W Richard Leaitch

List of Publications by Year
in descending order

98 papers	4,647 citations	81900 39 h-index	118850 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. Nature Geoscience, 2013, 6, 438-442.	12.9	282
2	Indirect and Semi-direct Aerosol Campaign. Bulletin of the American Meteorological Society, 2011, 92, 183-201.	3.3	228
3	Mercury emissions from burning of biomass from temperate North American forests: laboratory and airborne measurements. Atmospheric Environment, 2003, 37, 253-267.	4.1	189
4	Indirect effect of sulfate and carbonaceous aerosols: A mechanistic treatment. Journal of Geophysical Research, 2000, 105, 12193-12206.	3.3	183
5	Overview paper: New insights into aerosol and climate in the Arctic. Atmospheric Chemistry and Physics, 2019, 19, 2527-2560.	4.9	134
6	Climatology of aerosol radiative properties in the free troposphere. Atmospheric Research, 2011, 102, 365-393.	4.1	121
7	Processes controlling the annual cycle of Arctic aerosol number and size distributions. Atmospheric Chemistry and Physics, 2016, 16, 3665-3682.	4.9	115
8	Global analysis of continental boundary layer new particle formation based on long-term measurements. Atmospheric Chemistry and Physics, 2018, 18, 14737-14756.	4.9	113
9	Growth of nucleation mode particles in the summertime Arctic: a case study. Atmospheric Chemistry and Physics, 2016, 16, 7663-7679.	4.9	111
10	Processes Controlling the Composition and Abundance of Arctic Aerosol. Reviews of Geophysics, 2018, 56, 621-671.	23.0	106
11	Dimethyl sulfide control of the clean summertime Arctic aerosol and cloud. Elementa, 2013, 1, .	3.2	102
12	Pan-Arctic aerosol number size distributions: seasonality and transport patterns. Atmospheric Chemistry and Physics, 2017, 17, 8101-8128.	4.9	99
13	Effects of 20â€“100â€¯nm particles on liquid clouds in the clean summertime Arctic. Atmospheric Chemistry and Physics, 2016, 16, 11107-11124.	4.9	94
14	Characterization of the aerosol over the sub-arctic north east Pacific Ocean. Deep-Sea Research Part II: Topical Studies in Oceanography, 2006, 53, 2410-2433.	1.4	91
15	Effect of organics of low solubility on the growth rate of cloud droplets. Journal of Geophysical Research, 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. Atmospheric Environment, 2004, 38, 5789-5800.	4.1	83
17	Trans-Pacific transport of Saharan dust to western North America: A case study. Journal of Geophysical Research, 2007, 112, .	3.3	82
18	Relating atmospheric and oceanic DMS levels to particle nucleation events in the Canadian Arctic. Journal of Geophysical Research, 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.	4.1	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.	4.1	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.	6.5	62
24	Temperature response of the submicron organic aerosol from temperate forests. Atmospheric Environment, 2011, 45, 6696-6704.	4.1	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.	4.9	62
26	An evaluation of three methods for measuring black carbon in Alert, Canada. Atmospheric Chemistry and Physics, 2017, 17, 15225-15243.	4.9	61
27	Modelling aerosolâ€“cloudâ€“meteorology interaction: A case study with a fully coupled air quality model (GEM-MACH). Atmospheric Environment, 2015, 115, 695-715.	4.1	59
28	Source attribution of Arctic black carbon constrained by aircraft and surface measurements. Atmospheric Chemistry and Physics, 2017, 17, 11971-11989.	4.9	58
29	Nighttime chemistry at a rural site in the Lower Fraser Valley. Atmospheric Environment, 2004, 38, 5837-5848.	4.1	57
30	Evidence for marine biogenic influence on summertime Arctic aerosol. Geophysical Research Letters, 2017, 44, 6460-6470.	4.0	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.	4.0	51
33	Boundary layer ozone depletion during AGASP-II. Atmospheric Environment, 1989, 23, 2443-2449.	1.0	49
34	Ionic composition and size characteristics of particles in the Lower Fraser Valley: Pacific 2001 field study. Atmospheric Environment, 2006, 40, 2662-2675.	4.1	49
35	Particulate trimethylamine in the summertime Canadian high Arctic lower troposphere. Atmospheric Chemistry and Physics, 2017, 17, 13747-13766.	4.9	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.	4.9	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. Aerosol Science and Technology, 2005, 39, 722-736.	3.1	47
38	Hygroscopicity of particles at two rural, urban influenced sites during Pacific 2001: Comparison with estimates of water uptake from particle composition. Atmospheric Environment, 2006, 40, 2650-2661.	4.1	47
