David E Crowley

List of Publications by Year
in descending order

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Version: 2024-02-01

126 papers	12,669 citations	34016 52 h-index	24915 109 g-index
133 all docs	133 docs citations	133 times ranked	12808 citing authors

#	Article	IF	Citations
1	Biochar effects on soil biota â€“ A review. Soil Biology and Biochemistry, 2011, 43, 1812-1836.	4.2	3,514
2	Effect of biochar amendment on yield and methane and nitrous oxide emissions from a rice paddy from Tai Lake plain, China. Agriculture, Ecosystems and Environment, 2010, 139, 469-475.	2.5	661
3	Development of specific rhizosphere bacterial communities in relation to plant species, nutrition and soil type. Plant and Soil, 2004, 261, 199-208.	1.8	525
4	Rhizosphere Microbial Community Structure in Relation to Root Location and Plant Iron Nutritional Status. Applied and Environmental Microbiology, 2000, 66, 345-351.	1.4	473
5	Rhizosphere interactions between microorganisms and plants govern iron and phosphorus acquisition along the root axis â€“ model and research methods. Soil Biology and Biochemistry, 2011, 43, 883-894.	4.2	311
6	Secondary plant metabolites in phytoremediation and biotransformation. Trends in Biotechnology, 2003, 21, 123-130.	4.9	302
7	Impact of Fumigants on Soil Microbial Communities. Applied and Environmental Microbiology, 2001, 67, 3245-3257.	1.4	232
8	Bacterial Functional Redundancy along a Soil Reclamation Gradient. Applied and Environmental Microbiology, 2000, 66, 4361-4365.	1.4	215
9	Microbial biotechnology for decolorization of textile wastewaters. Reviews in Environmental Science and Biotechnology, 2015, 14, 73-92.	3.9	190
10	Bacterial diversity of terra preta and pristine forest soil from the Western Amazon. Soil Biology and Biochemistry, 2007, 39, 684-690.	4.2	189
11	Molecular Basis of a Bacterial Consortium: Interspecies Catabolism of Atrazine. Applied and Environmental Microbiology, 1998, 64, 178-184.	1.4	187
12	Comprehensive chemical profiling of gramineous plant root exudates using high-resolution NMR and MS. Phytochemistry, 2001, 57, 209-221.	1.4	173
13	Effects of biochar on availability and plant uptake of heavy metals â€“ A meta-analysis. Journal of Environmental Management, 2018, 222, 76-85.	3.8	172
14	Cooperative catabolic pathways within an atrazine-degrading enrichment culture isolated from soil. FEMS Microbiology Ecology, 2005, 53, 265-275.	1.3	162
15	Accelerated decolorization of structurally different azo dyes by newly isolated bacterial strains. Applied Microbiology and Biotechnology, 2008, 78, 361-369.	1.7	159
16	Utilization of Microbial Siderophores in Iron Acquisition by Oat. Plant Physiology, 1988, 87, 680-685.	2.3	152
17	Phytoremediation of Contaminated Water and Soil. ACS Symposium Series, 1997, , 2-17.	0.5	144
18	Changes in microbial biomass and the metabolic quotient with biochar addition to agricultural soils: A Meta-analysis. Agriculture, Ecosystems and Environment, 2017, 239, 80-89.	2.5	143

