



Figure S1. The change in N₂O concentration after all bottles were opened and placed in a fuming cupboard for 5 minutes. The N₂O concentration at 1 min indicated the initial concentration.

Table S1. Primers and the thermal cycling conditions of functional genes related to N₂O.

Gene	Name	Sequence	Thermal profile	Reference
AOA <i>amoA</i>	CrenamoA23f	ATGGTCTGGCTWAGACG	15 s-95°C, 53°C-45 s, 72°C-45 s, 83°C-15 s, 45 cycles	Nicol and Schleper, 2006
	CrenamoA616r	GCCATCCATCTGTATGTCCA		
AOB <i>amoA</i>	<i>amoA</i> -1F	GGGGTTTCTACTGGTGGT	15 s-95°C, 54°C-40 s, 72°C-45 s,	Rotthauwe et al., 1997
	<i>amoA</i> -2R	CCCCTCKGSAAAGCCTTCTTC	84°C-15 s, 45 cycles	
<i>nirK</i>	<i>nirK</i> -F1aCu	ATCATGGTSCTGCCGCG	10 s-95°C, 53°C-45 s, 72°C-45 s,	Henry et al., 2004
	<i>nirK</i> -R3Cu	GCCTCGATCAGRTTGTGGTT	86°C-15 s, 45 cycles	
<i>nirS</i>	<i>nirS</i> -Cd3aF	GTSAACG TSAAGGARACSGG	15 s-95°C, 50°C-45 s, 72°C-45 s,	Throbäck et al., 2004
	<i>nirS</i> -R3cd	GASTTCGGRTGSGTCTTGA	88°C-15 s, 50 cycles	
<i>nosZ</i>	<i>nosZ</i> -F	CGYTGTTCMTCGACAGCCAG	15 s-95°C, 50°C-30 s, 72°C-30 s, 83°C-15 s, 55 cycles	Scala and Kerkhof, 1998
	<i>nosZ</i> -1662R	CGSACCTTSTTGCCSTYGCG		

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