

VALIDATION LIST NO. 85

Validation of publication of new names and new combinations previously effectively published outside the IJSEM

The purpose of this announcement is to effect the valid publication of the following new names and new combinations under the procedure described previously [*Int J Syst Bacteriol* 27(3), iv, 1977]. Authors and other individuals wishing to have new names and/or combinations included in future lists should send **the pertinent reprint or a photocopy thereof to the IJSEM Editorial Office** for confirmation that all of the other requirements for valid publication have been met. It should be noted that the date of valid publication of these new names and combinations is the date of publication of this list, not the date of the original publication of the names and combinations. The authors of the new names and combinations are as given below, and these authors' names will be included in the author index of the present issue and in the volume author index. Inclusion of a name on these lists validates the name and thereby makes it available in bacteriological nomenclature. The inclusion of a name on this list is not to be construed as taxonomic acceptance of the taxon to which the name is applied. Indeed, some of these names may, in time, be shown to be synonyms, or the organisms may be transferred to another genus, thus necessitating the creation of a new combination.

Name	Proposed as:	Author(s) (reference)	Priority*	Nomenclatural type†
<i>Amphibacillus fermentum</i>	sp. nov.	Zhilina <i>et al.</i> (66)	12	Strain Z-7984 (= DSM 13869 = Uniqem 210)
<i>Amphibacillus tropicus</i>	sp. nov.	Zhilina <i>et al.</i> (66)	12	Strain Z-7792 (= DSM 13870 = Uniqem 212)
<i>Aquificaceae</i>	fam. nov.	Reysenbach (51)	9	<i>Aquifex</i>
<i>Aquificae</i>	phyl. nov.‡	Reysenbach (48)	9	<i>Aquificales</i>
<i>Aquificae</i>	class. nov.	Reysenbach (49)	9	<i>Aquificales</i>
<i>Aquificales</i>	ord. nov.	Reysenbach (50)	9	<i>Aquifex</i>
<i>Archaeoglobaceae</i>	fam. nov.	Huber and Stetter (36)	9	<i>Archaeoglobus</i>
<i>Archaeoglobales</i>	ord. nov.	Huber and Stetter (35)	9	<i>Archaeoglobus</i>
<i>Archaeoglobi</i>	class. nov.	Garrity and Holt (16)	9	<i>Archaeoglobales</i>
<i>Arthrobacter methylophilus</i>	sp. nov.	Borodina <i>et al.</i> (9)	8	Strain TGA (= ATCC BAA-111 = DSM 14008)
<i>Arthrobacter sulfonivorans</i>	sp. nov.	Borodina <i>et al.</i> (9)	8	Strain ALL (= ATCC BAA-112 = DSM 14002)
<i>Chloroflexi</i>	phyl. nov.‡	Garrity and Holt (24)	9	' <i>Chloroflexales</i> '
<i>Chrysiogenaceae</i>	fam. nov.	Garrity and Holt (23)	9	<i>Chrysiogenes</i>
<i>Chrysiogenales</i>	ord. nov.	Garrity and Holt (22)	9	<i>Chrysiogenes</i>
<i>Chrysiogenetes</i>	phyl. nov.‡	Garrity and Holt (20)	9	<i>Chrysiogenales</i>
<i>Chrysiogenetes</i>	class. nov.	Garrity and Holt (21)	9	<i>Chrysiogenales</i>
<i>Clostridium hathewayi</i>	sp. nov.	Steer <i>et al.</i> (57)	2	Strain 1313 (= DSM 13479 = CCUG 43506)
<i>Crenarchaeota</i>	phyl. nov.‡	Garrity and Holt (14)	9	<i>Thermoproteales</i>
<i>Deferribacteraceae</i>	fam. nov.	Huber and Stetter (41)	9	<i>Deferribacter</i>
<i>Deferribacterales</i>	ord. nov.	Huber and Stetter (40)	9	<i>Deferribacter</i>
<i>Deferribacteres</i>	phyl. nov.‡	Garrity and Holt (29)	9	<i>Deferribacterales</i>
<i>Deferribacteres</i>	class. nov.	Huber and Stetter (39)	9	<i>Deferribacterales</i>
<i>Deinococci</i>	class. nov.	Garrity and Holt (19)	9	<i>Deinococcales</i>
<i>Desulfurococcales</i>	ord. nov.	Huber and Stetter (34)	9	<i>Desulfurococcus</i>
<i>Euryarchaeota</i>	phyl. nov.‡	Garrity and Holt (15)	9	<i>Methanobacteriales</i>
<i>Gordonia namibiensis</i>	sp. nov.	Brandão <i>et al.</i> (10)	7	Strain NAM-BN063A (= DSM 44568 = NCIMB 13780)
<i>Halobacteria</i>	class. nov.	Grant <i>et al.</i> (30)	9	<i>Halobacteriales</i>

