James J Germida

List of Publications by Year
in descending order

114 papers	7,426 citations	50276 46 h-index	56724 83 g-index
114 all docs	114 docs citations	114 times ranked	6262 citing authors

#	Article	IF	Citations
1	Distribution of microbial biomass and its activity in different soil aggregate size classes as affected by cultivation. Soil Biology and Biochemistry, 1988, 20, 777-786.	8.8	540
2	Phosphate-solubilizing rhizobacteria enhance the growth and yield but not phosphorus uptake of canola (Brassica napus L.). Biology and Fertility of Soils, 1997, 24, 358-364.	4.3	460
3	Changes in Microbial Community Composition and Function during a Polyaromatic Hydrocarbon Phytoremediation Field Trial. Applied and Environmental Microbiology, 2003, 69, 483-489.	3.1	276
4	Diversity of root-associated bacteria associated with field-grown canola (Brassica napus L.) and wheat (Triticum aestivum L.). FEMS Microbiology Ecology, 1998, 26, 43-50.	2.7	266
5	Soil aggregation: Influence on microbial biomass and implications for biological processes. Soil Biology and Biochemistry, 2015, 80, A3-A9.	8.8	213
6	Seasonal Changes in the Rhizosphere MicrobialCommunities Associated with Field-Grown Genetically ModifiedCanola (Brassicanapus). Applied and Environmental Microbiology, 2003, 69, 7310-7318.	3.1	210
7	No-till soil management increases microbial biomass and alters community profiles in soil aggregates. Applied Soil Ecology, 2010, 46, 390-397.	4.3	208
8	Taxonomic diversity of bacteria associated with the roots of modern, recent and ancient wheat cultivars. Biology and Fertility of Soils, 2001, 33, 410-415.	4.3	193
9	Bacteria associated with Glomus clarum spores influence mycorrhizal activity. Soil Biology and Biochemistry, 2003, 35, 471-478.	8.8	166
10	Fungal and Bacterial Abundance in Longâ€Term Noâ€Till and Intensiveâ€Till Soils of the Northern Great Plains. Soil Science Society of America Journal, 2009, 73, 120-127.	2.2	163
11	Mechanisms of phytoremediation: biochemical and ecological interactions between plants and bacteria. Environmental Reviews, 1998, 6, 65-79.	4.5	159
12	Fungal endophytes enhance wheat heat and drought tolerance in terms of grain yield and second-generation seed viability. Journal of Applied Microbiology, 2014, 116, 109-122.	3.1	154
13	Factors affecting the oxidation of elemental sulfur in soils. Fertilizer Research, 1993, 35, 101-114.	0.5	153
14	Rethinking Crop Nutrition in Times of Modern Microbiology: Innovative Biofertilizer Technologies. Frontiers in Sustainable Food Systems, 2021, 5, .	3.9	153
15	Differences in the microbial communities associated with the roots of different cultivars of canola and wheat. Canadian Journal of Microbiology, 1998, 44, 844-851.	1.7	149
16	Hydrocarbon degradation potential and activity of endophytic bacteria associated with prairie plants. Soil Biology and Biochemistry, 2008, 40, 3054-3064.	8.8	137
17	Fungal endophytes improve wheat seed germination under heat and drought stress. Botany, 2012, 90, 137-149.	1.0	133
18	The arbuscular mycorrhizal symbiosis links N mineralization to plant demand. Mycorrhiza, 2009, 19, 239-246.	2.8	123

