

# Thomas A Douglas

## List of Publications by Year in descending order

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79  
papers

3,607  
citations

109321  
35  
h-index

149698  
56  
g-index

86  
all docs

86  
docs citations

86  
times ranked

4226  
citing authors

#	ARTICLE	IF	CITATIONS
1	Multi-Scale Temporal Patterns in Stream Biogeochemistry Indicate Linked Permafrost and Ecological Dynamics of Boreal Catchments. <i>Ecosystems</i> , 2022, 25, 1189-1206.	3.4	3
2	Climate change and mercury in the Arctic: Abiotic interactions. <i>Science of the Total Environment</i> , 2022, 824, 153715.	8.0	42
3	Drivers of historical and projected changes in diverse boreal ecosystems: fires, thermokarst, riverine dynamics, and humans. <i>Environmental Research Letters</i> , 2022, 17, 045016.	5.2	4
4	Arctic mercury cycling. <i>Nature Reviews Earth &amp; Environment</i> , 2022, 3, 270-286.	29.7	60
5	Yedoma Cryostratigraphy of Recently Excavated Sections of the CRREL Permafrost Tunnel Near Fairbanks, Alaska. <i>Frontiers in Earth Science</i> , 2022, 9, .	1.8	7
6	Environmental impact of metals resulting from military training activities: A review. <i>Chemosphere</i> , 2021, 265, 129110.	8.2	12
7	Ground-penetrating radar, electromagnetic induction, terrain, and vegetation observations coupled with machine learning to map permafrost distribution at Twelvemile Lake, Alaska. <i>Permafrost and Periglacial Processes</i> , 2021, 32, 407-426.	3.4	7
8	Machine learning analyses of remote sensing measurements establish strong relationships between vegetation and snow depth in the boreal forest of Interior Alaska. <i>Environmental Research Letters</i> , 2021, 16, 065014.	5.2	5
9	Recent degradation of interior Alaska permafrost mapped with ground surveys, geophysics, deep drilling, and repeat airborne lidar. <i>Cryosphere</i> , 2021, 15, 3555-3575.	3.9	21
10	Mapping CO2 fluxes of cypress swamp and marshes in the Greater Everglades using eddy covariance measurements and Landsat data. <i>Remote Sensing of Environment</i> , 2021, 262, 112523.	11.0	10
11	Modeling and mapping permafrost active layer thickness using field measurements and remote sensing techniques. <i>International Journal of Applied Earth Observation and Geoinformation</i> , 2021, 102, 102455.	2.8	5
12	Changing Biogeochemical Cycles of Organic Carbon, Nitrogen, Phosphorus, and Trace Elements in Arctic Rivers. , 2021, , 315-348.		9
13	Shallow soils are warmer under trees and tall shrubs across Arctic and Boreal ecosystems. <i>Environmental Research Letters</i> , 2021, 16, 015001.	5.2	39
14	Metal accumulation capacity in indigenous Alaska vegetation growing on military training lands. <i>International Journal of Phytoremediation</i> , 2020, 22, 259-266.	3.1	15
15	Life at the Frozen Limit: Microbial Carbon Metabolism Across a Late Pleistocene Permafrost Chronosequence. <i>Frontiers in Microbiology</i> , 2020, 11, 1753.	3.5	16
16	The Roles of Climate Extremes, Ecological Succession, and Hydrology in Repeated Permafrost Aggradation and Degradation in Fens on the Tanana Flats, Alaska. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2020, 125, e2020JG005824.	3.0	22
17	Increased rainfall stimulates permafrost thaw across a variety of Interior Alaskan boreal ecosystems. <i>Npj Climate and Atmospheric Science</i> , 2020, 3, .	6.8	59
18	The role of changing temperature in microbial metabolic processes during permafrost thaw. <i>PLoS ONE</i> , 2020, 15, e0232169.	2.5	15

