Kenneth F Reardon

List of Publications by Year in descending order

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135 papers

5,513 citations

42 h-index 91884 69 g-index

142 all docs 142 docs citations

times ranked

142

6766 citing authors

#	Article	IF	Citations
1	Rhizosphere interactions: root exudates, microbes, and microbial communities. Botany, 2014, 92, 267-275.	1.0	547
2	Biodegradation kinetics of benzene, toluene, and phenol as single and mixed substrates forPseudomonas putida F1. Biotechnology and Bioengineering, 2000, 69, 385-400.	3.3	313
3	Expression of industrially relevant laccases: prokaryotic style. Trends in Biotechnology, 2011, 29, 480-489.	9.3	163
4	Flow cytometry in biotechnology. Applied Microbiology and Biotechnology, 2001, 56, 350-360.	3.6	162
5	Sensor systems for bioprocess monitoring. Engineering in Life Sciences, 2015, 15, 469-488.	3.6	149
6	Isolation and characterization of ligninâ€degrading bacteria from rainforest soils. Biotechnology and Bioengineering, 2013, 110, 1616-1626.	3.3	135
7	Detection and Quantification of Functional Genes of Cellulose- Degrading, Fermentative, and Sulfate-Reducing Bacteria and Methanogenic Archaea. Applied and Environmental Microbiology, 2010, 76, 2192-2202.	3.1	129
8	On-line infrared spectroscopy for bioprocess monitoring. Applied Microbiology and Biotechnology, 2010, 88, 11-22.	3.6	119
9	Protein engineering of toluene ortho-monooxygenase of Burkholderia cepacia G4 for regiospecific hydroxylation of indole to form various indigoid compounds. Applied Microbiology and Biotechnology, 2005, 66, 422-429.	3.6	111
10	Metaproteomic Analysis of a Bacterial Community Response to Cadmium Exposure. Journal of Proteome Research, 2007, 6, 1145-1152.	3.7	105
11	Spectroscopic sensors for in-line bioprocess monitoring in research and pharmaceutical industrial application. Analytical and Bioanalytical Chemistry, 2017, 409, 651-666.	3.7	105
12	On-line monitoring of large cultivations of microalgae and cyanobacteria. Trends in Biotechnology, 2013, 31, 406-414.	9.3	102
13	Comparison of protein and peptide prefractionation methods for the shotgun proteomic analysis ofSynechocystis sp.â€PCC 6803. Proteomics, 2005, 5, 2468-2478.	2.2	94
14	Biodegradation kinetics of aromatic hydrocarbon mixtures by pure and mixed bacterial cultures Environmental Health Perspectives, 2002, 110, 1005-1011.	6.0	87
15	Fenton's oxidation of pentachlorophenol. Water Research, 2009, 43, 1831-1840.	11.3	85
16	Metabolic Pathway Rates and Culture Fluorescence in Batch Fermentations of <i>Clostridium Acetobutylicum </i> Acetobutylicum	2.6	84
17	Microbial community activities during establishment, performance, and decline of bench-scale passive treatment systems for mine drainage. Water Research, 2005, 39, 4537-4551.	11.3	82
18	Protein Engineering of Epoxide Hydrolase from Agrobacterium radiobacter AD1 for Enhanced Activity and Enantioselective Production of (R)-1-Phenylethane-1,2-Diol. Applied and Environmental Microbiology, 2005, 71, 3995-4003.	3.1	79