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19	Comprehensive Analysis of Organic Ligands in Whole Root Exudates Using Nuclear Magnetic Resonance and Gas Chromatographyâ€"Mass Spectrometry. Analytical Biochemistry, 1997, 251, 57-68.	1.1	132
20	Biodegradation potential of pure and mixed bacterial cultures for removal of 4-nitroaniline from textile dye wastewater. Water Research, 2009, 43, 1110-1116.	5.3	126
21	Biodegradation of diphenyl ether and transformation of selected brominated congeners by Sphingomonas sp. PH-07. Applied Microbiology and Biotechnology, 2007, 77, 187-194.	1.7	125
22	Decolorization of azo dyes by Shewanella sp. under saline conditions. Applied Microbiology and Biotechnology, 2008, 79, 1053-1059.	1.7	122
23	Microbial Siderophores in the Plant Rhizosphere. , 2006, , 169-198.		120
24	Biostimulation of PAH Degradation with Plants Containing High Concentrations of Linoleic Acid. Environmental Science & Technology, 2007, 41, 4382-4388.	4.6	120
25	Analysis of Bacterial Community Composition by Oligonucleotide Fingerprinting of rRNA Genes. Applied and Environmental Microbiology, 2002, 68, 3243-3250.	1.4	116
26	Global Gene Expression Responses to Cadmium Toxicity in Escherichia coli. Journal of Bacteriology, 2005, 187, 3259-3266.	1.0	112
27	MICROBIAL TRANSFORMATION OF PYRETHROID INSECTICIDES IN AQUEOUS AND SEDIMENT PHASES. Environmental Toxicology and Chemistry, 2004, 23, 1.	2.2	109
28	Detoxification of azo dyes by bacterial oxidoreductase enzymes. Critical Reviews in Biotechnology, 2016, 36, 639-651.	5.1	109
29	Microbial Diversity in Natural Asphalts of the Rancho La Brea Tar Pits. Applied and Environmental Microbiology, 2007, 73, 4579-4591.	1.4	107
30	Title is missing!. Plant and Soil, 1997, 189, 11-20.	1.8	103
31	Is current biochar research addressing global soil constraints for sustainable agriculture?. Agriculture, Ecosystems and Environment, 2016, 226, 25-32.	2.5	96
32	Root-microbial effects on plant iron uptake from siderophores and phytosiderophores. Plant and Soil, 1992, 142, 1-7.	1.8	95
33	Synergistic use of biochar, compost and plant growthâ€promoting rhizobacteria for enhancing cucumber growth under water deficit conditions. Journal of the Science of Food and Agriculture, 2017, 97, 5139-5145.	1.7	94
34	Identification of Î²-propeller phytase-encoding genes in culturable Paenibacillus and Bacillus spp. from the rhizosphere of pasture plants on volcanic soils. FEMS Microbiology Ecology, 2011, 75, 163-172.	1.3	91
35	Hydrocarbon emissions from natural vegetation in California's South Coast Air Basin. Atmospheric Environment, 1995, 29, 2977-2988.	1.9	89
36	Formulation of bacterial consortia from avocado (Persea americana Mill.) and their effect on growth, biomass and superoxide dismutase activity of wheat seedlings under salt stress. Applied Soil Ecology, 2016, 102, 80-91.	2.1	89

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37	Dynamic changes in nahAc gene copy numbers during degradation of naphthalene in PAH-contaminated soils. Applied Microbiology and Biotechnology, 2006, 72, 1322-1329.	1.7	87
38	Growth promotion of the edible fungusPleurotus ostreatusby fluorescent pseudomonads. FEMS Microbiology Letters, 2003, 218, 271-276.	0.7	83
39	Relationship between in vitro characterization and comparative efficacy of plant growth-promoting rhizobacteria for improving cucumber salt tolerance. Archives of Microbiology, 2016, 198, 379-387.	1.0	83
40	Application of self-organizing maps for assessing soil biological quality. Agriculture, Ecosystems and Environment, 2008, 126, 139-152.	2.5	81
41	Evaluation of pinewood biochar as a carrier of bacterial strain Enterobacter cloacae UW5 for soil inoculation. Applied Soil Ecology, 2014, 84, 192-199.	2.1	81
42	Biodegradation of 3â€Chlorobenzoate as Affected by Rhizodeposition and Selected Carbon Substrates. Journal of Environmental Quality, 1996, 25, 304-310.	1.0	80
43	Plant Growth-Promoting Rhizobacteria Associated with Ancient Clones of Creosote Bush (Larrea) Tj ETQq1 1 0.784314 rgBT /Overlock 1	1.4	78
44	IMPACT OF THE PLANT RHIZOSPHERE AND AUGMENTATION ON REMEDIATION OF POLYCHLORINATED BIPHENYL CONTAMINATED SOIL. Environmental Toxicology and Chemistry, 2003, 22, 1998.	2.2	76
45	Phytosiderophore release in relation to micronutrient metal deficiencies in barley. Plant and Soil, 1995, 172, 299-308.	1.8	74
46	Selenobacteria selected from the rhizosphere as a potential tool for Se biofortification of wheat crops. Biology and Fertility of Soils, 2013, 49, 175-185.	2.3	69
47	Normalization of soil DNA extraction for accurate quantification of target genes by real-time PCR and DGGE. BioTechniques, 2005, 38, 579-586.	0.8	68
48	Biochar has no effect on soil respiration across Chinese agricultural soils. Science of the Total Environment, 2016, 554-555, 259-265.	3.9	67
49	Zinc deficiency-induced phytosiderophore release by the Triticaceae is not consistently expressed in solution culture. Planta, 2000, 211, 120-126.	1.6	63
50	Biosorption of the metal-complex dye Acid Black 172 by live and heat-treated biomass of Pseudomonas sp. strain DY1: Kinetics and sorption mechanisms. Journal of Hazardous Materials, 2012, 205-206, 47-54.	6.5	63
51	Effect of organic mulches on soil bacterial communities one year after application. Biology and Fertility of Soils, 2003, 38, 273-281.	2.3	62
52	Physiological activity of a bioluminescent Pseudomonas fluorescens (strain 2â€“79) in the rhizosphere of mycorrhizal and non-mycorrhizal pepper (Capsicum annuum L.). Soil Biology and Biochemistry, 1996, 28, 869-876.	4.2	61
53	The stability of textile azo dyes in soil and their impact on microbial phospholipid fatty acid profiles. Ecotoxicology and Environmental Safety, 2015, 120, 163-168.	2.9	57
54	Bacterial diversity and composition in major fresh produce growing soils affected by physiochemical properties and geographic locations. Science of the Total Environment, 2016, 563-564, 199-209.	3.9	55