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19	Phytoremediation of Organic Contaminants in Soil and Groundwater. ChemSusChem, 2008, 1, 708-717.	6.8	122
20	Soil microbial quality associated with yield reduction in continuous-pea. Applied Soil Ecology, 2009, 43, 115-121.	4.3	121
21	Plant root exudates impact the hydrocarbon degradation potential of a weathered-hydrocarbon contaminated soil. Applied Soil Ecology, 2012, 52, 56-64.	4.3	119
22	Diversity of bacterial communities in the rhizosphere and root interior of field-grown genetically modified Brassica napus. FEMS Microbiology Ecology, 2001, 38, 1-9.	2.7	111
23	Culture-based and culture-independent assessment of the impact of mixed and single plant treatments on rhizosphere microbial communities in hydrocarbon contaminated flare-pit soil. Soil Biology and Biochemistry, 2006, 38, 2823-2833.	8.8	108
24	Long-term no-till management affects microbial biomass but not community composition in Canadian prairie agroecosytems. Soil Biology and Biochemistry, 2010, 42, 2192-2202.	8.8	106
25	Selective interactions between arbuscular mycorrhizal fungi and Rhizobium leguminosarum bv. viceae enhance pea yield and nutrition. Biology and Fertility of Soils, 2003, 37, 261-267.	4.3	97
26	Plant growth promoting rhizobacteria for winter wheat. Canadian Journal of Microbiology, 1990, 36, 265-272.	1.7	96
27	Growth promotion of winter wheat by fluorescent pseudomonads under field conditions. Soil Biology and Biochemistry, 1992, 24, 1137-1146.	8.8	94
28	Plant growth-promoting rhizobacteria alter rooting patterns and arbuscular mycorrhizal fungi colonization of field-grown spring wheat. Biology and Fertility of Soils, 1996, 23, 113-120.	4.3	88
29	Bacterial microbiome associated with the rhizosphere and root interior of crops in Saskatchewan, Canada. Canadian Journal of Microbiology, 2020, 66, 71-85.	1.7	88
30	Taxonomic and functional diversity of pseudomonads isolated from the roots of field-grown canola. FEMS Microbiology Ecology, 2002, 42, 399-407.	2.7	85
31	Field-scale assessment of weathered hydrocarbon degradation by mixed and single plant treatments. Applied Soil Ecology, 2009, 42, 9-17.	4.3	83
32	Bacterial Root Microbiome of Plants Growing in Oil Sands Reclamation Covers. Frontiers in Microbiology, 2017, 8, 849.	3.5	80
33	Response of lentil under controlled conditions to co-inoculation with arbuscular mycorrhizal fungi and rhizobia varying in efficacy. Soil Biology and Biochemistry, 2002, 34, 181-188.	8.8	78
34	A PCR-DGGE method for detecting arbuscular mycorrhizal fungi in cultivated soils. Soil Biology and Biochemistry, 2005, 37, 1589-1597.	8.8	70
35	Relationship Between Microbial Biomass and Elemental Sulfur Oxidation in Agricultural Soils. Soil Science Society of America Journal, 1988, 52, 672-677.	2.2	69
36	Bacterial inoculants of forage grasses that enhance degradation of 2â€chlorobenzoic acid in soil. Environmental Toxicology and Chemistry, 1997, 16, 1098-1104.	4.3	66

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37	Fungal diversity associated with pulses and its influence on the subsequent wheat crop in the Canadian prairies. Plant and Soil, 2017, 414, 13-31.	3.7	66
38	Biolog analysis and fatty acid methyl ester profiles indicate that pseudomonad inoculants that promote phytoremediation alter the root-associated microbial community of Bromus biebersteinii. Soil Biology and Biochemistry, 1998, 30, 1717-1723.	8.8	59
39	<i>Ensifer adhaerens</i> Predatory Activity Against Other Bacteria in Soil, as Monitored by Indirect Phage Analysis. Applied and Environmental Microbiology, 1983, 45, 1380-1388.	3.1	59
40	IMPACT OF ELEMENTAL SULFUR FERTILIZATION ON AGRICULTURAL SOILS. I. EFFECTS ON MICROBIAL BIOMASS AND ENZYME ACTIVITIES. Canadian Journal of Soil Science, 1988, 68, 463-473.	1.2	55
41	Failure to decontaminate Glomus clarum NT4 spores is due to spore wall-associated bacteria. Mycorrhiza, 1995, 6, 43-49.	2.8	55
42	Response of spring wheat (Triticum aestivum) to interactions between Pseudomonas species and Glomus clarum NT4. Biology and Fertility of Soils, 1997, 24, 365-371.	4.3	54
43	Occurrence and isolation of vesicularâ€“arbuscular mycorrhizae in cropped field soils of Saskatchewan, Canada. Canadian Journal of Microbiology, 1993, 39, 567-575.	1.7	51
44	Sulfur-oxidizing bacteria as plant growth promoting rhizobacteria for canola. Canadian Journal of Microbiology, 1991, 37, 521-529.	1.7	50
45	Suppressive effects of seed-applied fungicides on arbuscular mycorrhizal fungi (AMF) differ with fungicide mode of action and AMF species. Applied Soil Ecology, 2013, 72, 22-30.	4.3	50
46	Enhanced phytoremediation of chlorobenzoates in rhizosphere soil. Soil Biology and Biochemistry, 1999, 31, 299-305.	8.8	49
47	Diversity of bacterial communities in the rhizosphere and root interior of field-grown genetically modified Brassica napus. FEMS Microbiology Ecology, 2001, 38, 1-9.	2.7	49
48	Impact of arbuscular mycorrhizal fungal inoculants on subsequent arbuscular mycorrhizal fungi colonization in pot-cultured field pea (Pisum sativum L.). Mycorrhiza, 2013, 23, 45-59.	2.8	47
49	Transduction of Escherichia coli in soil. Canadian Journal of Microbiology, 1988, 34, 190-193.	1.7	42
50	Phytotoxicity of oil sands naphthenic acids and dissipation from systems planted with emergent aquatic macrophytes. Journal of Environmental Science and Health - Part A Toxic/Hazardous Substances and Environmental Engineering, 2007, 43, 36-42.	1.7	42
51	Evaluation of difference imagery for visualizing and quantitating microbial growth. Canadian Journal of Microbiology, 1985, 31, 35-44.	1.7	38
52	Estimating the viability of vesicular-arbuscular mycorrhizae fungal spores using tetrazolium salts as vital stains. Mycologia, 1995, 87, 273-279.	1.9	35
53	Natural revegetation of hydrocarbon-contaminated soil in semi-arid grasslands. Canadian Journal of Botany, 2004, 82, 22-30.	1.1	35
54	Effects of cultivation on the activity and kinetics of arylsulfatase in Saskatchewan soils. Soil Biology and Biochemistry, 1994, 26, 1033-1040.	8.8	34

