

Macondimonas diazotrophica sp. nov. gen. nov.

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Table 1: Complete list of names proposed in the current register list.

Proposed Taxon	Etymology	Description	Parent Taxon	Type	Registry URL
Genus <i>Macondimonas</i>	[Ma.con.di.mo'nas] L. fem. n. <i>monas</i> , a unit, a monad; N.L. fem. n. <i>Macondimonas</i> , a monad from Macondo, Macondo Prospect, the site of DWH oil spill. Additionally, Macondo is a fictional town in A Hundred Years of Solitude by G. García Márquez. In the book, the town of Macondo has a rapid population growth, a period of economic prosperity, and then a rapid population fall, which is reminiscent of the ecologic pattern observed for this group upon crude-oil exposure	Members of this genus exhibit a coccobacilli morphology and a heterotrophic aerobic metabolism. No phototrophic, nor chemoautotrophic growth, or their corresponding genes in the genome were observed. The type species is <i>Macondimonas diazotrophica</i> .	<i>Ectothiorhodospiraceae</i>	<i>Macondimonas diazotrophica</i> ^{Ts}	seqco.de/i:514
Species <i>Macondimonas diazotrophica</i> ^{Ts}	[di.a.zo.tro'phi.ca] Gr. pref. di- , in two; N.L. neut. n. <i>azotum</i> , from Fr. n. azote (from Gr. prep. a, not; Gr. n. zôê, life; N.Gr. n. azôê, not sustaining life), nitrogen; N.L. pref. diazo- , pertaining to dinitrogen; Gr. adj. trophikos -ê -on , feeding, tending; N.L. fem. adj. diazotrophica , one that feeds on dinitrogen, named after its ability to fix atmospheric nitrogen	Cells grown on solidified mineral artificial seawater media using hexadecane as substrate show a coccobacillus morphology, of about 0.6 µm in length and 0.35 µm in width, and formed circular colonies. Members of the species are aerobes, growing at a pH range of 6.5–8.5 with a pH optimum of 7.5, and a salinity range of 250–500 mM of NaCl, with an optimum concentration of 330 mM. The temperature range for optimal growth is 22–30 °C, with no growth observed at 4 °C and above 34 °C. Cells can grow with hexadecane and pyruvate as a sole carbon sources and fix nitrogen. Genome size is ~2.8 Mbp with a G+C% content of 61.56. The designated type material is strain KTK01, and its genome sequence can be found under NCBI BioSample accession number SAMN11302943.	<i>Macondimonas</i>	NCBI Assembly: GCF_004684205.1 ^{Ts}	seqco.de/i:277