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55	Culture-Independent Investigation of the Microbiome Associated with the Nematode Acrobeloides maximus. PLoS ONE, 2013, 8, e67425.	1.1	53
56	Persistence of <i>Escherichia coli</i> O157:H7 in Major Leafy Green Producing Soils. Environmental Science & Technology, 2012, 46, 12154-12161.	4.6	52
57	Temporal dynamics of ammonia oxidizer (amoA) and denitrifier (nirK) communities in the rhizosphere of a rice ecosystem from Tai Lake region, China. Applied Soil Ecology, 2011, 48, 210-218.	2.1	51
58	Persistence of Escherichia coli O157:H7 and Its Mutants in Soils. PLoS ONE, 2011, 6, e23191.	1.1	50
59	Crop types have stronger effects on soil microbial communities and functionalities than biochar or fertilizer during two cycles of legume-cereal rotations of dry land. Science of the Total Environment, 2020, 715, 136958.	3.9	50
60	Population density and functional diversity of plant growth promoting rhizobacteria associated with avocado trees in saline soils. Applied Soil Ecology, 2012, 62, 147-154.	2.1	49
61	Soil microorganisms of a native shrub and exotic grasses along a nitrogen deposition gradient in southern California. Applied Soil Ecology, 2006, 32, 13-26.	2.1	48
62	Biochar effects on uptake of cadmium and lead by wheat in relation to annual precipitation: a 3-year field study. Environmental Science and Pollution Research, 2018, 25, 3368-3377.	2.7	48
63	Genome Sequence Analysis of the Naphthenic Acid Degrading and Metal Resistant Bacterium Cupriavidus gilardii CR3. PLoS ONE, 2015, 10, e0132881.	1.1	44
64	Bacterial community structure and detection of putative plant growth-promoting rhizobacteria associated with plants grown in Chilean agro-ecosystems and undisturbed ecosystems. Biology and Fertility of Soils, 2014, 50, 1141-1153.	2.3	41
65	Persistence of Escherichia coli O157 and non-O157 strains in agricultural soils. Science of the Total Environment, 2014, 490, 822-829.	3.9	40
66	Differential Enantioselective Transformation of Atropisomeric Polychlorinated Biphenyls by Multiple Bacterial Strains with Different Inducing Compounds. Applied and Environmental Microbiology, 2002, 68, 5756-5759.	1.4	37
67	Influence of bacterial communities based on 454-pyrosequencing on the survival of<i>Escherichia coli</i>O157:H7 in soils. FEMS Microbiology Ecology, 2013, 84, 542-554.	1.3	35
68	Root colonization of mycorrhizal and non-mycorrhizal pepper (Capsicum annuum) by Pseudomonas fluorescens 2-79RL. New Phytologist, 1996, 134, 115-122.	3.5	34
69	EFFECT OF ACTIVATED CARBON ON MICROBIAL BIOAVAILABILITY OF PHENANTHRENE IN SOILS. Environmental Toxicology and Chemistry, 2009, 28, 2283.	2.2	34
70	Decline in Topsoil Microbial Quotient, Fungal Abundance and C Utilization Efficiency of Rice Paddies under Heavy Metal Pollution across South China. PLoS ONE, 2012, 7, e38858.	1.1	34
71	Draft Genome Sequence of Rahnella aquatilis Strain HX2, a Plant Growth-Promoting Rhizobacterium Isolated from Vineyard Soil in Beijing, China. Journal of Bacteriology, 2012, 194, 6646-6647.	1.0	33
72	Rhizosphere Ecology of Xenobiotic-Degrading Microorganisms. ACS Symposium Series, 1997, , 20-36.	0.5	31

