William Horwath

List of Publications by Year
in descending order

122 papers	7,769 citations	66234 42 h-index	54797 84 g-index
125 all docs	125 docs citations	125 times ranked	8459 citing authors

#	Article	IF	Citations
1	Topographic attributes override impacts of agronomic practices on prokaryotic community structure. Applied Soil Ecology, 2022, 175, 104446.	2.1	2
2	Reducing greenhouse gas emissions and stabilizing nutrients from dairy manure using chemical coagulation. Journal of Environmental Quality, 2021, 50, 375-383.	1.0	9
3	Influence of Agricultural Managed Aquifer Recharge (AgMAR) and Stratigraphic Heterogeneities on Nitrate Reduction in the Deep Subsurface. Water Resources Research, 2021, 57, e2020WR029148.	1.7	17
4	Residue decomposition and priming of soil organic carbon following different NPK fertilizer histories. Soil Science Society of America Journal, 2020, 84, 1898-1909.	1.2	10
5	Warming yields distinct accumulation patterns of microbial residues in dry and wet alpine grasslands on the Qinghai-Tibetan Plateau. Biology and Fertility of Soils, 2020, 56, 881-892.	2.3	19
6	Long-Term Wood Micro-Density Variation in Alpine Forests at Central MÃ©xico and Their Spatial Links with Remotely Sensed Information. Forests, 2020, 11, 452.	0.9	8
7	From Trees to Ecosystems: Spatiotemporal Scaling of Climatic Impacts on Montane Landscapes Using Dendrochronological, Isotopic, and Remotely Sensed Data. Global Biogeochemical Cycles, 2020, 34, e2019GB006325.	1.9	16
8	Fire Affects Asymbiotic Nitrogen Fixation in Southern Amazon Forests. Journal of Geophysical Research G: Biogeosciences, 2020, 125, e2019JG005383.	1.3	9
9	Effects of ferric sulfate and polyaluminum chloride coagulation enhanced treatment wetlands on Typha growth, soil and water chemistry. Science of the Total Environment, 2019, 648, 116-124.	3.9	21
10	Exposure to Light Elicits a Spectrum of Chemical Changes in Soil. Journal of Geophysical Research F: Earth Surface, 2019, 124, 2288-2310.	1.0	4
11	Soil Microbial Biomass Size and Nitrogen Availability Regulate the Incorporation of Residue Carbon into Dissolved Organic Pool and Microbial Biomass. Soil Science Society of America Journal, 2019, 83, 1083-1092.	1.2	9
12	Two Decades of Experimental Manipulation Reveal Potential for Enhanced Biomass Accumulation and Water Use Efficiency in Ponderosa Pine Plantations Across Climate Gradients. Journal of Geophysical Research G: Biogeosciences, 2019, 124, 2321-2334.	1.3	12
13	Coping With Extreme Events: Growth and Waterâ€Use Efficiency of Trees in Western Mexico During the Driest and Wettest Periods of the Past One Hundred Sixty Years. Journal of Geophysical Research G: Biogeosciences, 2019, 124, 3419-3431.	1.3	16
14	Sequestration and Transformation in Chemically Enhanced Treatment Wetlands: DOC, DBPPs, and Nutrients. Journal of Environmental Engineering, ASCE, 2019, 145, .	0.7	3
15	Aluminum- and iron-based coagulation for in-situ removal of dissolved organic carbon, disinfection byproducts, mercury and other constituents from agricultural drain water. Ecological Engineering, 2019, 134, 26-38.	1.6	27
16	Effect of reduction of aggregate size on the priming effect in a Mollisol under different soil managements. European Journal of Soil Science, 2019, 70, 765-775.	1.8	11
17	Warming increases microbial residue contribution to soil organic carbon in an alpine meadow. Soil Biology and Biochemistry, 2019, 135, 13-19.	4.2	88
18	Impact of Composting Food Waste with Green Waste on Greenhouse Gas Emissions from Compost Windrows. Compost Science and Utilization, 2019, 27, 35-45.	1.2	6

