Alexei Kiselev

List of Publications by Year
in descending order

55 papers	2,605 citations	186265 28 h-index	214800 47 g-index
100 all docs	100 docs citations	100 times ranked	2256 citing authors

#	Article	IF	Citations
1	Active sites in heterogeneous ice nucleationâ€"the example of K-rich feldspars. Science, 2017, 355, 367-371.	12.6	231
2	A comprehensive laboratory study on the immersion freezing behavior of illite NX particles: a comparison of 17 ice nucleation measurement techniques. Atmospheric Chemistry and Physics, 2015, 15, 2489-2518.	4.9	200
3	Heterogeneous freezing of droplets with immersed mineral dust particles â€" measurements and parameterization. Atmospheric Chemistry and Physics, 2010, 10, 3601-3614.	4.9	138
4	Intercomparing different devices for the investigation of ice nucleating particles using Snomax^{Â®} as test substance. Atmospheric Chemistry and Physics, 2015, 15, 1463-1485.	4.9	108
5	Ice nucleation by cellulose and its potential contribution to ice formation in clouds. Nature Geoscience, 2015, 8, 273-277.	12.9	105
6	A comparative study of K-rich and Na/Ca-rich feldspar ice-nucleating particles in a nanoliter droplet freezing assay. Atmospheric Chemistry and Physics, 2016, 16, 11477-11496.	4.9	97
7	Hygroscopic growth and measured and modeled critical super-saturations of an atmospheric HULIS sample. Geophysical Research Letters, 2007, 34, .	4.0	89
8	The Fifth International Workshop on Ice Nucleation phase 2 (FIN-02): laboratory intercomparison of ice nucleation measurements. Atmospheric Measurement Techniques, 2018, 11, 6231-6257.	3.1	82
9	Laboratory Studies and Numerical Simulations of Cloud Droplet Formation under Realistic Supersaturation Conditions. Journal of Atmospheric and Oceanic Technology, 2004, 21, 876-887.	1.3	77
10	Secondary Ice Formation during Freezing of Levitated Droplets. Journals of the Atmospheric Sciences, 2018, 75, 2815-2826.	1.7	76
11	Experimental study of the role of physicochemical surface processing on the IN ability of mineral dust particles. Atmospheric Chemistry and Physics, 2011, 11, 11131-11144.	4.9	70
12	Homogeneous and heterogeneous ice nucleation at LACIS: operating principle and theoretical studies. Atmospheric Chemistry and Physics, 2011, 11, 1753-1767.	4.9	68
13	Influence of surface morphology on the immersion mode ice nucleation efficiency of hematite particles. Atmospheric Chemistry and Physics, 2014, 14, 2315-2324.	4.9	65
14	LACIS-measurements and parameterization of sea-salt particle hygroscopic growth and activation. Atmospheric Chemistry and Physics, 2008, 8, 579-590.	4.9	61
15	Ice nucleation properties of fine ash particles from the EyjafjallajÃ¶kull eruption in April 2010. Atmospheric Chemistry and Physics, 2011, 11, 12945-12958.	4.9	60
16	Influence of gas-to-particle partitioning on the hygroscopic and droplet activation behaviour of Î±-pinene secondary organic aerosol. Physical Chemistry Chemical Physics, 2009, 11, 8091.	2.8	59
17	Hygroscopic growth and droplet activation of soot particles: uncoated, succinic or sulfuric acid coated. Atmospheric Chemistry and Physics, 2012, 12, 4525-4537.	4.9	57
18	Observation of viscosity transition in <i>Î±</i>-pinene secondary organic aerosol. Atmospheric Chemistry and Physics, 2016, 16, 4423-4438.	4.9	55