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19	The effect of inoculum on the performance of sulfate-reducing columns treating heavy metal contaminated water. Water Research, 2007, 41, 904-914.	11.3	77
20	Saturation Mutagenesis of Toluene ortho-Monooxygenase of Burkholderia cepacia G4 for Enhanced 1-Naphthol Synthesis and Chloroform Degradation. Applied and Environmental Microbiology, 2004, 70, 3246-3252.	3.1	75
21	Comparison of Plant Families in a Greenhouse Phytoremediation Study on an Aged Polycyclic Aromatic Hydrocarbon–Contaminated Soil. Journal of Environmental Quality, 2007, 36, 1461-1469.	2.0	75
22	The determination of protein phosphorylation on electrophoresis gel blots by laser ablation inductively coupled plasma-mass spectrometry. Analyst, The, 2002, 127, 459-461.	3 . 5	71
23	Environmental proteomics: applications of proteome profiling in environmental microbiology and biotechnology. Briefings in Functional Genomics & Proteomics, 2008, 8, 75-87.	3.8	70
24	Effect of Organic Substrate on the Microbial Community Structure in Pilot-Scale Sulfate-Reducing Biochemical Reactors Treating Mine Drainage. Environmental Engineering Science, 2011, 28, 563-572.	1.6	66
25	Identification of stress-related proteins in <i>Escherichia coli</i> using the pollutant <i>cis</i> dichloroethylene. Journal of Applied Microbiology, 2009, 108, 2088-102.	3.1	63
26	Variations in Diversity and Richness of Gut Bacterial Communities of Termites (Reticulitermes flavipes) Fed with Grassy and Woody Plant Substrates. Microbial Ecology, 2013, 65, 531-536.	2.8	61
27	Active Site Engineering of the Epoxide Hydrolase from Agrobacterium radiobacter AD1 to Enhance Aerobic Mineralization of cis-1,2-Dichloroethylene in Cells Expressing an Evolved Toluene ortho-Monooxygenase. Journal of Biological Chemistry, 2004, 279, 46810-46817.	3.4	59
28	Electrolytic trichloroethene degradation using mixed metal oxide coated titanium mesh electrodes. Chemosphere, 2007, 67, 1573-1581.	8.2	59
29	Mitsuaria sp. and Burkholderia sp. from Arabidopsis rhizosphere enhance drought tolerance in Arabidopsis thaliana and maize (Zea mays L.). Plant and Soil, 2017, 419, 523-539.	3.7	58
30	Grain and sweet sorghum (<i>Sorghum bicolor</i> L. Moench) serves as a novel source of bioactive compounds for human health. Critical Reviews in Food Science and Nutrition, 2018, 58, 2867-2881.	10.3	58
31	Bioanalytics: detailed insight into bioprocesses. Analytica Chimica Acta, 1999, 400, 121-134.	5.4	57
32	Bacterial community changes in an industrial algae production system. Algal Research, 2018, 31, 147-156.	4.6	55
33	Immunoproteomic identification of bovine pericardium xenoantigens. Biomaterials, 2008, 29, 3514-3520.	11.4	54
34	Comparison of CE-SSCP and DGGE for monitoring a complex microbial community remediating mine drainage. Journal of Microbiological Methods, 2007, 69, 52-64.	1.6	53
35	Effects of blending C3-C4 alcohols on motor gasoline properties and performance of spark ignition engines: A review. Fuel Processing Technology, 2020, 197, 106194.	7.2	53
36	Development of a Fiber Optic Enzymatic Biosensor for 1,2-dichloroethane. Biotechnology Letters, 2006, 28, 883-887.	2.2	52