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19	Chemically Enhanced Treatment Wetland to Improve Water Quality and Mitigate Land Subsidence in the Sacramentoâ€'SanÂJoaquin Delta: Cost and Design Considerations. San Francisco Estuary and Watershed Science, 2019, 17, .	0.2	2
20	Interactive effects of land-use change and topography on asymbiotic nitrogen fixation in the Brazilian Atlantic Forest. Biogeochemistry, 2019, 142, 137-153.	1.7	15
21	Linking Remote Sensing and Dendrochronology to Quantify Climateâ€Induced Shifts in Highâ€Elevation Forests Over Space and Time. Journal of Geophysical Research G: Biogeosciences, 2019, 124, 166-183.	1.3	48
22	Mercury sequestration and transformation in chemically enhanced treatment wetlands. Chemosphere, 2019, 217, 496-506.	4.2	8
23	Integrating effects of species composition and soil properties to predict shifts in montane forest carbonâ€"water relations. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E4219-E4226.	3.3	58
24	Soil microbial biomass size and soil carbon influence the priming effect from carbon inputs depending on nitrogen availability. Soil Biology and Biochemistry, 2018, 119, 41-49.	4.2	124
25	Wetlands receiving water treated with coagulants improve water quality by removing dissolved organic carbon and disinfection byproduct precursors. Science of the Total Environment, 2018, 622-623, 603-613.	3.9	20
26	Sediment accretion and carbon storage in constructed wetlands receiving water treated with metal-based coagulants. Ecological Engineering, 2018, 111, 176-185.	1.6	19
27	Structural equation modeling reveals iron (hydr)oxides as a strong mediator of N mineralization in California agricultural soils. Geoderma, 2018, 315, 120-129.	2.3	19
28	Rice Drain Management to Reduce Seepage Exports in the Sacramentoâ€"San Joaquin Delta, California. Journal of Environmental Quality, 2018, 47, 1186-1195.	1.0	1
29	Predictable Oxygen Isotope Exchange Between Plant Lipids and Environmental Water: Implications for Ecosystem Water Balance Reconstruction. Journal of Geophysical Research G: Biogeosciences, 2018, 123, 2941-2954.	1.3	4
30	Influence of rice straw on priming of soil C for dissolved organic C and CH4 production. Plant and Soil, 2017, 417, 231-241.	1.8	36
31	Precipitation Events and Management Practices Affect Greenhouse Gas Emissions from Vineyards in a Mediterranean Climate. Soil Science Society of America Journal, 2017, 81, 138-152.	1.2	11
32	Nitrogen Fertilization Had No Effect on CH₄ and N₂O Emissions in Rice Planted in Rewetted Peatlands. Soil Science Society of America Journal, 2017, 81, 224-232.	1.2	11
33	Parent material and conifer biome influence microbial residue accumulation in forest soils. Soil Biology and Biochemistry, 2017, 107, 1-9.	4.2	24
34	A genomic perspective on stoichiometric regulation of soil carbon cycling. ISME Journal, 2017, 11, 2652-2665.	4.4	97
35	The temperature sensitivity of organic carbon mineralization is affected by exogenous carbon inputs and soil organic carbon content. European Journal of Soil Biology, 2017, 81, 69-75.	1.4	30
36	Plant-microbe interactions regulate carbon and nitrogen accumulation in forest soils. Forest Ecology and Management, 2017, 384, 415-423.	1.4	26

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37	Greenhouse gas emissions from green waste composting windrow. Waste Management, 2017, 59, 70-79.	3.7	63
38	The solubility of carbon inputs affects the priming of soil organic matter. Plant and Soil, 2017, 410, 129-138.	1.8	27
39	Effects of Positively Charged Dicyandiamide and Nitrogen Fertilizer Sources on Nitrous Oxide Emissions in Irrigated Corn. Journal of Environmental Quality, 2017, 46, 1123-1130.	1.0	4
40	Cover Crop Development Related to Nitrate Uptake and Cumulative Temperature. Crop Science, 2017, 57, 971-982.	0.8	7
41	Effect of iron oxide on nitrification in two agricultural soils with different pH. Biogeosciences, 2016, 13, 5609-5617.	1.3	31
42	Integrating Soil Biological and Chemical Indices to Predict Net Nitrogen Mineralization across California Agricultural Systems. Soil Science Society of America Journal, 2016, 80, 1675-1687.	1.2	31
43	Direct green waste land application: How to reduce its impacts on greenhouse gas and volatile organic compound emissions?. Waste Management, 2016, 52, 318-325.	3.7	4
44	Climatic sensitivity, waterâ€use efficiency, and growth decline in boreal jack pine (<i>Pinus) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 467 T 121, 2761-2774.	1.3	26
45	Tree growth acceleration and expansion of alpine forests: The synergistic effect of atmospheric and edaphic change. Science Advances, 2016, 2, e1501302.	4.7	74
46	Stand age affects emissions of N2O in flood-irrigated alfalfa: a comparison of field measurements, DNDC model simulations and IPCC Tier 1 estimates. Nutrient Cycling in Agroecosystems, 2016, 106, 335-345.	1.1	9
47	Nitrous oxide uptake in rewetted wetlands with contrasting soil organic carbon contents. Soil Biology and Biochemistry, 2016, 100, 110-117.	4.2	23
48	Soil nitrous oxide emissions in forage systems fertilized with liquid dairy manure and inorganic fertilizers. Agriculture, Ecosystems and Environment, 2016, 225, 160-172.	2.5	25
49	Comparison of isotope methods for partitioning methane production and soil C priming effects during anaerobic decomposition of rice residue in soil. Soil Biology and Biochemistry, 2016, 95, 51-59.	4.2	14
50	A soil carbon proxy to predict CH4 and N2O emissions from rewetted agricultural peatlands. Agriculture, Ecosystems and Environment, 2016, 220, 64-75.	2.5	19
51	Investigating the Temporal Effects of Metal-Based Coagulants to Remove Mercury from Solution in the Presence of Dissolved Organic Matter. Environmental Management, 2016, 57, 220-228.	1.2	7
52	Isotopic and nutritional evidence for speciesâ€and siteâ€specific responses to N deposition and elevated CO₂ in temperate forests. Journal of Geophysical Research G: Biogeosciences, 2015, 120, 1110-1123.	1.3	32
53	Estimating Annual Soil Carbon Loss in Agricultural Peatland Soils Using a Nitrogen Budget Approach. PLoS ONE, 2015, 10, e0121432.	1.1	15
54	Experimental Dosing of Wetlands with Coagulants Removes Mercury from Surface Water and Decreases Mercury Bioaccumulation in Fish. Environmental Science & Technology, 2015, 49, 6304-6311.	4.6	20

