

W Richard Leitch

List of Publications by Year in descending order

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98
papers

4,647
citations

81743

39
h-index

118652

62
g-index

113
all docs

113
docs citations

113
times ranked

4631
citing authors

#	ARTICLE	IF	CITATIONS
1	Warming-induced increase in aerosol number concentration likely to moderate climate change. <i>Nature Geoscience</i> , 2013, 6, 438-442.	5.4	282
2	Indirect and Semi-direct Aerosol Campaign. <i>Bulletin of the American Meteorological Society</i> , 2011, 92, 183-201.	1.7	228
3	Mercury emissions from burning of biomass from temperate North American forests: laboratory and airborne measurements. <i>Atmospheric Environment</i> , 2003, 37, 253-267.	1.9	189
4	Indirect effect of sulfate and carbonaceous aerosols: A mechanistic treatment. <i>Journal of Geophysical Research</i> , 2000, 105, 12193-12206.	3.3	183
5	Overview paper: New insights into aerosol and climate in the Arctic. <i>Atmospheric Chemistry and Physics</i> , 2019, 19, 2527-2560.	1.9	134
6	Climatology of aerosol radiative properties in the free troposphere. <i>Atmospheric Research</i> , 2011, 102, 365-393.	1.8	121
7	Processes controlling the annual cycle of Arctic aerosol number and size distributions. <i>Atmospheric Chemistry and Physics</i> , 2016, 16, 3665-3682.	1.9	115
8	Global analysis of continental boundary layer new particle formation based on long-term measurements. <i>Atmospheric Chemistry and Physics</i> , 2018, 18, 14737-14756.	1.9	113
9	Growth of nucleation mode particles in the summertime Arctic: a case study. <i>Atmospheric Chemistry and Physics</i> , 2016, 16, 7663-7679.	1.9	111
10	Processes Controlling the Composition and Abundance of Arctic Aerosol. <i>Reviews of Geophysics</i> , 2018, 56, 621-671.	9.0	106
11	Dimethyl sulfide control of the clean summertime Arctic aerosol and cloud. <i>Elementa</i> , 2013, 1, .	1.1	102
12	Pan-Arctic aerosol number size distributions: seasonality and transport patterns. <i>Atmospheric Chemistry and Physics</i> , 2017, 17, 8101-8128.	1.9	99
13	Effects of 20–100 nm particles on liquid clouds in the clean summertime Arctic. <i>Atmospheric Chemistry and Physics</i> , 2016, 16, 11107-11124.	1.9	94
14	Characterization of the aerosol over the sub-arctic north east Pacific Ocean. <i>Deep-Sea Research Part II: Topical Studies in Oceanography</i> , 2006, 53, 2410-2433.	0.6	91
15	Effect of organics of low solubility on the growth rate of cloud droplets. <i>Journal of Geophysical Research</i> , 2003, 108, .	3.3	83
16	Characterizations of cis-pinonic acid and n-fatty acids on fine aerosols in the Lower Fraser Valley during Pacific 2001 Air Quality Study. <i>Atmospheric Environment</i> , 2004, 38, 5789-5800.	1.9	83
17	Trans-Pacific transport of Saharan dust to western North America: A case study. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	82
18	Relating atmospheric and oceanic DMS levels to particle nucleation events in the Canadian Arctic. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	82

