Derrick Yf Lai

List of Publications by Year
in descending order

73	2,487	218677	223800
papers	citations	26 h-index	46 g-index

77	77	77	2657
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Methane Dynamics in Northern Peatlands: A Review. Pedosphere, 2009, 19, 409-421.	4.0	305
2	Effects of rice straw incorporation on active soil organic carbon pools in a subtropical paddy field. Soil and Tillage Research, 2015, 152, 8-16.	5.6	180
3	The uncertain climate footprint of wetlands under human pressure. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 4594-4599.	7.1	171
4	Dynamics of dissolved nutrients in the aquaculture shrimp ponds of the Min River estuary, China: Concentrations, fluxes and environmental loads. Science of the Total Environment, 2017, 603-604, 256-267.	8.0	99
5	Phosphorus sorption by sediments in a subtropical constructed wetland receiving stormwater runoff. Ecological Engineering, 2009, 35, 735-743.	3.6	89
6	FLUXNET-CH₄: a global, multi-ecosystem dataset and analysis of methane seasonality from freshwater wetlands. Earth System Science Data, 2021, 13, 3607-3689.	9.9	79
7	Effects of steel slag application on greenhouse gas emissions and crop yield over multiple growing seasons in a subtropical paddy field in China. Field Crops Research, 2015, 171, 146-156.	5.1	74
8	The effect of atmospheric turbulence and chamber deployment period on autochamber CO₂ and CH₄ flux measurements in an ombrotrophic peatland. Biogeosciences, 2012, 9, 3305-3322.	3.3	71
9	Phosphorus retention and release by sediments in the eutrophic Mai Po Marshes, Hong Kong. Marine Pollution Bulletin, 2008, 57, 349-356.	5.0	68
10	Fluxes of carbon dioxide and methane across the waterâ€“atmosphere interface of aquaculture shrimp ponds in two subtropical estuaries: The effect of temperature, substrate, salinity and nitrate. Science of the Total Environment, 2018, 635, 1025-1035.	8.0	67
11	Factors Related with CH4 and N2O Emissions from a Paddy Field: Clues for Management implications. PLoS ONE, 2017, 12, e0169254.	2.5	57
12	Ebullition was a major pathway of methane emissions from the aquaculture ponds in southeast China. Water Research, 2020, 184, 116176.	11.3	56
13	Effects of coastal marsh conversion to shrimp aquaculture ponds on CH4 and N2O emissions. Estuarine, Coastal and Shelf Science, 2017, 199, 125-131.	2.1	49
14	Spatiotemporal analysis of regional socio-economic vulnerability change associated with heat risks in Canada. Applied Geography, 2018, 95, 61-70.	3.7	48
15	The spatial and temporal relationships between CO2 and CH4 exchange in a temperate ombrotrophic bog. Atmospheric Environment, 2014, 89, 249-259.	4.1	47
16	Rice straw incorporation affects global warming potential differently in early vs. late cropping seasons in Southeastern China. Field Crops Research, 2015, 181, 42-51.	5.1	43
17	Subtropical mangrove wetland is a stronger carbon dioxide sink in the dry than wet seasons. Agricultural and Forest Meteorology, 2019, 278, 107644.	4.8	43
18	Light grazing facilitates carbon accumulation in subsoil in Chinese grasslands: A metaâ€analysis. Global Change Biology, 2020, 26, 7186-7197.	9.5	42

