

# Jeremy D Semrau

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

89  
papers

3,709  
citations

36  
h-index

59  
g-index

95  
ext. papers

4,194  
ext. citations

4.8  
avg, IF

5.37  
L-index

#	Paper	IF	Citations
89	Variable Inhibition of Nitrous Oxide Reduction in Denitrifying Bacteria by Different Forms of Methanobactin.. <i>Applied and Environmental Microbiology</i> , <b>2022</b> , e0234621	4.8	
88	Updated Genome Sequence of the Facultative Methanotroph sp. Strain SB2.. <i>Microbiology Resource Announcements</i> , <b>2022</b> , e0018822	1.3	
87	MbnC is not required for the formation of the N-terminal oxazolone in the methanobactin from OB3b. <i>Applied and Environmental Microbiology</i> , <b>2021</b> , AEM0184121	4.8	
86	Two TonB-dependent transporters in OB3b are responsible for uptake of different forms of methanobactin and are involved in the canonical copper switch. <i>Applied and Environmental Microbiology</i> , <b>2021</b> , AEM0179321	4.8	1
85	Oxygen Generation via Water Splitting by a Novel Biogenic Metal Ion-Binding Compound. <i>Applied and Environmental Microbiology</i> , <b>2021</b> , 87, e0028621	4.8	4
84	Enhancement of Nitrous Oxide Emissions in Soil Microbial Consortia via Copper Competition between Proteobacterial Methanotrophs and Denitrifiers. <i>Applied and Environmental Microbiology</i> , <b>2021</b> , 87, e0230120	4.8	5
83	Evidence for methanobactin "Theft" and novel chalkophore production in methanotrophs: impact on methanotrophic-mediated methylmercury degradation. <i>ISME Journal</i> , <b>2021</b> ,	11.9	4
82	Spectroscopic and computational investigations of organometallic complexation of group 12 transition metals by methanobactins from Methylocystis sp. SB2. <i>Journal of Inorganic Biochemistry</i> , <b>2021</b> , 223, 111496	4.2	1
81	Methanobactin from methanotrophs: genetics, structure, function and potential applications. <i>FEMS Microbiology Letters</i> , <b>2020</b> , 367,	2.9	10
80	Dredging Contaminated Sediments: Is it Worth the Risks?. <i>Environmental Toxicology and Chemistry</i> , <b>2020</b> , 39, 515	3.8	6
79	Synergistic Effects of a Chalkophore, Methanobactin, on Microbial Methylation of Mercury. <i>Applied and Environmental Microbiology</i> , <b>2020</b> , 86,	4.8	5
78	A High-Calorie Diet Aggravates Mitochondrial Dysfunction and Triggers Severe Liver Damage in Wilson Disease Rats. <i>Cellular and Molecular Gastroenterology and Hepatology</i> , <b>2019</b> , 7, 571-596	7.9	29
77	The origin of aerobic methanotrophy within the Proteobacteria. <i>FEMS Microbiology Letters</i> , <b>2019</b> , 366,	2.9	8
76	Methanotrophy - Environmental, Industrial and Medical Applications. <i>Current Issues in Molecular Biology</i> , <b>2019</b> , 33, 1-22	2.9	
75	Methanobactin: A Novel Copper-Binding Compound Produced by Methanotrophs. <i>Microbiology Monographs</i> , <b>2019</b> , 205-229	0.8	1
74	Human Health Benefits from Fish Consumption vs. Risks from Inhalation Exposures Associated with Contaminated Sediment Remediation: Dredging of the Hudson River. <i>Environmental Health Perspectives</i> , <b>2019</b> , 127, 127004	8.4	6
73	Methanobactin from Methylosinus trichosporium OB3b inhibits NO reduction in denitrifiers. <i>ISME Journal</i> , <b>2018</b> , 12, 2086-2089	11.9	22