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19	Initiation of secondary ice production in clouds. Atmospheric Chemistry and Physics, 2018, 18, 1593-1610.	4.9	53
20	Surface-charge-induced orientation of interfacial water suppresses heterogeneous ice nucleation on <i>Î±</i>-alumina (0001). Atmospheric Chemistry and Physics, 2017, 17, 7827-7837.	4.9	52
21	A comprehensive characterization of ice nucleation by three different types of cellulose particles immersed in water. Atmospheric Chemistry and Physics, 2019, 19, 4823-4849.	4.9	48
22	Contact freezing efficiency of mineral dust aerosols studied in an electrodynamic balance: quantitative size and temperature dependence for illite particles. Faraday Discussions, 2013, 165, 383.	3.2	44
23	Soluble mass, hygroscopic growth, and droplet activation of coated soot particles during LACIS Experiment in November (LExNo). Journal of Geophysical Research, 2010, 115, .	3.3	40
24	Pre-activation of ice-nucleating particles by the pore condensation and freezing mechanism. Atmospheric Chemistry and Physics, 2016, 16, 2025-2042.	4.9	39
25	On the role of surface charges for homogeneous freezing of supercooled water microdroplets. Physical Chemistry Chemical Physics, 2012, 14, 9359.	2.8	36
26	Measured and modeled equilibrium sizes of NaCl and (NH4)2SO4particles at relative humidities up to 99.1%. Journal of Geophysical Research, 2005, 110, .	3.3	35
27	The ice-nucleating activity of Arctic sea surface microlayer samples and marine algal cultures. Atmospheric Chemistry and Physics, 2020, 20, 11089-11117.	4.9	35
28	Intercomparison of cloud condensation nuclei and hygroscopic fraction measurements: Coated soot particles investigated during the LACIS Experiment in November (LExNo). Journal of Geophysical Research, 2010, 115, .	3.3	34
29	Experimental quantification of contact freezing in an electrodynamic balance. Atmospheric Measurement Techniques, 2013, 6, 2373-2382.	3.1	34
30	Secondary Ice Production upon Freezing of Freely Falling Drizzle Droplets. Journals of the Atmospheric Sciences, 2020, 77, 2959-2967.	1.7	34
31	Morphological characterization of soot aerosol particles during LACIS Experiment in November (LExNo). Journal of Geophysical Research, 2010, 115, .	3.3	31
32	White-light optical particle spectrometer for in situ measurements of condensational growth of aerosol particles. Applied Optics, 2005, 44, 4693.	2.1	30
33	Heterogeneous ice nucleation of <i>Î±</i>â€pinene SOA particles before and after ice cloud processing. Journal of Geophysical Research D: Atmospheres, 2017, 122, 4924-4943.	3.3	30
34	Enhanced ice nucleation activity of coal fly ash aerosol particles initiated by ice-filled pores. Atmospheric Chemistry and Physics, 2019, 19, 8783-8800.	4.9	29
35	Examination of laboratoryâ€generated coated soot particles: An overview of the LACIS Experiment in November (LExNo) campaign. Journal of Geophysical Research, 2010, 115, .	3.3	25
36	Application of linear polarized light for the discrimination of frozen and liquid droplets in ice nucleation experiments. Atmospheric Measurement Techniques, 2013, 6, 1041-1052.	3.1	25

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37	Calibration of LACIS as a CCN detector and its use in measuring activation and hygroscopic growth of atmospheric aerosol particles. Atmospheric Chemistry and Physics, 2006, 6, 4519-4527.	4.9	21
38	Mass accommodation coefficient of water: A combined computational fluid dynamics and experimental data analysis. Journal of Geophysical Research, 2007, 112, .	3.3	21
39	Temperature-dependent formation of NaCl dihydrate in levitated NaCl and sea salt aerosol particles. Journal of Chemical Physics, 2016, 145, 244503.	3.0	21
40	Anomalously High Proton Conduction of Interfacial Water. Journal of Physical Chemistry Letters, 2020, 11, 3623-3628.	4.6	21
41	Water uptake of subpollen aerosol particles: hygroscopic growth, cloud condensation nuclei activation, and liquidâ€“liquid phase separation. Atmospheric Chemistry and Physics, 2021, 21, 6999-7022.	4.9	20
42	The Influence of Algal Exudate on the Hygroscopicity of Sea Spray Particles. Advances in Meteorology, 2010, 2010, 1-11.	1.6	16
43	Investigation of Crystal Nucleation of Highly Supersaturated Aqueous KNO₃ Solution from Single Levitated Droplet Experiments. Crystal Growth and Design, 2018, 18, 4896-4905.	3.0	15
44	Deliquescence and hygroscopic growth of succinic acid particles measured with LACIS. Geophysical Research Letters, 2007, 34, .	4.0	14
45	Laser vaporization of cirrus-like ice particles with secondary ice multiplication. Science Advances, 2016, 2, e1501912.	10.3	14
46	Effect of chemically induced fracturing on the ice nucleation activity of alkali feldspar. Atmospheric Chemistry and Physics, 2021, 21, 11801-11814.	4.9	11
47	Heat and water vapor transfer in the wake of a falling ice sphere and its implication for secondary ice formation in clouds. New Journal of Physics, 2019, 21, 043043.	2.9	10
48	Specifying the light-absorbing properties of aerosol particles in fresh snow samples, collected at the Environmental Research Station Schneefernerhaus (UFS), Zugspitze. Atmospheric Chemistry and Physics, 2019, 19, 10829-10844.	4.9	10
49	Composition, Mixing State and Water Affinity of Meteoric Smoke Analogue Nanoparticles Produced in a Non-Thermal Microwave Plasma Source. Zeitschrift Fur Physikalische Chemie, 2018, 232, 635-648.	2.8	7
50	The Influence of Chemical and Mineral Compositions on the Parameterization of Immersion Freezing by Volcanic Ash Particles. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2020JD033356.	3.3	6
51	Thermal imaging of freezing drizzle droplets: pressure release events as a source of secondary ice particles. Journals of the Atmospheric Sciences, 2021, , .	1.7	5
52	High-resolution optical constants of crystalline ammonium nitrate for infrared remote sensing of the Asian Tropopause Aerosol Layer. Atmospheric Measurement Techniques, 2021, 14, 1977-1991.	3.1	3
53	Mechanism of ice nucleation in liquid water on alkali feldspars. Faraday Discussions, 2022, 235, 148-161.	3.2	3
54	DEVELOPMENT OF A SINGLE PARTICLE OPTICAL COUNTER FOR IN-SITU MEASUREMENTS OF AEROSOL PARTICLE CONDENSATIONAL GROWTH. Journal of Aerosol Science, 2004, 35, S907-S908.	3.8	0

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55	On the size dependence of contact freezing probability. , 2013, , .		0