Perry L Mccarty

List of Publications by Year
in descending order

86 papers	10,956 citations	34493 54 h-index	64407 83 g-index
86 all docs	86 docs citations	86 times ranked	6949 citing authors

#	Article	IF	Citations
1	Temperate climate energy-positive anaerobic secondary treatment of domestic wastewater at pilot-scale. Water Research, 2021, 204, 117598.	5.3	21
2	A comparative pilot-scale evaluation of gas-sparged and granular activated carbon-fluidized anaerobic membrane bioreactors for domestic wastewater treatment. Bioresource Technology, 2019, 288, 120949.	4.8	50
3	What is the Best Biological Process for Nitrogen Removal: When and Why?. Environmental Science & Technology, 2018, 52, 3835-3841.	4.6	210
4	Low energy single-staged anaerobic fluidized bed ceramic membrane bioreactor (AFCMBR) for wastewater treatment. Bioresource Technology, 2017, 240, 33-41.	4.8	107
5	Pilot-Scale Comparison of Gas-Sparged and GAC-Fluidized Anaerobic Membrane Bioreactors Treating Domestic Wastewater. Proceedings of the Water Environment Federation, 2017, 2017, 5446-5455.	0.0	1
6	Effects of FeCl3 addition on the operation of a staged anaerobic fluidized membrane bioreactor (SAF-MBR). Water Science and Technology, 2016, 74, 130-137.	1.2	12
7	Development and application of a procedure for evaluating the long-term integrity of membranes for the anaerobic fluidized membrane bioreactor (AFMBR). Water Science and Technology, 2016, 74, 457-465.	1.2	17
8	Integrity of hollow-fiber membranes in a pilot-scale anaerobic fluidized membrane bioreactor (AFMBR) after two-years of operation. Separation and Purification Technology, 2016, 162, 101-105.	3.9	60
9	Importance of Dissolved Methane Management When Anaerobically Treating Low-Strength Wastewaters. Current Organic Chemistry, 2016, 20, 2810-2816.	0.9	14
10	Anaerobic fluidized membrane bioreactor polishing of baffled reactor effluent during treatment of dilute wastewater. Journal of Chemical Technology and Biotechnology, 2015, 90, 391-397.	1.6	21
11	Probabilistic evaluation of integrating resource recovery into wastewater treatment to improve environmental sustainability. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 1630-1635.	3.3	75
12	Anaerobic Fluidized Bed Membrane Bioreactors for the Treatment of Domestic Wastewater. , 2015, , 211-242.		5
13	Superior Removal of Disinfection Byproduct Precursors and Pharmaceuticals from Wastewater in a Staged Anaerobic Fluidized Membrane Bioreactor Compared to Activated Sludge. Environmental Science and Technology Letters, 2014, 1, 459-464.	3.9	53
14	Anaerobic treatment of low-strength wastewater: A comparison between single and staged anaerobic fluidized bed membrane bioreactors. Bioresource Technology, 2014, 165, 75-80.	4.8	87
15	Pilot-scale temperate-climate treatment of domestic wastewater with a staged anaerobic fluidized membrane bioreactor (SAF-MBR). Bioresource Technology, 2014, 159, 95-103.	4.8	221
16	Efficient single-stage autotrophic nitrogen removal with dilute wastewater through oxygen supply control. Bioresource Technology, 2012, 123, 400-405.	4.8	32
17	Lower operational limits to volatile fatty acid degradation with dilute wastewaters in an anaerobic fluidized bed reactor. Bioresource Technology, 2012, 109, 13-20.	4.8	24
18	Model to Couple Anaerobic Process Kinetics with Biological Growth Equilibrium Thermodynamics. Environmental Science & Technology, 2011, 45, 6838-6844.	4.6	24