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73	Influence of nitrogen fertilisation on pasture culturable rhizobacteria occurrence and the role of environmental factors on their potential PGPR activities. Biology and Fertility of Soils, 2011, 47, 875-885.	2.3	31
74	Bacterial community structures in rhizosphere microsites of ryegrass (Lolium perenne var. Nui) as revealed by pyrosequencing. Biology and Fertility of Soils, 2014, 50, 1253-1266.	2.3	31
75	Atrazine dealkylation on a manganese oxide surface. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 1998, 137, 267-273.	2.3	29
76	Phytate addition to soil induces changes in the abundance and expression ofBacillusÃŸ-propeller phytase genes in the rhizosphere. FEMS Microbiology Ecology, 2013, 83, 352-360.	1.3	29
77	Chelation effects on the iron reduction and uptake by lowâ€iron stress tolerant and nonâ€tolerant citrus rootstocks. Journal of Plant Nutrition, 1993, 16, 881-893.	0.9	28
78	Short-term biochar manipulation of microbial nitrogen transformation in wheat rhizosphere of a metal contaminated Inceptisol from North China plain. Science of the Total Environment, 2018, 640-641, 1287-1296.	3.9	26
79	Microcosm enrichment of 1,3-dichloropropene-degrading soil microbial communities in a compost-amended soil. Journal of Applied Microbiology, 2001, 91, 668-676.	1.4	25
80	Siderophore Involvement in Plant Iron Nutrition. , 1986, , 29-42.		24
81	Microarray analysis of bacterial diversity and distribution in aggregates from a desert agricultural soil. Biology and Fertility of Soils, 2008, 44, 1003-1011.	2.3	24
82	Abundance, Composition and Activity of Ammonia Oxidizer and Denitrifier Communities in Metal Polluted Rice Paddies from South China. PLoS ONE, 2014, 9, e102000.	1.1	24
83	Characterization of Organic Acids Recovered from Rhizosphere of Corn Grown on Biosolidsâ€Treated Medium. Communications in Soil Science and Plant Analysis, 2006, 37, 871-887.	0.6	22
84	Root responses of sterileâ€grown onion plants to iron deficiency1. Journal of Plant Nutrition, 1996, 19, 145-161.	0.9	21
85	Biotreatment of simulated tannery wastewater containing Reactive Black 5, aniline and CrVI using a biochar packed bioreactor. RSC Advances, 2015, 5, 106272-106279.	1.7	20
86	Closing the loop on organic waste management: biochar for agricultural land application and climate change mitigation. Waste Management and Research, 2010, 28, 479-480.	2.2	19
87	Nested PCR bias: a case study of Pseudomonas spp. in soil microcosms. Journal of Environmental Monitoring, 2010, 12, 985.	2.1	19
88	Isolation of biosurfactant-producing bacteria from the Rancho La Brea Tar Pits. World Journal of Microbiology and Biotechnology, 2012, 28, 3261-3267.	1.7	19
89	Bioaugmentation of Azo Dyes. Handbook of Environmental Chemistry, 2010, , 1-37.	0.2	18
90	Function of Siderophores in the Plant Rhizosphere. Books in Soils, Plants, and the Environment, 2007, , 173-200.	0.1	18