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19	Selective Adsorption of Pb(II) on an Annealed Hematite (110) Surface: Evidence from Crystal Truncation Rod X-ray Diffraction and Density Functional Theory. <i>Environmental Science &amp; Technology</i> , 2020, 54, 6651-6660.	10.0	9
20	Impact of wildfire on permafrost landscapes: A review of recent advances and future prospects. <i>Permafrost and Periglacial Processes</i> , 2020, 31, 371-382.	3.4	98
21	Spatially Resolved Organomineral Interactions across a Permafrost Chronosequence. <i>Environmental Science &amp; Technology</i> , 2020, 54, 2951-2960.	10.0	19
22	Thawing permafrost: an overlooked source of seeds for Arctic cloud formation. <i>Environmental Research Letters</i> , 2020, 15, 084022.	5.2	33
23	Mapping Vegetation and Seasonal Thaw Depth in Central Alaska Using Airborne Hyperspectral and LiDAR Data. , 2020, , .		1
24	Characterizing Boreal Peatland Plant Composition and Species Diversity with Hyperspectral Remote Sensing. <i>Remote Sensing</i> , 2019, 11, 1685.	4.0	27
25	Linking vegetation cover and seasonal thaw depths in interior Alaska permafrost terrains using remote sensing. <i>Remote Sensing of Environment</i> , 2019, 233, 111363.	11.0	28
26	Changes in the Active, Dead, and Dormant Microbial Community Structure across a Pleistocene Permafrost Chronosequence. <i>Applied and Environmental Microbiology</i> , 2019, 85, .	3.1	63
27	Sublimation of terrestrial permafrost and the implications for ice-loss processes on Mars. <i>Nature Communications</i> , 2019, 10, 1716.	12.8	33
28	Mercury Isotopes Reveal Atmospheric Gaseous Mercury Deposition Directly to the Arctic Coastal Snowpack. <i>Environmental Science and Technology Letters</i> , 2019, 6, 235-242.	8.7	50
29	Widespread global peatland establishment and persistence over the last 130,000 y. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 4822-4827.	7.1	82
30	Lead and antimony from bullet weathering in newly constructed target berms: Chemical speciation, mobilization, and remediation strategies. <i>Science of the Total Environment</i> , 2019, 658, 558-569.	8.0	11
31	Fostering multidisciplinary research on interactions between chemistry, biology, and physics within the coupled cryosphere-atmosphere system. <i>Elementa</i> , 2019, 7, .	3.2	6
32	In situ structural study of the surface complexation of lead(II) on the chemically mechanically polished hematite (110) surface. <i>Journal of Colloid and Interface Science</i> , 2018, 524, 65-75.	9.4	18
33	Missing pieces to modeling the Arctic-Boreal puzzle. <i>Environmental Research Letters</i> , 2018, 13, 020202.	5.2	61
34	Watershed slope as a predictor of fluvial dissolved organic matter and nitrate concentrations across geographical space and catchment size in the Arctic. <i>Environmental Research Letters</i> , 2018, 13, 104015.	5.2	35
35	Mercury in the Arctic tundra snowpack: temporal and spatial concentration patterns and trace gas exchanges. <i>Cryosphere</i> , 2018, 12, 1939-1956.	3.9	10
36	In Situ Structural Study of Sb(V) Adsorption on Hematite (110) Using X-ray Surface Scattering. <i>Environmental Science &amp; Technology</i> , 2018, 52, 11161-11168.	10.0	28

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37	Reviews and syntheses: Changing ecosystem influences on soil thermal regimes in northern high-latitude permafrost regions. <i>Biogeosciences</i> , 2018, 15, 5287-5313.	3.3	143
38	A Pulse of Mercury and Major Ions in Snowmelt Runoff from a Small Arctic Alaska Watershed. <i>Environmental Science &amp; Technology</i> , 2017, 51, 11145-11155.	10.0	24
39	Glacierized headwater streams as aquifer recharge corridors, subarctic Alaska. <i>Geophysical Research Letters</i> , 2017, 44, 6876-6885.	4.0	40
40	Seasonality of dissolved nitrogen from spring melt to fall freezeup in Alaskan Arctic tundra and mountain streams. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2017, 122, 1718-1737.	3.0	22
41	Microbial survival strategies in ancient permafrost: insights from metagenomics. <i>ISME Journal</i> , 2017, 11, 2305-2318.	9.8	149
42	Degrading permafrost mapped with electrical resistivity tomography, airborne imagery and LiDAR, and seasonal thaw measurements. <i>Geophysics</i> , 2016, 81, WA71-WA85.	2.6	34
43	Interactive effects of wildfire and climate on permafrost degradation in Alaskan lowland forests. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2015, 120, 1619-1637.	3.0	113
44	Convective forcing of mercury and ozone in the Arctic boundary layer induced by leads in sea ice. <i>Nature</i> , 2014, 506, 81-84.	27.8	79
45	Sources and sinks of carbon in boreal ecosystems of interior Alaska: A review. <i>Elementa</i> , 2014, 2, .	3.2	22
46	Hydrogeochemistry of seasonal flow regimes in the Chena River, a subarctic watershed draining discontinuous permafrost in interior Alaska (USA). <i>Chemical Geology</i> , 2013, 335, 48-62.	3.3	53
47	Photochemical production of molecular bromine in Arctic surface snowpacks. <i>Nature Geoscience</i> , 2013, 6, 351-356.	12.9	175
48	Quantifying landscape change in an arctic coastal lowland using repeat airborne LiDAR. <i>Environmental Research Letters</i> , 2013, 8, 045025.	5.2	47
49	Atmospheric mercury over sea ice during the OASIS-2009 campaign. <i>Atmospheric Chemistry and Physics</i> , 2013, 13, 7007-7021.	4.9	42
50	Frost flowers growing in the Arctic oceanâ€˜atmosphereâ€˜sea iceâ€˜snow interface: 1. Chemical composition. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	53
51	The fate of mercury in Arctic terrestrial and aquatic ecosystems, a review. <i>Environmental Chemistry</i> , 2012, 9, 321.	1.5	106
52	Soluble chromophores in marine snow, seawater, sea ice and frost flowers near Barrow, Alaska. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	32
53	Chemical composition of the snowpack during the OASIS spring campaign 2009 at Barrow, Alaska. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	39
54	Frost flowers growing in the Arctic oceanâ€˜atmosphereâ€˜sea iceâ€˜snow interface: 2. Mercury exchange between the atmosphere, snow, and frost flowers. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	32