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19	Anaerobic Fluidized Bed Membrane Bioreactor for Wastewater Treatment. Environmental Science & Technology, 2011, 45, 576-581.	4.6	414
20	Domestic Wastewater Treatment as a Net Energy Producerâ€“Can This be Achieved?. Environmental Science & Technology, 2011, 45, 7100-7106.	4.6	1,406
21	Biological reduction of chlorinated solvents: Batch-scale geochemical modeling. Advances in Water Resources, 2010, 33, 969-986.	1.7	36
22	pH control for enhanced reductive bioremediation of chlorinated solvent source zones. Science of the Total Environment, 2009, 407, 4560-4573.	3.9	72
23	Electron donor and pH relationships for biologically enhanced dissolution of chlorinated solvent DNAPL in groundwater. European Journal of Soil Biology, 2007, 43, 276-282.	1.4	51
24	Thermodynamic electron equivalents model for bacterial yield prediction: Modifications and comparative evaluations. Biotechnology and Bioengineering, 2007, 97, 377-388.	1.7	112
25	Comparison between acetate and hydrogen as electron donors and implications for the reductive dehalogenation of PCE and TCE. Journal of Contaminant Hydrology, 2007, 94, 76-85.	1.6	41
26	Numerical Model for Biological Fluidized-Bed Reactor Treatment of Perchlorate-Contaminated Groundwater. Environmental Science & Technology, 2005, 39, 850-858.	4.6	41
27	Molecular Identification of the Catabolic Vinyl Chloride Reductase from Dehalococcoides sp. Strain VS and Its Environmental Distribution. Applied and Environmental Microbiology, 2004, 70, 4880-4888.	1.4	328
28	Simulated and experimental evaluation of factors affecting the rate and extent of reductive dehalogenation of chloroethenes with glucose. Journal of Contaminant Hydrology, 2004, 74, 313-331.	1.6	42
29	Vinyl Chloride andcis-Dichloroethene Dechlorination Kinetics and Microorganism Growth under Substrate Limiting Conditions. Environmental Science & Technology, 2004, 38, 1102-1107.	4.6	113
30	Comparative Evaluation of Chloroethene Dechlorination to Ethene byDehalococcoides-like Microorganisms. Environmental Science & Technology, 2004, 38, 4768-4774.	4.6	74
31	Growth of a Dehalococcoides -Like Microorganism on Vinyl Chloride and cis -Dichloroethene as Electron Acceptors as Determined by Competitive PCR. Applied and Environmental Microbiology, 2003, 69, 953-959.	1.4	229
32	Comparison between Donor Substrates for Biologically Enhanced Tetrachloroethene DNAPL Dissolution. Environmental Science & Technology, 2002, 36, 3400-3404.	4.6	117
33	Full-scale demonstration of in situ cometabolic biodegradation of trichloroethylene in groundwater 1. Dynamics of a recirculating well system. Water Resources Research, 2002, 38, 10-1-10-15.	1.7	19
34	Full-scale demonstration of in situ cometabolic biodegradation of trichloroethylene in groundwater 2. Comprehensive analysis of field data using reactive transport modeling. Water Resources Research, 2002, 38, 11-1-11-18.	1.7	28
35	Biomass, Oleate, and Other Possible Substrates for Chloroethene Reductive Dehalogenation. Bioremediation Journal, 2000, 4, 125-133.	1.0	45
36	Biologically Enhanced Dissolution of Tetrachloroethene DNAPL. Environmental Science & Technology, 2000, 34, 2979-2984.	4.6	158

