Denis Lacelle

List of Publications by Year
in descending order

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78 papers	2,624 citations	185998 28 h-index	205818 48 g-index
79 all docs	79 docs citations	79 times ranked	2594 citing authors

#	Article	IF	Citations
1	High Arctic Holocene temperature record from the Agassiz ice cap and Greenland ice sheet evolution. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 5952-5957.	3.3	163
2	Increased precipitation drives mega slump development and destabilization of ice-rich permafrost terrain, northwestern Canada. Global and Planetary Change, 2015, 129, 56-68.	1.6	161
3	Nearing the cold-arid limits of microbial life in permafrost of an upper dry valley, Antarctica. ISME Journal, 2016, 10, 1613-1624.	4.4	144
4	Climate-driven thaw of permafrost preserved glacial landscapes, northwestern Canada. Geology, 2017, 45, 371-374.	2.0	141
5	The Icebreaker Life Mission to Mars: A Search for Biomolecular Evidence for Life. Astrobiology, 2013, 13, 334-353.	1.5	104
6	Climatic and geomorphic factors affecting contemporary (1950â€“2004) activity of retrogressive thaw slumps on the Aklavik Plateau, Richardson Mountains, NWT, Canada. Permafrost and Periglacial Processes, 2010, 21, 1-15.	1.5	100
7	Distribution and growth of thaw slumps in the Richardson Mountainsâ€“Peel Plateau region, northwestern Canada. Geomorphology, 2015, 235, 40-51.	1.1	94
8	Contemporary (1951â€“2001) Evolution of Lakes in the Old Crow Basin, Northern Yukon, Canada: Remote Sensing, Numerical Modeling, and Stable Isotope Analysis. Arctic, 2009, 62, .	0.2	87
9	Impacts of hillslope thaw slumps on the geochemistry of permafrost catchments (Stony Creek) Tj ETQq1 1 0.784314 rgBT /Overlock 10	1.4	83
10	Permafrost Terrain Dynamics and Infrastructure Impacts Revealed by UAV Photogrammetry and Thermal Imaging. Remote Sensing, 2018, 10, 1734.	1.8	77
11	On the Î´¹⁸O, Î´D and Dâ€excess relations in meteoric precipitation and during equilibrium freezing: theoretical approach and field examples. Permafrost and Periglacial Processes, 2011, 22, 13-25.	1.5	75
12	Climate Sensitivity of High Arctic Permafrost Terrain Demonstrated by Widespread Ice-Wedge Thermokarst on Banks Island. Remote Sensing, 2018, 10, 954.	1.8	66
13	Permafrost thaw and intense thermokarst activity decreases abundance of stream benthic macroinvertebrates. Global Change Biology, 2016, 22, 2715-2728.	4.2	62
14	Evidence for Hesperian glaciation along the Martian dichotomy boundary. Geology, 2013, 41, 755-758.	2.0	59
15	Segregated-intrusive ice of subglacial meltwater origin in retrogressive thaw flow headwalls, Richardson Mountains, NWT, Canada. Quaternary Science Reviews, 2004, 23, 681-696.	1.4	55
16	Detecting Landscape Changes in High Latitude Environments Using Landsat Trend Analysis: 1. Visualization. Remote Sensing, 2014, 6, 11533-11557.	1.8	46
17	Mapping the Activity and Evolution of Retrogressive Thaw Slumps by Tasselled Cap Trend Analysis of a Landsat Satellite Image Stack. Permafrost and Periglacial Processes, 2014, 25, 243-256.	1.5	46
18	Environmental setting, (micro)morphologies and stable Câ€“O isotope composition of cold climate carbonate precipitatesâ€”a review and evaluation of their potential as paleoclimatic proxies. Quaternary Science Reviews, 2007, 26, 1670-1689.	1.4	45

