## **Gerrit Voordouw**

List of Publications by Year in descending order

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126 papers 7,456 citations

41323 49 h-index 81 g-index

127 all docs

127 docs citations

times ranked

127

4669 citing authors

#	Article	IF	Citations
1	The genome sequence of the anaerobic, sulfate-reducing bacterium Desulfovibrio vulgaris Hildenborough. Nature Biotechnology, 2004, 22, 554-559.	9.4	559
2	Oil Field Souring Control by Nitrate-Reducing Sulfurospirillum spp. That Outcompete Sulfate-Reducing Bacteria for Organic Electron Donors. Applied and Environmental Microbiology, 2007, 73, 2644-2652.	1.4	287
3	Isolation and Characterization of Strains CVO and FWKO B, Two Novel Nitrate-Reducing, Sulfide-Oxidizing Bacteria Isolated from Oil Field Brine. Applied and Environmental Microbiology, 2000, 66, 2491-2501.	1.4	253
4	A Post-Genomic View of the Ecophysiology, Catabolism and Biotechnological Relevance of Sulphate-Reducing Prokaryotes. Advances in Microbial Physiology, 2015, 66, 55-321.	1.0	238
5	Rubrerythrin and Rubredoxin Oxidoreductase in Desulfovibrio vulgaris : a Novel Oxidative Stress Protection System. Journal of Bacteriology, 2001, 183, 101-108.	1.0	213
6	Metagenomics of Hydrocarbon Resource Environments Indicates Aerobic Taxa and Genes to be Unexpectedly Common. Environmental Science & Eamp; Technology, 2013, 47, 10708-10717.	4.6	179
7	Nucleotide sequence of the gene encoding the hydrogenase from Desulfovibrio vulgaris (Hildenborough). FEBS Journal, 1985, 148, 515-520.	0.2	178
8	Carbon and Sulfur Cycling by Microbial Communities in a Gypsum-Treated Oil Sands Tailings Pond. Environmental Science & Enviro	4.6	177
9	Physiological and Gene Expression Analysis of Inhibition of Desulfovibrio vulgaris Hildenborough by Nitrite. Journal of Bacteriology, 2004, 186, 7944-7950.	1.0	155
10	Sulfide Remediation by Pulsed Injection of Nitrate into a Low Temperature Canadian Heavy Oil Reservoir. Environmental Science & Environmental Science	4.6	150
11	Corrosion risk associated with microbial souring control using nitrate or nitrite. Applied Microbiology and Biotechnology, 2005, 68, 272-282.	1.7	138
12	The Electron Transfer System of Syntrophically Grown <i>Desulfovibrio vulgaris</i> Journal of Bacteriology, 2009, 191, 5793-5801.	1.0	133
13	Carbon Monoxide Cycling by Desulfovibrio vulgaris Hildenborough. Journal of Bacteriology, 2002, 184, 5903-5911.	1.0	131
14	Distribution of Hydrogenase Genes in <i>Desulfovibrio</i> spp. and Their Use in Identification of Species from the Oil Field Environment. Applied and Environmental Microbiology, 1990, 56, 3748-3754.	1.4	118
15	Massive dominance of <i>Epsilonproteobacteria</i> in formation waters from a Canadian oil sands reservoir containing severely biodegraded oil. Environmental Microbiology, 2012, 14, 387-404.	1.8	117
16	Containment of Biogenic Sulfide Production in Continuous Up-Flow Packed-Bed Bioreactors with Nitrate or Nitrite. Biotechnology Progress, 2003, 19, 338-345.	1.3	112
17	Reverse Sample Genome Probing, a New Technique for Identification of Bacteria in Environmental Samples by DNA Hybridization, and Its Application to the Identification of Sulfate-Reducing Bacteria in Oil Field Samples. Applied and Environmental Microbiology, 1991, 57, 3070-3078.	1.4	108
18	Identification of Distinct Communities of Sulfate-Reducing Bacteria in Oil Fields by Reverse Sample Genome Probing. Applied and Environmental Microbiology, 1992, 58, 3542-3552.	1.4	102