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37	Impact of Colony Morphologies and Disinfection on Biological Clogging in Porous Media. Environmental Science & Technology, 2000, 34, 1513-1520.	4.6	93
38	Mass-Transfer Limitations for Macroscale Bioremediation Modeling and Implications on Aquifer Clogging. Ground Water, 1999, 37, 523-531.	0.7	30
39	Effects of Shear Detachment on Biomass Growth and In Situ Bioremediation. Ground Water, 1999, 37, 555-563.	0.7	26
40	Chlorinated Ethene Half-Velocity Coefficients (KS) for Reductive Dehalogenation. Environmental Science & Technology, 1999, 33, 223-226.	4.6	86
41	Full-Scale Evaluation ofIn SituCometabolic Degradation of Trichloroethylene in Groundwater through Toluene Injection. Environmental Science & Technology, 1998, 32, 88-100.	4.6	210
42	Competition for Hydrogen within a Chlorinated Solvent Dehalogenating Anaerobic Mixed Culture. Environmental Science & Technology, 1998, 32, 3591-3597.	4.6	284
43	Spreadsheet Method for Evaluation of Biochemical Reaction Rate Coefficients and Their Uncertainties by Weighted Nonlinear Least-Squares Analysis of the Integrated Monod Equation. Applied and Environmental Microbiology, 1998, 64, 2044-2050.	1.4	76
44	Effect of Chlorinated Ethenes onSminfor a Methanotrophic Mixed Culture. Environmental Science & Technology, 1997, 31, 2204-2210.	4.6	6
45	Numerical modeling and uncertainties in rate coefficients for methane utilization and TCE cometabolism by a methane-oxidizing mixed culture. , 1997, 53, 320-331.		50
46	Laboratory evaluation of a two-stage treatment system for TCE cometabolism by a methane-oxidizing mixed culture. , 1997, 55, 650-659.		23
47	Effect of Three Chlorinated Ethenes on Growth Rates for a Methanotrophic Mixed Culture. Environmental Science & Technology, 1996, 30, 3517-3524.	4.6	28
48	Field Evaluation of in Situ Aerobic Cometabolism of Trichloroethylene and Three Dichloroethylene Isomers Using Phenol and Toluene as the Primary Substrates. Environmental Science & Technology, 1995, 29, 1628-1637.	4.6	168
49	Trichloroethylene concentration effects on pilot field-scale in-situ groundwater bioremediation by phenol-oxidizing microorganisms. Environmental Science & Technology, 1993, 27, 2542-2547.	4.6	97
50	Inhibition of Butyrate Oxidation by Formate during Methanogenesis. Applied and Environmental Microbiology, 1993, 59, 628-630.	1.4	8
51	In-situ transformation of carbon tetrachloride and other halogenated compounds resulting from biostimulation under anoxic conditions. Environmental Science & Technology, 1992, 26, 2454-2461.	4.6	97
52	Comparison Between Model Simulations and Field Results for In-Situ Biorestoration of Chlorinated Aliphatics: Part 2. Cometabolic Transformations. Ground Water, 1992, 30, 37-44.	0.7	113
53	A cometabolic biotransformation model for halogenated aliphatic compounds exhibiting product toxicity. Environmental Science & Technology, 1991, 25, 1381-1387.	4.6	131
54	Electrolytic model system for reductive dehalogenation in aqueous environments. Environmental Science & Technology, 1991, 25, 973-978.	4.6	121