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19	Excess ground ice of condensationâ€“diffusion origin in University Valley, Dry Valleys of Antarctica: Evidence from isotope geochemistry and numerical modeling. Geochimica Et Cosmochimica Acta, 2013, 120, 280-297.	1.6	45
20	The high elevation Dry Valleys in Antarctica as analog sites for subsurface ice on Mars. Planetary and Space Science, 2013, 85, 53-58.	0.9	44
21	Deposition, accumulation, and alteration of Clâ¯, NO3â¯, ClO4â¯ and ClO3â¯ salts in a hyper-arid polar environment: Mass balance and isotopic constraints. Geochimica Et Cosmochimica Acta, 2016, 182, 197-215.	1.6	42
22	Weathering regime and geochemical conditions in a polar desert environment, Haughton impact structure region, Devon Island, Canada. Canadian Journal of Earth Sciences, 2008, 45, 1139-1157.	0.6	40
23	Timing of advance and basal condition of the Laurentide Ice Sheet during the last glacial maximum in the Richardson Mountains, NWT. Quaternary Research, 2013, 80, 274-283.	1.0	37
24	Nature and origin of a Pleistocene-age massive ground-ice body exposed in the Chapman Lake moraine Complex, central Yukon Territory, Canada. Quaternary Research, 2007, 68, 249-260.	1.0	36
25	Investigation of iceâ€wedge infilling processes using stable oxygen and hydrogen isotopes, crystallography and occluded gases (O₂, N₂, Ar). Permafrost and Periglacial Processes, 2011, 22, 49-64.	1.5	34
26	Solar Radiation and Air and Ground Temperature Relations in the Cold and Hyperâ€Arid Quartermain Mountains, McMurdo Dry Valleys of Antarctica. Permafrost and Periglacial Processes, 2016, 27, 163-176.	1.5	32
27	Effect of chemical composition of water on the oxygen-18 and carbon-13 signature preserved in cryogenic carbonates, Arctic Canada: Implications in paleoclimatic studies. Chemical Geology, 2006, 234, 1-16.	1.4	31
28	Seasonal isotopic imprint in moonmilk from Caverne de l'Ours (Quebec, Canada): implications for climatic reconstruction. Canadian Journal of Earth Sciences, 2004, 41, 1411-1423.	0.6	30
29	Distribution of depth to ice-cemented soils in the high-elevation Quartermain Mountains, McMurdo Dry Valleys, Antarctica. Antarctic Science, 2013, 25, 575-582.	0.5	30
30	High-resolution stable water isotopes as tracers of thaw unconformities in permafrost: A case study from western Arctic Canada. Chemical Geology, 2014, 368, 85-96.	1.4	29
31	Molar gas ratios of air entrapped in ice: A new tool to determine the origin of relict massive ground ice bodies in permafrost. Quaternary Research, 2007, 68, 239-248.	1.0	27
32	Geomicrobiology and occluded O2â€“CO2â€“Ar gas analyses provide evidence of microbial respiration in ancient terrestrial ground ice. Earth and Planetary Science Letters, 2011, 306, 46-54.	1.8	27
33	Late Pleistocene and Holocene ice-wedge activity on the Blackstone Plateau, central Yukon, Canada. Quaternary Research, 2019, 91, 179-193.	1.0	26
34	Acid drainage generation and seasonal recycling in disturbed permafrost near Eagle Plains, northern Yukon Territory, Canada. Chemical Geology, 2007, 243, 157-177.	1.4	25
35	Stability of massive ground ice bodies in University Valley, McMurdo Dry Valleys of Antarctica: Using stable Oâ€“H isotope as tracers of sublimation in hyper-arid regions. Earth and Planetary Science Letters, 2011, 301, 403-411.	1.8	24
36	An ice-marginal Î´¹⁸O record from Barnes Ice Cap, Baffin Island, Canada. Annals of Glaciology, 2002, 35, 145-149.	2.8	23