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19	Function of Oxygen Resistance Proteins in the Anaerobic, Sulfate-Reducing Bacterium Desulfovibrio vulgaris Hildenborough. Journal of Bacteriology, 2003, 185, 71-79.	1.0	95
20	Synergistic Inhibition of Microbial Sulfide Production by Combinations of the Metabolic Inhibitor Nitrite and Biocides. Applied and Environmental Microbiology, 2006, 72, 7897-7901.	1.4	94
21	Deletion of the hmc operon of Desulfovibrio vulgaris subsp. vulgaris Hildenborough hampers hydrogen metabolism and low-redox-potential niche establishment. Archives of Microbiology, 2000, 174, 143-151.	1.0	93
22	Composition of Soil Microbial Communities Enriched on a Mixture of Aromatic Hydrocarbons. Applied and Environmental Microbiology, 2000, 66, 5282-5289.	1.4	92
23	Binding of additional histones to chromatin core particles. Nature, 1978, 273, 446-448.	13.7	91
24	Acetate Production from Oil under Sulfate-Reducing Conditions in Bioreactors Injected with Sulfate and Nitrate. Applied and Environmental Microbiology, 2013, 79, 5059-5068.	1.4	90
25	Competitive Oxidation of Volatile Fatty Acids by Sulfate- and Nitrate-Reducing Bacteria from an Oil Field in Argentina. Applied and Environmental Microbiology, 2008, 74, 4324-4335.	1.4	88
26	Production-related petroleum microbiology: progress and prospects. Current Opinion in Biotechnology, 2011, 22, 401-405.	3.3	88
27	Evolution of Hydrogenase Genes. Advances in Inorganic Chemistry, 1992, , 397-422.	0.4	85
28	Effect of nitrate and nitrite on sulfide production by two thermophilic, sulfate-reducing enrichments from an oil field in the North Sea. Applied Microbiology and Biotechnology, 2007, 75, 195-203.	1.7	85
29	Effects of Deletion of Genes Encoding Fe-Only Hydrogenase of Desulfovibrio vulgaris Hildenborough on Hydrogen and Lactate Metabolism. Journal of Bacteriology, 2002, 184, 679-686.	1.0	81
30	Gene Expression Analysis of Energy Metabolism Mutants of Desulfovibrio vulgaris Hildenborough Indicates an Important Role for Alcohol Dehydrogenase. Journal of Bacteriology, 2003, 185, 4345-4353.	1.0	81
31	Quantitative Reverse Sample Genome Probing of Microbial Communities and Its Application to Oil Field Production Waters. Applied and Environmental Microbiology, 1993, 59, 4101-4114.	1.4	81
32	Function of Periplasmic Hydrogenases in the Sulfate-Reducing Bacterium Desulfovibrio vulgaris Hildenborough. Journal of Bacteriology, 2007, 189, 6159-6167.	1.0	78
33	Cloning of the gene encoding the hydrogenase from Desulfovibrio vulgaris (Hildenborough) and determination of the NH2-terminal sequence. FEBS Journal, 1985, 148, 509-514.	0.2	77
34	Compositions of microbial communities associated with oil and water in a mesothermic oil field. Antonie Van Leeuwenhoek, 2012, 101, 493-506.	0.7	75
35	Effect of Sodium Bisulfite Injection on the Microbial Community Composition in a Brackish-Water-Transporting Pipeline. Applied and Environmental Microbiology, 2011, 77, 6908-6917.	1.4	74
36	Toluene Depletion in Produced Oil Contributes to Souring Control in a Field Subjected to Nitrate Injection. Environmental Science & Environmental Scie	4.6	71