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19	Effect of drainage on CO2, CH4, and N2O fluxes from aquaculture ponds during winter in a subtropical estuary of China. Journal of Environmental Sciences, 2018, 65, 72-82.	6.1	38
20	Steel slag amendment reduces methane emission and increases rice productivity in subtropical paddy fields in China. Wetlands Ecology and Management, 2014, 22, 683-691.	1.5	37
21	Spatial and temporal variations of methane flux measured by autochambers in a temperate ombrotrophic peatland. Journal of Geophysical Research G: Biogeosciences, 2014, 119, 864-880.	3.0	37
22	Large Fineâ€Scale Spatiotemporal Variations of CH₄ Diffusive Fluxes From Shrimp Aquaculture Ponds Affected by Organic Matter Supply and Aeration in Southeast China. Journal of Geophysical Research G: Biogeosciences, 2019, 124, 1290-1307.	3.0	33
23	Gap-filling eddy covariance methane fluxes: Comparison of machine learning model predictions and uncertainties at FLUXNET-CH4 wetlands. Agricultural and Forest Meteorology, 2021, 308-309, 108528.	4.8	33
24	Methane emissions reduce the radiative cooling effect of a subtropical estuarine mangrove wetland by half. Global Change Biology, 2020, 26, 4998-5016.	9.5	31
25	Assessing nutrient budgets and environmental impacts of coastal land-based aquaculture system in southeastern China. Agriculture, Ecosystems and Environment, 2021, 322, 107662.	5.3	29
26	Effects of Steel Slag and Biochar Incorporation on Active Soil Organic Carbon Pools in a Subtropical Paddy Field. Agronomy, 2018, 8, 135.	3.0	28
27	Long-term effects of biochar application on greenhouse gas production and microbial community in temperate forest soils under increasing temperature. Science of the Total Environment, 2021, 767, 145021.	8.0	27
28	Large Spatial Variations in Diffusive CH₄ Fluxes from a Subtropical Coastal Reservoir Affected by Sewage Discharge in Southeast China. Environmental Science & Technology, 2020, 54, 14192-14203.	10.0	26
29	Changes in Soil Organic Carbon Dynamics in a Native C4 Plant-Dominated Tidal Marsh Following Spartina alterniflora Invasion. Pedosphere, 2017, 27, 856-867.	4.0	24
30	Effects of steel slag and biochar amendments on CO2, CH4, and N2O flux, and rice productivity in a subtropical Chinese paddy field. Environmental Geochemistry and Health, 2019, 41, 1419-1431.	3.4	24
31	Effects of industrial and agricultural waste amendment on soil greenhouse gas production in a paddy field in Southeastern China. Atmospheric Environment, 2017, 164, 239-249.	4.1	23
32	Long-term increase in rainfall decreases soil organic phosphorus decomposition in tropical forests. Soil Biology and Biochemistry, 2020, 151, 108056.	8.8	23
33	Large contribution of non-aquaculture period fluxes to the annual N2O emissions from aquaculture ponds in Southeast China. Journal of Hydrology, 2020, 582, 124550.	5.4	21
34	Annual CO2 and CH4 fluxes in coastal earthen ponds with Litopenaeus vannamei in southeastern China. Aquaculture, 2021, 545, 737229.	3.5	21
35	Phosphorus fractions and fluxes in the soils of a free surface flow constructed wetland in Hong Kong. Ecological Engineering, 2014, 73, 73-79.	3.6	20
36	Spatial Variations in the Chemical Composition of Eolian Sediments in Hyperarid Regions: a Case Study from the Badain Jaran Desert, Northwestern China. Journal of Sedimentary Research, 2018, 88, 290-300.	1.6	20

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37	Methane Dynamics of Aquaculture Shrimp Ponds in Two Subtropical Estuaries, Southeast China: Dissolved Concentration, Net Sediment Release, and Water Oxidation. Journal of Geophysical Research G: Biogeosciences, 2019, 124, 1430-1445.	3.0	20
38	Effects of applying different carbon substrates on nutrient removal and greenhouse gas emissions by constructed wetlands treating carbon-depleted hydroponic wastewater. Bioresource Technology, 2022, 357, 127312.	9.6	20
39	The effect of floating vegetation on CH4 and N2O emissions from subtropical paddy fields in China. Paddy and Water Environment, 2015, 13, 425-431.	1.8	19
40	Temporal variations and temperature sensitivity of ecosystem respiration in three brackish marsh communities in the Min River Estuary, southeast China. Geoderma, 2018, 327, 138-150.	5.1	19
41	Effects of inorganic amendments, rice cultivars and cultivation methods on greenhouse gas emissions and rice productivity in a subtropical paddy field. Ecological Engineering, 2016, 95, 770-778.	3.6	18
42	Methane dynamics in an estuarine brackish Cyperus malaccensis marsh: Production and porewater concentration in soils, and net emissions to the atmosphere over five years. Geoderma, 2019, 337, 132-142.	5.1	18
43	Soil heterotrophic respiration assessment using minimally disturbed soil microcosm cores. MethodsX, 2018, 5, 834-840.	1.6	17
44	Anaerobic oxidation of methane with denitrification in sediments of a subtropical estuary: Rates, controlling factors and environmental implications. Journal of Environmental Management, 2020, 273, 111151.	7.8	17
45	Variations in Temperature Sensitivity (Q10) of CH4 Emission from a Subtropical Estuarine Marsh in Southeast China. PLoS ONE, 2015, 10, e0125227.	2.5	14
46	Straw Application Strategy to Optimize Nutrient Release in a Southeastern China Rice Cropland. Agronomy, 2017, 7, 84.	3.0	14
47	Production and uptake of dissolved carbon, nitrogen, and phosphorus in overlying water of aquaculture shrimp ponds in subtropical estuaries, China. Environmental Science and Pollution Research, 2019, 26, 21565-21578.	5.3	14
48	Large increase in diffusive greenhouse gas fluxes from subtropical shallow aquaculture ponds during the passage of typhoons. Journal of Hydrology, 2020, 583, 124643.	5.4	14
49	Impacts of wetting-drying cycles on short-term carbon and nitrogen dynamics in Amynthas earthworm casts. Pedosphere, 2021, 31, 423-432.	4.0	14
50	Separation of soil respiration: a site-specific comparison of partition methods. Soil, 2018, 4, 141-152.	4.9	13
51	Large variations in indirect N2O emission factors (EF5) from coastal aquaculture systems in China from plot to regional scales. Water Research, 2021, 200, 117208.	11.3	13
52	Carbon dioxide dynamics from sediment, sediment-water interface and overlying water in the aquaculture shrimp ponds in subtropical estuaries, southeast China. Journal of Environmental Management, 2019, 236, 224-235.	7.8	12
53	Spatial variations in CO2 fluxes in a subtropical coastal reservoir of Southeast China were related to urbanization and land-use types. Journal of Environmental Sciences, 2021, 109, 206-218.	6.1	12
54	Fire frequency and type regulate the response of soil carbon cycling and storage to fire across soil depths and ecosystems: A meta-analysis. Science of the Total Environment, 2022, 825, 153921.	8.0	12