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19	Identification and characterization of inland ship plumes over Vancouver, BC. Atmospheric Environment, 2006, 40, 2767-2782.	1.9	76
20	Comparison between measured and predicted CCN concentrations at Egbert, Ontario: Focus on the organic aerosol fraction at a semi-rural site. Atmospheric Environment, 2007, 41, 8172-8182.	1.9	75
21	The cloud albedo-cloud droplet effective radius relationship for clean and polluted clouds from RACE and FIRE.ACE. Journal of Geophysical Research, 2002, 107, AAC 1-1-AAC 1-6.	3.3	68
22	Importance of vertical velocity variations in the cloud droplet nucleation process of marine stratus clouds. Journal of Geophysical Research, 2005, 110, .	3.3	63
23	In Situ Characterization of Cloud Condensation Nuclei, Interstitial, and Background Particles Using the Single Particle Mass Spectrometer, SPLAT II. Analytical Chemistry, 2010, 82, 7943-7951.	3.2	62
24	Temperature response of the submicron organic aerosol from temperate forests. Atmospheric Environment, 2011, 45, 6696-6704.	1.9	62
25	Summertime observations of elevated levels of ultrafine particles in the high Arctic marine boundary layer. Atmospheric Chemistry and Physics, 2017, 17, 5515-5535.	1.9	62
26	An evaluation of three methods for measuring black carbon in Alert, Canada. Atmospheric Chemistry and Physics, 2017, 17, 15225-15243.	1.9	61
27	Modelling aerosol-cloud-meteorology interaction: A case study with a fully coupled air quality model (GEM-MACH). Atmospheric Environment, 2015, 115, 695-715.	1.9	59
28	Source attribution of Arctic black carbon constrained by aircraft and surface measurements. Atmospheric Chemistry and Physics, 2017, 17, 11971-11989.	1.9	58
29	Nighttime chemistry at a rural site in the Lower Fraser Valley. Atmospheric Environment, 2004, 38, 5837-5848.	1.9	57
30	Evidence for marine biogenic influence on summertime Arctic aerosol. Geophysical Research Letters, 2017, 44, 6460-6470.	1.5	56
31	Tropospheric aerosol size distributions from 1982 to 1988 over eastern North America. Atmospheric Environment Part A General Topics, 1991, 25, 601-619.	1.3	52
32	How efficient is cloud droplet formation of organic aerosols?. Geophysical Research Letters, 2004, 31, n/a-n/a.	1.5	51
33	Boundary layer ozone depletion during AGASP-II. Atmospheric Environment, 1989, 23, 2443-2449.	1.1	49
34	Ionic composition and size characteristics of particles in the Lower Fraser Valley: Pacific 2001 field study. Atmospheric Environment, 2006, 40, 2662-2675.	1.9	49
35	Particulate trimethylamine in the summertime Canadian high Arctic lower troposphere. Atmospheric Chemistry and Physics, 2017, 17, 13747-13766.	1.9	49
36	Ice nucleating particles in the marine boundary layer in the Canadian Arctic during summer 2014. Atmospheric Chemistry and Physics, 2019, 19, 1027-1039.	1.9	48

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37	An Intensive Study of the Size and Composition of Submicron Atmospheric Aerosols at a Rural Site in Ontario, Canada. <i>Aerosol Science and Technology</i> , 2005, 39, 722-736.	1.5	47
38	Hygroscopicity of particles at two rural, urban influenced sites during Pacific 2001: Comparison with estimates of water uptake from particle composition. <i>Atmospheric Environment</i> , 2006, 40, 2650-2661.	1.9	47
39	A Factor and Trends Analysis of Multidecadal Lower Tropospheric Observations of Arctic Aerosol Composition, Black Carbon, Ozone, and Mercury at Alert, Canada. <i>Journal of Geophysical Research D: Atmospheres</i> , 2019, 124, 14133-14161.	1.2	47
40	AWARE: The Atmospheric Radiation Measurement (ARM) West Antarctic Radiation Experiment. <i>Bulletin of the American Meteorological Society</i> , 2020, 101, E1069-E1091.	1.7	46
41	Laboratory studies of the efficiency of selected organic aerosols as CCN. <i>Atmospheric Research</i> , 2001, 58, 155-166.	1.8	45
42	High Arctic aircraft measurements characterising black carbon vertical variability in spring and summer. <i>Atmospheric Chemistry and Physics</i> , 2019, 19, 2361-2384.	1.9	42
43	Factors influencing the microphysics and radiative properties of liquid-dominated Arctic clouds: Insight from observations of aerosol and clouds during ISDAC. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	41
44	Particle formation and growth from ozonolysis of α -pinene. <i>Journal of Geophysical Research</i> , 2001, 106, 27603-27618.	3.3	40
45	Organic functional groups in the submicron aerosol at 82.5°N, 62.5°W from 2012 to 2014. <i>Atmospheric Chemistry and Physics</i> , 2018, 18, 3269-3287.	1.9	40
46	Arctic marine secondary organic aerosol contributes significantly to summertime particle size distributions in the Canadian Arctic Archipelago. <i>Atmospheric Chemistry and Physics</i> , 2019, 19, 2787-2812.	1.9	38
47	Submicron organic aerosol in Tijuana, Mexico, from local and Southern California sources during the CalMex campaign. <i>Atmospheric Environment</i> , 2013, 70, 500-512.	1.9	35
48	Size-resolved mixing state of black carbon in the Canadian high Arctic and implications for simulated direct radiative effect. <i>Atmospheric Chemistry and Physics</i> , 2018, 18, 11345-11361.	1.9	34
49	Transport of ozone and sulfur to the North Atlantic atmosphere during the North Atlantic Regional Experiment. <i>Journal of Geophysical Research</i> , 1996, 101, 29091-29104.	3.3	32
50	Ship emissions measurement in the Arctic by plume intercepts of the Canadian Coast Guard icebreaker <i>Amundsen</i> from the <i>Polar 6</i> aircraft platform. <i>Atmospheric Chemistry and Physics</i> , 2016, 16, 7899-7916.	1.9	32
51	Aircraft-based measurements of High Arctic springtime aerosol show evidence for vertically varying sources, transport and composition. <i>Atmospheric Chemistry and Physics</i> , 2019, 19, 57-76.	1.9	32
52	Seasonal and Diurnal Variations in Aerosol Concentration on Whistler Mountain: Boundary Layer Influence and Synoptic-Scale Controls. <i>Journal of Applied Meteorology and Climatology</i> , 2011, 50, 2210-2222.	0.6	31
53	High summertime aerosol organic functional group concentrations from marine and seabird sources at Ross Island, Antarctica, during AWARE. <i>Atmospheric Chemistry and Physics</i> , 2018, 18, 8571-8587.	1.9	31
54	Chemical and physical observations of particulate matter at Golden Ears Provincial Park from anthropogenic and biogenic sources. <i>Atmospheric Environment</i> , 2004, 38, 5849-5860.	1.9	30

