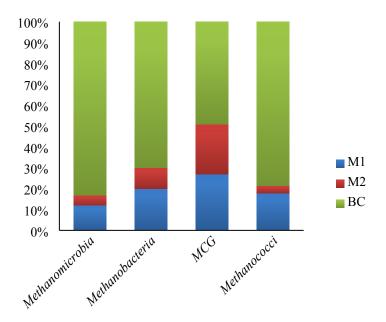


Fig. S2 Relative abundance of archaeal community at the class level

Table S1 The fluorescence intensity of protein,  $\alpha$ -polysaccharide and  $\beta$ -polysaccharide in different samples

Sample	Protein	α-polysaccharide	β-polysaccharide
AnMBR membrane	15.479	10.349	19.906
B-AnMBR membrane	6.075	4.283	6.734
Bamboo charcoal	13.14	5.215	5.877