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37	Impact of Nitrate-Mediated Microbial Control of Souring in Oil Reservoirs on the Extent of Corrosion. Biotechnology Progress, 2001, 17, 852-859.	1.3	70
38	Analysis of environmental microbial communities by reverse sample genome probing. Journal of Microbiological Methods, 2003, 53, 211-219.	0.7	70
39	Microbial community succession in a bioreactor modeling a souring low-temperature oil reservoir subjected to nitrate injection. Applied Microbiology and Biotechnology, 2011, 91, 799-810.	1.7	68
40	The role of acetogens in microbially influenced corrosion of steel. Frontiers in Microbiology, 2014, 5, 268.	1.5	68
41	Control of Sulfide Production in High Salinity Bakken Shale Oil Reservoirs by Halophilic Bacteria Reducing Nitrate to Nitrite. Frontiers in Microbiology, 2017, 8, 1164.	1.5	65
42	Elucidating microbial processes in nitrate- and sulfate-reducing systems using sulfur and oxygen isotope ratios: The example of oil reservoir souring control. Geochimica Et Cosmochimica Acta, 2009, 73, 3864-3879.	1.6	62
43	Modulation of the Redox Potentials of FMN inDesulfovibriovulgarisFlavodoxin:Â Thermodynamic Properties and Crystal Structures of Glycine-61 Mutantsâ€,‡. Biochemistry, 1998, 37, 8405-8416.	1.2	61
44	Ammonium Concentrations in Produced Waters from a Mesothermic Oil Field Subjected to Nitrate Injection Decrease through Formation of Denitrifying Biomass and Anammox Activity. Applied and Environmental Microbiology, 2010, 76, 4977-4987.	1.4	61
45	Rubredoxin:Oxygen Oxidoreductase Enhances Survival of Desulfovibrio vulgaris Hildenborough under Microaerophilic Conditions. Journal of Bacteriology, 2006, 188, 6253-6260.	1.0	59
46	Microbial community and potential functional gene diversity involved in anaerobic hydrocarbon degradation and methanogenesis in an oil sands tailings pond. Genome, 2013, 56, 612-618.	0.9	57
47	Implications of Limited Thermophilicity of Nitrite Reduction for Control of Sulfide Production in Oil Reservoirs. Applied and Environmental Microbiology, 2016, 82, 4190-4199.	1.4	57
48	Function of formate dehydrogenases in Desulfovibrio vulgaris Hildenborough energy metabolism. Microbiology (United Kingdom), 2013, 159, 1760-1769.	0.7	56
49	Phoenix 2: A locally installable large-scale 16S rRNA gene sequence analysis pipeline with Web interface. Journal of Biotechnology, 2013, 167, 393-403.	1.9	53
50	Control of Microbial Sulfide Production with Biocides and Nitrate in Oil Reservoir Simulating Bioreactors. Frontiers in Microbiology, 2015, 6, 1387.	1.5	52
51	Targeted gene-replacement mutagenesis of dcrA, encoding an oxygen sensor of the sulfate-reducing bacterium Desulfovibrio vulgaris Hildenborough. Microbiology (United Kingdom), 1997, 143, 1815-1826.	0.7	50
52	Competitive, Microbially-Mediated Reduction of Nitrate with Sulfide and Aromatic Oil Components in a Low-Temperature, Western Canadian Oil Reservoir. Environmental Science &	4.6	49
53	Expression of the gamma-subunit gene of desulfoviridin-type dissimilatory sulfite reductase and of the alpha- and beta-subunit genes is not coordinately regulated. FEBS Journal, 1993, 211, 501-507.	0.2	48
54	Comparison of microbial communities involved in souring and corrosion in offshore and onshore oil production facilities in Nigeria. Journal of Industrial Microbiology and Biotechnology, 2014, 41, 665-678.	1.4	46