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37	<i>Bacillus</i> spp. from rainforest soil promote plant growth under limited nitrogen conditions. Journal of Applied Microbiology, 2015, 118, 672-684.	3.1	51
38	Microbial community analysis of two fieldâ€scale sulfateâ€reducing bioreactors treating mine drainage. Environmental Microbiology, 2008, 10, 2087-2097.	3.8	50
39	Hydroxyl free radical reactivity toward aqueous chlorinated phenols. Water Research, 2005, 39, 865-869.	11.3	49
40	Future Aspects of Bioprocess Monitoring. Advances in Biochemical Engineering/Biotechnology, 2006, 105, 249-293.	1.1	48
41	Testosterone-Mineralizing Culture Enriched from Swine Manure: Characterization of Degradation Pathways and Microbial Community Composition. Environmental Science & Enp.; Technology, 2011, 45, 6879-6886.	10.0	44
42	Sensors for disposable bioreactors. Engineering in Life Sciences, 2017, 17, 940-952.	3.6	44
43	Ecology of Rhizosphere Bioremediation. , 0, , 317-353.		43
44	Immuno- and flow cytometric analytical methods for biotechnological research and process monitoring. Journal of Biotechnology, 1992, 25, 115-144.	3.8	42
45	Culturing and investigation of stress-induced lipid accumulation in microalgae using a microfluidic device. Analytical and Bioanalytical Chemistry, 2011, 400, 245-253.	3.7	42
46	Monitoring of microalgal cultivations with on-line, flow-through microscopy. Algal Research, 2013, 2, 253-257.	4.6	42
47	Conversion of lipid-extracted Nannochloropsis salina biomass into fermentable sugars. Algal Research, 2015, 8, 145-152.	4.6	41
48	A proposed approach to study the toxicology of complex mixtures of petroleum products: the integrated use of QSAR, lumping analysis and PBPK/PD modeling Environmental Health Perspectives, 1997, 105, 179-195.	6.0	40
49	Effects of Agronomic Practices on Phytoremediation of an Aged PAHâ€Contaminated Soil. Journal of Environmental Quality, 2008, 37, 1439-1446.	2.0	40
50	Species-Specific Oligonucleotides for Enumeration of <i>Pseudomonas putida</i> F1, <i>Burkholderia</i> sp. Strain JS150, and <i>Bacillus subtilis</i> ATCC 7003 in Biodegradation Experiments. Applied and Environmental Microbiology, 1998, 64, 4994-4999.	3.1	37
51	Application of biologically based computer modeling to simple or complex mixtures Environmental Health Perspectives, 2002, 110, 957-963.	6.0	36
52	Sensors in Disposable Bioreactors Status and Trends. Advances in Biochemical Engineering/Biotechnology, 2009, 115, 145-169.	1,1	36
53	Metabolic pathway engineering to enhance aerobic degradation of chlorinated ethenes and to reduce their toxicity by cloning a novel glutathione S-transferase, an evolved toluene o-monooxygenase, and gamma-glutamylcysteine synthetase. Environmental Microbiology, 2004, 6, 491-500.	3.8	35
54	Shotgun proteomics of cyanobacteria—applications of experimental and data-mining techniques. Briefings in Functional Genomics, 2006, 5, 121-132.	2.7	34

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55	Integrated Approaches for the Analysis of Toxicologic Interactions of Chemical Mixtures. Critical Reviews in Toxicology, 1997, 27, 175-197.	3.9	33
56	Comparison of microbial community composition and activity in sulfateâ€reducing batch systems remediating mine drainage. Biotechnology and Bioengineering, 2008, 101, 702-713.	3.3	32
57	Sorption of nonpolar neutral organic compounds to humic acid-coated sands: Contributions of organic and mineral components. Chemosphere, 2008, 70, 1290-1297.	8.2	31
58	Growth inhibition of Nannochloropsis species by Bacillus pumilus. Algal Research, 2016, 20, 70-76.	4.6	31
59	In situ fluorescence monitoring of immobilizedClostridium acetobutylicum. Biotechnology Letters, 1986, 8, 817-822.	2.2	29
60	Modeling substrate interactions during the biodegradation of mixtures of toluene and phenol byBurkholderiaspecies JS150. Biotechnology and Bioengineering, 2000, 70, 428-435.	3.3	28
61	Association of humic acid with metal (hydr)oxide-coated sands at solid–water interfaces. Journal of Colloid and Interface Science, 2008, 317, 424-433.	9.4	28
62	Two fibre-optic sensors with confined enzymes and coenzymes: development and application. Analytica Chimica Acta, 1991, 255, 223-229.	5.4	26
63	Optical fiber enzymatic biosensor for reagentless measurement of ethylene dibromide. Engineering in Life Sciences, 2009, 9, 291-297.	3.6	26
64	Effects of dual-alcohol gasoline blends on physiochemical properties and volatility behavior. Fuel, 2019, 252, 542-552.	6.4	25
65	Near-azeotropic volatility behavior of hydrous and anhydrous ethanol gasoline mixtures and impact on droplet evaporation dynamics. Fuel Processing Technology, 2018, 181, 166-174.	7.2	24
66	Parametric study of diethyl phthalate biodegradation. Biotechnology Letters, 1990, 12, 699-704.	2.2	23
67	A systematic evaluation of chip-based nanoelectrospray parameters for rapid identification of proteins from a complex mixture. Journal of the American Society for Mass Spectrometry, 2007, 18, 1714-1725.	2.8	23
68	Proteomic Analysis of Diaminochlorotriazine Adducts in Wister Rat Pituitary Glands and LÎ ² T2 Rat Pituitary Cells. Chemical Research in Toxicology, 2008, 21, 844-851.	3.3	23
69	Fiber optic monooxygenase biosensor for toluene concentration measurement in aqueous samples. Biosensors and Bioelectronics, 2011, 26, 2407-2412.	10.1	23
70	On-Line Monitoring of Biological Parameters in Microalgal Bioprocesses Using Optical Methods. Energies, 2022, 15, 875.	3.1	23
71	The quantitative proteomic response of Synechocystis sp. PCC6803 to phosphate acclimation. Aquatic Biosystems, 2013, 9, 5.	1.8	22
72	Property predictions demonstrate that structural diversity can improve the performance of polyoxymethylene ethers as potential bio-based diesel fuels. Fuel, 2021, 295, 120509.	6.4	21