72	Metals and Methanotrophy. <i>Applied and Environmental Microbiology</i> , <b>2018</b> , 84,	4.8	72
71	Carbon source regulation of gene expression in <i>Methylosinus trichosporium</i> OB3b. <i>Applied Microbiology and Biotechnology</i> , <b>2017</b> , 101, 3871-3879	5.7	11
70	Methylmercury uptake and degradation by methanotrophs. <i>Science Advances</i> , <b>2017</b> , 3, e1700041	14.3	58
69	Characterization of the role of copCD in copper uptake and the copper-switch in <i>Methylosinus trichosporium</i> OB3b. <i>FEMS Microbiology Letters</i> , <b>2017</b> , 364,	2.9	9
68	Copper and cerium-regulated gene expression in <i>Methylosinus trichosporium</i> OB3b. <i>Applied Microbiology and Biotechnology</i> , <b>2017</b> , 101, 8499-8516	5.7	38
67	An Aminotransferase Is Responsible for the Deamination of the N-Terminal Leucine and Required for Formation of Oxazolone Ring A in Methanobactin of <i>Methylosinus trichosporium</i> OB3b. <i>Applied and Environmental Microbiology</i> , <b>2017</b> , 83,	4.8	18
66	Draft Genome Sequences of Two Gammaproteobacterial Methanotrophs Isolated from Rice Ecosystems. <i>Genome Announcements</i> , <b>2017</b> , 5,		8
65	Uptake and effect of rare earth elements on gene expression in <i>Methylosinus trichosporium</i> OB3b. <i>FEMS Microbiology Letters</i> , <b>2016</b> , 363,	2.9	34
64	A TonB-Dependent Transporter Is Responsible for Methanobactin Uptake by <i>Methylosinus trichosporium</i> OB3b. <i>Applied and Environmental Microbiology</i> , <b>2016</b> , 82, 1917-1923	4.8	33
63	Methanobactin and the Link between Copper and Bacterial Methane Oxidation. <i>Microbiology and Molecular Biology Reviews</i> , <b>2016</b> , 80, 387-409	13.2	77
62	Draft Genome Sequences of Gammaproteobacterial Methanotrophs Isolated from Marine Ecosystems. <i>Genome Announcements</i> , <b>2016</b> , 4,		19
61	Competition between metals for binding to methanobactin enables expression of soluble methane monooxygenase in the presence of copper. <i>Applied and Environmental Microbiology</i> , <b>2015</b> , 81, 1024-31	4.8	19
60	Cerium regulates expression of alternative methanol dehydrogenases in <i>Methylosinus trichosporium</i> OB3b. <i>Applied and Environmental Microbiology</i> , <b>2015</b> , 81, 7546-52	4.8	48
59	Marker Exchange Mutagenesis of mxaF, Encoding the Large Subunit of the Mxa Methanol Dehydrogenase, in <i>Methylosinus trichosporium</i> OB3b. <i>Applied and Environmental Microbiology</i> , <b>2015</b> , 82, 1549-1555	4.8	18
58	Methanobactin from <i>Methylocystis</i> sp. strain SB2 affects gene expression and methane monooxygenase activity in <i>Methylosinus trichosporium</i> OB3b. <i>Applied and Environmental Microbiology</i> , <b>2015</b> , 81, 2466-73	4.8	19
57	Genomic and transcriptomic analyses of the facultative methanotroph <i>Methylocystis</i> sp. strain SB2 grown on methane or ethanol. <i>Applied and Environmental Microbiology</i> , <b>2014</b> , 80, 3044-52	4.8	48
56	Mercury binding by methanobactin from <i>Methylocystis</i> strain SB2. <i>Journal of Inorganic Biochemistry</i> , <b>2014</b> , 141, 161-169	4.2	23
55	Priority pollutant degradation by the facultative methanotroph, <i>Methylocystis</i> strain SB2. <i>Applied Microbiology and Biotechnology</i> , <b>2013</b> , 97, 5089-96	5.7	5

