Rota Wagai

List of Publications by Year in descending order

45 papers	3,222 citations	218677 26 h-index	233421 45 g-index
52 all docs	52 docs citations	52 times ranked	3987 citing authors

#	Article	IF	Citations
1	Beyond bulk: Density fractions explain heterogeneity in global soil carbon abundance and persistence. Global Change Biology, 2022, 28, 1178-1196.	9.5	67
2	Divergent roles of iron and aluminum in sediment organic matter association at the terrestrialâ€“aquatic interface. Biogeochemistry, 2022, 157, 355-378.	3.5	6
3	Millennium timescale carbon stability in an Andisol: How persistent are organo-metal complexes?. Geoderma, 2022, 417, 115820.	5.1	2
4	Soil organic carbon was more strongly linked with soil phosphate fixing capacity than with clay content across 20,000 agricultural soils in Japan: a potential role of reactive aluminum revealed by soil database approach. Soil Science and Plant Nutrition, 2021, 67, 233-242.	1.9	7
5	Distribution and chemical species of phosphorus across density fractions in Andisols of contrasting mineralogy. Geoderma, 2021, 395, 115080.	5.1	8
6	Soil faunal effect on plant litter decomposition in mineral soil examined by two in-situ approaches: Sequential density-size fractionation and micromorphology. Geoderma, 2020, 357, 113910.	5.1	12
7	Ecosystem Dynamics After Abandonment of Rice Paddy Fields: Does Alien Plant Invasion Enhance Carbon Storage?. Ecosystems, 2020, 23, 617-629.	3.4	10
8	An open-source database for the synthesis of soil radiocarbon data: International Soil Radiocarbon Database (ISRaD) version 1.0. Earth System Science Data, 2020, 12, 61-76.	9.9	48
9	Iron and aluminum association with microbially processed organic matter via meso-density aggregate formation across soils: organo-metallic glue hypothesis. Soil, 2020, 6, 597-627.	4.9	54
10	Silicon cycled by tropical forest trees: effects of species, elevation and parent material on Mount Kinabalu, Malaysia. Plant and Soil, 2019, 443, 155-166.	3.7	15
11	Asian dust increases radiocesium retention ability of serpentine soils in Japan. Journal of Environmental Radioactivity, 2019, 204, 86-94.	1.7	4
12	An improved method to identify osmium-stained organic matter within soil aggregate structure by electron microscopy and synchrotron X-ray micro-computed tomography. Soil and Tillage Research, 2019, 191, 275-281.	5.6	21
13	Significant contribution of subseafloor microparticles to the global manganese budget. Nature Communications, 2019, 10, 400.	12.8	22
14	Leveraging drought risk reduction for sustainable food, soil and climate via soil organic carbon sequestration. Scientific Reports, 2019, 9, 19744.	3.3	44
15	Beyond clay: towards an improved set of variables for predicting soil organic matter content. Biogeochemistry, 2018, 137, 297-306.	3.5	423
16	Characteristics of phosphorus fractions in the soils derived from sedimentary and serpentinite rocks in lowland tropical rain forests, Borneo. Soil Science and Plant Nutrition, 2018, 64, 218-221.	1.9	13
17	Inhibition of radiocesium adsorption on 2:1 clay minerals under acidic soil environment: Effect of organic matter vs. hydroxy aluminum polymer. Geoderma, 2018, 319, 52-60.	5.1	29
18	Methane and nitrous oxide emissions from paddy fields in Japan: An assessment of controlling factor using an intensive regional data set. Agriculture, Ecosystems and Environment, 2018, 252, 51-60.	5.3	23