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37	Holocene Evolution of Lakes in the Bluefish Basin, Northern Yukon, Canada. Arctic, 2009, 62, .	0.2	23
38	Burial and preservation of a 30,000 year old perennial snowbank in Red Creek valley, Ogilvie Mountains, central Yukon, Canada. Quaternary Science Reviews, 2009, 28, 3401-3413.	1.4	22
39	Legacy of Holocene Landscape Changes on Soil Biogeochemistry: A Perspective From Paleoâ€Active Layers in Northwestern Canada. Journal of Geophysical Research G: Biogeosciences, 2019, 124, 2662-2679.	1.3	22
40	Recent Progress (2007â€“2012) in Permafrost Isotope Geochemistry. Permafrost and Periglacial Processes, 2013, 24, 138-145.	1.5	21
41	Acid drainage generation and associated Caâ€“Feâ€“SO4 minerals in a periglacial environment, Eagle Plains, Northern Yukon, Canada: A potential analogue for low-temperature sulfate formation on Mars. Planetary and Space Science, 2010, 58, 509-521.	0.9	20
42	Icings and groundwater conditions in permafrost catchments of northwestern Canada. Scientific Reports, 2020, 10, 3283.	1.6	20
43	Microbial Diversity in Endostromatolites (cf.Fissure Calcretes) and in the Surrounding Permafrost Landscape, Haughton Impact Structure Region, Devon Island, Canada. Astrobiology, 2009, 9, 807-822.	1.5	17
44	Ground surface temperature and humidity, ground temperature cycles and the ice table depths in University Valley, McMurdo Dry Valleys of Antarctica. Journal of Geophysical Research F: Earth Surface, 2016, 121, 2069-2084.	1.0	17
45	Thaw slump activity measured using stationary cameras in time-lapse and Structure-from-Motion photogrammetry. Arctic Science, 2018, 4, 827-845.	0.9	16
46	Energy and water mass balance of Lake Untersee and its perennial ice cover, East Antarctica. Antarctic Science, 2019, 31, 271-285.	0.5	16
47	Formation and evolution of buried snowpack deposits in Pearse Valley, Antarctica, and implications for Mars. Antarctic Science, 2012, 24, 299-316.	0.5	15
48	Origin, burial and preservation of late Pleistocene-age glacier ice in Arctic permafrost (Bylot Island,) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	1.5	15
49	The Peel Plateau of Northwestern Canada: An Ice-Rich Hummocky Moraine Landscape in Transition. World Geomorphological Landscapes, 2017, , 109-122.	0.1	15
50	A model of unfrozen water content and its transport in icy permafrost soils: Effects on ground ice content and permafrost stability. Permafrost and Periglacial Processes, 2020, 31, 184-199.	1.5	14
51	Origin, age, and paleoenvironmental significance of carbonate precipitates from a granitic environment, Akshayuk Pass, southern Baffin Island, Canada. Canadian Journal of Earth Sciences, 2007, 44, 61-79.	0.6	13
52	Distribution and origin of ground ice in University Valley, McMurdo Dry Valleys, Antarctica. Antarctic Science, 2017, 29, 183-198.	0.5	12
53	Sources of solutes and carbon cycling in perennially ice-covered Lake Untersee, Antarctica. Scientific Reports, 2020, 10, 12290.	1.6	12
54	A model for co-isotopic signatures of evolving ground ice in the cold dry environments of Earth and Mars. Icarus, 2014, 243, 454-470.	1.1	10

