Nitrosocosmicus gen. nov.

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Table 1: Complete list of names proposed in the current register list.

Proposed Taxon	Etymology	Description	Parent Taxon	Type	Registry URL
Genus *Nitrosocosmicus*	[Ni.tro.so.cos'mi.cus] **N.L. suff.** *nitroso-*, full of natron, here referring to nitrite; **L. masc. adj.** *cosmicus*, cosmopolitan; **N.L. masc. n.** *Nitrosocosmicus*, cosmopolitan producer of nitrite	A widely distributed genus of chemolithoautotrophic ammonia-oxidising archaea (AOA) within the validated family *Nitrososphaeraceae*. Cells are coccid. Able to use ammonia as a source of energy with some strains also ureolytic. A greater tolerance to high ammonia concentrations compared to other AOA may be a feature of all strains of this genus.	*Nitrososphaeraceae*	*Nitrosocosmicus franklandianus*[Ts]	seqco.de/i:56407
Species *Nitrosocosmicus franklandianus*[Ts]	[fran.klan.di.a'nus] **N.L. masc. adj.** *franklandianus*, after Percy and Grace Faraday Frankland	In accordance with other members of Nitrososphaerales, *Nitrosocosmicus franklandianus* (formally franklandus) is an ammonia oxidising archaeon, isolated from a terrestrial environment, demonstrating the characteristic irregular coccoid cell morphology associated with this order. As with *Nitrososphaera viennensis*, it is able to grow on urea but it can tolerate higher ammonium concentrations, equivalent to those tolerated by chemolithoautotrophic bacterial ammonia oxidisers. It represents an ecologically relevant strain of the phylum Nitrososphaerota/Thermoproteota with the potential to compete successfully with ammonium oxidising bacteria in fertilised soils where ammonium concentrations are high.	*Nitrosocosmicus*	NCBI Assembly: GCA_900696045.1 [Ts]	seqco.de/i:471