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55	Effect of Thermophilic Nitrate Reduction on Sulfide Production in High Temperature Oil Reservoir Samples. Frontiers in Microbiology, 2017, 8, 1573.	1.5	46
56	Gene expression analysis of the mechanism of inhibition of Desulfovibrio vulgaris Hildenborough by nitrate-reducing, sulfide-oxidizing bacteria. Environmental Microbiology, 2005, 7, 1461-1465.	1.8	44
57	Effect of selected biocides on microbiologically influenced corrosion caused by Desulfovibrio ferrophilus IS5. Scientific Reports, 2018, 8, 16620.	1.6	43
58	Identification of Hydrocarbon-Degrading Bacteria in Soil by Reverse Sample Genome Probing. Applied and Environmental Microbiology, 1998, 64, 637-645.	1.4	43
59	Composition of Toluene-Degrading Microbial Communities from Soil at Different Concentrations of Toluene. Applied and Environmental Microbiology, 1999, 65, 3064-3070.	1.4	43
60	Roles of Thermophiles and Fungi in Bitumen Degradation in Mostly Cold Oil Sands Outcrops. Applied and Environmental Microbiology, 2015, 81, 6825-6838.	1.4	41
61	Crystal Structure of Dissimilatory Sulfite Reductase D (DsrD) Proteinâ€"Possible Interaction with Band Z-DNA by Its Winged-Helix Motif. Structure, 2003, 11, 1133-1140.	1.6	40
62	Gene Expression by the Sulfate-Reducing Bacterium Desulfovibrio vulgaris Hildenborough Grown on an Iron Electrode under Cathodic Protection Conditions. Applied and Environmental Microbiology, 2008, 74, 2404-2413.	1.4	40
63	Site-directed mutagenesis of the small subunit of ribulose-1,5-bisphosphate carboxylase/oxygenase from Anacystis nidulans. FEBS Journal, 1987, 163, 591-598.	0.2	39
64	Relation between the activity of anaerobic microbial populations in oil sands tailings ponds and the sedimentation of tailings. Chemosphere, 2010, 81, 663-668.	4.2	39
65	Microbially Enhanced Oil Recovery by Sequential Injection of Light Hydrocarbon and Nitrate in Low-And High-Pressure Bioreactors. Environmental Science & Environmental Science & 2015, 49, 12594-12601.	4.6	39
66	Use of Acetate, Propionate, and Butyrate for Reduction of Nitrate and Sulfate and Methanogenesis in Microcosms and Bioreactors Simulating an Oil Reservoir. Applied and Environmental Microbiology, 2017, 83, .	1.4	36
67	The Effectiveness of Nitrate-Mediated Control of the Oil Field Sulfur Cycle Depends on the Toluene Content of the Oil. Frontiers in Microbiology, 2017, 8, 956.	1.5	36
68	Ferric iron reduction by Desulfovibrio vulgaris Hildenborough wild type and energy metabolism mutants. Antonie Van Leeuwenhoek, 2008, 93, 79-85.	0.7	35
69	<i>Microbiology to Help Solve Our Energy Needs</i> . Annals of the New York Academy of Sciences, 2008, 1125, 345-352.	1.8	35
70	Impact of light oil toxicity on sulfide production by acetate-oxidizing, sulfate-reducing bacteria. International Biodeterioration and Biodegradation, 2018, 126, 208-215.	1.9	33
71	Effects of biocides on gene expression in the sulfate-reducing bacterium Desulfovibrio vulgaris Hildenborough. Applied Microbiology and Biotechnology, 2010, 87, 1109-1118.	1.7	32
72	Prospects for using native and recombinant rhamnolipid producers for microbially enhanced oil recovery. International Biodeterioration and Biodegradation, 2013, 81, 133-140.	1.9	32