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55	Differences in phytotoxicity and dissipation between ionized and nonionized oil sands naphthenic acids in wetland plants. Environmental Toxicology and Chemistry, 2009, 28, 2167-2174.	4.3	34
56	Potential use of endophytic root bacteria and host plants to degrade hydrocarbons. International Journal of Phytoremediation, 2019, 21, 928-938.	3.1	34
57	Influence of crop rhizospheres on populations and activity of heterotrophic sulfur-oxidizing microorganisms. Soil Biology and Biochemistry, 1990, 22, 457-463.	8.8	33
58	Endophytic root bacteria associated with the natural vegetation growing at the hydrocarbon-contaminated Bitumount Provincial Historic site. Canadian Journal of Microbiology, 2017, 63, 502-515.	1.7	32
59	Influence of Pseudomonas syringae R25 and P. putida R105 on the growth and N2 fixation (acetylene) Tj ETQq1 1 0.784314 rgBT /Ov Fertility of Soils, 1993, 16, 215-220.	4.3	31
60	Enumeration of sulfur-oxidizing populations in Saskatchewan agricultural soils. Canadian Journal of Soil Science, 1991, 71, 127-136.	1.2	30
61	Ability of Cold-Tolerant Plants to Grow in Hydrocarbon-Contaminated Soil. International Journal of Phytoremediation, 2003, 5, 105-123.	3.1	30
62	Influence of bacterial-amoebal interactions on sulfur transformations in soil. Soil Biology and Biochemistry, 1989, 21, 921-930.	8.8	29
63	The fungicides thiram and captan affect the phenotypic characteristics of Rhizobium leguminosarum strain C1 as determined by FAME and Biolog analyses. Biology and Fertility of Soils, 2000, 31, 303-309.	4.3	28
64	Ultrahigh-resolution mass spectrometry of simulated runoff from treated oil sands mature fine tailings. Rapid Communications in Mass Spectrometry, 2010, 24, 2400-2406.	1.5	26
65	Relationship between ammonia oxidizing bacteria and bioavailable nitrogen in harvested forest soils of central Alberta. Soil Biology and Biochemistry, 2012, 46, 18-25.	8.8	26
66	Environment has a Stronger Effect than Host Plant Genotype in Shaping Spring <i>Brassica napus</i> Seed Microbiomes. Phytobiomes Journal, 2021, 5, 220-230.	2.7	26
67	A root tissue culture system to study winter wheat-rhizobacteria interactions. Applied Microbiology and Biotechnology, 1990, 33, 589-595.	3.6	25
68	Populations of predatory protozoa in field soils after 5 years of elemental s fertilizer application. Soil Biology and Biochemistry, 1988, 20, 787-791.	8.8	24
69	Growth response of lentil and wheat to Glomus clarum NT4 over a range of P levels in a Saskatchewan soil containing indigenous AM fungi. Mycorrhiza, 1997, 7, 3-8.	2.8	24
70	Response of spring wheat cultivars to <i>Glomus clarum</i> NT4 in a P-deficient soil containing arbuscular mycorrhizal fungi. Canadian Journal of Soil Science, 1998, 78, 481-484.	1.2	24
71	Impact of diesel and biodiesel contamination on soil microbial community activity and structure. Scientific Reports, 2021, 11, 10856.	3.3	24
72	Estimating the Viability of Vesicular-Arbuscular Mycorrhizae Fungal Spores Using Tetrazolium Salts as Vital Stains. Mycologia, 1995, 87, 273.	1.9	23

