

Melissa J Lafreni

List of Publications by Year in descending order

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49
papers

1,922
citations

218592

26
h-index

254106

43
g-index

53
all docs

53
docs citations

53
times ranked

2249
citing authors

#	ARTICLE	IF	CITATIONS
1	Melting Glaciers: A Major Source of Persistent Organochlorines to Subalpine Bow Lake in Banff National Park, Canada. <i>Ambio</i> , 2001, 30, 410-415.	2.8	165
2	Wavelet analysis of inter-annual variability in the runoff regimes of glacial and nival stream catchments, Bow Lake, Alberta. <i>Hydrological Processes</i> , 2003, 17, 1093-1118.	1.1	122
3	Diversity, Abundance, and Potential Activity of Nitrifying and Nitrate-Reducing Microbial Assemblages in a Subglacial Ecosystem. <i>Applied and Environmental Microbiology</i> , 2011, 77, 4778-4787.	1.4	119
4	Fluvial Impact of Extensive Active Layer Detachments, Cape Bounty, Melville Island, Canada. <i>Arctic, Antarctic, and Alpine Research</i> , 2009, 41, 59-68.	0.4	106
5	Effects of changing permafrost conditions on hydrological processes and fluvial fluxes. <i>Earth-Science Reviews</i> , 2019, 191, 212-223.	4.0	95
6	Influence of bedrock mineral composition on microbial diversity in a subglacial environment. <i>Geology</i> , 2013, 41, 855-858.	2.0	93
7	Hydrochemical and sedimentary responses of paired High Arctic watersheds to unusual climate and permafrost disturbance, Cape Bounty, Melville Island, Canada. <i>Hydrological Processes</i> , 2012, 26, 2003-2018.	1.1	85
8	The Concentration and Fluorescence of Dissolved Organic Carbon (DOC) in Glacial and Nonglacial Catchments: Interpreting Hydrological Flow Routing and DOC Sources. <i>Arctic, Antarctic, and Alpine Research</i> , 2004, 36, 156-165.	0.4	64
9	Canadian permafrost stores large pools of ammonium and optically distinct dissolved organic matter. <i>Nature Communications</i> , 2020, 11, 4500.	5.8	64
10	Hydrological and sediment yield response to summer rainfall in a small high Arctic watershed. <i>Hydrological Processes</i> , 2009, 23, 1514-1526.	1.1	50
11	Climate and permafrost effects on the chemistry and ecosystems of High Arctic Lakes. <i>Scientific Reports</i> , 2017, 7, 13292.	1.6	49
12	Organochlorine Pesticide and Polychlorinated Biphenyl Concentrations in Snow, Snowmelt, and Runoff at Bow Lake, Alberta. <i>Environmental Science & Technology</i> , 2006, 40, 4909-4915.	4.6	47
13	Fluxes of semivolatile organochlorine compounds in Bow Lake, a high-altitude, glacier-fed, subalpine lake in the Canadian Rocky Mountains. <i>Limnology and Oceanography</i> , 2001, 46, 2019-2031.	1.6	46
14	Evidence for the enhanced lability of dissolved organic matter following permafrost slope disturbance in the Canadian High Arctic. <i>Geochimica Et Cosmochimica Acta</i> , 2011, 75, 7226-7241.	1.6	42
15	Legacy and Emerging Persistent Organic Pollutants (POPs) in Terrestrial Compartments in the High Arctic: Sorption and Secondary Sources. <i>Environmental Science & Technology</i> , 2018, 52, 14187-14197.	4.6	42
16	Thermal Perturbation and Rainfall Runoff have Greater Impact on Seasonal Solute Loads than Physical Disturbance of the Active Layer. <i>Permafrost and Periglacial Processes</i> , 2013, 24, 241-251.	1.5	40
17	Seasonal fluxes and age of particulate organic carbon exported from Arctic catchments impacted by localized permafrost slope disturbances. <i>Environmental Research Letters</i> , 2014, 9, 045002.	2.2	40
18	Evaluating the hydrological and hydrochemical responses of a High Arctic catchment during an exceptionally warm summer. <i>Hydrological Processes</i> , 2017, 31, 2296-2313.	1.1	39