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55	Two-stage dispersed-growth treatment of halogenated aliphatic compounds by cometabolism. Environmental Science & Technology, 1991, 25, 1387-1393.	4.6	64
56	Degradation of toluene and <i>p</i>â€xylene in anaerobic microcosms: Evidence for sulfate as a terminal electron acceptor. Environmental Toxicology and Chemistry, 1991, 10, 1379-1389.	2.2	67
57	A Field Evaluation of In-Situ Biodegradation of Chlorinated Ethenes: Part 3, Studies of Competitive Inhibition. Ground Water, 1991, 29, 239-250.	0.7	90
58	Comparison Between Model Simulations and Field Results for In-Situ Biorestoration of Chlorinated Aliphatics: Part 1. Biostimulation of Methanotrophic Bacteria. Ground Water, 1991, 29, 365-374.	0.7	125
59	Column Studies on Methanotrophic Degradation of Trichloroethene and 1,2-Dichloroethane. Ground Water, 1990, 28, 910-919.	0.7	37
60	A Field Evaluation of In-Situ Biodegradation of Chlorinated Ethenes: Part 2, Results of Biostimulation and Biotransformation Experiments. Ground Water, 1990, 28, 715-727.	0.7	203
61	Methane fermentation of selected lignocellulosic materials. Bioresource Technology, 1990, 21, 239-255.	0.3	185
62	Energetic and rate effects on methanogenesis of ethanol and propionate in perturbed CSTRs. Biotechnology and Bioengineering, 1989, 34, 39-54.	1.7	62
63	Reduced product formation following perturbation of ethanol- and propionate-fed methanogenic CSTRs. Biotechnology and Bioengineering, 1989, 34, 885-895.	1.7	54
64	Biotransformation of halogenated and nonhalogenated octylphenol polyethoxylate residues under aerobic and anaerobic conditions. Environmental Science & Technology, 1989, 23, 951-961.	4.6	78
65	Thermochemical pretreatment of lignocellulose to enhance methane fermentation: I. Monosaccharide and furfurals hydrothermal decomposition and product formation rates. Biotechnology and Bioengineering, 1988, 31, 50-61.	1.7	111
66	Thermochemical pretreatment of lignocellulose to enhance methane fermentation: II. Evaluation and application of pretreatment model. Biotechnology and Bioengineering, 1988, 31, 62-70.	1.7	35
67	ES&T Critical Reviews: Transformations of halogenated aliphatic compounds. Environmental Science & Technology, 1987, 21, 722-736.	4.6	935
68	Abiotic and biotic transformations of 1,1,1-trichloroethane under methanogenic conditions. Environmental Science & Technology, 1987, 21, 1208-1213.	4.6	147
69	Anaerobic wastewater treatment. Environmental Science & Technology, 1986, 20, 1200-1206.	4.6	398
70	Utilization rates of trace halogenated organic compounds in acetate-grown biofilms. Biotechnology and Bioengineering, 1985, 27, 1564-1571.	1.7	65
71	The effect of thermal pretreatment on the anaerobic biodegradability and toxicity of waste activated sludge. Water Research, 1984, 18, 1343-1353.	5.3	162
72	Removal of trace chlorinated organic compounds by activated carbon and fixed-film bacteria. Environmental Science & Technology, 1982, 16, 836-843.	4.6	95

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73	Model of steady-state-biofilm kinetics. Biotechnology and Bioengineering, 1982, 24, 2291-2291.	1.7	89
74	Trace organics in groundwater. Environmental Science & Technology, 1981, 15, 40-51.	4.6	225
75	Anaerobic degradation of halogenated 1- and 2-carbon organic compounds. Environmental Science & Technology, 1981, 15, 596-599.	4.6	183
76	Substrate Flux into Biofilms of any Thickness. American Society of Civil Engineers, Journal of the Environmental Engineering Division, 1981, 107, 831-849.	0.3	103
77	Model of steady-state-biofilm kinetics. Biotechnology and Bioengineering, 1980, 22, 2343-2357.	1.7	433
78	Evaluation of steady-state-biofilm kinetics. Biotechnology and Bioengineering, 1980, 22, 2359-2373.	1.7	195
79	Trace-Organics Biodegradation in Aquifer Recharge. Ground Water, 1980, 18, 236-243.	0.7	50
80	Variable-Order Model of Bacterial-Film Kinetics. American Society of Civil Engineers, Journal of the Environmental Engineering Division, 1978, 104, 889-900.	0.3	61
81	Rapid measurement of monod half-velocity coefficients for bacterial kinetics. Biotechnology and Bioengineering, 1975, 17, 915-924.	1.7	45
82	Effects of carbonate and magnesium on calcium phosphate precipitation. Environmental Science & Technology, 1971, 5, 534-540.	4.6	74
83	Energetics and Kinetics of Anaerobic Treatment. Advances in Chemistry Series, 1971, , 91-107.	0.6	46
84	Aerobic decomposition of algae. Environmental Science & Technology, 1971, 5, 1023-1031.	4.6	98
85	Anaerobic decomposition of algae. Environmental Science & Technology, 1970, 4, 842-849.	4.6	125
86	Unified Basis for Biological Treatment Design and Operation. ASCE Sanitary Engineering Division Journal, 1970, 96, 757-778.	0.1	309