

Marco Keiluweit

List of Publications by Year in descending order

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Version: 2024-02-01

43
papers

8,415
citations

196777

29
h-index

274796

44
g-index

54
all docs

54
docs citations

54
times ranked

10828
citing authors

#	ARTICLE	IF	CITATIONS
1	Dynamic Molecular Structure of Plant Biomass-Derived Black Carbon (Biochar). <i>Environmental Science & Technology</i> , 2010, 44, 1247-1253.	4.6	2,267
2	Mineral-Organic Associations: Formation, Properties, and Relevance in Soil Environments. <i>Advances in Agronomy</i> , 2015, 130, 1-140.	2.4	801
3	Redox Properties of Plant Biomass-Derived Black Carbon (Biochar). <i>Environmental Science & Technology</i> , 2014, 48, 5601-5611.	4.6	791
4	Mineral protection of soil carbon counteracted by root exudates. <i>Nature Climate Change</i> , 2015, 5, 588-595.	8.1	694
5	Molecular-Level Interactions in Soils and Sediments: The Role of Aromatic $\delta^{13}C$ -Systems. <i>Environmental Science & Technology</i> , 2009, 43, 3421-3429.	4.6	467
6	Beyond clay: towards an improved set of variables for predicting soil organic matter content. <i>Biogeochemistry</i> , 2018, 137, 297-306.	1.7	423
7	Anaerobic microsites have an unaccounted role in soil carbon stabilization. <i>Nature Communications</i> , 2017, 8, 1771.	5.8	276
8	Solvent-Extractable Polycyclic Aromatic Hydrocarbons in Biochar: Influence of Pyrolysis Temperature and Feedstock. <i>Environmental Science & Technology</i> , 2012, 46, 9333-9341.	4.6	238
9	Are oxygen limitations under recognized regulators of organic carbon turnover in upland soils?. <i>Biogeochemistry</i> , 2016, 127, 157-171.	1.7	236
10	Aromaticity and degree of aromatic condensation of char. <i>Organic Geochemistry</i> , 2015, 78, 135-143.	0.9	207
11	Minerals in the rhizosphere: overlooked mediators of soil nitrogen availability to plants and microbes. <i>Biogeochemistry</i> , 2018, 139, 103-122.	1.7	203
12	Long-term litter decomposition controlled by manganese redox cycling. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, E5253-60.	3.3	168
13	Polar and aliphatic domains regulate sorption of phthalic acid esters (PAEs) to biochars. <i>Bioresource Technology</i> , 2012, 118, 120-127.	4.8	163
14	Sorption of fluorinated herbicides to plant biomass-derived biochars as a function of molecular structure. <i>Bioresource Technology</i> , 2011, 102, 9897-9903.	4.8	148
15	Anoxic microsites in upland soils dominantly controlled by clay content. <i>Soil Biology and Biochemistry</i> , 2018, 118, 42-50.	4.2	109
16	Nano-scale investigation of the association of microbial nitrogen residues with iron (hydr)oxides in a forest soil O-horizon. <i>Geochimica Et Cosmochimica Acta</i> , 2012, 95, 213-226.	1.6	107
17	Networking our science to characterize the state, vulnerabilities, and management opportunities of soil organic matter. <i>Global Change Biology</i> , 2018, 24, e705-e718.	4.2	92
18	3D spectral imaging with synchrotron Fourier transform infrared spectro-microtomography. <i>Nature Methods</i> , 2013, 10, 861-864.	9.0	91

