Daniel P Rasse

List of Publications by Year
in descending order

70	9,571	101496 36	88593 70
papers	citations	h-index	g-index

72	72	72	11610
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Persistence of soil organic matter as an ecosystem property. Nature, 2011, 478, 49-56.	13.7	4,243
2	Is soil carbon mostly root carbon? Mechanisms for a specific stabilisation. Plant and Soil, 2005, 269, 341-356.	1.8	1,385
3	Evaluating theories of droughtâ€induced vegetation mortality using a multimodelâ€“experiment framework. New Phytologist, 2013, 200, 304-321.	3.5	340
4	How to measure, report and verify soil carbon change to realize the potential of soil carbon sequestration for atmospheric greenhouse gas removal. Global Change Biology, 2020, 26, 219-241.	4.2	308
5	Carbon-13 natural abundance as a tool to study the dynamics of lignin monomers in soil: an appraisal at the Closeaux experimental field (France). Geoderma, 2005, 128, 3-17.	2.3	189
6	Can N₂O emissions offset the benefits from soil organic carbon storage?. Global Change Biology, 2021, 27, 237-256.	4.2	174
7	Black carbon contribution to soil organic matter composition in tropical sloping land under slash and burn agriculture. Geoderma, 2006, 130, 35-46.	2.3	165
8	BIOCHAR AS A TOOL TO REDUCE THE AGRICULTURAL GREENHOUSE-GAS BURDEN â€“ KNOWNS, UNKNOWNS AND FUTURE RESEARCH NEEDS. Journal of Environmental Engineering and Landscape Management, 2017, 25, 114-139.	0.4	144
9	Lignin turnover kinetics in an agricultural soil is monomer specific. Soil Biology and Biochemistry, 2006, 38, 1977-1988.	4.2	136
10	Surface Properties and Chemical Composition of Corncob and Miscanthus Biochars: Effects of Production Temperature and Method. Journal of Agricultural and Food Chemistry, 2014, 62, 3791-3799.	2.4	129
11	Alfalfa Root and Shoot Mulching Effects on Soil Hydraulic Properties and Aggregation. Soil Science Society of America Journal, 2000, 64, 725-731.	1.2	127
12	Fire impact on C and N losses and charcoal production in a scrub oak ecosystem. Biogeochemistry, 2007, 82, 201-216.	1.7	112
13	Lignin turnover in an agricultural field: from plant residues to soil-protected fractions. European Journal of Soil Science, 2006, 57, 530-538.	1.8	108
14	Seventeen years of elevated CO2 exposure in a Chesapeake Bay Wetland: sustained but contrasting responses of plant growth and CO2 uptake. Global Change Biology, 2005, 11, 369-377.	4.2	99
15	Root recolonization of previous root channels in corn and alfalfa rotations. Plant and Soil, 1998, 204, 203-212.	1.8	98
16	Molecular dynamics of shoot vs. root biomarkers in an agricultural soil estimated by natural abundance 13C labelling. Soil Biology and Biochemistry, 2010, 42, 169-177.	4.2	96
17	Lignin degradation during a laboratory incubation followed by 13C isotope analysis. Soil Biology and Biochemistry, 2008, 40, 1916-1922.	4.2	91
18	Biospheric carbon stocks reconstructed at the Last Glacial Maximum: comparison between general circulation models using prescribed and computed sea surface temperatures. Global and Planetary Change, 2002, 33, 117-138.	1.6	76