54	Detoxification of mercury by methanobactin from <i>Methylosinus trichosporium</i> OB3b. <i>Applied and Environmental Microbiology</i> , <b>2013</b> , 79, 5918-26	4.8	36
53	Draft Genome Sequence of <i>Methylomicrobium buryatense</i> Strain 5G, a Haloalkaline-Tolerant Methanotrophic Bacterium. <i>Genome Announcements</i> , <b>2013</b> , 1,		34
52	Methanobactin and MmoD work in concert to act as the copper-switch in methanotrophs. <i>Environmental Microbiology</i> , <b>2013</b> , 15, 3077-86	5.2	90
51	A field trial of nutrient stimulation of methanotrophs to reduce greenhouse gas emissions from landfill cover soils. <i>Journal of the Air and Waste Management Association</i> , <b>2013</b> , 63, 300-9	2.4	8
50	Spectral and copper binding properties of methanobactin from the facultative methanotroph <i>Methylocystis</i> strain SB2. <i>Journal of Inorganic Biochemistry</i> , <b>2012</b> , 110, 72-82	4.2	32
49	Genome sequence of the haloalkaliphilic methanotrophic bacterium <i>Methylomicrobium alcaliphilum</i> 20Z. <i>Journal of Bacteriology</i> , <b>2012</b> , 194, 551-2	3.5	57
48	Draft genome sequence of the volcano-inhabiting thermoacidophilic methanotroph <i>Methylacidiphilum fumarolicum</i> strain SolV. <i>Journal of Bacteriology</i> , <b>2012</b> , 194, 3729-30	3.5	37
47	Characterization of a novel facultative <i>Methylocystis</i> species capable of growth on methane, acetate and ethanol. <i>Environmental Microbiology Reports</i> , <b>2011</b> , 3, 174-81	3.7	74
46	Constitutive expression of pMMO by <i>Methylocystis</i> strain SB2 when grown on multi-carbon substrates: implications for biodegradation of chlorinated ethenes. <i>Environmental Microbiology Reports</i> , <b>2011</b> , 3, 182-8	3.7	25
45	Bioremediation via Methanotrophy: Overview of Recent Findings and Suggestions for Future Research. <i>Frontiers in Microbiology</i> , <b>2011</b> , 2, 209	5.7	53
44	Pollutant degradation by a <i>Methylocystis</i> strain SB2 grown on ethanol: bioremediation via facultative methanotrophy. <i>FEMS Microbiology Letters</i> , <b>2011</b> , 318, 137-42	2.9	33
43	Facultative methanotrophy: false leads, true results, and suggestions for future research. <i>FEMS Microbiology Letters</i> , <b>2011</b> , 323, 1-12	2.9	79
42	Field application of nitrogen and phenylacetylene to mitigate greenhouse gas emissions from landfill cover soils: effects on microbial community structure. <i>Applied Microbiology and Biotechnology</i> , <b>2011</b> , 89, 189-200	5.7	17
41	Current knowledge of microbial community structures in landfills and its cover soils. <i>Applied Microbiology and Biotechnology</i> , <b>2011</b> , 89, 961-9	5.7	44
40	A simple assay for screening microorganisms for chalkophore production. <i>Methods in Enzymology</i> , <b>2011</b> , 495, 247-58	1.7	13
39	Isolation of methanobactin from the spent media of methane-oxidizing bacteria. <i>Methods in Enzymology</i> , <b>2011</b> , 495, 259-69	1.7	30
38	Genome sequence of the methanotrophic alphaproteobacterium <i>Methylocystis</i> sp. strain Rockwell (ATCC 49242). <i>Journal of Bacteriology</i> , <b>2011</b> , 193, 2668-9	3.5	45
37	Methanotrophs and copper. <i>FEMS Microbiology Reviews</i> , <b>2010</b> , 34, 496-531	15.1	485