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19	Improving understanding of soil organic matter dynamics by triangulating theories, measurements, and models. <i>Biogeochemistry</i> , 2018, 140, 1-13.	1.7	83
20	Airborne soil organic particles generated by precipitation. <i>Nature Geoscience</i> , 2016, 9, 433-437.	5.4	71
21	Priming mechanisms providing plants and microbes access to mineral-associated organic matter. <i>Soil Biology and Biochemistry</i> , 2021, 158, 108265.	4.2	71
22	Beyond bulk: Density fractions explain heterogeneity in global soil carbon abundance and persistence. <i>Global Change Biology</i> , 2022, 28, 1178-1196.	4.2	67
23	Mobilization of ferrihydrite-associated organic carbon during Fe reduction: Adsorption versus coprecipitation. <i>Chemical Geology</i> , 2019, 503, 61-68.	1.4	66
24	Enzymes, Manganese, or Iron? Drivers of Oxidative Organic Matter Decomposition in Soils. <i>Environmental Science & Technology</i> , 2020, 54, 14114-14123.	4.6	63
25	Simple Plant and Microbial Exudates Destabilize Mineral-Associated Organic Matter via Multiple Pathways. <i>Environmental Science & Technology</i> , 2021, 55, 3389-3398.	4.6	63
26	A holistic framework integrating plant-microbe-mineral regulation of soil bioavailable nitrogen. <i>Biogeochemistry</i> , 2021, 154, 211-229.	1.7	63
27	Sorptive fractionation of organic matter and formation of organo-hydroxy-aluminum complexes during litter biodegradation in the presence of gibbsite. <i>Geochimica Et Cosmochimica Acta</i> , 2013, 121, 667-683.	1.6	54
28	Manganese-Driven Carbon Oxidation at Oxidic-Anoxic Interfaces. <i>Environmental Science & Technology</i> , 2018, 52, 12349-12357.	4.6	54
29	An open-source database for the synthesis of soil radiocarbon data: International Soil Radiocarbon Database (ISRaD) version 1.0. <i>Earth System Science Data</i> , 2020, 12, 61-76.	3.7	48
30	Shifting mineral and redox controls on carbon cycling in seasonally flooded mineral soils. <i>Biogeosciences</i> , 2019, 16, 2573-2589.	1.3	30
31	Root-driven weathering impacts on mineral-organic associations in deep soils over pedogenic time scales. <i>Geochimica Et Cosmochimica Acta</i> , 2019, 263, 68-84.	1.6	29
32	Quantifying biogeochemical heterogeneity in soil systems. <i>Geoderma</i> , 2018, 324, 89-97.	2.3	23
33	Redox Properties of Pyrogenic Dissolved Organic Matter (pyDOM) from Biomass-Derived Chars. <i>Environmental Science & Technology</i> , 2021, 55, 11434-11444.	4.6	21
34	Soil exchange rates of COS and CO ₁₈ O differ with the diversity of microbial communities and their carbonic anhydrase enzymes. <i>ISME Journal</i> , 2019, 13, 290-300.	4.4	20
35	Synchrotron-Based Mass Spectrometry to Investigate the Molecular Properties of Mineral-Organic Associations. <i>Analytical Chemistry</i> , 2013, 85, 6100-6106.	3.2	16
36	The Ability of Soil Pore Network Metrics to Predict Redox Dynamics is Scale Dependent. <i>Soil Systems</i> , 2018, 2, 66.	1.0	16

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37	Long-Term Warming Decreases Redox Capacity of Soil Organic Matter. <i>Environmental Science and Technology Letters</i> , 2021, 8, 92-97.	3.9	15
38	Shale as a Source of Organic Carbon in Floodplain Sediments of a Mountainous Watershed. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2020, 125, e2019JG005419.	1.3	14
39	Development of energetic and enzymatic limitations on microbial carbon cycling in soils. <i>Biogeochemistry</i> , 2021, 153, 191-213.	1.7	14
40	Effect of Cover Crop on Carbon Distribution in Size and Density Separated Soil Aggregates. <i>Soil Systems</i> , 2020, 4, 6.	1.0	8
41	Effect of simulated diagenesis on the compositions, chemical stability and sorption properties of natural and engineered organic matter with different mineral contents. <i>Organic Geochemistry</i> , 2018, 120, 1-11.	0.9	7
42	Sulfur Biogeochemical Cycling and Redox Dynamics in a Shale-Dominated Mountainous Watershed. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2022, 127, .	1.3	5
43	Proteins unbound – how ectomycorrhizal fungi can tap a vast reservoir of mineral-associated organic nitrogen. <i>New Phytologist</i> , 2020, 228, 406-408.	3.5	4