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73	Degradation of chlorinated benzoic acid mixtures by plantâ€“bacteria associations. Environmental Toxicology and Chemistry, 1998, 17, 728-733.	4.3	23
74	Impact of clear cutting on soil microbial communities and bioavailable nutrients in the LFH and Ae horizons of Boreal Plain forest soils. Forest Ecology and Management, 2013, 306, 88-95.	3.2	22
75	Fungal endophyte colonization coincides with altered DNA methylation in drought-stressed wheat seedlings. Canadian Journal of Plant Science, 2014, 94, 223-234.	0.9	22
76	Microbial populations in trifluralin-treated soil. Plant and Soil, 1984, 76, 379-387.	3.7	21
77	Population dynamics ofAzospirillum brasilense and its bacteriophage in soil. Plant and Soil, 1986, 90, 117-128.	3.7	21
78	Are Methylmercury Concentrations in the Wetlands of Kejimkujik National Park, Nova Scotia, Canada, Dependent on Geology?. Journal of Environmental Quality, 2003, 32, 2085-2094.	2.0	21
79	IMPACT OF ELEMENTAL SULFUR FERTILIZATION ON AGRICULTURAL SOILS. II. EFFECTS ON SULFUR-OXIDIZING POPULATIONS AND OXIDATION RATES. Canadian Journal of Soil Science, 1988, 68, 475-483.	1.2	20
80	Intact soil-core microcosms compared with multi-site field releases for pre-release testing of microbes in diverse soils and climates. Canadian Journal of Microbiology, 2001, 47, 237-252.	1.7	20
81	DEGRADATION OF CHLORINATED BENZOIC ACID MIXTURES BY PLANTâ€“BACTERIA ASSOCIATIONS. Environmental Toxicology and Chemistry, 1998, 17, 728.	4.3	20
82	Influence of metribuzin on the <i>Rhizobium leguminosarum</i>â€“lentil (<i>Lens culinaris</i>) symbiosis. Canadian Journal of Microbiology, 1992, 38, 343-349.	1.7	19
83	Manual and Digital Lineâ€Intercept Methods of Measuring Root Length: A Comparison. Agronomy Journal, 1993, 85, 1233-1237.	1.8	19
84	Identification of Rhizobium leguminosarum and Rhizobium sp. (Cicer) strains using a custom Fatty Acid Methyl Ester (FAME) profile library. Journal of Applied Microbiology, 1999, 86, 78-86.	3.1	19
85	Seed endosymbiosis: a vital relationship in providing prenatal care to plants. Canadian Journal of Plant Science, 0, , .	0.9	18
86	Shifts in Root-Associated Microbial Communities ofTypha LatifoliaGrowing in Naphthenic Acids and Relationship to Plant Health. International Journal of Phytoremediation, 2010, 12, 745-760.	3.1	17
87	Phytotoxicity and naphthenic acid dissipation from oil sands fine tailings treatments planted with the emergent macrophyte<i>Phragmites australis</i>. Journal of Environmental Science and Health - Part A Toxic/Hazardous Substances and Environmental Engineering, 2010, 45, 1008-1016.	1.7	17
88	Evaluation of prairie grass species as bioindicators of halogenated aromatics in soil. Environmental Toxicology and Chemistry, 1997, 16, 521-527.	4.3	16
89	Field and soil microcosm studies on the survival and conjugation of aPseudomonas putidastrain bearing a recombinant plasmid, pADPTel. Canadian Journal of Microbiology, 2004, 50, 595-604.	1.7	15
90	Survival of a commercial AM fungal inoculant and its impact on indigenous AM fungal communities in field soils. Applied Soil Ecology, 2021, 166, 103979.	4.3	15

