

## **Supporting Information**

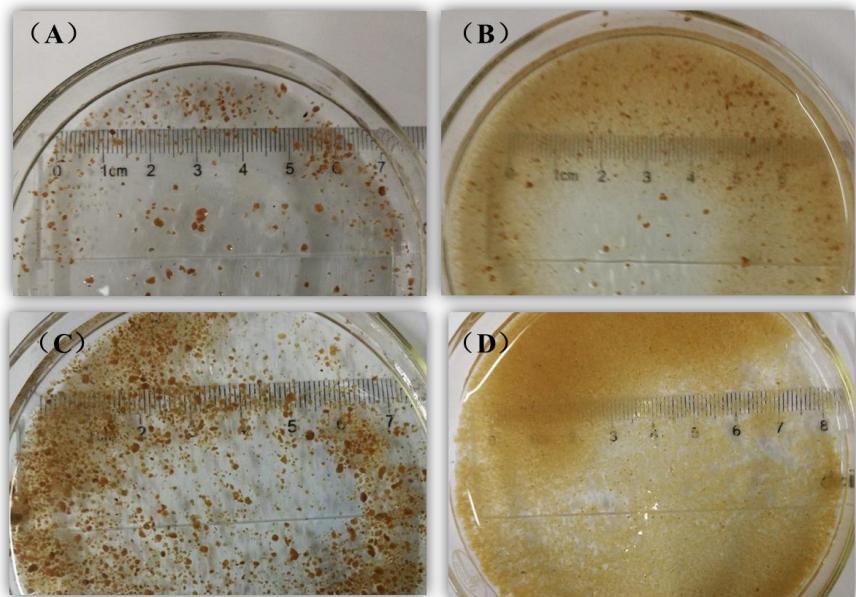
### **Keeping a completely autotrophic nitrogen removal over nitrite (CANON) system effective in treating low ammonium wastewater adopting an alternative low and high-ammonium influent regime**

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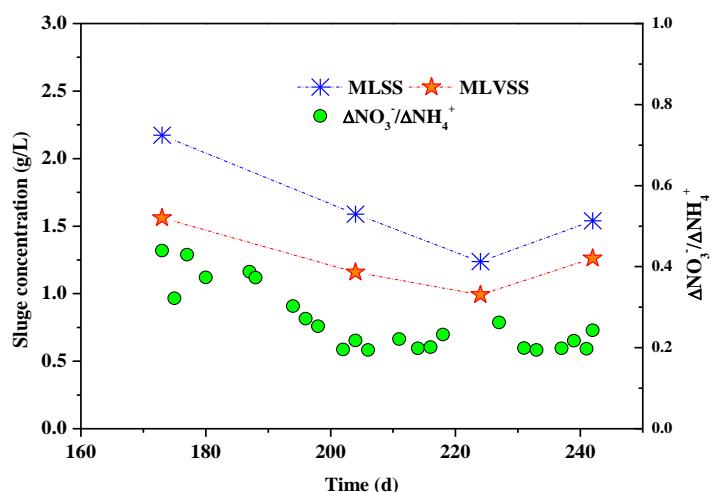
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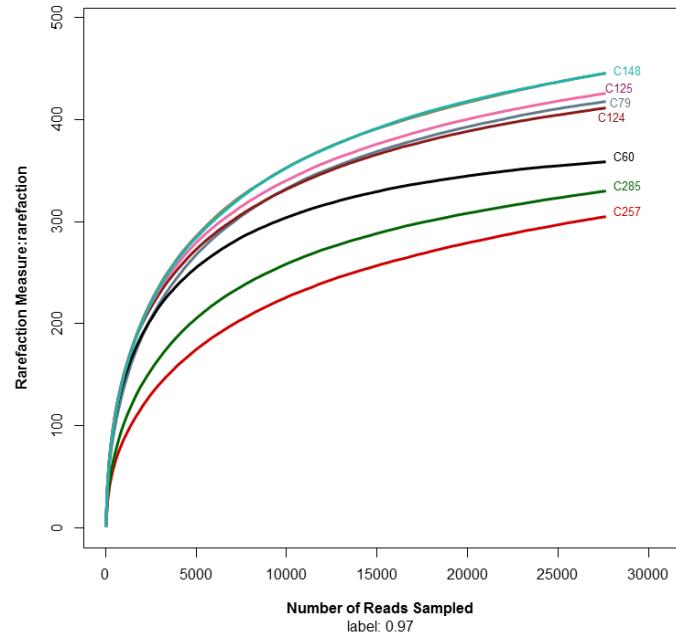
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**Fig. S1.** The anammox granule of seeding CANON sludge (A); seeding CANON sludge (B); anammox granule after sieving on day 124 (C); flocs after sieving on day 124 (D).



**Fig. S2** Changes in the MLSS, MLVSS and  $\Delta\text{NO}_3^-/\Delta\text{NH}_4^+$  ratio over the operation of Phase high II.



**Fig. S3** Rarefaction curve.

**Table S1** Microbial community richness and diversity index of sludge samples

Sludge sample No.	Sequence Reads	OTU numbers	ACE Index	Chao Index	Shannon Index	Simpson Index	Coverage
C60	27631	359	378	378	4.03	0.0451	0.9986
C79	27631	426	482	482	4.07	0.0489	0.9972
C124	27631	411	453	447	4.06	0.0441	0.9977
C125	27631	445	507	530	3.92	0.0563	0.9969
C148	27631	445	506	510	4.02	0.0474	0.9970
C257	27631	305	377	382	2.64	0.2268	0.9971
C285	27631	330	374	383	3.09	0.1277	0.9976