

# Register list for 5 new names including *Methanoliparum* gen. nov.

Submitted by Borrel, Guillaume

## Class *Methanoliparia*

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### Etymology

[Me.tha.no.li.pa'ri.a] N.L. neut. n. *Methanoliparum*, referring to the type genus *Methanoliparum*; *-ia*, ending to denote a class; N.L. neut. pl. n. *Methanoliparia*, the *Methanoliparum* class

### Nomenclatural type

Genus *Methanoliparum*

### Description

Analyses of enrichment cultures indicate that members of this class can utilize long-chain alkanes as substrate for methanogenesis.

### Classification

*Archaea* » *Methanobacteriota* » *Methanoliparia*

### References

Effective publication: Borrel et al., 2019 [1]  
Assigned taxonomically: Göker, Oren, 2023 [2]

### Registry URL

<https://seqco.de/i:465>

## Order *Methanoliparales*

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### Etymology

[Me.tha.no.li.pa.ra'les] N.L. neut. n. *Methanoliparum*, referring to the type genus *Methanoliparum*; *-ales*, ending to denote an order; N.L. fem. pl. n. *Methanoliparales*, the *Methanoliparum* order

### Nomenclatural type

Genus *Methanoliparum*

### Description

Analyses of enrichment cultures indicate that members of this order can utilize long-chain alkanes as substrate for methanogenesis.

### Classification

*Archaea* » *Methanobacteriota* » *Methanoliparia* » *Methanoliparales*

### References

Effective publication: Borrel et al., 2019 [1]

### Registry URL

<https://seqco.de/i:32050>

## Family *Methanoliparaceae*

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**Etymology**

[Me.tha.no.li.pa.ra.ce'ae] **N.L. neut. n.** *Methanoliparum*, referring to the type genus *Methanoliparum*; *-aceae*, ending to denote a family; **N.L. fem. pl. n.** *Methanoliparaceae*, the *Methanoliparum* family

**Nomenclatural type**

Genus *Methanoliparum*

**Description**

Analyses of enrichment cultures indicate that members of this family can utilize long-chain alkanes as substrate for methanogenesis.

**Classification**

*Archaea* » *Methanobacteriota* » *Methanoliparia* » *Methanoliparales* » *Methanoliparaceae*

**References**

Effective publication: Borrel et al., 2019 [1]

**Registry URL**

<https://seqco.de/i:32049>

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## Genus *Methanoliparum*

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**Etymology**

[Me.tha.no.li.pa'rum] **N.L. pref. methano-**, pertaining to methane; **Gr. adj. liparos**, fat, greasy; **N.L. neut. n.** *Methanoliparum*, methane-producing/consuming organism present in oil-rich environments

**Nomenclatural type**

Species *Methanoliparum thermophilum*<sup>Ts</sup>

**Description**

Analyses of enrichment cultures indicate that members of this genus can utilize long-chain alkanes as substrate for methanogenesis.

**Classification**

*Archaea* » *Methanobacteriota* » *Methanoliparia* » *Methanoliparales* » *Methanoliparaceae* » *Methanoliparum*

**References**

Effective publication: Borrel et al., 2019 [1]

**Registry URL**

<https://seqco.de/i:32051>

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## Species *Methanoliparum thermophilum*<sup>Ts</sup>

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**Etymology**

[ther.mo.phi'lum] **Gr. n. thermé**, heat; **N.L. neut. adj. suff. -philum**, friend, loving (from **Gr. adj. philos** -ê -on); **N.L. neut. adj. thermophilum**, heat-loving

**Nomenclatural type**

[NCBI Assembly: GCA\\_004212075.1](https://ncbi.nlm.nih.gov/assembly/GCA_004212075.1)<sup>Ts</sup>

**Description**

This organism is not isolated. It is represented by a near-complete MAG, NM1a, (GCA\_004212075.1) obtained from an enrichment culture (50°C) using biodegraded oil as inoculum from Brazil. Analyses of enrichment cultures (Borrel et al., 2019; Laso-Perez et al., 2019; Zhou et al., 2022) indicate that this organism can utilize long-chain alkanes as substrate for methanogenesis.

**Classification**

*Archaea* » *Methanobacteriota* » *Methanoliparia* » *Methanoliparales* » *Methanoliparaceae* » *Methanoliparum* » *Methanoliparum thermophilum*<sup>Ts</sup>

### References

Effective publication: Borrel et al., 2019 [1]

### Registry URL

<https://seqco.de/i:32048>

## References

1. Borrel et al. (2019). Wide diversity of methane and short-chain alkane metabolisms in uncultured archaea. *Nature Microbiology*. DOI:10.1038/s41564-019-0363-3
2. Göker, Oren (2023). Valid publication of four additional phylum names. *International Journal of Systematic and Evolutionary Microbiology*. DOI:10.1099/ijsem.0.006024

## 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:pbj4my08](https://seqco.de/r:pbj4my08) submitted by **Borrel, Guillaume** and including 5 new names has been successfully validated.

Date of Priority: 2024-05-29 01:10 UTC

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