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Name	Proposed as:	Author(s) (reference)	Priority*	Nomenclatural type†
<i>Helicobacter typhlonius</i>	sp. nov.	Franklin <i>et al.</i> (13)	4	Strain MIT 97-6810 (= ATCC BAA-367)
<i>Hyphomicrobium sulfonivorans</i>	sp. nov.	Borodina <i>et al.</i> (9)	8	Strain S1 (= ATCC BAA-113 = DSM 13863)
<i>Leptotrichia trevisanii</i>	sp. nov.	Tee <i>et al.</i> (58)	6	Strain "Wee Tee" 1999 (= ATCC 700907)
<i>Methanobacteria</i>	class. nov.	Boone (1)	9	<i>Methanobacteriales</i>
<i>Methanocaldococcaceae</i>	fam. nov.	Whitman <i>et al.</i> (64)	9	<i>Methanocaldococcus</i>
<i>Methanocaldococcus</i>	gen. nov.	Whitman (62)	9	<i>Methanocaldococcus jannaschii</i>
<i>Methanocaldococcus fervens</i> (basonym <i>Methanococcus fervens</i>)	comb. nov.	Whitman (62)	9	Strain AG86 (= DSM 4213)
<i>Methanocaldococcus infernus</i> (basonym <i>Methanococcus infernus</i>)	comb. nov.	Whitman (62)	9	Strain ME (= DSM 11812)
<i>Methanocaldococcus jannaschii</i> (basonym <i>Methanococcus jannaschii</i>)	comb. nov.	Whitman (62)	9	Strain JAL-1 (= DSM 2661)
<i>Methanocaldococcus vulcanius</i> (basonym <i>Methanococcus vulcanius</i>)	comb. nov.	Whitman (62)	9	Strain M7 (= DSM 12094)
<i>Methanococci</i>	class. nov.	Boone (3)	9	<i>Methanococcales</i>
<i>Methanolobus oregonensis</i> (basonym <i>Methanohalophilus oregonensis</i>)	comb. nov.	Boone (4)	9	Strain WAL-1 (= DSM 5435 = OCM 99)
<i>Methanopyraceae</i>	fam. nov.	Huber and Stetter (38)	9	<i>Methanopyrus</i>
<i>Methanopyrales</i>	ord. nov.	Huber and Stetter (37)	9	<i>Methanopyrus</i>
<i>Methanopyri</i>	class. nov.	Garrity and Holt (17)	9	<i>Methanopyrales</i>
<i>Methanosaetaceae</i>	fam. nov.	Boone <i>et al.</i> (8)	9	<i>Methanosaeta</i>
<i>Methanosalsum</i>	gen. nov.	Boone and Baker (5)	9	<i>Methanosalsum zhilinae</i>
<i>Methanosalsum zhilinae</i> (basonym <i>Methanohalophilus zhilinae</i>)	comb. nov.	Boone and Baker (5)	9	Strain WeN5 (= DSM 4017 = OCM 62)
<i>Methanosarcina baltica</i>	sp. nov.	von Klein <i>et al.</i> (60)	11	Strain GS1-A (= DSM 14042 = JCM 11281)
<i>Methanosarcina lacustris</i>	sp. nov.	Simankova <i>et al.</i> (56)	2	Strain ZS (= DSM 13486 = VKM B-2268)
<i>Methanosarcinales</i>	ord. nov.	Boone <i>et al.</i> (7)	9	<i>Methanosarcina</i>
<i>Methanospirillaceae</i>	fam. nov.	Boone <i>et al.</i> (6)	9	<i>Methanospirillum</i>
<i>Methanothermobacter defluvii</i> (basonym <i>Methanobacterium defluvii</i>)	comb. nov.	Boone (2)	9	Strain ADZ (= DSM 7466 = OCM 570 = VKM B-1962)
<i>Methanothermobacter thermoflexus</i> (basonym <i>Methanobacterium thermoflexum</i>)	comb. nov.	Boone (2)	9	Strain IDZ (= DSM 7268 = OCM 571 = VKM B-1963)
<i>Methanothermobacter thermophilus</i> (basonym <i>Methanobacterium thermophilum</i>)	comb. nov.	Boone (2)	9	Strain M (= OCM 231 = DSM 6529)
<i>Methanothermococcus</i>	gen. nov.	Whitman (61)	9	<i>Methanothermococcus thermolithotrophicus</i>