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19	Carbon Turnover Kinetics with Depth in a French Loamy Soil. Soil Science Society of America Journal, 2006, 70, 2097-2105.	1.2	75
20	Thermal alteration of organic matter during a shrubland fire: A field study. Organic Geochemistry, 2010, 41, 690-697.	0.9	69
21	Carbon loss estimates from cultivated peat soils in Norway: a comparison of three methods. Nutrient Cycling in Agroecosystems, 2008, 81, 157-167.	1.1	67
22	Biochar persistence, priming and microbial responses to pyrolysis temperature series. Biology and Fertility of Soils, 2016, 52, 749-761.	2.3	64
23	Study of Biochar Properties by Scanning Electron Microscope â€“ Energy Dispersive X-Ray Spectroscopy (SEM-EDX). Communications in Soil Science and Plant Analysis, 2016, 47, 593-601.	0.6	62
24	Leaf carbohydrate controls over Arabidopsis growth and response to elevated CO 2 : an experimentally based model. New Phytologist, 2006, 172, 500-513.	3.5	50
25	The effect of a biochar temperature series on denitrification: which biochar properties matter?. Soil Biology and Biochemistry, 2019, 135, 173-183.	4.2	49
26	Carbon mass fluxes of forests in Belgium determined with low resolution optical sensors. International Journal of Remote Sensing, 2004, 25, 769-792.	1.3	48
27	Disturbance, rainfall and contrasting species responses mediated aboveground biomass response to 11 years of CO‹sub›2‹/sub› enrichment in a Florida scrubâ€oak ecosystem. Global Change Biology, 2009, 15, 356-367.	4.2	47
28	Rye Cover Crop and Nitrogen Fertilization Effects on Nitrate Leaching in Inbred Maize Fields. Journal of Environmental Quality, 2000, 29, 298-304.	1.0	46
29	Past water management affected GHG production and microbial community pattern in Italian rice paddy soils. Soil Biology and Biochemistry, 2016, 93, 17-27.	4.2	44
30	Evolution of soil organic matter after prescribed fire: A 20-year chronosequence. Geoderma, 2012, 189-190, 98-107.	2.3	43
31	Temperature response of soil organic matter mineralisation in arctic soil profiles. Soil Biology and Biochemistry, 2015, 88, 236-246.	4.2	43
32	ORCHIDEE-PEAT (revision 4596), a model for northern peatland CO₂, water, and energy fluxes on daily to annual scales. Geoscientific Model Development, 2018, 11, 497-519.	1.3	43
33	Modelling short-term CO2 fluxes and long-term tree growth in temperate forests with ASPECTS. Ecological Modelling, 2001, 141, 35-52.	1.2	42
34	Effect of elevated CO2 on carbon pools and fluxes in a brackish marsh. Estuaries and Coasts, 2005, 28, 694-704.	1.7	42
35	Solid-State Nuclear Magnetic Resonance Characterization of Chars Obtained from Hydrothermal Carbonization of Corncob and Miscanthus. Energy & Fuels, 2013, 27, 303-309.	2.5	41
36	TRAP: a modelling approach to below-ground carbon allocation in temperate forests. Plant and Soil, 2001, 229, 281-293.	1.8	37

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37	Nitrogen Management Impacts on Yield and Nitrate Leaching in Inbred Maize Systems. Journal of Environmental Quality, 1999, 28, 1365-1371.	1.0	36
38	Degradation of cultivated peat soils in northern norway based on field scale CO2, N2O and CH4emission measurements. Archives of Agronomy and Soil Science, 2006, 52, 149-159.	1.3	34
39	Nitrogen deposition and atmospheric CO2 interactions on fine root dynamics in temperate forests: a theoretical model analysis. Global Change Biology, 2002, 8, 486-503.	4.2	32
40	Enhancing plant N uptake with biochar-based fertilizers: limitation of sorption and prospects. Plant and Soil, 2022, 475, 213-236.	1.8	30
41	Modifications of Soil Nitrogen Pools in Response to Alfalfa Root Systems and Shoot Mulch. Agronomy Journal, 1999, 91, 471-477.	0.9	29
42	Characterization, Stability, and Plant Effects of Kiln-Produced Wheat Straw Biochar. Journal of Environmental Quality, 2013, 42, 429-436.	1.0	27
43	Detection of simulated leaks from geologically stored CO2 with 13C monitoring. International Journal of Greenhouse Gas Control, 2014, 26, 61-68.	2.3	25
44	Effects of pyrolysis conditions on Miscanthus and corncob chars: Characterization by IR, solid state NMR and BPCA analysis. Journal of Analytical and Applied Pyrolysis, 2017, 128, 335-345.	2.6	25
45	Biochar Affects Heavy Metal Uptake in Plants through Interactions in the Rhizosphere. Applied Sciences (Switzerland), 2020, 10, 5105.	1.3	24
46	Tillage Effects on Soil Nitrogen and Plant Biomass in a Cornâ€Alfalfa Rotation. Journal of Environmental Quality, 1999, 28, 873-880.	1.0	22
47	Life-cycle assessment to unravel co-benefits and trade-offs of large-scale biochar deployment in Norwegian agriculture. Resources, Conservation and Recycling, 2022, 179, 106030.	5.3	22
48	Contribution of maize root derived C to soil organic carbon throughout an agricultural soil profile assessed by compound specific 13C analysis. Organic Geochemistry, 2012, 42, 1502-1511.	0.9	21
49	Low impact of dry conditions on the CO ₂ exchange of a Northern-Norwegian blanket bog. Environmental Research Letters, 2015, 10, 025004.	2.2	21
50	Biochars from Mediterranean Agroindustry Residues: Physicochemical Properties Relevant for C Sequestration and Soil Water Retention. ACS Sustainable Chemistry and Engineering, 2019, 7, 4724-4733.	3.2	21
51	Persistence in soil of Miscanthus biochar in laboratory and field conditions. PLoS ONE, 2017, 12, e0184383.	1.1	21
52	KEYLINK: towards a more integrative soil representation for inclusion in ecosystem scale models. I. review and model concept. PeerJ, 2020, 8, e9750.	0.9	21
53	Predicting transpiration from forest stands in Belgium for the 21st century. Agricultural and Forest Meteorology, 2002, 111, 265-282.	1.9	20
54	Assessing the spatial variability in peak season CO₂ exchange characteristics across the Arctic tundra using a light response curve parameterization. Biogeosciences, 2014, 11, 4897-4912.	1.3	20

