Electronic Supplementary Information (ESI)

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Paper: Gross ammonification and nitrification rates in soil amended with natural and NH_4-enriched chabazite zeolites and nitrification inhibitor DMPP

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Table ESI 1 Primers used for quantitative PCR.

Gene	Primer	Sequence	Amplicon size [bp]	Reference
archaeal *amoA*	amo19F CrenamoA616r48x	ATGGTCTGGCTWAGACG GCCATCCABCKRTANGTCCA	624	Leininger et al. (2006) Schauss et al. (2009)
bacterial *amoA*	amoA1F amoA2R	GGGGTTTCTACTGGTGGT CCCCTCKGSAAAGCCTTCTTC	500	Rotthauwe et al. (1997)
nirS	nirSC1F nirSC1R	ATCGTCAACGTCaargaracvgg TTCGGGTGCGTCttsabgaasag	410	Wei et al. (2015)
nosZ	nosZ2F nosZ2R	CGCRACGGCAASAAGGTSMSSGT CAKRTGCAKSGCRTGGCAGAA	267	Henry et al. (2006)

Reference gene fragments from soil used in this study were amplified with the same primers as used for qPCR (Table ESI 1). Amplicons of each gene were cloned into pJet1.2 Blunt Cloning Vector (ThermoFisher Scientific) according to manufacturer's instructions. Sequencing primers, pJet1.2 forward and reverse were used to amplify and sequence the inserts of the genes to confirm the amplification of respective genes. Further, the appropriate PCR products were purified (Qiaquick PCR Purification Kit - Qiagen, Venlo, Netherlands) and quantified (iQuant Broad Range dsDNA Quantitation Kit - GeneCopoeia, MD, USA). As a result, dilution series of gene copies were used for the standard curve.

Table ESI 2 Quantitative PCR thermal profiles for the different target genes

Target gene	Thermal profile
archaeal *amoA*	1: 95 °C – 3 min 95 °C – 15 sec 55 °C – 45 sec 72 °C – 45 sec 65 °C – 5 sec 95 °C – 5 sec 39 cycles
bacterial *amoA*	95 °C – 3 min 95 °C – 15 sec 55 °C – 45 sec 72 °C – 45 sec 65 °C – 5 sec 95 °C – 5 sec 39 cycles
nirS	95 °C – 3 min 95 °C – 15 sec 56 °C – 45 sec 72 °C – 45 sec 65 °C – 5 sec 95 °C – 5 sec 39 cycles
nosZ	95 °C – 3 min 95 °C – 15 sec 60 °C – 45 sec 72 °C – 45 sec 65 °C – 5 sec 95 °C – 5 sec 39 cycles

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