Aaron A Thompson

List of Publications by Year
in descending order

56 papers	3,111 citations	186265 28 h-index	161849 54 g-index
63 all docs	63 docs citations	63 times ranked	3234 citing authors

#	Article	IF	Citations
1	What do relationships between extractable metals and soil organic carbon concentrations mean?. Soil Science Society of America Journal, 2022, 86, 195-208.	2.2	18
2	Beyond bulk: Density fractions explain heterogeneity in global soil carbon abundance and persistence. Global Change Biology, 2022, 28, 1178-1196.	9.5	67
3	Localized alteration of ferrihydrite natural organic matter coprecipitates following reaction with Fe(II). Soil Science Society of America Journal, 2022, 86, 253-263.	2.2	8
4	Iron speciation in soil size fractions under different land uses. Geoderma, 2022, 418, 115842.	5.1	8
5	Bioavailability of phosphorus to loblolly pine and red maple in clay and saprolite from the southeastern Piedmont, USA. Soil Science Society of America Journal, 2022, 86, 1677-1691.	2.2	1
6	Development of martian regolith and bedrock simulants: Potential and limitations of martian regolith as an in-situ resource. Icarus, 2021, 354, 114055.	2.5	20
7	The influence of native soil organic matter and minerals on ferrous iron oxidation. Geochimica Et Cosmochimica Acta, 2021, 292, 254-270.	3.9	47
8	White clover living mulch enhances soil health vs. annual cover crops. Agronomy Journal, 2021, 113, 3697-3707.	1.8	8
9	The structure of natural biogenic iron (oxyhydr)oxides formed in circumneutral pH environments. Geochimica Et Cosmochimica Acta, 2021, 308, 237-255.	3.9	11
10	Oxidation of soil organic carbon during an anoxic-oxic transition. Geoderma, 2020, 377, 114584.	5.1	15
11	Theoretical Constraints on Fe Reduction Rates in Upland Soils as a Function of Hydroclimatic Conditions. Journal of Geophysical Research G: Biogeosciences, 2020, 125, e2020JG005894.	3.0	8
12	Iron-mediated organic matter decomposition in humid soils can counteract protection. Nature Communications, 2020, 11, 2255.	12.8	181
13	Mapping depth to the argillic horizon on historically farmed soil currently under forests. Geoderma, 2020, 369, 114291.	5.1	5
14	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
15	Redoximorphic Bt horizons of the Calhoun CZO soils exhibit depth-dependent iron-oxide crystallinity. Journal of Soils and Sediments, 2019, 19, 785-797.	3.0	27
16	Iron (Oxyhydr)Oxides Serve as Phosphate Traps in Tundra and Boreal Peat Soils. Journal of Geophysical Research G: Biogeosciences, 2019, 124, 227-246.	3.0	38
17	Enrichment of Lignin-Derived Carbon in Mineral-Associated Soil Organic Matter. Environmental Science & Technology, 2019, 53, 7522-7531.	10.0	63
18	Seasonal and spatial variation in the potential for iron reduction in soils of the Southeastern Piedmont of the US. Catena, 2019, 180, 32-40.	5.0	13

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19	Effect of metal oxide redox state in red mud catalysts on ketonization of fast pyrolysis oil derived oxygenates. Applied Catalysis B: Environmental, 2019, 241, 430-441.	20.2	44
20	Beyond clay: towards an improved set of variables for predicting soil organic matter content. Biogeochemistry, 2018, 137, 297-306.	3.5	423
21	Faster redox fluctuations can lead to higher iron reduction rates in humid forest soils. Biogeochemistry, 2018, 137, 367-378.	3.5	47
22	Ferrous Iron Oxidation under Varying pO₂ Levels: The Effect of Fe(III)/Al(III) Oxide Minerals and Organic Matter. Environmental Science & Technology, 2018, 52, 597-606.	10.0	84
23	Simultaneously quantifying ferrihydrite and goethite in natural sediments using the method of standard additions with X-ray absorption spectroscopy. Chemical Geology, 2018, 476, 248-259.	3.3	32
24	Hot Spots and Hot Moments of Soil Moisture Explain Fluctuations in Iron and Carbon Cycling in a Humid Tropical Forest Soil. Soil Systems, 2018, 2, 59.	2.6	42
25	Potential for Iron Reduction Increases with Rainfall in Montane Basaltic Soils of Hawaii. Soil Science Society of America Journal, 2018, 82, 176-185.	2.2	10
26	Temperature sensitivity of soil respiration in a low-latitude forest ecosystem varies by season and habitat but is unaffected by experimental warming. Biogeochemistry, 2018, 141, 63-73.	3.5	14
27	Transient O2 pulses direct Fe crystallinity and Fe(III)-reducer gene expression within a soil microbiome. Microbiome, 2018, 6, 189.	11.1	17
28	Fe(II)-Catalyzed Transformation of Organic Matterâ€“Ferrihydrite Coprecipitates: A Closer Look Using Fe Isotopes. Environmental Science & Technology, 2018, 52, 11142-11150.	10.0	80
29	Improving understanding of soil organic matter dynamics by triangulating theories, measurements, and models. Biogeochemistry, 2018, 140, 1-13.	3.5	83
30	Contrasting Fe speciation in two humid forest soils: Insight into organomineral associations in redox-active environments. Geochimica Et Cosmochimica Acta, 2018, 238, 68-84.	3.9	49
31	Order from disorder: do soil organic matter composition and turnover co-vary with iron phase crystallinity?. Biogeochemistry, 2018, 140, 93-110.	3.5	73
32	Ideas and perspectives: Strengthening the biogeosciences in environmental research networks. Biogeosciences, 2018, 15, 4815-4832.	3.3	24
33	Contrasting evolution of iron phase composition in soils exposed to redox fluctuations. Geochimica Et Cosmochimica Acta, 2018, 235, 89-102.	3.9	77
34	Influence of pO₂ on Iron Redox Cycling and Anaerobic Organic Carbon Mineralization in a Humid Tropical Forest Soil. Environmental Science & Technology, 2018, 52, 7709-7719.	10.0	73
35	Rapid Iron Reduction Rates Are Stimulated by High-Amplitude Redox Fluctuations in a Tropical Forest Soil. Environmental Science & Technology, 2017, 51, 3250-3259.	10.0	129
36	Long-term broiler litter amendments can alter the soilâ€™s capacity to sorb monensin. Environmental Science and Pollution Research, 2017, 24, 13466-13473.	5.3	5