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55	Miscanthus Biochar had Limited Effects on Soil Physical Properties, Microbial Biomass, and Grain Yield in a Four-Year Field Experiment in Norway. Agriculture (Switzerland), 2018, 8, 171.	1.4	20
56	Permafrost Distribution Drives Soil Organic Matter Stability in a Subarctic Palsa Peatland. Ecosystems, 2013, 16, 934-947.	1.6	19
57	Soil organic matter molecular composition and state of decomposition in three locations of the European Arctic. Biogeochemistry, 2017, 135, 277-292.	1.7	19
58	Carbon dioxide assimilation by a wetland sedge canopy exposed to ambient and elevated CO2 : measurements and model analysis. Functional Ecology, 2003, 17, 222-230.	1.7	15
59	Specific contributions of decaying alfalfa roots to nitrate leaching in a Kalamazoo loam soil. Agriculture, Ecosystems and Environment, 2005, 109, 97-106.	2.5	15
60	Qualitative and quantitative mapping of biochar in a soil profile using hyperspectral imaging. Soil and Tillage Research, 2016, 155, 523-531.	2.6	15
61	Simulating Inbredâ€Maize Yields with CERESâ€M. Agronomy Journal, 2000, 92, 672-678.	0.9	13
62	Vulnerability and resilience of the carbon exchange of a subarctic peatland to an extreme winter event. Environmental Research Letters, 2018, 13, 065009.	2.2	13
63	A method for ¹³Câ€labeling of metabolic carbohydrates within French bean leaves (Phaseolus vulgaris L.) for decomposition studies in soils. Rapid Communications in Mass Spectrometry, 2009, 23, 1792-1800.	0.7	11
64	Patterns of canopy-air CO2 concentration in a brackish wetland: analysis of a decade of measurements and the simulated effects on the vegetation. Agricultural and Forest Meteorology, 2002, 114, 59-73.	1.9	10
65	Simulated CO2 Leakage Experiment in Terrestrial Environment: Monitoring and Detecting the Effect on a Cover Crop Using 13C Analysis. Energy Procedia, 2013, 37, 3479-3485.	1.8	9
66	Climate change mitigation potential of biochar from forestry residues under boreal condition. Science of the Total Environment, 2022, 807, 151044.	3.9	8
67	A re-analysis of NH4+ sorption on biochar: Have expectations been too high?. Chemosphere, 2022, 301, 134662.	4.2	8
68	Simulation of Leaching Losses in the Nitrogen Cycle. Communications in Soil Science and Plant Analysis, 2006, 37, 1973-1997.	0.6	5
69	Systems Analysis of Field and Laboratory Experiments Considering Impacts of CO2 Leakage in Terrestrial Systems. Energy Procedia, 2013, 37, 3394-3402.	1.8	5
70	Controlled infrared heating of an artic meadow: challenge in the vegetation establishment stage. Plant Methods, 2019, 15, 3.	1.9	2