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55	Cryostratigraphy and the Sublimation Unconformity in Permafrost from an Ultraxerous Environment, University Valley, McMurdo Dry Valleys of Antarctica. Permafrost and Periglacial Processes, 2017, 28, 649-662.	1.5	10
56	Buried remnants of the Laurentide Ice Sheet and connections to its surface elevation. Scientific Reports, 2018, 8, 13286.	1.6	10
57	Modeling ÎD-Î18O Steady-State of Well-Sealed Perennially Ice-Covered Lakes and Their Recharge Source: Examples From Lake Untersee and Lake Vostok, Antarctica. Frontiers in Earth Science, 2020, 8, .	0.8	10
58	(Micro)morphological, inorganicâ€“organic isotope geochemisty and microbial populations in endostromatolites (cf. fissure calcretes), Haughton impact structure, Devon Island, Canada: The influence of geochemical pathways on the preservation of isotope biomarkers. Earth and Planetary Science Letters, 2009, 281, 202-214.	1.8	9
59	Late Quaternary paleoenvironments and growth of intrusive ice in eastern Beringia (Eagle River) Tj ETQq1 1 0.784314 rgBT /Overlock	0.6	9
60	Using noble gas ratios to determine the origin of ground ice. Quaternary Research, 2016, 85, 177-184.	1.0	8
61	Physicochemical and Biological Controls on Carbon and Nitrogen in Permafrost from an Ultraxerous Environment, McMurdo Dry Valleys of Antarctica. Journal of Geophysical Research G: Biogeosciences, 2017, 122, 2593-2604.	1.3	8
62	Distribution, morphometry, and ice content of iceâ€wedge polygons in Tombstone Territorial Park, central Yukon, Canada. Permafrost and Periglacial Processes, 2021, 32, 587-600.	1.5	8
63	Contrasted geomorphological and limnological properties of thermokarst lakes formed in buried glacier ice and ice-wedge polygon terrain. Cryosphere, 2022, 16, 2837-2857.	1.5	7
64	Holocene ice wedge formation in the Eureka Sound Lowlands, high Arctic Canada. Quaternary Research, 2021, 102, 175-187.	1.0	6
65	Ice wedges as winter temperature proxy: Principles, limitations and noise in the Î18O records (an) Tj ETQq1 1 0.784314 rgBT /Overlock	1.4	6
66	Improved prediction of the vertical distribution of ground ice in Arctic-Antarctic permafrost sediments. Communications Earth & Environment, 2022, 3, .	2.6	6
67	Distinguishing between vapor- and liquid-formed ground ice in the northern martian regolith and potential for biosignatures preserved in ice bodies. Icarus, 2008, 197, 458-469.	1.1	5
68	A model for stable isotopes of residual liquid water and ground ice in permafrost soils using arbitrary water chemistries and soilâ€specific empirical residual water functions. Permafrost and Periglacial Processes, 2021, 32, 248-260.	1.5	5
69	Cryostratigraphy of mid-Miocene permafrost at Friis Hills, McMurdo Dry Valleys of Antarctica. Antarctic Science, 2021, 33, 174-188.	0.5	5
70	Geomorphic Controls on Landslide Activity in Champlain Sea Clays along Greenâ€™s Creek, Eastern Ontario, Canada. GÃ©ographie Physique Et Quaternaire, 0, 58, 9-23.	0.2	5
71	Glacial lake outburst floods enhance benthic microbial productivity in perennially ice-covered Lake Untersee (East Antarctica). Communications Earth & Environment, 2021, 2, .	2.6	4
72	Climate and energy balance of the ground in University Valley, Antarctica. Antarctic Science, 2022, 34, 144-171.	0.5	4

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73	Warmerâ€“wetter climate drives shift in Î´Dâ€“Î´¹⁸O composition of precipitation across the Queen Elizabeth Islands, Arctic Canada. Arctic Science, 2021, 7, 136-157.	0.9	3
74	Discussion: â€œThe biogenic origin of needle fibre calciteâ€•by G. Cailleau etÂal. (2009), Sedimentology, 56, 1858-1875. Sedimentology, 2010, 57, 1147-1149.	1.6	2
75	Hummocks in alpine tundra, northern British Columbia, Canada: distribution, morphology and organic carbon composition. Arctic Science, 2019, 5, 127-147.	0.9	2
76	Ice-covered ponds in the Untersee Oasis (East Antarctica): Distribution, chemical composition, and trajectory under a warming climate. Arctic, Antarctic, and Alpine Research, 2021, 53, 324-339.	0.4	1
77	Abrupt mortality of marine invertebrates at the Younger Dryas-Holocene transition in a shallow inlet of the Goldthwait Sea. Holocene, 2018, 28, 1894-1908.	0.9	0
78	Cryostratigraphy of mid-Miocene permafrost at Friis Hills, McMurdo Dry Valleys of Antarctica â€“ ERRATUM. Antarctic Science, 2021, 33, 189-191.	0.5	0