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73	Analysis of iTRAQ data using Mascot and Peaks quantification algorithms. Briefings in Functional Genomics & Proteomics, 2008, 7, 119-126.	3.8	19
74	Evaluation of quantitative performance of sequential immobilized metal affinity chromatographic enrichment for phosphopeptides. Analytical Biochemistry, 2014, 445, 30-37.	2.4	18
75	Two-dimensional electrophoresis analysis of protein production during growth of Pseudomonas putida F1 on toluene, phenol, and their mixture. Electrophoresis, 2002, 23, 2233.	2.4	17
76	Continuous combined Fenton's oxidation and biodegradation for the treatment of pentachlorophenol-contaminated water. Water Research, 2011, 45, 5705-5714.	11.3	17
77	Phosphoproteomics and molecular cardiology: Techniques, applications and challenges. Journal of Molecular and Cellular Cardiology, 2012, 53, 354-368.	1.9	17
78	Effect of bioaugmentation and biostimulation on sulfate-reducing column startup captured by functional gene profiling. FEMS Microbiology Ecology, 2012, 82, 135-147.	2.7	17
79	Label-Free Proteomics of a Defined, Binary Co-culture Reveals Diversity of Competitive Responses Between Members of a Model Soil Microbial System. Microbial Ecology, 2018, 75, 701-719.	2.8	17
80	2-DE proteomic analysis of the model cyanobacterium Anabaena variabilis. Electrophoresis, 2007, 28, 1624-1632.	2.4	16
81	Inoculum microbiome composition impacts fatty acid product profile from cellulosic feedstock. Bioresource Technology, 2021, 323, 124532.	9.6	16
82	Use of 16S-rRNA to investigate microbial population dynamics during biodegradation of toluene and phenol by a binary culture. Biotechnology and Bioengineering, 2000, 70, 436-445.	3.3	15
83	Physiochemical Property Characterization of Hydrous and Anhydrous Ethanol Blended Gasoline. Industrial & Description of Engineering Chemistry Research, 2018, 57, 11239-11245.	3.7	15
84	Effects of pH and added metabolites on bioconversions by immobilized non-growingClostridium acetobutylicum. Biotechnology and Bioengineering, 1989, 34, 825-837.	3.3	14
85	Bioremediation of nitroexplosive wastewater by an yeast isolate Pichia sydowiorum MCM Y-3 in fixed film bioreactor. Journal of Industrial Microbiology and Biotechnology, 2009, 36, 253-260.	3.0	14
86	Practical monitoring technologies for cells and substrates in biomanufacturing. Current Opinion in Biotechnology, 2021, 71, 225-230.	6.6	14
87	Redirection of Cellular Metabolism Annals of the New York Academy of Sciences, 1987, 506, 1-23.	3.8	13
88	Medium optimization for recombinant protein production by Bacillus subtilis. Biotechnology Letters, 1996, 18, 737-740.	2.2	13
89	Fiber-Optic Biosensor for the Detection of Atrazine: Characterization and Continuous Measurements. Analytical Letters, 2012, 45, 251-261.	1.8	13
90	Concentration-dependent effects of the soy phytoestrogen genistein on the proteome of cultured cardiomyocytes. Journal of Proteomics, 2012, 75, 3592-3604.	2.4	12