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19	Long-term deepened snow promotes tundra evergreen shrub growth and summertime ecosystem net CO_2 gain but reduces soil carbon and nutrient pools. <i>Global Change Biology</i> , 2018, 24, 3508-3525.	4.2	39
20	A comparison of solute fluxes and sources from glacial and non-glacial catchments over contrasting melt seasons. <i>Hydrological Processes</i> , 2005, 19, 2991-3012.	1.1	38
21	Emerging dominance of summer rainfall driving High Arctic terrestrial-aquatic connectivity. <i>Nature Communications</i> , 2021, 12, 1448.	5.8	37
22	Snow Deposition and Melting as Drivers of Polychlorinated Biphenyls and Organochlorine Pesticides in Arctic Rivers, Lakes, and Ocean. <i>Environmental Science & Technology</i> , 2019, 53, 14377-14386.	4.6	35
23	Seasonal hydrology and permafrost disturbance impacts on dissolved organic matter composition in High Arctic headwater catchments. <i>Arctic Science</i> , 2017, 3, 378-405.	0.9	34
24	Erosion dynamics following localized permafrost slope disturbances. <i>Geophysical Research Letters</i> , 2014, 41, 5499-5505.	1.5	33
25	Stable isotopic evidence of enhanced export of microbially derived NO_3^- following active layer slope disturbance in the Canadian High Arctic. <i>Biogeochemistry</i> , 2014, 121, 565-580.	1.7	33
26	Differences in Riverine and Pond Water Dissolved Organic Matter Composition and Sources in Canadian High Arctic Watersheds Affected by Active Layer Detachments. <i>Environmental Science & Technology</i> , 2018, 52, 1062-1071.	4.6	31
27	The Impact of Permafrost Disturbances and Sediment Loading on the Limnological Characteristics of Two High Arctic Lakes. <i>Permafrost and Periglacial Processes</i> , 2012, 23, 119-126.	1.5	29
28	The Impact of Snow Accumulation on the Active Layer Thermal Regime in High Arctic Soils. <i>Vadose Zone Journal</i> , 2013, 12, 1-13.	1.3	28
29	More than just snowmelt: integrated watershed science for changing climate and permafrost at the Cape Bounty Arctic Watershed Observatory. <i>Wiley Interdisciplinary Reviews: Water</i> , 2018, 5, e1255.	2.8	27
30	Snowpack and precipitation chemistry at a high altitude site in the Canadian Rocky Mountains. <i>Journal of Hydrology</i> , 2011, 409, 737-748.	2.3	20
31	Comparisons of dissolved organic matter and its optical characteristics in small low and high Arctic catchments. <i>Biogeosciences</i> , 2019, 16, 4535-4553.	1.3	20
32	Differential impact of thermal and physical permafrost disturbances on High Arctic dissolved and particulate fluvial fluxes. <i>Scientific Reports</i> , 2020, 10, 11836.	1.6	20
33	Seasonal dynamics of dissolved nitrogen exports from two High Arctic watersheds, Melville Island, Canada. <i>Hydrology Research</i> , 2008, 39, 323-335.	1.1	18
34	Multi-year impacts of permafrost disturbance and thermal perturbation on High Arctic stream chemistry. <i>Arctic Science</i> , 2017, 3, 254-276.	0.9	18
35	Active layer slope disturbances affect seasonality and composition of dissolved nitrogen export from High Arctic headwater catchments. <i>Arctic Science</i> , 2017, 3, 429-450.	0.9	18
36	Redistribution of soil organic matter by permafrost disturbance in the Canadian High Arctic. <i>Biogeochemistry</i> , 2016, 128, 397-415.	1.7	16

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37	Seasonal evolution of active layer thaw depth and hillslope-stream connectivity in a permafrost watershed. <i>Water Resources Research</i> , 2020, 56, e2019WR025828.	1.7	16
38	Examination of Soil Microbial Communities After Permafrost Thaw Subsequent to an Active Layer Detachment in the High Arctic. <i>Arctic, Antarctic, and Alpine Research</i> , 2017, 49, 455-472.	0.4	15
39	Pond hydrology and dissolved carbon dynamics at Polar Bear Pass wetland, Bathurst Island, Nunavut, Canada. <i>Ecohydrology</i> , 2014, 7, 73-90.	1.1	14
40	Potential shifts in Canadian High Arctic sedimentary organic matter composition with permafrost active layer detachments. <i>Organic Geochemistry</i> , 2015, 79, 1-13.	0.9	14
41	Atmospheric deposition of sulfur and inorganic nitrogen in the Southern Canadian Rocky Mountains from seasonal snowpacks and bulk summer precipitation. <i>Journal of Hydrology</i> , 2015, 523, 563-573.	2.3	11
42	Climate and Terrain Characteristics Linked to Mud Ejection Occurrence in the Canadian High Arctic. <i>Permafrost and Periglacial Processes</i> , 2016, 27, 204-218.	1.5	11
43	Summer deposition of sulfate and reactive nitrogen to two alpine valleys in the Canadian Rocky Mountains. <i>Atmospheric Environment</i> , 2015, 101, 270-285.	1.9	9
44	Recent multi-year streamflow regimes and water budgets of hillslope catchments in the Canadian High Arctic: evaluation and comparison to other small Arctic watershed studies. <i>Hydrology Research</i> , 2015, 46, 533-550.	1.1	7
45	Periglacial slopewash dominated by solute transfers and subsurface erosion on a High Arctic slope. <i>Permafrost and Periglacial Processes</i> , 2020, 31, 472-486.	1.5	7
46	Spatial and temporal shifts in fluvial sedimentary organic matter composition from a High Arctic watershed impacted by localized slope disturbances. <i>Organic Geochemistry</i> , 2018, 123, 113-125.	0.9	6
47	Calibration of a modified temperature-light intensity logger for quantifying water electrical conductivity. <i>Water Resources Research</i> , 2017, 53, 8120-8126.	1.7	5
48	Diverging pond dissolved organic matter characteristics yield similar CO ₂ flux potentials in a disturbed High Arctic landscape. <i>Environmental Research Letters</i> , 2021, 16, 044016.	2.2	3
49	Background atmospheric sulfate deposition at a remote alpine site in the Southern Canadian Rocky Mountains. <i>Journal of Geophysical Research D: Atmospheres</i> , 2015, 120, 11,352.	1.2	1