Nobuhiro Moteki

List of Publications by Year
in descending order

84 papers	4,943 citations	136940 32 h-index	106340 65 g-index
99 all docs	99 docs citations	99 times ranked	3666 citing authors

#	Article	IF	Citations
1	Evaluation of black carbon estimations in global aerosol models. Atmospheric Chemistry and Physics, 2009, 9, 9001-9026.	4.9	585
2	Effects of Mixing State on Black Carbon Measurements by Laser-Induced Incandescence. Aerosol Science and Technology, 2007, 41, 398-417.	3.1	279
3	Dependence of Laser-Induced Incandescence on Physical Properties of Black Carbon Aerosols: Measurements and Theoretical Interpretation. Aerosol Science and Technology, 2010, 44, 663-675.	3.1	237
4	Emissions of black carbon, organic, and inorganic aerosols from biomass burning in North America and Asia in 2008. Journal of Geophysical Research, 2011, 116, .	3.3	206
5	Consistency and Traceability of Black Carbon Measurements Made by Laser-Induced Incandescence, Thermal-Optical Transmittance, and Filter-Based Photo-Absorption Techniques. Aerosol Science and Technology, 2011, 45, 295-312.	3.1	194
6	Global budget and radiative forcing of black carbon aerosol: Constraints from poleâ€toâ€pole (HIPPO) observations across the Pacific. Journal of Geophysical Research D: Atmospheres, 2014, 119, 195-206.	3.3	193
7	Evolution of mixing state of black carbon particles: Aircraft measurements over the western Pacific in March 2004. Geophysical Research Letters, 2007, 34, .	4.0	191
8	Temporal variations of elemental carbon in Tokyo. Journal of Geophysical Research, 2006, 111, .	3.3	161
9	Modelled black carbon radiative forcing and atmospheric lifetime in AeroCom Phase II constrained by aircraft observations. Atmospheric Chemistry and Physics, 2014, 14, 12465-12477.	4.9	157
10	Evolution of mixing state of black carbon in polluted air from Tokyo. Geophysical Research Letters, 2007, 34, .	4.0	149
11	Method to measure refractive indices of small nonspherical particles: Application to black carbon particles. Journal of Aerosol Science, 2010, 41, 513-521.	3.8	135
12	Radiative impact of mixing state of black carbon aerosol in Asian outflow. Journal of Geophysical Research, 2008, 113, .	3.3	120
13	Stabilization of the Mass Absorption Cross Section of Black Carbon for Filter-Based Absorption Photometry by the use of a Heated Inlet. Aerosol Science and Technology, 2009, 43, 741-756.	3.1	113
14	Wet removal of black carbon in Asian outflow: Aerosol Radiative Forcing in East Asia (Aâ€FORCE) aircraft campaign. Journal of Geophysical Research, 2012, 117, .	3.3	108
15	Development and validation of a black carbon mixing state resolved threeâ€dimensional model: Aging processes and radiative impact. Journal of Geophysical Research D: Atmospheres, 2013, 118, 2304-2326.	3.3	106
16	Seasonal variation of the transport of black carbon aerosol from the Asian continent to the Arctic during the ARCTAS aircraft campaign. Journal of Geophysical Research, 2011, 116, .	3.3	104
17	Size dependence of wet removal of black carbon aerosols during transport from the boundary layer to the free troposphere. Geophysical Research Letters, 2012, 39, .	4.0	86
18	Anthropogenic combustion iron as a complex climate forcer. Nature Communications, 2018, 9, 1593.	12.8	86