36	Genome sequence of the obligate methanotroph <i>Methylosinus trichosporium</i> strain OB3b. <i>Journal of Bacteriology</i> , <b>2010</b> , 192, 6497-8	3.5	76
35	A comparison of methanobactins from <i>Methylosinus trichosporium</i> OB3b and <i>Methylocystis</i> strain Sb2 predicts methanobactins are synthesized from diverse peptide precursors modified to create a common core for binding and reducing copper ions. <i>Biochemistry</i> , <b>2010</b> , 49, 10117-30	3.2	78
34	An assay for screening microbial cultures for chalkophore production. <i>Environmental Microbiology Reports</i> , <b>2010</b> , 2, 295-303	3.7	38
33	Spectral and thermodynamic properties of methanobactin from $\epsilon$ -proteobacterial methane oxidizing bacteria: a case for copper competition on a molecular level. <i>Journal of Inorganic Biochemistry</i> , <b>2010</b> , 104, 1240-7	4.2	43
32	Graham Scholars Program: sustainability education through an interdisciplinary international case study. <i>Sustainability Science</i> , <b>2009</b> , 4, 29-36	6.4	7
31	Feasibility of atmospheric methane removal using methanotrophic biotrickling filters. <i>Applied Microbiology and Biotechnology</i> , <b>2009</b> , 83, 949-56	5.7	38
30	Effect of nutrient and selective inhibitor amendments on methane oxidation, nitrous oxide production, and key gene presence and expression in landfill cover soils: characterization of the role of methanotrophs, nitrifiers, and denitrifiers. <i>Applied Microbiology and Biotechnology</i> , <b>2009</b> , 85, 389-403	5.7	48
29	Life in the extreme: thermoacidophilic methanotrophy. <i>Trends in Microbiology</i> , <b>2008</b> , 16, 190-3	12.4	39
28	Microbial fouling of a reverse osmosis municipal water treatment system. <i>Water Environment Research</i> , <b>2008</b> , 80, 703-7	2.8	1
27	Oxidase, superoxide dismutase, and hydrogen peroxide reductase activities of methanobactin from types I and II methanotrophs. <i>Journal of Inorganic Biochemistry</i> , <b>2008</b> , 102, 1571-80	4.2	48
26	Measurement and modeling of multiple substrate oxidation by methanotrophs at 20 degrees C. <i>FEMS Microbiology Letters</i> , <b>2008</b> , 287, 156-62	2.9	16
25	Mössbauer studies of the membrane-associated methane monooxygenase from <i>Methylococcus capsulatus</i> bath: evidence for a Diiron center. <i>Journal of the American Chemical Society</i> , <b>2007</b> , 129, 15783-5	16.4	90
24	Mixed pollutant degradation by <i>Methylosinus trichosporium</i> OB3b expressing either soluble or particulate methane monooxygenase: can the tortoise beat the hare?. <i>Applied and Environmental Microbiology</i> , <b>2006</b> , 72, 7503-9	4.8	82
23	Spectral, kinetic, and thermodynamic properties of Cu(I) and Cu(II) binding by methanobactin from <i>Methylosinus trichosporium</i> OB3b. <i>Biochemistry</i> , <b>2006</b> , 45, 1442-53	3.2	92
22	Spectral and thermodynamic properties of Ag(I), Au(III), Cd(II), Co(II), Fe(III), Hg(II), Mn(II), Ni(II), Pb(II), U(IV), and Zn(II) binding by methanobactin from <i>Methylosinus trichosporium</i> OB3b. <i>Journal of Inorganic Biochemistry</i> , <b>2006</b> , 100, 2150-61	4.2	92
21	Substituent effects on the oxidation of substituted biphenyl congeners by type II methanotroph strain CSC1. <i>Archives of Microbiology</i> , <b>2005</b> , 183, 266-76	3	7
20	Quantitative community analysis: capillary electrophoresis techniques. <i>Methods in Enzymology</i> , <b>2005</b> , 397, 329-37	1.7	1
19	Characterization of a Mixed Methanotrophic Culture Capable of Chloroethylene Degradation. <i>Environmental Engineering Science</i> , <b>2005</b> , 22, 177-186	2	10

