

Richard E Farrell

List of Publications by Year in descending order

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Version: 2024-02-01

65
papers

2,505
citations

218677

26
h-index

206112

48
g-index

65
all docs

65
docs citations

65
times ranked

3070
citing authors

#	ARTICLE	IF	CITATIONS
1	Influence of montmorillonite layered silicate on plasticized poly(l-lactide) blown films. <i>Polymer</i> , 2005, 46, 11716-11727.	3.8	227
2	Processing, performance and biodegradability of a thermoplastic aliphatic polyester/starch system. <i>Polymer</i> , 1999, 40, 6777-6788.	3.8	200
3	Glomalin-related soil protein contains non-mycorrhizal-related heat-stable proteins, lipids and humic materials. <i>Soil Biology and Biochemistry</i> , 2011, 43, 766-777.	8.8	156
4	Hydrocarbon degradation potential and activity of endophytic bacteria associated with prairie plants. <i>Soil Biology and Biochemistry</i> , 2008, 40, 3054-3064.	8.8	137
5	Plant root exudates impact the hydrocarbon degradation potential of a weathered-hydrocarbon contaminated soil. <i>Applied Soil Ecology</i> , 2012, 52, 56-64.	4.3	119
6	Relationship between nitrifier and denitrifier community composition and abundance in predicting nitrous oxide emissions from ephemeral wetland soils. <i>Soil Biology and Biochemistry</i> , 2008, 40, 1114-1123.	8.8	112
7	Landscape controls on N ₂ O and CH ₄ emissions from freshwater mineral soil wetlands of the Canadian Prairie Pothole region. <i>Geoderma</i> , 2010, 155, 308-319.	5.1	97
8	Probability Distribution and Spatial Dependence of Nitrous Oxide Emission. <i>Soil Science Society of America Journal</i> , 2006, 70, 753-762.	2.2	88
9	Assessing the potential of ammonia oxidizing bacteria to produce nitrous oxide in soils of a high arctic lowland ecosystem on Devon Island, Canada. <i>Soil Biology and Biochemistry</i> , 2007, 39, 2001-2013.	8.8	86
10	Field-scale assessment of weathered hydrocarbon degradation by mixed and single plant treatments. <i>Applied Soil Ecology</i> , 2009, 42, 9-17.	4.3	83
11	Recycling of the naturally-occurring ¹⁵ N in an established stand of <i>Leucaena leucocephala</i> . <i>Soil Biology and Biochemistry</i> , 1994, 26, 757-762.	8.8	69
12	Nitrifier dominance of Arctic soil nitrous oxide emissions arises due to fungal competition with denitrifiers for nitrate. <i>Soil Biology and Biochemistry</i> , 2009, 41, 1104-1110.	8.8	58
13	Soil-atmosphere exchange of carbon dioxide, methane and nitrous oxide in shelterbelts compared with adjacent cropped fields. <i>Agriculture, Ecosystems and Environment</i> , 2016, 223, 123-134.	5.3	51
14	Greenhouse gas soil production and surface fluxes at a high arctic polar oasis. <i>Soil Biology and Biochemistry</i> , 2012, 52, 1-12.	8.8	47
15	Advances in Understanding Organic Nitrogen Chemistry in Soils Using State-of-the-art Analytical Techniques. <i>Advances in Agronomy</i> , 2013, 119, 83-151.	5.2	46
16	Calibration method at the N _K -edge using interstitial nitrogen gas in solid-state nitrogen-containing inorganic compounds. <i>Journal of Synchrotron Radiation</i> , 2008, 15, 532-534.	2.4	42
17	Petroleum hydrocarbon remediation in frozen soil using a meat and bonemeal biochar plus fertilizer. <i>Chemosphere</i> , 2017, 173, 330-339.	8.2	42
18	A new look at an old concept: using ¹⁵ N and ¹⁸ O isotopomers to understand the relationship between soil moisture and N ₂ O production pathways. <i>Soil</i> , 2019, 5, 265-274.	4.9	38

