Species *Candidatus* Magnetomorum litorale

Etymology
[li.to.ra'le] **L. adj.** *litorale*, of the sea shore

Nomenclatural type
Unknown

Description
The diameter of the aggregates ranges between 4.7 and 6.9 µm. Each aggregate consists of 25 ± 6 cells. Individual cells form bullet-shaped, magnetosome crystals composed of an iron-sulfide mineral. Within the same multicellular aggregate, crystals are aligned in parallel chains and thus are all oriented in the same direction. The aggregates are covered by filamentous surface structures which form a thick capsule. Aggregates of '*Candidatus* Magnetomorum litorale' exhibit chemotaxis towards acetate and propionate and harbour *aprA* and *dsrAB* genes. The habitats of '*Candidatus* Magnetomorum litorale' are anoxic sediment layers of costal intertidal sand flats of the German Wadden Sea.
All cells of '*Candidatus* Magnetomorum litorale' contain the same 16S rRNA gene sequence and represent a novel phylogenetic lineage which is related to the genus *Desulfosarcina* of the family *Desulfobacteraceae* within the order *Desulfobacterales* (subphylum *Deltaproteobacteria*). The associated 16S rRNA gene sequence of the provisional taxon '*Candidatus* Magnetomorum litorale' has been deposited in the GenBank database under the Accession No. EU717681.

Classification
Bacteria » *Desulfobacterota* » *Desulfobacteria* » *Desulfobacterales* » "Magnetomoraceae" » *Candidatus* Magnetomorum » *Candidatus* Magnetomorum litorale

References
Effective publication: Wenter et al., 2009 [1]

Registry URL
https://seqco.de/i:689

References

1. Wenter et al. (2009). Ultrastructure, tactic behaviour and potential for sulfate reduction of a novel multicellular magnetotactic prokaryote from North Sea sediments. *Environmental Microbiology*. DOI: 10.1111/j.1462-2920.2009.01877.x