

Tenderia electrophaga sp. nov. and Tenderia gen. nov.

Submitted by Chuvochina, Maria

Genus *Tenderia*

Etymology

[Ten.de'ri.a] N.L. fem. n. *Tenderia*, named after Leonard M. Tender, a pioneering researcher in the development of microbial electrochemical technologies

Nomenclatural type

Species *Tenderia electrophaga*^{Ts}

Description

The description is the same as given to the type species by Eddie et al (2016).

Classification

Bacteria » *Pseudomonadota* » *Gammaproteobacteria* » “Tenderiales” » “Tenderiaceae” » *Tenderia*

References

Proposed: Eddie et al., 2016

Registry URL

<https://seqco.de/i:23551>

Species *Tenderia electrophaga*^{Ts}

Etymology

[e.lec.tro.pha'ga] Gr. neut. n. *electron*, amber; Gr. verb *phago*, to eat; N.L. fem. adj. *electrophaga*, eater of electricity

Nomenclatural type

[INSDC Nucleotide: CP013099](#)^{Ts}

Description

The description is the same as given by Eddie et al., 2016:

Slender rod-shaped bacteria, approximately 1.8 × 0.6 μm, Gram-negative, forms clumps on graphite or gold cathodes poised at 310 mV vs SHE. Autotrophic via the Calvin-Benson-Bassham (CBB) cycle, utilizing extracellular electron donors to generate ATP and reducing equivalents via reverse electron transport. Aerobic or microaerophilic, non-photosynthetic with no evidence of ability to grow chemolithoautotrophically with ammonium or reduced sulfur species as electron donors. Mesophilic growth in artificial seawater. The basis of recognition as a novel candidate genus and species within the *Gammaproteobacteria* is a phylogenetic position that is not clearly within any known family. The closest species with validly published names are within the orders *Chromatiales* and *Thiotrichales*. Cells are recognized with the 16S rRNA specific oligonucleotide probe Tel428 (5'-CGTCATTATCCTCCCTGCTGAA-3'). The DNA G+C content is 59.2 mol%. It grows as a member of a bacterial community enriched from marine sediments and seawater collected in near shore water at the Rutgers University Marine Field Station (Tuckerton, NJ, USA).

Classification

Bacteria » *Pseudomonadota* » *Gammaproteobacteria* » “Tenderiales” » “Tenderiaceae” » *Tenderia* » *Tenderia electrophaga*^{Ts}

References

Proposed: Eddie et al., 2016

Registry URL

<https://seqco.de/i:368>

References

1. Eddie et al. (2016). 'Candidatus Tenderia electrophaga', an uncultivated electroautotroph from a biocathode enrichment. *International Journal of Systematic and Evolutionary Microbiology*. DOI:[10.1099/ijsem.0.001006](https://doi.org/10.1099/ijsem.0.001006)

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:l8kkuqk0 submitted by **Chuvochina, Maria** and including 2 new names has been successfully validated.

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