

Acidiferrales ord. nov. and Acidiferrum typicum gen. et sp. 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
Order <i>Acidiferrales</i>	[A.ci.di.fer.ra'les] N.L. neut. n. <i>Acidiferrum</i> , referring to the type genus <i>Acidiferrum</i> ; -ales, ending to denote an order; N.L. fem. pl. n. <i>Acidiferrales</i> , the <i>Acidiferrum</i> order	Epihov et al., 2021 (modified): A new order within the class "Acidobacteriia" (now <i>Terriglobia</i>) in the phylum <i>Acidobacteriota</i> containing " <i>Ca. Acidiferrum panamensis</i> " and <i>Acidiferrum typicum</i> in addition to several unnamed environmental genomes (MAGs). In addition to the offered taxonomic placements in the GTDB database and the output results from the GTDB-Tk classify platform, the taxonomic relatedness of <i>Ca. A. panamensis</i> and <i>A. typicum</i> and the proposal of a new order <i>Acidoferrales</i> were further assessed by our own analyses based on amino acid identity (AAI) comparisons of the whole genome sequences of the two MAGs together with representatives of all known orders of class <i>Terriglobia</i> and all classes within the phylum <i>Acidobacteriota</i> .	<i>Terriglobia</i>	<i>Acidiferrum</i>	seqco.de/i:41821
Genus <i>Acidiferrum</i>	[A.ci.di.fer'rum] L. masc. adj. <i>acidus</i> , sour, acid, tart; L. neut. n. <i>ferrum</i> , iron; N.L. neut. n. <i>Acidiferrum</i> , an acidophilic member of the <i>Acidobacteriota</i> with multiple Fe cycling gene homologues	A genus established on the basis of GTDB-Tk analysis including the species " <i>Ca. A. panamensis</i> " and <i>A. typicum</i> .	<i>Acidiferraceae</i>	<i>Acidiferrum typicum</i> ^{Ts}	seqco.de/i:50878
Species <i>Acidiferrum typicum</i> ^{Ts}	[ty'pi.cum] L. neut. adj. <i>typicum</i> , typical	UBA7541 was assembled from a soil metagenome obtained from coniferous forests in the USA.	<i>Acidiferrum</i>	NCBI Assembly: GCA_002478115.1 ^{Ts}	seqco.de/i:50877