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Name	Proposed as:	Author(s) (reference)	Priority*	Nomenclatural type†
<i>Methanothermococcus thermolithotrophicus</i> (basonym <i>Methanococcus thermolithotrophicus</i>)	comb. nov.	Whitman (61)	9	Strain SN-1 (= DSM 2095)
<i>Methanotorris</i>	gen. nov.	Whitman (63)	9	<i>Methanotorris igneus</i>
<i>Methanotorris igneus</i> (basonym <i>Methanococcus igneus</i>)	comb. nov.	Whitman (63)	9	Strain Kol5 (= DSM 5666)
<i>Oceanobacillus</i>	gen. nov.	Lu <i>et al.</i> (42)	10	<i>Oceanobacillus iheyensis</i>
<i>Oceanobacillus iheyensis</i>	sp. nov.	Lu <i>et al.</i> (42)	10	Strain HTE831 (= DSM 14371 = JCM 11309)
<i>Pseudomonas cremoricolorata</i>	sp. nov.	Uchino <i>et al.</i> (59)	5	Strain CC-8 (= NRIC 0181 = IFO 16634 = JCM 11246)
<i>Pseudomonas parafulva</i>	sp. nov.	Uchino <i>et al.</i> (59)	5	Strain CB-1 (= AJ 2129 = IFO 16636 = JCM 11244 = NRIC 0501)
<i>Pseudomonas psychrophila</i>	sp. nov.	Yumoto <i>et al.</i> (65)	1	Strain E-3 (= JCM 10889)
<i>Sneathia</i>	gen. nov.	Collins <i>et al.</i> (11)	2	<i>Sneathia sanguinegens</i>
<i>Sneathia sanguinegens</i>	sp. nov.	Collins <i>et al.</i> (11)	3	CCUG 41628 = CIP 106906
<i>Thermaceae</i>	fam. nov.	da Costa and Rainey (12)	9	<i>Thermus</i>
<i>Thermales</i>	ord. nov.	Rainey and da Costa (43)	9	<i>Thermus</i>
<i>Thermococci</i>	class. nov.	Zillig and Reysenbach (67)	9	<i>Thermococcales</i>
<i>Thermodesulfobacteria</i>	phyl. nov.‡	Garrity and Holt (18)	9	<i>Thermodesulfobacteriales</i>
<i>Thermodesulfobacteria</i>	class. nov.	Hatchikian <i>et al.</i> (31)	9	<i>Thermodesulfobacteriales</i>
<i>Thermodesulfobacteriaceae</i>	fam. nov.	Hatchikian <i>et al.</i> (33)	9	<i>Thermodesulfobacterium</i>
<i>Thermodesulfobacteriales</i>	ord. nov.	Hatchikian <i>et al.</i> (32)	9	<i>Thermodesulfobacterium</i>
<i>Thermomicrobia</i>	phyl. nov.‡	Garrity and Holt (25)	9	<i>Thermomicrobiales</i>
<i>Thermomicrobia</i>	class. nov.	Garrity and Holt (26)	9	<i>Thermomicrobiales</i>
<i>Thermomicrobiaceae</i>	fam. nov.	Garrity and Holt (28)	9	<i>Thermomicrobium</i>
<i>Thermomicrobiales</i>	ord. nov.	Garrity and Holt (27)	9	<i>Thermomicrobium</i>
<i>Thermoplasmata</i>	class. nov.	Reysenbach (45)	9	<i>Thermoplasmatales</i>
<i>Thermoplasmataceae</i>	fam. nov.	Reysenbach (47)	9	<i>Thermoplasma</i>
<i>Thermoplasmatales</i>	ord. nov.	Reysenbach (46)	9	<i>Thermoplasma</i>
<i>Thermoprotei</i>	class. nov.	Reysenbach (44)	9	<i>Thermoproteales</i>
<i>Thermotogaceae</i>	fam. nov.	Reysenbach (55)	9	<i>Thermotoga</i>
<i>Thermotogae</i>	phyl. nov.‡	Reysenbach (52)	9	<i>Thermotogales</i>
<i>Thermotogae</i>	class. nov.	Reysenbach (53)	9	<i>Thermotogales</i>
<i>Thermotogales</i>	ord. nov.	Reysenbach (54)	9	<i>Thermotoga</i>

For references to Validation Lists 1–71, see *Int J Syst Bacteriol* **49** (1999) 1325. Lists 72–84 were published in *Int J Syst Evol Microbiol* **50** (2000) 3, 423, 949, 1415, 1699, 1953 and **51** (2001) 1, 263, 793, 1229, 1619, 1945 and **52** (2002) 3.

* Priority number assigned according to the date the documentation and request for validation are received.

† Abbreviations: AJ, Central Research Laboratories, Ajinomoto Co. Ltd., Japan; ATCC, American Type Culture Collection, Manassas, VA, USA; CIP, Collection of the Institute Pasteur, Paris, France; CCUG, Culture Collection, University of Göteborg, Göteborg, Sweden; DSM, DSMZ–Deutsche Sammlung von Mikroorganismen und Zellkulturen GmbH, Braunschweig, Germany; IFO, Institute for Fermentation, Osaka, Japan; JCM, Japan Collection of Microorganisms, RIKEN, Saitama, Japan; NCIMB, National Collection of Industrial and Marine Bacteria, Aberdeen, UK; NRIC, NODAI Culture Collection, Tokyo University of Agriculture, Japan; OCM, Oregon Collection of Methanogens, Oregon Graduate Institute of Science & Technology, Beaverton, OR, USA; Uniqem, Collection of Unique Cultures, Russian Academy of Sciences, Moscow, Russia. VKM, All-Union Collection of Microorganisms, Institute of Biochemistry and Physiology of Microorganisms, Russian Academy of Sciences, Pushchino, Moscow Region, Russia.

‡ The names of the phyla are listed for completeness. However names above the rank of class are not covered by the Rules of the Bacteriological Code and the names of the phyla listed **are not** to be regarded as having been validly published.

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