

**Table S7.** Spearman correlation coefficient in the occurrence of genes.

	1	2	3	<i>amoA</i>
<i>nxrA</i> (L-NOBs)	0.48**	0.53***	0.97***	-0.31
1 All <i>nxrA</i> genes (including anammox)	-	0.80***	0.52***	0.40*
2 HNOB <i>nxrA</i> gene types (excluding anammox)		-	0.54***	0.23
3 <i>narG</i>			-	-0.22

\*,  $P < 0.05$ ; \*\*,  $P < 0.01$ ; \*\*\*,  $P < 0.001$ .