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55	Substantial secondary organic aerosol formation in a coniferous forest: observations of both day- and nighttime chemistry. <i>Atmospheric Chemistry and Physics</i> , 2016, 16, 6721-6733.	1.9	30
56	An aircraft measurement technique for formaldehyde and soluble carbonyl compounds. <i>Journal of Geophysical Research</i> , 1996, 101, 29075-29080.	3.3	28
57	An investigation into the aerosol dispersion effect through the activation process in marine stratus clouds. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	28
58	Summer aerosol profiles over Algonquin Park, Canada. <i>Atmospheric Environment</i> , 1986, 20, 157-172.	1.1	27
59	Primary and secondary organic aerosols in urban air masses intercepted at a rural site. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	27
60	Impacts of the July 2012 Siberian fire plume on air quality in the Pacific Northwest. <i>Atmospheric Chemistry and Physics</i> , 2017, 17, 2593-2611.	1.9	25
61	Characterization of transport regimes and the polar dome during Arctic spring and summer using in situ aircraft measurements. <i>Atmospheric Chemistry and Physics</i> , 2019, 19, 15049-15071.	1.9	25
62	Concentrations, composition, and sources of ice-nucleating particles in the Canadian High Arctic during spring 2016. <i>Atmospheric Chemistry and Physics</i> , 2019, 19, 3007-3024.	1.9	24
63	The vertical distribution of aerosols and acid related compounds in air and cloudwater. <i>Atmospheric Environment Part A General Topics</i> , 1990, 24, 3033-3046.	1.3	21
64	The physical and chemical evolution of aerosols in smelter and power plant plumes: an airborne study. <i>Geochemistry: Exploration, Environment, Analysis</i> , 2006, 6, 111-120.	0.5	21
65	Measurement of O ₃ and related compounds over southern Nova Scotia: 1. Vertical distributions. <i>Journal of Geophysical Research</i> , 1996, 101, 29043-29060.	3.3	20
66	Investigation of carbonyls in cloudwater during ICARTT. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	20
67	A year-long comparison of particle formation events at paired urban and rural locations. <i>Atmospheric Pollution Research</i> , 2014, 5, 447-454.	1.8	20
68	Characterization of aerosol growth events over Ellesmere Island during the summers of 2015 and 2016. <i>Atmospheric Chemistry and Physics</i> , 2019, 19, 5589-5604.	1.9	20
69	Dimethyl sulfide and its role in aerosol formation and growth in the Arctic summer – a modelling study. <i>Atmospheric Chemistry and Physics</i> , 2019, 19, 14455-14476.	1.9	19
70	Aerosol backscattering determined from chemical and physical properties and lidar observations over the east coast of Canada. <i>Geophysical Research Letters</i> , 1998, 25, 1653-1656.	1.5	18
71	Evaluation of the Eulerian acid deposition and oxidant model (ADOM) with summer 1988 aircraft data. <i>Atmospheric Environment Part A General Topics</i> , 1993, 27, 1019-1034.	1.3	15
72	Evaluation of modeled cloud properties against aircraft observations for air quality applications. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	15