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55	Desorption and Transformation of Nitroaromatic (TNT) and Nitramine (RDX and HMX) Explosive Residues on Detonated Pure Mineral Phases. <i>Water, Air, and Soil Pollution</i> , 2012, 223, 2189-2200.	2.4	20
56	The chemical composition of surface snow in the Arctic: Examining marine, terrestrial, and atmospheric influences. <i>Atmospheric Environment</i> , 2012, 50, 349-359.	4.1	79
57	The Fate of Nitroaromatic (TNT) and Nitramine (RDX and HMX) Explosive Residues in the Presence of Pure Metal Oxides. <i>ACS Symposium Series</i> , 2011, , 197-215.	0.5	3
58	The specific surface area and chemical composition of diamond dust near Barrow, Alaska. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	27
59	Dissolution and sorption of hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX) and 2,4,6-trinitrotoluene (TNT) residues from detonated mineral surfaces. <i>Chemosphere</i> , 2011, 84, 1058-1065.	8.2	11
60	Biogeochemical and geocryological characteristics of wedge and thermokarst cave ice in the CRREL permafrost tunnel, Alaska. <i>Permafrost and Periglacial Processes</i> , 2011, 22, 120-128.	3.4	49
61	Desorption of nitramine and nitroaromatic explosive residues from soils detonated under controlled conditions. <i>Environmental Toxicology and Chemistry</i> , 2011, 30, 345-353.	4.3	13
62	Mass-independent fractionation of mercury isotopes in Arctic snow driven by sunlight. <i>Nature Geoscience</i> , 2010, 3, 173-177.	12.9	233
63	Simulation of the specific surface area of snow using a one-dimensional physical snowpack model: implementation and evaluation for subarctic snow in Alaska. <i>Cryosphere</i> , 2010, 4, 35-51.	3.9	28
64	<i>Glaciobacter superstes</i> gen. nov., sp. nov., a novel member of the family Microbacteriaceae isolated from a permafrost ice wedge. <i>International Journal of Systematic and Evolutionary Microbiology</i> , 2009, 59, 482-486.	1.7	41
65	A time series investigation of the stability of nitramine and nitroaromatic explosives in surface water samples at ambient temperature. <i>Chemosphere</i> , 2009, 76, 1-8.	8.2	21
66	Investigating the Fate of Nitroaromatic (TNT) and Nitramine (RDX and HMX) Explosives in Fractured and Pristine Soils. <i>Journal of Environmental Quality</i> , 2009, 38, 2285-2294.	2.0	21
67	Investigation of the deposition and emission of mercury in arctic snow during an atmospheric mercury depletion event. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	58
68	Frost flower chemical composition during growth and its implications for aerosol production and bromine activation. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	60
69	Seasonal variations in nutrient concentrations and speciation in the Chena River, Alaska. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	36
70	Influence of Snow and Ice Crystal Formation and Accumulation on Mercury Deposition to the Arctic. <i>Environmental Science &amp; Technology</i> , 2008, 42, 1542-1551.	10.0	101
71	Temporal variations in organic carbon species and fluxes from the Chena River, Alaska. <i>Limnology and Oceanography</i> , 2008, 53, 1408-1419.	3.1	58
72	Phylogenetic Analysis of Bacteria Preserved in a Permafrost Ice Wedge for 25,000 Years. <i>Applied and Environmental Microbiology</i> , 2007, 73, 2360-2363.	3.1	88

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73	First-year sea-ice contact predicts bromine monoxide (BrO) levels at Barrow, Alaska better than potential frost flower contact. <i>Atmospheric Chemistry and Physics</i> , 2007, 7, 621-627.	4.9	157
74	Evolution of the Snow Area Index of the Subarctic Snowpack in Central Alaska over a Whole Season. Consequences for the Air to Snow Transfer of Pollutants. <i>Environmental Science &amp; Technology</i> , 2006, 40, 7521-7527.	10.0	55
75	Halogens in the coastal snow pack near Barrow, Alaska: Evidence for active bromine air-snow chemistry during springtime. <i>Geophysical Research Letters</i> , 2005, 32, n/a-n/a.	4.0	104
76	Elevated mercury measured in snow and frost flowers near Arctic sea ice leads. <i>Geophysical Research Letters</i> , 2005, 32, n/a-n/a.	4.0	65
77	Arctic haze, mercury and the chemical composition of snow across northwestern Alaska. <i>Atmospheric Environment</i> , 2004, 38, 805-820.	4.1	94
78	Geochronologic and thermobarometric constraints on the metamorphic history of the Fairbanks Mining District, western Yukon-Tanana terrane, Alaska. <i>Canadian Journal of Earth Sciences</i> , 2002, 39, 1107-1126.	1.3	3
79	Alaskan palaeosols in modern times: Deciphering unique microbial diversity within the late-Holocene. <i>Holocene</i> , 0, , 095968362211012.	1.7	0