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55	The soil matrix increases microbial C stabilization in temperate and tropical forest soils. Biogeochemistry, 2015, 122, 35-45.	1.7	48
56	Role of green waste compost in the production of N2O from agricultural soils. Soil Biology and Biochemistry, 2015, 83, 57-65.	4.2	29
57	Quantifying the impact of drought on soil-plant interactions: a seasonal analysis of biotic and abiotic controls of carbon and nutrient dynamics in high-altitudinal grasslands. Plant and Soil, 2015, 389, 59-71.	1.8	23
58	Knife-injected anhydrous ammonia increases yield-scaled N2O emissions compared to broadcast or band-applied ammonium sulfate in wheat. Agriculture, Ecosystems and Environment, 2015, 212, 148-157.	2.5	22
59	Ironâ€mediated stabilization of soil carbon amplifies the benefits of ecological restoration in degraded lands. Ecological Applications, 2015, 25, 1226-1234.	1.8	37
60	The effect of rice straw on the priming of soil organic matter and methane production in peat soils. Soil Biology and Biochemistry, 2015, 81, 98-107.	4.2	93
61	Soil sampling protocol reliably estimates preplant NO<sub>3</sup>â˜in SDI tomatoes. California Agriculture, 2015, 69, 222-229.	0.5	9
62	Nitrogen Management and Methane Emissions in Directâ€Seeded Rice Systems. Agronomy Journal, 2014, 106, 968-980.	0.9	23
63	Implications of Using On-Farm Flood Flow Capture To Recharge Groundwater and Mitigate Flood Risks Along the Kings River, CA. Environmental Science & Technology, 2014, 48, 13601-13609.	4.6	46
64	Investigating amino acid utilization by soil microorganisms using compound specific stable isotope analysis. Soil Biology and Biochemistry, 2014, 74, 100-105.	4.2	44
65	Soil carbon and nitrogen storage in alluvial wet meadows of the Southern Sierra Nevada Mountains, USA. Journal of Soils and Sediments, 2014, 14, 34-43.	1.5	21
66	Using multielement isotopic analysis to decipher drought impacts and adaptive management in ancient agricultural systems. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, E4807-8.	3.3	15
67	Unprecedented carbon accumulation in mined soils: the synergistic effect of resource input and plant species invasion. Ecological Applications, 2013, 23, 1345-1356.	1.8	72
68	Growth decline and divergent tree ring isotopic composition (Î´¹³C and Î´¹⁸O) contradict predictions of <scp>CO</scp>₂ stimulation in high altitudinal forests. Global Change Biology, 2013, 19, 1748-1758.	4.2	79
69	Ammonia oxidation pathways and nitrifier denitrification are significant sources of N ₂ O and NO under low oxygen availability. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 6328-6333.	3.3	632
70	Testing protocol ensures the authenticity of organic fertilizers. California Agriculture, 2013, 67, 210-216.	0.5	7
71	Quantifying the Effects of Green Waste Compost Application, Water Content and Nitrogen Fertilization on Nitrous Oxide Emissions in 10 Agricultural Soils. Journal of Environmental Quality, 2013, 42, 912-918.	1.0	24
72	Explaining Global Increases in Water Use Efficiency: Why Have We Overestimated Responses to Rising Atmospheric CO2 in Natural Forest Ecosystems?. PLoS ONE, 2013, 8, e53089.	1.1	64

