

Register list for 7 new names including *Methanomethylicus* gen. nov.

Submitted by Nguyen, Huong

Phylum *Methanomethylicota*

Etymology

[Me.tha.no.me.thy.li.co'ta] **N.L. masc. n.** *Methanomethylicus*, referring to the type genus *Methanomethylicus*; *-ota*, ending to denote a phylum; **N.L. neut. pl. n.** *Methanomethylicota*, the *Methanomethylicus* phylum

Nomenclatural type

Genus *Methanomethylicus*

Classification

Archaea » *Methanomethylicota*

References

Effective publication: Vanwonterghem et al., 2016 [1]

Corrigendum: Oren, Göker, 2023 [2] (from “Verstraetearchaeota”)

Assigned taxonomically: Vanwonterghem et al., 2016 [1]

Registry URL

<https://seqco.de/i:23980>

Class *Methanomethylicia*

Etymology

[Me.tha.no.me.thy.li'ci.a] **N.L. masc. n.** *Methanomethylicus*, referring to the type genus *Methanomethylicus*; *-ia*, ending to denote a class; **N.L. neut. pl. n.** *Methanomethylicia*, the *Methanomethylicus* class

Nomenclatural type

Genus *Methanomethylicus*

Description

[Vanwonterghem et al. \(2016\)](#): The description is the same as for the genus *Methanomethylicus*. Suff. *-ia*, ending to denote a class. Type order: *Methanomethyliciales*, ord. nov.

Classification

Archaea » *Methanomethylicota* » *Methanomethylicia*

References

Effective publication: Vanwonterghem et al., 2016 [1]

Corrigendum: Oren et al., 2020 [3] (from “Methanomethylica”)

Registry URL

<https://seqco.de/i:23972>

Order *Methanomethylicaes*

Etymology

[Me.tha.no.me.thy.li.ca'les] **N.L. masc. n.** *Methanomethylicus*, referring to the type genus *Methanomethylicus*; *-ales*, ending to denote an order; **N.L. fem. pl. n.** *Methanomethylicaes*, the *Methanomethylicus* order

Nomenclatural type

Genus *Methanomethylicus*

Description

The description is the same as for the genus *Methanomethylicus*.

Classification

Archaea » *Methanomethylicota* » *Methanomethylica* » *Methanomethylicaes*

References

Effective publication: Vanwonterghem et al., 2016 [1]

Corrigendum: Oren et al., 2020 [3] (from “Methanomethylicaes”)

Registry URL

<https://seqco.de/i:23979>

Family *Methanomethylicaceae*

Etymology

[Me.tha.no.me.thy.li.ca'ce.ae] **N.L. masc. n.** *Methanomethylicus*, referring to the type genus *Methanomethylicus*; *-aceae*, ending to denote a family; **N.L. fem. pl. n.** *Methanomethylicaceae*, the *Methanomethylicus* family

Nomenclatural type

Genus *Methanomethylicus*

Description

The description is the same as for the genus *Methanomethylicus*. Type genus: *Methanomethylicus*, gen. nov.

Classification

Archaea » *Methanomethylicota* » *Methanomethylica* » *Methanomethylicaes* » *Methanomethylicaceae*

References

Effective publication: Vanwonterghem et al., 2016 [1]

Corrigendum: Oren et al., 2020 [3] (from “Methanomethyliaceae”)

Registry URL

<https://seqco.de/i:23978>

Genus *Methanomethylicus*

Etymology

[Me.tha.no.me.thy'li.cus] **N.L. pref.** *methano-*, pertaining to methane; **N.L. masc. adj.** *methylicus*, pertaining to the methyl group; **N.L. masc. n.** *Methanomethylicus*, methane producing organism growing on methyl groups

Nomenclatural type

Species *Methanomethylicus mesodigestus*^{Ts}

Classification

Archaea » *Methanomethylicota* » *Methanomethylica* » *Methanomethylicaes* » *Methanomethylicaceae* » *Methanomethylicus*

References

Effective publication: Vanwonterghem et al., 2016 [1]

Registry URL

<https://seqco.de/i:23973>

Species *Methanomethylicus mesodigestus*^{Ts}

Etymology

[me.so.di.ges'tus] **Gr. masc. adj.** *mesos*, middle; **L. masc. perf. part.** *digestus*, that has a good digestion; **N.L. masc. adj.** *mesodigestus*, referring to a mesophilic digester

Nomenclatural type

[NCBI Assembly: GCA_001717005.1](#)^{Ts}

Description

This organism is inferred to be capable of methylotrophic methanogenesis, is non-motile, and not cultivated, represented by near-complete population genomes V1 (type strain) and V2 obtained from anaerobic digesters.

Classification

Archaea » *Methanomethylicota* » *Methanomethylicia* » *Methanomethylicales* » *Methanomethylicaceae* » *Methanomethylicus* » *Methanomethylicus mesodigestus*^{Ts}

References

Effective publication: Vanwonterghem et al., 2016 [1]

Corrigendum: Oren et al., 2020 [3] (from “*Methanomethylicus mesodigestum*”)

Registry URL

<https://seqco.de/i:23974>

Species *Methanomethylicus oleisabuli*

Etymology

[o.le.i.sa'bu.li] **L. neut. n.** *oleum*, oil; **L. neut. n.** *sabulum*, sand; **N.L. gen. n.** *oleisabuli*, of oil sand

Nomenclatural type

[NCBI Assembly: GCA_001717025.1](#)^{Ts}

Description

This organism is inferred to be capable of methylotrophic methanogenesis, is non-motile, and not cultivated, represented by a near-complete population genome V3 obtained from an iso-alkane degrading enrichment culture from tailings ponds.

Classification

Archaea » *Methanomethylicota* » *Methanomethylicia* » *Methanomethylicales* » *Methanomethylicaceae* » *Methanomethylicus* » *Methanomethylicus oleisabuli*

References

Effective publication: Vanwonterghem et al., 2016 [1]

Corrigendum: Oren et al., 2020 [3] (from “*Methanomethylicus oleusabulum*”)

Registry URL

<https://seqco.de/i:23975>

References

1. Vanwonterghem et al. (2016). Methylotrophic methanogenesis discovered in the archaeal phylum Verstraetearchaeota. *Nature Microbiology*. DOI:10.1038/nmicrobiol.2016.170
2. Oren, Göker (2023). Candidatus List. Lists of names of prokaryotic Candidatus phyla. *International Journal of Systematic and Evolutionary Microbiology*. DOI:10.1099/ijsem.0.005821
3. Oren et al. (2020). Lists of names of prokaryotic Candidatus taxa. *International Journal of Systematic and Evolutionary Microbiology*. DOI:10.1099/ijsem.0.003789

Register List Certificate of Validation

On behalf of the *Committee on the Systematics of Prokaryotes Described from Sequence Data* (SeqCode Committee), we hereby certify that the Register List **seqco.de/r:4owxxlm8** submitted by **Nguyen, Huong** and including 7 new names has been successfully validated.

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