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37	Coupling Red-Mud Ketonization of a Model Bio-Oil Mixture with Aqueous Phase Hydrogenation Using Activated Carbon Monoliths. Energy & Fuels, 2017, 31, 9529-9541.	5.1	11
38	Eucalyptus urograndis and Pinus taeda enhance removal of chlorobenzene and benzene in sand culture: A greenhouse study. International Journal of Phytoremediation, 2016, 18, 977-984.	3.1	5
39	Fellaqâ€"Fellloxide electron transfer and Fe exchange: effect of organic carbon. Environmental Chemistry, 2015, 12, 52.	1.5	27
40	Alum and Rainfall Effects on Ionophores in Runoff from Surface-Applied Broiler Litter. Journal of Environmental Quality, 2015, 44, 1657-1666.	2.0	4
41	Quantifying Particulate and Colloidal Release of Radionuclides in Wasteâ€Weathered Hanford Sediments. Journal of Environmental Quality, 2015, 44, 945-952.	2.0	2
42	Stacking Time and Aluminum Sulfate Effects on Polyether Ionophores in Broiler Litter. Journal of Environmental Quality, 2015, 44, 1923-1929.	2.0	5
43	Fe2+ catalyzed iron atom exchange and re-crystallization in a tropical soil. Geochimica Et Cosmochimica Acta, 2015, 148, 191-202.	3.9	53
44	Emerging land use practices rapidly increase soil organic matter. Nature Communications, 2015, 6, 6995.	12.8	133
45	Mineral transformation controls speciation and pore-fluid transmission of contaminants in waste-weathered Hanford sediments. Geochimica Et Cosmochimica Acta, 2014, 141, 487-507.	3.9	7
46	Mobilization of colloidal carbon during iron reduction in basaltic soils. Geoderma, 2014, 221-222, 139-145.	5.1	89
47	Effects of sample storage on microbial Fe-reduction in tropical rainforest soils. Soil Biology and Biochemistry, 2014, 68, 44-51.	8.8	16
48	Fractionation of yttrium and holmium during basaltic soil weathering. Geochimica Et Cosmochimica Acta, 2013, 119, 18-30.	3.9	37
49	Strontium and Cesium Release Mechanisms during Unsaturated Flow through Waste-Weathered Hanford Sediments. Environmental Science & Technology, 2011, 45, 8313-8320.	10.0	21
50	Iron solid-phase differentiation along a redox gradient in basaltic soils. Geochimica Et Cosmochimica Acta, 2011, 75, 119-133.	3.9	148
51	Trace contaminant concentration affects mineral transformation and pollutant fate in hydroxide-weathered Hanford sediments. Journal of Hazardous Materials, 2011, 197, 119-127.	12.4	21
52	Contaminant Desorption during Long-Term Leaching of Hydroxide-Weathered Hanford Sediments. Environmental Science & Technology, 2010, 44, 1992-1997.	10.0	20
53	Silicon control of strontium and cesium partitioning in hydroxide-weathered sediments. Geochimica Et Cosmochimica Acta, 2008, 72, 2024-2047.	3.9	54
54	Rayleigh fractionation of iron isotopes during pedogenesis along a climate sequence of Hawaiian basalt. Chemical Geology, 2007, 238, 72-83.	3.3	79

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55	Colloid Mobilization During Soil Iron Redox Oscillations. Environmental Science & Technology, 2006, 40, 5743-5749.	10.0	163
56	Iron-oxide crystallinity increases during soil redox oscillations. Geochimica Et Cosmochimica Acta, 2006, 70, 1710-1727.	3.9	320