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19	Soil Formate Regulates the Fungal Nitrous Oxide Emission Pathway. <i>Applied and Environmental Microbiology</i> , 2008, 74, 6690-6696.	3.1	37
20	Natural revegetation of hydrocarbon-contaminated soil in semi-arid grasslands. <i>Canadian Journal of Botany</i> , 2004, 82, 22-30.	1.1	35
21	Effects of cultivation on the activity and kinetics of arylsulfatase in Saskatchewan soils. <i>Soil Biology and Biochemistry</i> , 1994, 26, 1033-1040.	8.8	34
22	Differentiating between the supply of N to wheat from above and belowground residues of preceding crops of pea and canola. <i>Biology and Fertility of Soils</i> , 2014, 50, 563-570.	4.3	33
23	Estimating belowground nitrogen inputs of pea and canola and their contribution to soil inorganic N pools using ¹⁵ N labeling. <i>Plant and Soil</i> , 2013, 371, 67-80.	3.7	32
24	Profiling Rhizosphere Chemistry: Evidence from Carbon and Nitrogen K-edge XANES and Pyrolysis-FIMS. <i>Soil Science Society of America Journal</i> , 2009, 73, 2002-2012.	2.2	31
25	Ability of Cold-Tolerant Plants to Grow in Hydrocarbon-Contaminated Soil. <i>International Journal of Phytoremediation</i> , 2003, 5, 105-123.	3.1	30
26	Nitrogen supply from belowground residues of lentil and wheat to a subsequent wheat crop. <i>Biology and Fertility of Soils</i> , 2014, 50, 507-515.	4.3	30
27	Wavelet Spectra of Nitrous Oxide Emission from Hummocky Terrain during Spring Snowmelt. <i>Soil Science Society of America Journal</i> , 2006, 70, 1110-1120.	2.2	29
28	N ₂ O flux from plant-soil systems in polar deserts switch between sources and sinks under different light conditions. <i>Soil Biology and Biochemistry</i> , 2012, 48, 69-77.	8.8	29
29	Greenhouse gas production and consumption in High Arctic deserts. <i>Soil Biology and Biochemistry</i> , 2014, 68, 158-165.	8.8	28
30	XANES and Pyrolysis-FIMS Evidence of Organic Matter Composition in a Hummocky Landscape. <i>Soil Science Society of America Journal</i> , 2011, 75, 1741-1755.	2.2	26
31	Early Effects of Afforestation with Willow (<i>Salix purpurea</i> , "Hotel") on Soil Carbon and Nutrient Availability. <i>Forests</i> , 2013, 4, 137-154.	2.1	26
32	Intercropping <i>Caragana arborescens</i> with <i>Salix miyabeana</i> to Satisfy Nitrogen Demand and Maximize Growth. <i>Bioenergy Research</i> , 2012, 5, 719-732.	3.9	25
33	Characterizing Zinc Speciation in Soils from a Smelter-Affected Boreal Forest Ecosystem. <i>Journal of Environmental Quality</i> , 2016, 45, 684-692.	2.0	24
34	Manipulation of rhizosphere organisms to enhance glomalin production and C sequestration: Pitfalls and promises. <i>Canadian Journal of Plant Science</i> , 2014, 94, 1025-1032.	0.9	23
35	Repeat-pulse ¹³ CO ₂ labeling of canola and field pea: implications for soil organic matter studies. <i>Rapid Communications in Mass Spectrometry</i> , 2010, 24, 2791-2798.	1.5	22
36	Construction and evaluation of a reference electrode assembly for use in monitoring <i>in situ</i> soil redox potentials. <i>Communications in Soil Science and Plant Analysis</i> , 1991, 22, 1059-1068.	1.4	20