39	A Factor and Trends Analysis of Multidecadal Lower Tropospheric Observations of Arctic Aerosol Composition, Black Carbon, Ozone, and Mercury at Alert, Canada. Journal of Geophysical Research D: Atmospheres, 2019, 124, 14133-14161.	3.3	47
40	AWARE: The Atmospheric Radiation Measurement (ARM) West Antarctic Radiation Experiment. Bulletin of the American Meteorological Society, 2020, 101, E1069-E1091.	3.3	46
41	Laboratory studies of the efficiency of selected organic aerosols as CCN. Atmospheric Research, 2001, 58, 155-166.	4.1	45
42	High Arctic aircraft measurements characterising black carbon vertical variability in spring and summer. Atmospheric Chemistry and Physics, 2019, 19, 2361-2384.	4.9	42
43	Factors influencing the microphysics and radiative properties of liquid-dominated Arctic clouds: Insight from observations of aerosol and clouds during ISDAC. Journal of Geophysical Research, 2011, 116, .	3.3	41
44	Particle formation and growth from ozonolysis of Î±-pinene. Journal of Geophysical Research, 2001, 106, 27603-27618.	3.3	40
45	Organic functional groups in the submicron aerosol at 82.5Â°â€¯N, 62.5Â°â€¯W from 2012 to 2014. Atmospheric Chemistry and Physics, 2018, 18, 3269-3287.	4.9	40
46	Arctic marine secondary organic aerosol contributes significantly to summertime particle size distributions in the Canadian Arctic Archipelago. Atmospheric Chemistry and Physics, 2019, 19, 2787-2812.	4.9	38
47	Submicron organic aerosol in Tijuana, Mexico, from local and Southern California sources during the CalMex campaign. Atmospheric Environment, 2013, 70, 500-512.	4.1	35
48	Size-resolved mixing state of black carbon in the Canadian high Arctic and implications for simulated direct radiative effect. Atmospheric Chemistry and Physics, 2018, 18, 11345-11361.	4.9	34
49	Transport of ozone and sulfur to the North Atlantic atmosphere during the North Atlantic Regional Experiment. Journal of Geophysical Research, 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. Atmospheric Chemistry and Physics, 2016, 16, 7899-7916.	4.9	32
51	Aircraft-based measurements of High Arctic springtime aerosol show evidence for vertically varying sources, transport and composition. Atmospheric Chemistry and Physics, 2019, 19, 57-76.	4.9	32
52	Seasonal and Diurnal Variations in Aerosol Concentration on Whistler Mountain: Boundary Layer Influence and Synoptic-Scale Controls. Journal of Applied Meteorology and Climatology, 2011, 50, 2210-2222.	1.5	31
53	High summertime aerosol organic functional group concentrations from marine and seabird sources at Ross Island, Antarctica, during AWARE. Atmospheric Chemistry and Physics, 2018, 18, 8571-8587.	4.9	31
54	Chemical and physical observations of particulate matter at Golden Ears Provincial Park from anthropogenic and biogenic sources. Atmospheric Environment, 2004, 38, 5849-5860.	4.1	30

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55	Substantial secondary organic aerosol formation in a coniferous forest: observations of both day- and nighttime chemistry. Atmospheric Chemistry and Physics, 2016, 16, 6721-6733.	4.9	30
56	An aircraft measurement technique for formaldehyde and soluble carbonyl compounds. Journal of Geophysical Research, 1996, 101, 29075-29080.	3.3	28
57	An investigation into the aerosol dispersion effect through the activation process in marine stratus clouds. Journal of Geophysical Research, 2007, 112, .	3.3	28
58	Summer aerosol profiles over Algonquin Park, Canada. Atmospheric Environment, 1986, 20, 157-172.	1.0	27
59	Primary and secondary organic aerosols in urban air masses intercepted at a rural site. Journal of Geophysical Research, 2010, 115, .	3.3	27
60	Impacts of the July 2012 Siberian fire plume on air quality in the Pacific Northwest. Atmospheric Chemistry and Physics, 2017, 17, 2593-2611.	4.9	25
61	Characterization of transport regimes and the polar dome during Arctic spring and summer using in situ aircraft measurements. Atmospheric Chemistry and Physics, 2019, 19, 15049-15071.	4.9	25
62	Concentrations, composition, and sources of ice-nucleating particles in the Canadian High Arctic during springÂ2016. Atmospheric Chemistry and Physics, 2019, 19, 3007-3024.	4.9	24
63	The vertical distribution of aerosols and acid related compounds in air and cloudwater. Atmospheric Environment Part A General Topics, 1990, 24, 3033-3046.	1.3	21
64	The physical and chemical evolution of aerosols in smelter and power plant plumes: an airborne study. Geochemistry: Exploration, Environment, Analysis, 2006, 6, 111-120.	0.9	21