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73	Crop Residue Biomass Effects on Agricultural Runoff. Applied and Environmental Soil Science, 2013, 2013, 1-8.	0.8	11
74	Iron: The Forgotten Driver of Nitrous Oxide Production in Agricultural Soil. PLoS ONE, 2013, 8, e60146.	1.1	38
75	The source of microbial C has little impact on soil organic matter stabilisation in forest ecosystems. Ecology Letters, 2012, 15, 1257-1265.	3.0	82
76	Structural stability of coprecipitated natural organic matter and ferric iron under reducing conditions. Organic Geochemistry, 2012, 48, 81-89.	0.9	134
77	Nitrogen Dynamics in Irrigated Forage Systems Fertilized with Liquid Dairy Manure. Agronomy Journal, 2012, 104, 897-907.	0.9	9
78	Abiotic solubilization of soil organic matter, a less-seen aspect of dissolved organic matter production. Soil Biology and Biochemistry, 2012, 50, 12-21.	4.2	37
79	Soil moisture and plant residue addition interact in their effect on extracellular enzyme activity. Pedobiologia, 2011, 54, 71-78.	0.5	124
80	Removal of inorganic mercury and methylmercury from surface waters following coagulation of dissolved organic matter with metal-based salts. Science of the Total Environment, 2011, 409, 631-637.	3.9	105
81	Case study on potential agricultural responses to climate change in a California landscape. Climatic Change, 2011, 109, 407-427.	1.7	53
82	Soil Carbon and Nitrogen Storage in Upper Montane Riparian Meadows. Ecosystems, 2011, 14, 1217-1231.	1.6	37
83	Greenhouse Gas Emissions from Rice Cropping Systems. ACS Symposium Series, 2011, , 67-89.	0.5	5
84	Cover cropping affects soil N2O and CO2 emissions differently depending on type of irrigation. Agriculture, Ecosystems and Environment, 2010, 137, 251-260.	2.5	178
85	Eliminating interference from iron(III) for ultraviolet absorbance measurements of dissolved organic matter. Chemosphere, 2010, 78, 1409-1415.	4.2	32
86	Significance of organic nitrogen uptake from plant residues by soil microorganisms as affected by carbon and nitrogen availability. Soil Biology and Biochemistry, 2009, 41, 1281-1288.	4.2	78
87	Short-term dynamics of soil carbon, microbial biomass, and soil enzyme activities as compared to longer-term effects of tillage in irrigated row crops. Biology and Fertility of Soils, 2009, 46, 65-72.	2.3	52
88	Relationship between carbon and nitrogen availability and extracellular enzyme activities in soil. Pedobiologia, 2009, 53, 87-98.	0.5	100
89	Litter type and soil minerals control temperate forest soil carbon response to climate change. Global Change Biology, 2008, 14, 2064-2080.	4.2	44
90	Regulation of extracellular protease activity in soil in response to different sources and concentrations of nitrogen and carbon. Soil Biology and Biochemistry, 2008, 40, 3040-3048.	4.2	152

