

# Electrothrix arhusiensis sp. nov.

Submitted by Schramm, Andreas

## Species *Electrothrix arhusiensis*

### Etymology

[ar.hu.si.en'sis] N.L. fem. adj. *arhusiensis*, pertaining to Aarhus (in its medieval Latin form), a city in Denmark on the Jutland peninsula, referring to the place of the first discovery of cable bacteria

### Nomenclatural type

[NCBI Assembly: GCA\\_942491045.1](#)<sup>Ts</sup>

### Reference Strain

MAR-mqMAG

### Description

Filamentous bacteria of centimeter length that inhabit the surface of marine and coastal sediment and conduct electrons from sulfide-oxidizing cells to oxygen- or nitrate-reducing cells. Gliding motility. Gram-negative, with distinct ridges running longitudinally along the filament. Can assimilate acetate and propionate; CO<sub>2</sub> fixation via the Wood-Ljungdahl pathway. Contains c-type cytochromes and type IV pili (PilA). Polyphosphate and polyglucose storage. Distinguishable by morphology and genome.

### Classification

*Bacteria* » *Desulfobacterota* » *Desulfobulbia* » *Desulfobales* » *Desulfobulbaceae* » *Electrothrix* » *Electrothrix arhusiensis*

### References

Proposed: Sereika et al., 2023  
*Corrigendum*: Plum-Jensen et al., 2024 (from “*Electrothrix aarhusiensis*”)  
Assigned taxonomically: Trojan et al., 2016

### Registry URL

<https://seqco.de/i:32137>

## References

1. Sereika et al. (2023). Closed genomes uncover a saltwater species of Candidatus Electronema and shed new light on the boundary between marine and freshwater cable bacteria. *The ISME Journal*. DOI:10.1038/s41396-023-01372-6
2. Plum-Jensen et al. (2024). First single-strain enrichments of *Electrothrix* cable bacteria, description of *E. aestuarii* sp. nov. and *E. rattekaaensis* sp. nov., and proposal of a cable bacteria taxonomy following the rules of the SeqCode. *Systematic and Applied Microbiology*. DOI:10.1016/j.syapm.2024.126487
3. Trojan et al. (2016). A taxonomic framework for cable bacteria and proposal of the candidate genera *Electrothrix* and *Electronema*. *Systematic and Applied Microbiology*. DOI:10.1016/j.syapm.2016.05.006

## 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:mv2koe80](https://seqco.de/r:mv2koe80) submitted by **Schramm, Andreas** and including 1 new name has been successfully validated.

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