65	Measurement of O3and related compounds over southern Nova Scotia: 1. Vertical distributions. Journal of Geophysical Research, 1996, 101, 29043-29060.	3.3	20
66	Investigation of carbonyls in cloudwater during ICARTT. Journal of Geophysical Research, 2008, 113, .	3.3	20
67	A year-long comparison of particle formation events at paired urban and rural locations. Atmospheric Pollution Research, 2014, 5, 447-454.	3.8	20
68	Characterization of aerosol growth events over Ellesmere Island during the summers of 2015 and 2016. Atmospheric Chemistry and Physics, 2019, 19, 5589-5604.	4.9	20
69	Dimethyl sulfide and its role in aerosol formation and growth in the Arctic summer â€“ a modelling study. Atmospheric Chemistry and Physics, 2019, 19, 14455-14476.	4.9	19
70	Aerosol backscattering determined from chemical and physical properties and lidar observations over the east coast of Canada. Geophysical Research Letters, 1998, 25, 1653-1656.	4.0	18
71	Evaluation of the Eulerian acid deposition and oxidant model (ADOM) with summer 1988 aircraft data. Atmospheric Environment Part A General Topics, 1993, 27, 1019-1034.	1.3	15
72	Evaluation of modeled cloud properties against aircraft observations for air quality applications. Journal of Geophysical Research, 2007, 112, .	3.3	15

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73	In-cloud oxidation of SO2by O3and H2O2: Cloud chamber measurements and modeling of particle growth. Journal of Geophysical Research, 2001, 106, 27587-27601.	3.3	14
74	Limitations of using an equilibrium approximation in an aerosol activation parameterization. Journal of Geophysical Research, 2003, 108, .	3.3	14
75	Cloud condensation nuclei droplet growth kinetics of ultrafine particles during anthropogenic nucleation events. Atmospheric Environment, 2012, 47, 389-398.	4.1	14
76	Temporally delineated sources of major chemical species in high Arctic snow. Atmospheric Chemistry and Physics, 2018, 18, 3485-3503.	4.9	13
77	Application of Lidar Data to Assist Airmass Discrimination at the Whistler Mountaintop Observatory. Journal of Applied Meteorology and Climatology, 2012, 51, 1733-1739.	1.5	12
78	Physical and Chemical Properties of Cloud Droplet Residuals and Aerosol Particles During the Arctic Ocean 2018 Expedition. Journal of Geophysical Research D: Atmospheres, 2022, 127, .	3.3	12
79	Measurement of O3and related compounds over southern Nova Scotia: 2. Photochemical age and vertical transport. Journal of Geophysical Research, 1996, 101, 29061-29074.	3.3	10
80	Chamber measurements of Cl depletion in cloud-processed sea-salt aerosol. Journal of Geophysical Research, 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 79Â°â€‰N. Atmospheric Chemistry and Physics, 2020, 20, 10545-10563.	4.9	9
82	Optical Properties of Aerosol Particles over the Northeast Pacific. Journal of Applied Meteorology and Climatology, 2005, 44, 1206-1220.	1.7	8
83	Boundary layer and free-tropospheric dimethyl sulfide in the Arctic spring and summer. Atmospheric Chemistry and Physics, 2017, 17, 8757-8770.	4.9	8
84	WMO INTERNATIONAL CLOUD MODELING WORKSHOP. Bulletin of the American Meteorological Society, 2009, 90, 1683-1686.	3.3	7
85	Ice nucleating particles in the Canadian High Arctic during the fall of 2018. Environmental Science Atmospheres, 2022, 2, 279-290.	2.4	6
86	Measurement and interpretation of cloud effects on the concentrations of hydrogen peroxide and organoperoxides over Ontario, Canada. Atmospheric Research, 2006, 81, 140-149.	4.1	5
87	Airborne observations of far-infrared upwelling radiance in the Arctic. Atmospheric Chemistry and Physics, 2016, 16, 15689-15707.	4.9	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. Atmospheric Chemistry and Physics, 2020, 20, 29-43.	4.9	5
89	Chemical composition and source attribution of sub-micrometre aerosol particles in the summertime Arctic lower troposphere. Atmospheric Chemistry and Physics, 2021, 21, 6509-6539.	4.9	5
90	Refractory black carbon at the Whistler Peak High Elevation Research Site â€“ Measurements and simulations. Atmospheric Environment, 2018, 181, 34-46.	4.1	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.	4.1	4
92	Evaluation of a three-dimensional cloud chemistry model. Atmospheric Environment, 1996, 30, 3651-3665.	4.1	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.	3.3	1
96	AWARE in West Antarctica: Clouds, climate, and critical ice melt. Bulletin of the American Meteorological Society, 2020, 101, 892-898.	3.3	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