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37	A side-by-side comparison of biological nitrogen fixation and yield of four legume crops. <i>Plant and Soil</i> , 2019, 442, 169-182.	3.7	20
38	Nitrous Oxide Emissions from Ephemeral Wetland Soils are Correlated with Microbial Community Composition. <i>Frontiers in Microbiology</i> , 2011, 2, 110.	3.5	19
39	Tracing crop residue N into subsequent crops: Insight from long-term crop rotations that vary in diversity. <i>Field Crops Research</i> , 2020, 255, 107904.	5.1	19
40	Characterizing spatial and temporal variations in CO ₂ fluxes from ground surface using three complimentary measurement techniques. <i>Journal of Hydrology</i> , 2005, 311, 80-90.	5.4	17
41	Greenhouse gas flux in a temperate grassland as affected by landform and disturbance. <i>Landscape Ecology</i> , 2013, 28, 709-723.	4.2	16
42	Contribution of crop residue, soil, and fertilizer nitrogen to nitrous oxide emissions varies with long-term crop rotation and tillage. <i>Science of the Total Environment</i> , 2021, 767, 145107.	8.0	16
43	Temporal dynamics of nitrogen rhizodeposition in field pea as determined by ¹⁵ N labeling. <i>Canadian Journal of Plant Science</i> , 2013, 93, 941-950.	0.9	15
44	Does expansion of western snowberry enhance ecosystem carbon sequestration and storage in Canadian Prairies?. <i>Agriculture, Ecosystems and Environment</i> , 2009, 134, 269-276.	5.3	14
45	Current inventory approach overestimates the effect of irrigated crop management on soil-derived greenhouse gas emissions in the semi-arid Canadian Prairies. <i>Agricultural Water Management</i> , 2018, 208, 19-32.	5.6	14
46	Plant-Assisted Degradation of Phenanthrene as Assessed by Solid-Phase Microextraction (SPME). <i>International Journal of Phytoremediation</i> , 2004, 6, 253-268.	3.1	13
47	Comparison of human exposure pathways in an urban brownfield: Reduced risk from paving roads. <i>Environmental Toxicology and Chemistry</i> , 2012, 31, 2423-2430.	4.3	13
48	Hydrocarbon Tolerance Correlates with Seed Mass and Relative Growth Rate. <i>Bioremediation Journal</i> , 2004, 8, 185-199.	2.0	12
49	Effects of edaphic conditions on site quality for <i>Salix purpurea</i> plantations across a large climatic gradient in Canada. <i>New Forests</i> , 2013, 44, 899-918.	1.7	12
50	Greenhouse gas emissions along a shelterbelt-cropped field transect. <i>Agriculture, Ecosystems and Environment</i> , 2017, 241, 110-120.	5.3	12
51	Organic residue and agricultural lime interactions on CO ₂ emissions from two contrasting soils: implications for carbon management in acid soils. <i>Journal of Soils and Sediments</i> , 2021, 21, 172-188.	3.0	11
52	Crop residues contribute minimally to spring-thaw nitrous oxide emissions under contrasting tillage and crop rotations. <i>Soil Biology and Biochemistry</i> , 2021, 152, 108057.	8.8	11
53	Upslope length improves spatial estimation of soil organic carbon content. <i>Canadian Journal of Soil Science</i> , 2007, 87, 291-300.	1.2	10
54	Rapid biomass estimation using optical stem density of willow (<i>Salix</i> spp.) grown in short rotation. <i>Biomass and Bioenergy</i> , 2009, 33, 174-179.	5.7	10

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55	Construction and evaluation of a potassium-selective tube-mounted membrane electrode. <i>Talanta</i> , 1984, 31, 1005-1007.	5.5	6
56	Rapid Root Decomposition Decouples Root Length from Increased Soil C Following Grassland Invasion. <i>Ecosystems</i> , 2015, 18, 1307-1318.	3.4	6
57	Greenhouse gas mitigation potential of shelterbelts: estimating farm-scale emission reductions using the Holos model. <i>Canadian Journal of Soil Science</i> , 2016, , .	1.2	6
58	Short-term effects of aglime on inorganic- and organic-derived CO ₂ emissions from two acid soils amended with an ammonium-based fertiliser. <i>Journal of Soils and Sediments</i> , 2020, 20, 52-65.	3.0	5
59	Spatial variation of nitrous oxide fluxes during growing and non-growing seasons at a location subjected to seasonally frozen soils. <i>Canadian Journal of Soil Science</i> , 2021, 101, 555-564.	1.2	5
60	Title is missing!. <i>Journal of Polymers and the Environment</i> , 2000, 8, 81-89.	5.0	3
61	Effects of Dolomitic Limestone Application on Zinc Speciation in Boreal Forest Smelter-Contaminated Soils. <i>Journal of Environmental Quality</i> , 2016, 45, 1894-1900.	2.0	3
62	AN INTER-LABORATORY COMPARISON OF NITROUS OXIDE ANALYSIS IN WESTERN CANADA. <i>Communications in Soil Science and Plant Analysis</i> , 2002, 33, 2705-2713.	1.4	2
63	Dynamics of soil-derived greenhouse gas emissions from shelterbelts under elevated soil moisture conditions in a semi-arid prairie environment. <i>Agroforestry Systems</i> , 2018, 92, 321.	2.0	2
64	Assessing spatial distribution and joint uncertainty of TPH-fractions: Indicator kriging and sequential indicator simulation. <i>Canadian Journal of Soil Science</i> , 2007, 87, 551-563.	1.2	1
65	Type of pulse crop included in a 2-year rotation with wheat affects total N ₂ O loss and intensity. <i>Biology and Fertility of Soils</i> , 2021, 57, 699-713.	4.3	0