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91	Topological data analysis of Escherichia coli O157:H7 and non-O157 survival in soils. Frontiers in Cellular and Infection Microbiology, 2014, 4, 122.	1.8	17
92	Does metal pollution matter with C retention by rice soil?. Scientific Reports, 2015, 5, 13233.	1.6	17
93	<B>Decolorization of Reactive Black-5 by</B> <B><I>Shewanella</I></B> <B>sp. in the Presence of Metal Ions and Salts</B>. Water Environment Research, 2015, 87, 579-586.	1.3	17
94	DNA extraction methodology for biochar-amended sand and clay. Biology and Fertility of Soils, 2015, 51, 733-738.	2.3	17
95	Computational Identification and Analysis of the Key Biosorbent Characteristics for the Biosorption Process of Reactive Black 5 onto Fungal Biomass. PLoS ONE, 2012, 7, e33551.	1.1	17
96	Contribution of ethylamine degrading bacteria to atrazine degradation in soils. FEMS Microbiology Ecology, 2006, 58, 271-277.	1.3	14
97	Microorganisms form exocellular structures, trophosomes, to facilitate biodegradation of oil in aqueous media. FEMS Microbiology Letters, 2011, 315, 134-140.	0.7	13
98	A combination of cellular automata and agent-based models for simulating the root surface colonization by bacteria. Ecological Modelling, 2012, 247, 1-10.	1.2	13
99	Assimilable Organic Carbon (AOC) in Soil Water Extracts Using Vibrio harveyi BB721 and Its Implication for Microbial Biomass. PLoS ONE, 2012, 7, e28519.	1.1	13
100	Artificial neural network modeling of microbial community structures in the Atlantic Forest of Brazil. Soil Biology and Biochemistry, 2014, 69, 101-109.	4.2	13
101	Leaf and root responses to iron deficiency in avocado1. Journal of Plant Nutrition, 1997, 20, 683-693.	0.9	12
102	Nitrogen Deposition Effects on Carbon Storage and Fungal:Bacterial Ratios in Coastal Sage Scrub Soils of Southern California. Journal of Environmental Quality, 2009, 38, 2267-2272.	1.0	12
103	Effects of cowpea (Vigna unguiculata) root mucilage on microbial community response and capacity for phenanthrene remediation. Journal of Environmental Sciences, 2015, 33, 45-59.	3.2	12
104	Cell wall canals formed upon growth of Candida maltosa in the presence of hexadecane are associated with polyphosphates. FEMS Yeast Research, 2017, 17, .	1.1	12
105	Changes in metabolic and structural diversity of a soil bacterial community in response to cadmium toxicity. Biology and Fertility of Soils, 2004, 39, 452-456.	2.3	11
106	Comparison of PCR-DGGE and Selective Plating Methods for Monitoring the Dynamics of a Mixed Culture Population in Synthetic Brewery Wastewater. Biotechnology Progress, 2008, 21, 712-719.	1.3	11
107	Isolation and Characterization of Pyrene Metabolizing Microbial Consortia from the Plant Rhizoplane. International Journal of Phytoremediation, 2010, 12, 599-615.	1.7	11
108	Availability and Plant Uptake of Biosolid-Borne Metals. Applied and Environmental Soil Science, 2013, 2013, 1-10.	0.8	11

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109	Title is missing!. Plant and Soil, 1997, 196, 311-316.	1.8	10
110	PYRENE EFFECTS ON RHIZOPLANE BACTERIAL COMMUNITIES. International Journal of Phytoremediation, 2009, 11, 609-622.	1.7	10
111	Dealing with Water Scarcity and Salinity: Adoption of Water Efficient Technologies and Management Practices by California Avocado Growers. Sustainability, 2020, 12, 3555.	1.6	10
112	Impacts of Metals and Metalloids on Soil Microbial Diversity and Ecosystem Function. Revista De La Ciencia Del Suelo Y Nutricion Vegetal, 2008, 8, .	0.4	9
113	Metal Chelation in the Rhizosphere. Agronomy, 0, , 57-93.	0.2	7
114	The effect of cowpea (Vigna unguiculata) with root mucilage on phenanthrene (PHE) dissipation and microbial community composition using phospholipid fatty acid (PLFA) analysis and artificial neural network (ANN) modeling. International Biodeterioration and Biodegradation, 2015, 100, 29-37.	1.9	7
115	Modifications of the cell wall of yeasts grown on hexadecane and under starvation conditions. Yeast, 2016, 33, 55-62.	0.8	6
116	Size fractionation and microbial community structure of soil aggregates. Journal of Agricultural Chemistry and Environment, 2013, 02, 75-80.	0.2	5
117	Root colonization and iron nutritional status of a Pseudomonas fluorescens in different plant species. , 1997, , 743-748.		5
118	Characterization of Culturable PAH and BTEX Degrading Bacteria from Heavy Oil of the Rancho La Brea Tarpits. Polycyclic Aromatic Compounds, 2012, 32, 600-614.	1.4	4
119	Bacterial communities from soil sediments of a mountain oasis in northern Oman. Catena, 2010, 82, 102-111.	2.2	3
120	Development of an environmental microarray to study bacterial and archaeal functional genes in Australian soil agroecosystems. Pedobiologia, 2012, 55, 41-49.	0.5	3
121	Inoculum banding, inoculum age and fertilization rate in relation to production of container-grown shortleaf pine seedlings mycorrhizal with Pisolithus tinctorius. Scientia Horticulturae, 1986, 29, 387-394.	1.7	2
122	Bacterial Diversity in Tree Canopies of the Atlantic Forest. , 2014, , 1-7.		1
123	Bacterial Diversity in Tree Canopies of the Atlantic Forest. , 2015, , 49-54.		1
124	Bacterial ecology of ancient Saharan salt-enrichment ponds at Teguidda-n-Tessoumt. Journal of Plant Nutrition and Soil Science, 2005, 168, 489-495.	1.1	0
125	Regulation of Microbial Processes by Soil pH. , 2002, , .		0
126	Phytochemical effects of <i>Apium graveolens</i> on the abundances of functional genes associated with PAH degradation in soil. Bioremediation Journal, 2023, 27, 281-289.	1.0	0