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91	Molecular assessment of the sensitivity of sulfate-reducing microbial communities remediating mine drainage to aerobic stress. Water Research, 2013, 47, 5316-5325.	11.3	12
92	Protein extraction and 2â€DE of water†and lipid†soluble proteins from bovine pericardium, a low†cellularity tissue. Electrophoresis, 2008, 29, 4508-4515.	2.4	11
93	Meta-proteomic analysis of protein expression distinctive to electricity-generating biofilm communities in air-cathode microbial fuel cells. Biotechnology for Biofuels, 2018, 11, 121.	6.2	11
94	Digitalization and Bioprocessing: Promises and Challenges. Advances in Biochemical Engineering/Biotechnology, 2020, 176, 57-69.	1.1	11
95	Proteomic changes in Escherichia coli TG1 after metabolic engineering for enhanced trichloroethene biodegradation. Proteomics, 2003, 3, 1066-1069.	2.2	10
96	Phosphorescence characteristics of ruthenium complex as an optical transducer for biosensors. Applied Physics Letters, 2008, 92, 081915.	3.3	10
97	Synthesis of Butyl-Exchanged Polyoxymethylene Ethers as Renewable Diesel Blendstocks with Improved Fuel Properties. ACS Sustainable Chemistry and Engineering, 2021, 9, 6266-6273.	6.7	10
98	Monitoring of Microalgal Processes. Advances in Biochemical Engineering/Biotechnology, 2015, 153, 89-142.	1.1	8
99	Einsatz eines Fluoreszenzsensors zur Messung der NAD(P)H-abhägigen Kulturfluoreszenz immobilisierter Zellsysteme. Chemie-Ingenieur-Technik, 1987, 59, 600-601.	0.8	7
100	Environmental influences on diethyl phthalate biodegradation kinetics. Applied Biochemistry and Biotechnology, 1992, 34-35, 753-765.	2.9	7
101	Environmental Applications of Photoluminescence-Based Biosensors. Advances in Biochemical Engineering/Biotechnology, 2009, 116, 143-157.	1.1	7
102	OUP accepted manuscript. FEMS Yeast Research, 2021, , .	2.3	7
103	Metabolic Pathway Rates and Fluorescence Measurements During Bioconversions by Nonâ€Growing Immobilized <i>Clostridium Acetobutylicum</i> . Biotechnology Progress, 1989, 5, 144-157.	2.6	6
104	Novel applications of fluorescence sensors. Applied Biochemistry and Biotechnology, 1990, 24-25, 363-374.	2.9	6
105	Effect of gas evolution on mixing and conversion in a flowâ€through electrochemical reactor. AICHE Journal, 2009, 55, 2468-2476.	3.6	6
106	Activity regeneration in continuous Clostridium acetobutylicum bioconversions of glucose. Biotechnology Progress, 1992, 8, 316-326.	2.6	5
107	Diel light:dark cycles significantly reduce FFA accumulation in FFA producing mutants of Synechocystis sp. PCC 6803 compared to continuous light. Algal Research, 2015, 12, 487-496.	4.6	5
108	Use of 16S-rRNA to investigate microbial population dynamics during biodegradation of toluene and phenol by a binary culture. Biotechnology and Bioengineering, 2000, 70, 436-45.	3.3	5