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73	Overexpression, purification and immunodetection of DsrD from Desulfovibrio vulgaris Hildenborough. Antonie Van Leeuwenhoek, 2000, 77, 271-280.	0.7	30
74	Microbial Methane Production Associated with Carbon Steel Corrosion in a Nigerian Oil Field. Frontiers in Microbiology, 2015, 6, 1538.	1.5	30
75	Sulfur cycling in mixed cultures of sulfide-oxidizing and sulfate- or sulfur-reducing oil field bacteria. Canadian Journal of Microbiology, 1999, 45, 905-913.	0.8	29
76	A universal system for the transport of redox proteins: early roots and latest developments. Biophysical Chemistry, 2000, 86, 131-140.	1.5	29
77	Effect of sulfide on growth physiology and gene expression of Desulfovibrio vulgaris Hildenborough. Antonie Van Leeuwenhoek, 2010, 97, 11-20.	0.7	29
78	Biodegradation of isopropanol and acetone under denitrifying conditions by Thauera sp. TK001 for nitrate-mediated microbially enhanced oil recovery. Journal of Hazardous Materials, 2017, 334, 68-75.	6.5	29
79	Effects of two diamine biocides on the microbial community from an oil field. Canadian Journal of Microbiology, 1998, 44, 1060-1065.	0.8	27
80	Contribution of rubredoxin:oxygen oxidoreductases and hybrid cluster proteins of <i><scp>D</scp>esulfovibrio vulgaris</i> <scp>H</scp> ildenborough to survival under oxygen and nitrite stress. Environmental Microbiology, 2012, 14, 2711-2725.	1.8	27
81	Microbial community structure and microbial activities related to CO2 storage capacities of a salt cavern. International Biodeterioration and Biodegradation, 2013, 81, 82-87.	1.9	27
82	Metagenomic Analysis Indicates Epsilonproteobacteria as a Potential Cause of Microbial Corrosion in Pipelines Injected with Bisulfite. Frontiers in Microbiology, 2016, 7, 28.	1.5	27
83	Use of Homogeneously-Sized Carbon Steel Ball Bearings to Study Microbially-Influenced Corrosion in Oil Field Samples. Frontiers in Microbiology, 2016, 7, 351.	1.5	26
84	Overexpression of Desulfovibrio vulgaris Hildenborough cytochrome c553 in Desulfovibrio desulfuricans G200. Evidence of conformational heterogeneity in the oxidized protein by NMR. FEBS Journal, 1993, 218, 293-301.	0.2	25
85	Microbially enhanced oil recovery from miniature model columns through stimulation of indigenous microflora with nitrate. International Biodeterioration and Biodegradation, 2014, 96, 135-143.	1.9	25
86	Electron transfer pathways of formate-driven H2 production in Desulfovibrio. Applied Microbiology and Biotechnology, 2016, 100, 8135-8146.	1.7	25
87	Transformation of iron sulfide to greigite by nitrite produced by oil field bacteria. Applied Microbiology and Biotechnology, 2009, 83, 369-376.	1.7	24
88	Biochemical, genetic and genomic characterization of anaerobic electron transport pathways in sulphate-reducing (i) Delta proteobacteria (i), 2007, 215-240.		23
89	Studies on ColE1-plasmid DNA and its interactions with histones: sedimentation velocity studies of monodisperse complexes reconstituted with calf-thymus histones. Nucleic Acids Research, 1977, 4, 1207-1224.	6.5	21
90	A genomic island of the sulfateâ€reducing bacterium <i>Desulfovibrio vulgaris</i> Hildenborough promotes survival under stress conditions while decreasing the efficiency of anaerobic growth. Environmental Microbiology, 2009, 11, 981-991.	1.8	20

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91	Sulfate-Reducing Bacteria Lower Sulfur-Mediated Pitting Corrosion under Conditions of Oxygen Ingress. Environmental Science &	4.6	20
92	Contribution of make-up water to the microbial community in an oilfield from which oil is produced by produced water re-injection. International Biodeterioration and Biodegradation, 2013, 81, 44-50.	1.9	20
93	Effect of calcium ions and anaerobic microbial activity on sedimentation ofÂoilÂsands tailings. International Biodeterioration and Biodegradation, 2013, 81, 9-16.	1.9	18
94	Souring in low-temperature surface facilities of two high-temperature Argentinian oil fields. Applied Microbiology and Biotechnology, 2014, 98, 8017-8029.	1.7	18
95	Interaction of oil sands tailings particles with polymers and microbial cells: First steps toward reclamation to soil. Biopolymers, 2013, 99, 257-262.	1.2	17
96	The dcr gene family of Desulfovibrio: Implications from the sequence of dcrH and phylogenetic comparison with other mcp genes. Antonie Van Leeuwenhoek, 1996, 70, 21-29.	0.7	16
97	Microbially Enhanced Oil Recovery by Alkylbenzene-Oxidizing Nitrate-Reducing Bacteria. Frontiers in Microbiology, 2019, 10, 1243.	1.5	15
98	Biocide-mediated corrosion of coiled tubing. PLoS ONE, 2017, 12, e0181934.	1.1	14
99	Methods for Recovery of Microorganisms and Intact Microbial Polar Lipids from Oilâ^'Water Mixtures: Laboratory Experiments and Natural Well-Head Fluids. Analytical Chemistry, 2009, 81, 4130-4136.	3.2	13
100	Nitrate-Mediated Microbially Enhanced Oil Recovery (N-MEOR) from model upflow bioreactors. Journal of Hazardous Materials, 2017, 324, 94-99.	6.5	13
101	Effect of long term application of tetrakis(hydroxymethyl)phosphonium sulfate (THPS) in a light oil-producing oilfield. Biofouling, 2018, 34, 605-617.	0.8	13
102	Membrane topology of the methyl-accepting chemotaxis protein DcrA fromDesulfovibrio vulgaris Hildenborough. Antonie Van Leeuwenhoek, 1994, 65, 7-12.	0.7	12
103	Changes in soil microbial community composition induced by cometabolism of toluene and trichloroethylene. Biodegradation, 2005, 16, 11-22.	1.5	12
104	Comparison of Nitrate and Perchlorate in Controlling Sulfidogenesis in Heavy Oil-Containing Bioreactors. Frontiers in Microbiology, 2018, 9, 2423.	1.5	12
105	Effect of nitrite on a thermophilic, methanogenic consortium from an oil storage tank. Applied Microbiology and Biotechnology, 2006, 72, 1308-1315.	1.7	11
106	Synergy of Sodium Nitroprusside and Nitrate in Inhibiting the Activity of Sulfate Reducing Bacteria in Oil-Containing Bioreactors. Frontiers in Microbiology, 2018, 9, 981.	1.5	11
107	Rubrerythrin and Rubredoxin Oxidoreductase in <i>Desulfovibrio vulgaris</i> : a Novel Oxidative Stress Protection System. Journal of Bacteriology, 2001, 183, 2970-2970.	1.0	11
108	Use of Nitrate or Nitrite for the Management of the Sulfur Cycle in Oil and Gas Fields., 2007, , .		10

