

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

Submitted by Xie, Ruize

Order *Sigyniarchaeales*

Etymology

[Si.gy.ni.ar.chae.a'les] **N.L. neut. n.** *Sigyniarchaeum*, referring to the type genus *Sigyniarchaeum*; *-ales*, ending to denote an order; **N.L. fem. pl. n.** *Sigyniarchaeales*, the *Sigyniarchaeum* order

Nomenclatural type

Genus *Sigyniarchaeum*

Description

The order is described based on 37 concatenated conserved marker genes phylogeny. The description is the same as that of its sole genus and species. Type genus is *Sigynarchaeum*.

Classification

Archaea » *Asgardarchaeota* » “*Lokiarchaeia*” » *Sigyniarchaeales*

References

Effective publication: Xie et al., 2022 [1]

Registry URL

<https://seqco.de/i:44774>

Family *Freyriarchaeaceae*

Etymology

[Frey.ri.ar.chae.a'ce.ae] **N.L. neut. n.** *Freyriarchaeum*, referring to the type genus *Freyriarchaeum*; *-aceae*, ending to denote a family; **N.L. fem. pl. n.** *Freyriarchaeaceae*, the *Freyriarchaeum* family

Nomenclatural type

Genus *Freyriarchaeum*

Description

The family is described based on 37 concatenated conserved marker genes phylogeny. The description is the same as that of its sole genus and species. Type genus is *Freyrarchaeum*.

Classification

Archaea » *Asgardarchaeota* » *Jordiarchaeia* » *Jordiarchaeales* » *Freyriarchaeaceae*

References

Effective publication: Xie et al., 2022 [1]

Registry URL

<https://seqco.de/i:44789>

Family *Sigyniarchaeaceae*

Etymology

[Si.gy.ni.ar.chae.a'ce.ae] **N.L. neut. n.** *Sigyniarchaeum*, referring to the type genus *Sigyniarchaeum*; *-aceae*, ending to denote a family; **N.L. fem. pl. n.** *Sigyniarchaeaceae*, the *Sigyniarchaeum* family

Nomenclatural type

Genus *Sigyniarchaeum*

Description

The family is described based on 37 concatenated conserved marker genes phylogeny. The description is the same as that of its sole genus and species. Type genus is *Sigyniarchaeum*.

Classification

Archaea » *Asgardarchaeota* » “*Lokiarchaeia*” » *Sigyniarchaeales* » *Sigyniarchaeaceae*

References

Effective publication: Xie et al., 2022 [1]

Registry URL

<https://seqco.de/i:44816>

Genus *Freyriarchaeum*

Etymology

[Frey.ri.ar.chae'um] **N.L. neut. n.** *archaeum*, archaeon; **N.L. neut. n.** *Freyriarchaeum*, an archaeon named after Freyr, the god of peace in Norse mythology

Nomenclatural type

Species *Freyriarchaeum guaymasense*^{Ts}

Description

A genus established on the basis of GTDBTK analyses, AAI, and phylogenomic analyses. It is classified as a member of the *Freyrarchaeaceae* family. The type species of the genus is *Freyrarchaeum guaymaensis*.

Classification

Archaea » *Asgardarchaeota* » *Jordriarchaeia* » *Jordriarchaeales* » *Freyriarchaeaceae* » *Freyriarchaeum*

References

Effective publication: Xie et al., 2022 [1]

Registry URL

<https://seqco.de/i:44790>

Genus *Sigyniarchaeum*

Etymology

[Si.gy.ni.ar.chae'um] **N.L. neut. n.** *archaeum*, archaeon; **N.L. neut. n.** *Sigyniarchaeum*, an archaeon named after Sigyn, the goddess of victory in Norse mythology

Nomenclatural type

Species *Sigyniarchaeum tengchongense*^{Ts}

Classification

Archaea » *Asgardarchaeota* » “*Lokiarchaeia*” » *Sigyniarchaeales* » *Sigyniarchaeaceae* » *Sigyniarchaeum*

References

Effective publication: Xie et al., 2022 [1]

Registry URL

<https://seqco.de/i:44819>

Species *Freyriarchaeum guaymasense*^{Ts}

Etymology

[guay.mas.en'se] **N.L. neut. adj.** *guaymasense*, pertaining to Guaymas Basin, located in the Gulf of California, México

Nomenclatural type

[NCBI Assembly: GCA_030587405.2](#)^{Ts}

Description

This uncultured lineage is represented by the genome “GB_128” consisting of 3.8 Mbps in 131 contigs with an estimated completeness of 97.2%, an estimated contamination of 4.21% and 20 tRNAs The MAG recovered from Guaymas Basin sediment.

Classification

Archaea » *Asgardarchaeota* » *Jordiararchaeia* » *Jordiararchaeales* » *Freyriarchaeaceae* » *Freyriarchaeum* » *Freyriarchaeum guaymasense*^{Ts}

References

Effective publication: Xie et al., 2022 [1]
Assigned taxonomically: Xie et al., 2022 [1]

Registry URL

<https://seqco.de/i:44791>

Species *Sigyniarchaeum tengchongense*^{Ts}

Etymology

[ten.gchon.gen'se] **N.L. neut. adj.** *tengchongense*, pertaining to Tengchong, Yunnan province in southwest China

Nomenclatural type

[NCBI Assembly: GCA_030587475.2](#)^{Ts}

Description

This uncultured lineage is represented by the genome “SQRJ_234” consisting of 5.9 Mbps in 269 contigs with an estimated completeness of 91.59%, an estimated contamination of 4.67% and 21 tRNAs The MAG recovered from hot spring sediment.

Classification

Archaea » *Asgardarchaeota* » “*Lokiarchaeia*” » *Sigyniarchaeales* » *Sigyniarchaeaceae* » *Sigyniarchaeum* » *Sigyniarchaeum tengchongense*^{Ts}

References

Effective publication: Xie et al., 2022 [1]
Assigned taxonomically: Xie et al., 2022 [1]

Registry URL

<https://seqco.de/i:44839>

References

1. Xie et al. (2022). Expanding Asgard members in the domain of Archaea sheds new light on the origin of eukaryotes. *Science China Life Sciences*. [DOI:10.1007/s11427-021-1969-6](https://doi.org/10.1007/s11427-021-1969-6)

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:00m8misf** submitted by **Xie, Ruize** and including 7 new names has been successfully validated.

Date of Priority: 2025-03-03 05:55 UTC
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