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109	A biologically based model of growth and senescence of Syrian hamster embryo (SHE) cells after exposure to arsenic Environmental Health Perspectives, 2001, 109, 1207-1213.	6.0	4
110	Simultaneous grinding and dissolution of TNT solids in an agitated slurry. AICHE Journal, 2001, 47, 572-581.	3.6	4
111	Proteomics: An exciting new science, but where are the chemical engineers?. AICHE Journal, 2003, 49, 2682-2686.	3.6	4
112	Sorption of Neutral Organic Compounds in Mixtures to Mineral Surfaces and Humic Acid-Mineral Complexes. Journal of Hazardous, Toxic, and Radioactive Waste, 2011, 15, 188-198.	2.0	4
113	Lumping Analysis for Sorption of Neutral Organic Compounds in Mixtures to Simulated Aquifer Sorbents. Journal of Environmental Engineering, ASCE, 2012, 138, 552-561.	1.4	4
114	Modeling Sorption of Neutral Organic Compound Mixtures to Simulated Aquifer Sorbents with Pseudocompounds. Journal of Environmental Quality, 2013, 42, 852-860.	2.0	4
115	Supplementing Blends of Sugars, Amino Acids, and Secondary Metabolites to the Diet of Termites (Reticulitermes flavipes) Drive Distinct Gut Bacterial Communities. Microbial Ecology, 2016, 72, 497-502.	2.8	4
116	EFFECT OF ORGANIC SUBSTRATE COMPOSITION ON MICROBIAL COMMUNITY STRUCTURE OF PILOT-SCALE BIOCHEMICAL REACTORS TREATING MINING INFLUENCED WATER. Journal of the American Society of Mining and Reclamation, 2008, 2008, 878-891.	0.3	4
117	A novel, sensitive method for determining benzo[a]pyrene-diones using high-performance liquid chromatography with post-column zinc reduction. Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences, 2005, 824, 166-174.	2.3	3
118	Active community profiling via capillary electrophoresis single-strand conformation polymorphism analysis of amplified 16S rRNA and 16S rRNA genes. Journal of Microbiological Methods, 2010, 83, 286-290.	1.6	3
119	Electromagnetically-vibrated solid-phase microextraction for analysis of aqueous-miscible organic compound transport in soil columns. Chemosphere, 2021, 263, 127941.	8.2	3
120	A bioreactor system for the nitrogen loop in a Controlled Ecological Life Support System. Advances in Space Research, 1996, 18, 289-292.	2.6	2
121	A plastic total internal reflection photoluminescence device for enzymatic biosensing. Lab on A Chip, 2013, 13, 4775.	6.0	2
122	Quantitative proteomic analysis of Lactobacillus delbrueckii ssp. lactis biofilms. AICHE Journal, 2018, 64, 4341-4350.	3.6	2
123	Strategies to achieve high productivity, high conversion, and high yield in yeast fermentation of algal biomass hydrolysate. Engineering in Life Sciences, 2022, 22, 119-131.	3.6	2
124	Jay Bailey as mentor?The students' perspective. Biotechnology and Bioengineering, 2002, 79, 484-489.	3.3	1
125	Optical Properties of Ru(dpp) <inf>3</inf> for Phosphorescence Biosensors. Conference Proceedings - Lasers and Electro-Optics Society Annual Meeting-LEOS, 2007, , .	0.0	1
126	Electromagnetically vibrated Solid-Phase Microextraction for the analysis of organic compounds. International Journal of Environmental Technology and Management, 2010, 12, 393.	0.2	1

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127	A multichannel fiber optic photoluminescence system for multiplex biosensor arrays. , 2010, , .		1
128	Response to P.K. et al.: Bacterial laccases still have a case. Trends in Biotechnology, 2012, 30, 362-363.	9.3	1
129	Identification of Promising Alternative Mono-Alcohol Fuel Blend Components for Spark Ignition Engines. Energies, 2020, 13, 1955.	3.1	1
130	Challenges for in Situ Bioremediation of Chemical Mixtures. , 1994, , 505-538.		1
131	Hierarchical cluster analysis to detect coordinated protein expression in metabolically engineered Zymomonas mobilis. , 0, , .		O
132	Engineering in Life Sciences Editors. Engineering in Life Sciences, 2013, 13, NA-NA.	3.6	0
133	Engineering in Life SciencesEditors. Engineering in Life Sciences, 2014, 14, 2-3.	3.6	O
134	Temperature dependence of oxygen sensitive transducer. , 2008, , .		0
135	Kinetics and population dynamics during biodegradation of phenol by a binary mixed culture. , 1997 , , $513-517$.		O