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109	Aerobic microbial taxa dominate deep subsurface cores from the Alberta oil sands. FEMS Microbiology Ecology, 2018, 94, .	1.3	10
110	Use of carbon steel ball bearings to determine the effect of biocides and corrosion inhibitors on microbiologically influenced corrosion under flow conditions. Applied Microbiology and Biotechnology, 2018, 102, 5741-5751.	1.7	10
111	Emerging Oil Field Biotechnologies: Prevention of Oil Field Souring by Nitrate Injection. , 0, , 377-388.		10
112	Anaerobic microbial communities and their potential for bioenergy production in heavily biodegraded petroleum reservoirs. Environmental Microbiology, 2020, 22, 3049-3065.	1.8	9
113	Primers for dsr Genes and Most Probable Number Method for Detection of Sulfate-Reducing Bacteria in Oil Reservoirs. Springer Protocols, 2015, , 35-43.	0.1	8
114	Microbial sulfite oxidation coupled to nitrate reduction in makeup water for oil production. Chemosphere, 2021, 284, 131298.	4.2	8
115	Biodegradation of dicyclopentadiene in the field. Biodegradation, 1999, 10, 135-148.	1.5	7
116	Microbial Populations of the River-Recharged Fredericton Aquifer. Geomicrobiology Journal, 2005, 22, 311-324.	1.0	7
117	Biochemical, proteomic and genetic characterization of oxygen survival mechanisms in sulphate-reducing bacteria of the genus <i>Desulfovibrio</i> ., 2007, , 185-214.		7
118	Oxygen exposure increases resistance of Desulfovibrio vulgaris Hildenborough to killing by hydrogen peroxide. Antonie Van Leeuwenhoek, 2012, 101, 303-311.	0.7	6
119	Halophilic Methylotrophic Methanogens May Contribute to the High Ammonium Concentrations Found in Shale Oil and Shale Gas Reservoirs. Frontiers in Energy Research, 2019, 7, .	1.2	6
120	Impact of Nitrate on the Sulfur Cycle in Oil Fields. , 2008, , 296-302.		6
121	Microbial community composition at an ethane pyrolysis plant site at different hydrocarbon inputs. FEMS Microbiology Ecology, 2002, 40, 233-241.	1.3	5
122	Sequential and structural analysis of [NiFe]-hydrogenase-maturation proteins from Desulfovibrio vulgaris Miyazaki F. Antonie Van Leeuwenhoek, 2006, 90, 281-290.	0.7	5
123	On the analysis of DNA-protein interactions: Nucleosome formation by the interaction of SV-40 DNA with histones. Biopolymers, 1977, 16, 1363-1366.	1.2	3
124	Microbial Community Dynamics During Bioremediation of Hydrocarbons. Soil Biology, 2004, , 19-36.	0.6	2
125	Laboratory Protocols for Investigating Microbial Souring and Potential Treatments in Crude Oil Reservoirs. Springer Protocols, 2015, , 183-210.	0.1	1
126	Function and Assembly of Electron-Transport Complexes in Desulfovibrio vulgaris Hildenborough., 2003,, 99-112.		0