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91	Spontaneous induction of bacteriophage during growth of <i>Azospirillum brasilense</i> in complex media. Canadian Journal of Microbiology, 1984, 30, 805-808.	1.7	13
92	Plant-Assisted Degradation of Phenanthrene as Assessed by Solid-Phase Microextraction (SPME). International Journal of Phytoremediation, 2004, 6, 253-268.	3.1	13
93	Growth of Indigenous <i>Rhizobium leguminosarum</i> and <i>Rhizobium meliloti</i> in Soils Amended with Organic Nutrients. Applied and Environmental Microbiology, 1988, 54, 257-263.	3.1	13
94	Hydrocarbon Tolerance Correlates with Seed Mass and Relative Growth Rate. Bioremediation Journal, 2004, 8, 185-199.	2.0	12
95	Isolation of <i>Arthrobacter</i> Bacteriophage from Soil. Applied and Environmental Microbiology, 1981, 41, 1389-1393.	3.1	12
96	Phenotypic plasticity of Pseudomonas aureofaciens (lacZY) introduced into and recovered from field and laboratory microcosm soils. FEMS Microbiology Ecology, 1998, 27, 133-139.	2.7	11
97	A chronsequential approach to investigating microbial community shifts following clearcutting in Boreal Plain forest soils. Canadian Journal of Forest Research, 2012, 42, 2078-2089.	1.7	11
98	Bacterial Microbiomes Associated with the Rhizosphere, Root Interior, and Aboveground Plant Organs of Wheat and Canola at Different Growth Stages. Phytobiomes Journal, 2021, 5, 442-451.	2.7	11
99	Diversity of root-associated bacteria associated with field-grown canola (Brassica napus L.) and wheat (Triticum aestivum L.). FEMS Microbiology Ecology, 1998, 26, 43-50.	2.7	11
100	Propagation and storage of vesicularâ€"arbuscular mycorrhizal fungi isolated from Saskatchewan agricultural soils. Canadian Journal of Botany, 1993, 71, 1328-1335.	1.1	10
101	Manipulation of cold stratification and endophytic effects on expression patterns of RSG and KAO genes in coleorhiza of wheat seeds. Plant Growth Regulation, 2016, 79, 219-227.	3.4	8
102	Gene expression patterns in wheat coleorhiza under cold- and biological stratification. Microbiological Research, 2014, 169, 616-622.	5.3	7
103	Assembly and potential transmission of the <i>Lens culinaris</i> seed microbiome. FEMS Microbiology Ecology, 2022, 97, .	2.7	6
104	ARYL HYDROCARBON BIOACCESSIBILITY TO SMALL MAMMALS FROM ARCTIC PLANTS USING IN VITRO TECHNIQUES. Environmental Toxicology and Chemistry, 2007, 26, 491.	4.3	5
105	Potential of spore protein profiles as identification tools for arbuscular mycorrhizal fungi. Mycologia, 2000, 92, 1210-1213.	1.9	4
106	Potential of Spore Protein Profiles as Identification Tools for Arbuscular Mycorrhizal Fungi. Mycologia, 2000, 92, 1210.	1.9	4
107	Responses of arbuscular mycorrhizal fungal communities to soil core transplantation across Saskatchewan prairie climatic regions. Canadian Journal of Soil Science, 2020, 100, 81-96.	1.2	4
108	Hydrocarbon-degrading genes in root endophytic communities on oil sands reclamation covers. International Journal of Phytoremediation, 2020, 22, 703-712.	3.1	4

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109	Microbial communities associated with barley growing in an oil sands reclamation area in Alberta, Canada. Canadian Journal of Microbiology, 2018, 64, 1004-1019.	1.7	3
110	Taxonomic and functional diversity of pseudomonads isolated from the roots of field-grown canola. FEMS Microbiology Ecology, 2002, 42, 399-407.	2.7	3
111	BACTERIAL INOCULANTS OF FORAGE GRASSES THAT ENHANCE DEGRADATION OF 2-CHLOROBENZOIC ACID IN SOIL. Environmental Toxicology and Chemistry, 1997, 16, 1098.	4.3	3
112	Naturally occurring phenanthrene degrading bacteria associated with seeds of various plant species. International Journal of Phytoremediation, 2016, 18, 423-425.	3.1	2
113	EVALUATION OF PRAIRIE GRASS SPECIES AS BIOINDICATORS OF HALOGENATED AROMATICS IN SOIL. Environmental Toxicology and Chemistry, 1997, 16, 521.	4.3	1
114	Phil Chilibeck, new Co-Editor-in-Chief for <i>Applied Physiology, Nutrition, and Metabolism</i>. Applied Physiology, Nutrition and Metabolism, 2020, 45, iii-iii.	1.9	0