18	Effect of methanobactin on the activity and electron paramagnetic resonance spectra of the membrane-associated methane monooxygenase in <i>Methylococcus capsulatus</i> Bath. <i>Microbiology (United Kingdom)</i> , <b>2005</b> , 151, 3417-3426	2.9	61
17	Quantification of gene expression in methanotrophs by competitive reverse transcription-polymerase chain reaction. <i>Environmental Microbiology</i> , <b>2004</b> , 6, 388-99	5.2	40
16	Evidence for a copper-dependent iron transport system in the marine, magnetotactic bacterium strain MV-1. <i>Microbiology (United Kingdom)</i> , <b>2004</b> , 150, 2931-2945	2.9	73
15	Quantitative structure-biodegradation relationships for ortho-substituted biphenyl compounds oxidized by <i>Methylosinus trichosporium</i> OB3b. <i>Environmental Toxicology and Chemistry</i> , <b>2003</b> , 22, 2251-7	3.8	8
14	The membrane-associated methane monooxygenase (pMMO) and pMMO-NADH:quinone oxidoreductase complex from <i>Methylococcus capsulatus</i> Bath. <i>Journal of Bacteriology</i> , <b>2003</b> , 185, 5755-64	3.5	166
13	<i>Methylocapsa acidiphila</i> gen. nov., sp. nov., a novel methane-oxidizing and dinitrogen-fixing acidophilic bacterium from Sphagnum bog. <i>International Journal of Systematic and Evolutionary Microbiology</i> , <b>2002</b> , 52, 251-261	2.2	198
12	An X-ray absorption spectroscopy study of the structure and reversibility of copper adsorbed to montmorillonite clay. <i>Geochimica Et Cosmochimica Acta</i> , <b>2001</b> , 65, 2709-2722	5.5	88
11	Monte Carlo analysis of uncertainty attached to microbial pollutant degradation rates. <i>Environmental Science &amp; Technology</i> , <b>2001</b> , 35, 3924-30	10.3	20
10	Differential inhibition in vivo of ammonia monooxygenase, soluble methane monooxygenase and membrane-associated methane monooxygenase by phenylacetylene. <i>Environmental Microbiology</i> , <b>2000</b> , 2, 485-94	5.2	33
9	Identification of intermediates of in vivo trichloroethylene oxidation by the membrane-associated methane monooxygenase. <i>FEMS Microbiology Letters</i> , <b>2000</b> , 186, 109-13	2.9	25
8	Chloromethane stimulates growth of <i>Methylomicrobium album</i> BG8 on methanol. <i>FEMS Microbiology Letters</i> , <b>2000</b> , 187, 77-81	2.9	23
7	Characterization of methanotrophic bacteria on the basis of intact phospholipid profiles. <i>FEMS Microbiology Letters</i> , <b>2000</b> , 189, 67-72	2.9	59
6	Transformation of ortho-substituted biphenyls by <i>Methylosinus trichosporium</i> OB3b: substituent effects on oxidation kinetics and product formation. <i>Archives of Microbiology</i> , <b>2000</b> , 174, 35-41	3	23
5	Effect of copper speciation on whole-cell soluble methane monooxygenase activity in <i>Methylosinus trichosporium</i> OB3b. <i>Applied and Environmental Microbiology</i> , <b>2000</b> , 66, 1730-3	4.8	30
4	Bioavailability of Chelated and Soil-Adsorbed Copper to <i>Methylosinus trichosporium</i> OB3b. <i>Environmental Science &amp; Technology</i> , <b>2000</b> , 34, 4917-4922	10.3	22
3	Dichloromethane and trichloroethylene inhibition of methane oxidation by the membrane-associated methane monooxygenase of <i>Methylosinus trichosporium</i> OB3b. <i>Archives of Microbiology</i> , <b>1999</b> , 171, 301-308	3	20
2	Methane and Trichloroethylene Degradation by <i>Methylosinus trichosporium</i> OB3b Expressing Particulate Methane Monooxygenase. <i>Applied and Environmental Microbiology</i> , <b>1998</b> , 64, 1106-14	4.8	107
1	The role of copper in the pMMO of <i>Methylococcus capsulatus</i> bath: a structural vs. catalytic function. <i>Journal of Inorganic Biochemistry</i> , <b>1995</b> , 58, 235-44	4.2	56

