

Species *Electronema aureum*^{Ts}

Etymology

[a.u.re'um] L. neut. adj. *aureum*, golden

Nomenclatural type

[NCBI Assembly: GCA_004284765.1](#)^{Ts}

Reference Strain

GS

Description

Filamentous bacteria of centimeter length that inhabit the surface of freshwater sediment and conduct electrons from sulfide-oxidizing cells to oxygen- or nitrate-reducing cells. Gliding motility. Gram-negative, with 40 distinct ridges running longitudinally along the filament. Width of individual cells is $1.7 \pm 0.1 \mu\text{m}$. Can assimilate acetate but not propionate; CO₂ 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* » *Electronema* » *Electronema aureum*^{Ts}

References

Effective publication: Thorup et al., 2021 [1]

Registry URL

<https://seqco.de/i:736>

References

1. Thorup et al. (2021). How to grow your cable bacteria: Establishment of a stable single-strain culture in sediment and proposal of *Candidatus Electronema aureum* GS. *Systematic and Applied Microbiology*. [DOI:10.1016/j.syapm.2021.126236](https://doi.org/10.1016/j.syapm.2021.126236)