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73	In-cloud oxidation of SO ₂ by O ₃ and H ₂ O ₂ : Cloud chamber measurements and modeling of particle growth. <i>Journal of Geophysical Research</i> , 2001, 106, 27587-27601.	3.3	14
74	Limitations of using an equilibrium approximation in an aerosol activation parameterization. <i>Journal of Geophysical Research</i> , 2003, 108, .	3.3	14
75	Cloud condensation nuclei droplet growth kinetics of ultrafine particles during anthropogenic nucleation events. <i>Atmospheric Environment</i> , 2012, 47, 389-398.	1.9	14
76	Temporally delineated sources of major chemical species in high Arctic snow. <i>Atmospheric Chemistry and Physics</i> , 2018, 18, 3485-3503.	1.9	13
77	Application of Lidar Data to Assist Airmass Discrimination at the Whistler Mountaintop Observatory. <i>Journal of Applied Meteorology and Climatology</i> , 2012, 51, 1733-1739.	0.6	12
78	Physical and Chemical Properties of Cloud Droplet Residuals and Aerosol Particles During the Arctic Ocean 2018 Expedition. <i>Journal of Geophysical Research D: Atmospheres</i> , 2022, 127, .	1.2	12
79	Measurement of O ₃ and related compounds over southern Nova Scotia: 2. Photochemical age and vertical transport. <i>Journal of Geophysical Research</i> , 1996, 101, 29061-29074.	3.3	10
80	Chamber measurements of Cl depletion in cloud-processed sea-salt aerosol. <i>Journal of Geophysical Research</i> , 2001, 106, 27635-27645.	3.3	10
81	Vertical profiles of light absorption and scattering associated with black carbon particle fractions in the springtime Arctic above 79°N. <i>Atmospheric Chemistry and Physics</i> , 2020, 20, 10545-10563.	1.9	9
82	Optical Properties of Aerosol Particles over the Northeast Pacific. <i>Journal of Applied Meteorology and Climatology</i> , 2005, 44, 1206-1220.	1.7	8
83	Boundary layer and free-tropospheric dimethyl sulfide in the Arctic spring and summer. <i>Atmospheric Chemistry and Physics</i> , 2017, 17, 8757-8770.	1.9	8
84	WMO INTERNATIONAL CLOUD MODELING WORKSHOP. <i>Bulletin of the American Meteorological Society</i> , 2009, 90, 1683-1686.	1.7	7
85	Ice nucleating particles in the Canadian High Arctic during the fall of 2018. <i>Environmental Science Atmospheres</i> , 2022, 2, 279-290.	0.9	6
86	Measurement and interpretation of cloud effects on the concentrations of hydrogen peroxide and organoperoxides over Ontario, Canada. <i>Atmospheric Research</i> , 2006, 81, 140-149.	1.8	5
87	Airborne observations of far-infrared upwelling radiance in the Arctic. <i>Atmospheric Chemistry and Physics</i> , 2016, 16, 15689-15707.	1.9	5
88	Modelling the relationship between liquid water content and cloud droplet number concentration observed in low clouds in the summer Arctic and its radiative effects. <i>Atmospheric Chemistry and Physics</i> , 2020, 20, 29-43.	1.9	5
89	Chemical composition and source attribution of sub-micrometre aerosol particles in the summertime Arctic lower troposphere. <i>Atmospheric Chemistry and Physics</i> , 2021, 21, 6509-6539.	1.9	5
90	Refractory black carbon at the Whistler Peak High Elevation Research Site – Measurements and simulations. <i>Atmospheric Environment</i> , 2018, 181, 34-46.	1.9	4

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91	In situ optical and microphysical properties of tropospheric aerosols in the Canadian High Arctic from 2016 to 2019. Atmospheric Environment, 2021, 250, 118254.	1.9	4
92	Evaluation of a three-dimensional cloud chemistry model. Atmospheric Environment, 1996, 30, 3651-3665.	1.9	3
93	Cloud Processing of Gases and Aerosols in a Regional Air Quality Model (AURAMS): Evaluation Against Aircraft Data. , 2007, , 553-561.		3
94	Observed aerosol effects on marine cloud nucleation and supersaturation. , 2013, , .		1
95	Modelling Aerosol Effects on Liquid Clouds in the Summertime Arctic. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2021JD034962.	1.2	1
96	AWARE in West Antarctica: Clouds, climate, and critical ice melt. Bulletin of the American Meteorological Society, 2020, 101, 892-898.	1.7	1
97	A comparison of measurements and global model simulations of the atmospheric aerosol at two remote sites. , 2013, , .		0
98	Aircraft measurements of aerosol, cloud droplets and drizzle in stratiform clouds over the northwest Atlantic ocean. , 2013, , .		0