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91	Denitrification and Nitrate Consumption in an Herbaceous Riparian Area and Perennial Ryegrass Seed Cropping System. Soil Science Society of America Journal, 2008, 72, 1299-1310.	1.2	38
92	CARBON CYCLING AND FORMATION OF SOIL ORGANIC MATTER. , 2007, , 303-339.		52
93	Soil Mineralogy Affects Conifer Forest Soil Carbon Source Utilization and Microbial Priming. Soil Science Society of America Journal, 2007, 71, 1141-1150.	1.2	78
94	Mitigation of Shallow Groundwater Nitrate in a Poorly Drained Riparian Area and Adjacent Cropland. Journal of Environmental Quality, 2007, 36, 628-637.	1.0	15
95	Competitive interactions between native and exotic earthworm species as influenced by habitat quality in a California grassland. Applied Soil Ecology, 2006, 32, 38-53.	2.1	58
96	Fate of Nitrogen-15 in a Perennial Ryegrass Seed Field and Herbaceous Riparian Area. Soil Science Society of America Journal, 2006, 70, 909-919.	1.2	11
97	Mineral control of organic carbon mineralization in a range of temperate conifer forest soils. Global Change Biology, 2006, 12, 834-847.	4.2	148
98	Conservation tillage and cover cropping influence soil properties in San Joaquin Valley cotton-tomato crop. California Agriculture, 2006, 60, 146-153.	0.5	25
99	Role of Mineral-Nitrogen in Residue Decomposition and Stable Soil Organic Matter Formation. Soil Science Society of America Journal, 2005, 69, 1730-1736.	1.2	112
100	Deep vadose zone hydrology demonstrates fate of nitrate in eastern San Joaquin Valley. California Agriculture, 2005, 59, 124-132.	0.5	38
101	Strategies for Managing Soil Organic Matter to Supply Plant Nutrients. Advances in Agroecology, 2004, , .	0.3	6
102	Spectrophotometric Determination of Nitrate with a Single Reagent. Analytical Letters, 2003, 36, 2713-2722.	1.0	787
103	Short-term soil carbon dynamics of humic fractions in low-input and organic cropping systems. Geoderma, 2003, 114, 319-331.	2.3	30
104	Nitrate Removal Effectiveness of a Riparian Buffer along a Small Agricultural Stream in Western Oregon. Journal of Environmental Quality, 2003, 32, 162-170.	1.0	48
105	Stabilization of 13C-Carbon and Immobilization of 15N-Nitrogen from Rice Straw in Humic Fractions. Soil Science Society of America Journal, 2003, 67, 806-816.	1.2	14
106	Stabilization of C-Carbon and Immobilization of N-Nitrogen from Rice Straw in Humic Fractions. Soil Science Society of America Journal, 2003, 67, 806.	1.2	63
107	Short-term nitrogen-15 recovery vs. long-term total soil N gains in conventional and alternative cropping systems. Soil Biology and Biochemistry, 2002, 34, 43-50.	4.2	36
108	Nitrogen Dynamics in Humic Fractions under Alternative Straw Management in Temperate Rice. Soil Science Society of America Journal, 2002, 66, 478-488.	1.2	39

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109	Nitrogen Dynamics in Humic Fractions under Alternative Straw Management in Temperate Rice. Soil Science Society of America Journal, 2002, 66, 478.	1.2	20
110	Stabilization of Fertilizer Nitrogenâ€15 into Humic Substances in Aerobic vs. Waterlogged Soil Following Straw Incorporation. Soil Science Society of America Journal, 2001, 65, 499-510.	1.2	48
111	Nitrogen Dynamics and Fertilizer Use Efficiency in Rice following Straw Incorporation and Winter Flooding. Agronomy Journal, 2001, 93, 1346-1354.	0.9	55
112	Immobilization of Fertilizer Nitrogen in Rice. Soil Science Society of America Journal, 2001, 65, 1143-1152.	1.2	84
113	Acid fumigation of soils to remove carbonates prior to total organic carbon or CARBONâ€13 isotopic analysis. Soil Science Society of America Journal, 2001, 65, 1853-1856.	1.2	948
114	Rice Yield and Nitrogen Utilization Efficiency under Alternative Straw Management Practices. Agronomy Journal, 2000, 92, 1096-1103.	0.9	142
115	Decomposition of rice straw and microbial carbon use efficiency under different soil temperatures and moistures. Soil Biology and Biochemistry, 2000, 32, 1773-1785.	4.2	299
116	Nitrogen, weeds and water as yield-limiting factors in conventional, low-input, and organic tomato systems. Agriculture, Ecosystems and Environment, 1999, 73, 257-270.	2.5	149
117	Methane pool and flux dynamics in a rice field following straw incorporation. Soil Biology and Biochemistry, 1999, 31, 1313-1322.	4.2	118
118	Changes in Soil Chemical Properties Resulting from Organic and Lowâ€Input Farming Practices. Agronomy Journal, 1998, 90, 662-671.	0.9	332
119	Denitrification in Cultivated and Noncultivated Riparian Areas of Grass Cropping Systems. Journal of Environmental Quality, 1998, 27, 225-231.	1.0	22
120	Microbial C and N dynamics during mesophilic and thermophilic incubations of ryegrass. Biology and Fertility of Soils, 1996, 22, 1-9.	2.3	19
121	Ryegrass straw component decomposition during mesophilic and thermophilic incubations. Biology and Fertility of Soils, 1996, 21, 227-232.	2.3	36
122	Defining a realistic control for the chloroform fumigation-incubation method using microscopic counting and 14C-substrates. Canadian Journal of Soil Science, 1996, 76, 459-467.	0.5	67