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19	Distinctive Roles of Two Aggregate Binding Agents in Allophanic Andisols: Young Carbon and Poorly-Crystalline Metal Phases with Old Carbon. Soil Systems, 2018, 2, 29.	2.6	24
20	Improving understanding of soil organic matter dynamics by triangulating theories, measurements, and models. Biogeochemistry, 2018, 140, 1-13.	3.5	83
21	In Search of a Binding Agent: Nano-Scale Evidence of Preferential Carbon Associations with Poorly-Crystalline Mineral Phases in Physically-Stable, Clay-Sized Aggregates. Soil Systems, 2018, 2, 32.	2.6	33
22	Global distribution of clay-size minerals on land surface for biogeochemical and climatological studies. Scientific Data, 2017, 4, 170103.	5.3	128
23	Soil temperature and moisture-based estimation of rates of soil aggregate formation by the endogeic earthworm Eisenia japonica (Michaelsen, 1892). Biology and Fertility of Soils, 2016, 52, 789-797.	4.3	6
24	The effects of amoebal bacterivory on carbon and nitrogen dynamics depend on temperature and soil structure interactions. Soil Biology and Biochemistry, 2016, 94, 133-137.	8.8	15
25	Variation in the aboveground stand structure and fine-root biomass of Bornean heath (kerangas) forests in relation to altitude and soil nitrogen availability. Trees - Structure and Function, 2016, 30, 385-394.	1.9	13
26	Optimal Thermolysis Conditions for Soil Carbon Storage on Plant Residue Burning: Modeling the Trade-Off between Thermal Decomposition and Subsequent Biodegradation. Journal of Environmental Quality, 2015, 44, 228-235.	2.0	10
27	Heterotrophic denitrification constrains the upper limit of dissolved N2O-nitrate concentration ratio in agricultural groundwater. Nutrient Cycling in Agroecosystems, 2015, 101, 181-191.	2.2	5
28	Distinctive organic matter pools among particle-size fractions detected by solid-state¹³C-NMR, Î´¹³C and Î´¹⁵N analyses only after strong dispersion in an allophanic Andisol. Soil Science and Plant Nutrition, 2015, 61, 242-248.	1.9	13
29	Nature of soil organo-mineral assemblage examined by sequential density fractionation with and without sonication: Is allophanic soil different?. Geoderma, 2015, 241-242, 295-305.	5.1	31
30	Evidence of aggregate hierarchy at micro- to submicron scales in an allophanic Andisol. Geoderma, 2014, 216, 62-74.	5.1	122
31	Linking temperature sensitivity of soil organic matter decomposition to its molecular structure, accessibility, and microbial physiology. Global Change Biology, 2013, 19, 1114-1125.	9.5	132
32	Association of organic matter with iron and aluminum across a range of soils determined via selective dissolution techniques coupled with dissolved nitrogen analysis. Biogeochemistry, 2013, 112, 95-109.	3.5	89
33	Radiocarbon (¹⁴C) Diurnal Variations in Fine Particles at Sites Downwind from Tokyo, Japan in Summer. Environmental Science & Technology, 2011, 45, 6784-6792.	10.0	32
34	Interactive influences of climate and parent material on soil microbial community structure in Bornean tropical forest ecosystems. Ecological Research, 2011, 26, 627-636.	1.5	52
35	Vertical distribution and pools of microbial residues in tropical forest soils formed from distinct parent materials. Biogeochemistry, 2009, 92, 83-94.	3.5	38
36	Sequential density fractionation across soils of contrasting mineralogy: evidence for both microbial- and mineral-controlled soil organic matter stabilization. Biogeochemistry, 2009, 96, 209-231.	3.5	304

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37	Nature of the â€œoccludedâ€•low-density fraction in soil organic matter studies: A critical review. Soil Science and Plant Nutrition, 2009, 55, 13-25.	1.9	131
38	Extent and nature of organic coverage of soil mineral surfaces assessed by a gas sorption approach. Geoderma, 2009, 149, 152-160.	5.1	70
39	Variations in the soil microbial community composition of a tropical montane forest ecosystem: Does tree species matter?. Soil Biology and Biochemistry, 2008, 40, 2699-2702.	8.8	162
40	Climate and parent material controls on organic matter storage in surface soils: A three-pool, density-separation approach. Geoderma, 2008, 147, 23-33.	5.1	107
41	Sorptive stabilization of organic matter in soils by hydrous iron oxides. Geochimica Et Cosmochimica Acta, 2007, 71, 25-35.	3.9	386
42	Soil Phosphorus Fractionation and Phosphorus-Use Efficiency of a Bornean Tropical Montane Rain Forest During Soil Aging With Podozolization. Ecosystems, 2004, 7, 259.	3.4	80
43	Organic matter in small mesopores in sediments and soils. Geochimica Et Cosmochimica Acta, 2004, 68, 3863-3872.	3.9	209
44	Biodegradation and regeneration of water-soluble carbon in a forest soil: leaching column study. Biology and Fertility of Soils, 2002, 35, 18-26.	4.3	43
45	Land use and environmental factors influencing soil surface CO2 flux and microbial biomass in natural and managed ecosystems in southern Wisconsin. Soil Biology and Biochemistry, 1998, 30, 1501-1509.	8.8	91