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55	Insights into the farming-season carbon budget of coastal earthen aquaculture ponds in southeastern China. Agriculture, Ecosystems and Environment, 2022, 335, 107995.	5.3	12
56	Changes in sediment methanogenic archaea community structure and methane production potential following conversion of coastal marsh to aquaculture ponds. Environmental Pollution, 2022, 305, 119276.	7.5	11
57	Simultaneous Abiotic Production of Greenhouse Gases (CO₂, CH₄, and) Tj ETQq1 1 0.784314 rgBT /Overlock 1977-1987.	3.0	9
58	Spatial Variations of N₂O Fluxes Across the Waterâ€Air Interface of Mariculture Ponds in a Subtropical Estuary in Southeast China. Journal of Geophysical Research G: Biogeosciences, 2020, 125, e2019JG005605.	3.0	9
59	Coastal reservoirs as a source of nitrous oxide: Spatio-temporal patterns and assessment strategy. Science of the Total Environment, 2021, 790, 147878.	8.0	9
60	Rule on papers puts China's PhDs at risk. Nature, 2011, 476, 152-152.	27.8	7
61	Diffusive CH4 fluxes from aquaculture ponds using floating chambers and thin boundary layer equations. Atmospheric Environment, 2021, 253, 118384.	4.1	7
62	Modelling the effects of climate change on methane emission from a northern ombrotrophic bog in Canada. Environmental Geology, 2009, 58, 1197-1206.	1.2	6
63	Environmental drivers of nitrous oxide emission factor for a coastal reservoir and its catchment areas in southeastern China. Environmental Pollution, 2022, 294, 118568.	7.5	6
64	The response of soil-atmosphere greenhouse gas exchange to changing plant litter inputs in terrestrial forest ecosystems. Science of the Total Environment, 2022, 838, 155995.	8.0	6
65	Seven years of wetter and delayed wet season enhanced soil methane uptake during the dry season in a tropical monsoon forest. Catena, 2021, 203, 105276.	5.0	5
66	Biophysical Controls of Ecosystemâ€Scale Methane Fluxes From a Subtropical Estuarine Mangrove: Multiscale, Nonlinearity, Asynchrony and Causality. Global Biogeochemical Cycles, 2022, 36, .	4.9	5
67	Optimal Coupling of Straw and Synthetic Fertilizers Incorporation on Soil Properties, Active Fe Dynamics, and Greenhouse Gas Emission in Jasminum sambac (L.) Field in Southeastern China. Sustainability, 2019, 11, 1092.	3.2	4
68	Problems and Management of Acacia-Dominated Urban Forests on Man-Made Slopes in a Subtropical, High-Density City. Forests, 2021, 12, 323.	2.1	4
69	The Difference of Litter Decay, Litter- and Sediment-Associated Hydrolytic Enzymes between Brackish and Freshwater Tidal Marshes. Estuaries and Coasts, 2019, 42, 1328-1341.	2.2	3
70	Short-term changes in simulated inundation frequency differentially affect inorganic nitrogen, nitrification, and denitrification in estuarine marshes. Ecological Indicators, 2019, 107, 105571.	6.3	3
71	Effects of Land Use Types on CH4 and CO2 Production Potentials in Subtropical Wetland Soils. Water (Switzerland), 2020, 12, 1856.	2.7	3
72	Variability and controls of soil CO2 fluxes under different tillage and crop residue managements in a wheat-maize double-cropping system. Environmental Science and Pollution Research, 2020, 27, 45722-45736.	5.3	0

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73	Biosphere-atmosphere exchange of CO2 and CH4 in mangrove forests and salt marshes. , 2022, , 93-132.		0