

Oscillochloris kuznetsovii sp. nov.

Submitted by Grouzdev, Denis

Species *Oscillochloris kuznetsovii*

Etymology

N.L. gen. masc. n. *kuznetsovii*, of Kuznetsov, named in honor of Boris B. Kuznetsov, who has significantly contributed to the study of mesophilic phototrophic Chloroflexi

Nomenclatural type

[NCBI Assembly: GCF_004138175.2](#) ^{Ts}

Reference Strain

[Strain scl0039543](#): ZM16-3

Description

Oscillochloris kuznetsovii ZM16-3 cells are approximately 1.0 µm in diameter and 4.0 µm long. These cells form unbranched, multicellular filaments of variable lengths. Bright long intracellular inclusions, polyhydroxyalkanoate-like granules, polyphosphate-like granules and chlorosomes are present in the cells. Cells form green colonies in agar medium. The absorption spectrum of the cellular membrane suspension exhibits maxima at 416, 755 and 670 nm with shoulders at 458 and 521 nm. The photosynthetic pigments of these cells are bacteriochlorophylls *c*, *d* and *a*; γ-carotene; β-carotene; ζ-carotene; phytoene; phytofluene; lycopene; and its derivatives. Growth of this species occurs in the presence of light under anaerobic conditions supplemented with Na-sulfide, Na-bicarbonate and Na-acetate. This species does not exhibit growth in the absence of light, whether in aerobic or anaerobic conditions. The genome of this species possessed genes of type I sulfide:quinone reductase, the nitrogenase complex (*nifHBDK*) and form I RuBisCo.

Classification

Bacteria » *Chloroflexota* » *Chloroflexia* » *Chloroflexales* » *Oscillochloridaceae* » *Oscillochloris* » *Oscillochloris kuznetsovii*

References

Effective publication: Gaisin et al., 2020 [1]

Registry URL

<https://seqco.de/i:558>

References

1. Gaisin et al. (2020). 'Candidatus *Oscillochloris kuznetsovii*' a novel mesophilic filamentous anoxygenic phototrophic Chloroflexales bacterium from Arctic coastal environments. *FEMS Microbiology Letters*. [DOI:10.1093/femsle/fnaa158](https://doi.org/10.1093/femsle/fnaa158)

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:wiikwoy4 submitted by **Grouzdev, Denis** and including 1 new name has been successfully validated.

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