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19	Partitioning of HNO3and particulate nitrate over Tokyo: Effect of vertical mixing. Journal of Geophysical Research, 2006, 111, .	3.3	76
20	Emissions of black carbon in East Asia estimated from observations at a remote site in the East China Sea. Journal of Geophysical Research, 2011, 116, .	3.3	76
21	Emission characteristics of black carbon in anthropogenic and biomass burning plumes over California during ARCTASâ€CARB 2008. Journal of Geophysical Research, 2012, 117, .	3.3	73
22	Anthropogenic iron oxide aerosols enhance atmospheric heating. Nature Communications, 2017, 8, 15329.	12.8	73
23	Absorbing aerosol in the troposphere of the Western Arctic during the 2008 ARCTAS/ARCPAC airborne field campaigns. Atmospheric Chemistry and Physics, 2011, 11, 7561-7582.	4.9	70
24	How emissions uncertainty influences the distribution and radiative impacts of smoke from fires in North America. Atmospheric Chemistry and Physics, 2020, 20, 2073-2097.	4.9	67
25	Aging of black carbon in outflow from anthropogenic sources using a mixing state resolved model: Model development and evaluation. Journal of Geophysical Research, 2009, 114, .	3.3	65
26	Size-dependent correction factors for absorption measurements using filter-based photometers: PSAP and COSMOS. Journal of Aerosol Science, 2010, 41, 333-343.	3.8	57
27	A key process controlling the wet removal of aerosols: new observational evidence. Scientific Reports, 2016, 6, 34113.	3.3	52
28	Method to measure time-dependent scattering cross sections of particles evaporating in a laser beam. Journal of Aerosol Science, 2008, 39, 348-364.	3.8	51
29	Evaluation of groundâ€based black carbon measurements by filterâ€based photometers at two Arctic sites. Journal of Geophysical Research D: Atmospheres, 2017, 122, 3544-3572.	3.3	51
30	Identification by singleâ€particle soot photometer of black carbon particles attached to other particles: Laboratory experiments and ground observations in Tokyo. Journal of Geophysical Research D: Atmospheres, 2014, 119, 1031-1043.	3.3	50
31	Mixing states of lightâ€absorbing particles measured using a transmission electron microscope and a singleâ€particle soot photometer in Tokyo, Japan. Journal of Geophysical Research D: Atmospheres, 2016, 121, 9153-9164.	3.3	42
32	Improved technique for measuring the size distribution of black carbon particles in liquid water. Aerosol Science and Technology, 2016, 50, 242-254.	3.1	35
33	Effects of wet deposition on the abundance and size distribution of black carbon in East Asia. Journal of Geophysical Research D: Atmospheres, 2016, 121, 4691-4712.	3.3	34
34	Evaluation of a Method for Measurement of the Concentration and Size Distribution of Black Carbon Particles Suspended in Rainwater. Aerosol Science and Technology, 2011, 45, 1326-1336.	3.1	32
35	Evaluation of a Method to Measure Black Carbon Particles Suspended in Rainwater and Snow Samples. Aerosol Science and Technology, 2013, 47, 1073-1082.	3.1	32
36	Measurements of aerosol optical properties in central Tokyo during summertime using cavity ring-down spectroscopy: Comparison with conventional techniques. Atmospheric Environment, 2010, 44, 3034-3042.	4.1	31

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37	Black Carbon and Inorganic Aerosols in Arctic Snowpack. Journal of Geophysical Research D: Atmospheres, 2019, 124, 13325-13356.	3.3	31
38	Directional dependence of thermal emission from nonspherical carbon particles. Journal of Aerosol Science, 2009, 40, 790-801.	3.8	30
39	Vertical transport mechanisms of black carbon over East Asia in spring during the Aâ€FORCE aircraft campaign. Journal of Geophysical Research D: Atmospheres, 2013, 118, 13,175.	3.3	30
40	Radiative transfer modeling of filter-based measurements of light absorption by particles: Importance of particle size dependent penetration depth. Journal of Aerosol Science, 2010, 41, 401-412.	3.8	29
41	Seasonal variations of Asian black carbon outflow to the Pacific: Contribution from anthropogenic sources in China and biomass burning sources in Siberia and Southeast Asia. Journal of Geophysical Research D: Atmospheres, 2013, 118, 9948-9967.	3.3	29
42	Measurements of regionalâ€scale aerosol impacts on cloud microphysics over the East China Sea: Possible influences of warm sea surface temperature over the Kuroshio ocean current. Journal of Geophysical Research, 2012, 117, .	3.3	28
43	Accuracy of black carbon measurements by a filter-based absorption photometer with a heated inlet. Aerosol Science and Technology, 2019, 53, 1079-1091.	3.1	26
44	Measurement of fluorescence spectra from atmospheric single submicron particle using laser-induced fluorescence technique. Journal of Aerosol Science, 2013, 58, 1-8.	3.8	25
45	Wet deposition of black carbon at a remote site in the East China Sea. Journal of Geophysical Research D: Atmospheres, 2014, 119, 10485-10498.	3.3	25
46	Observational constraint of in-cloud supersaturation for simulations of aerosol rainout in atmospheric models. Npj Climate and Atmospheric Science, 2019, 2, .	6.8	25
47	Detection of light-absorbing iron oxide particles using a modified single-particle soot photometer. Aerosol Science and Technology, 2016, 50, 1-4.	3.1	24
48	Estimating Source Region Influences on Black Carbon Abundance, Microphysics, and Radiative Effect Observed Over South Korea. Journal of Geophysical Research D: Atmospheres, 2018, 123, 13,527.	3.3	24
49	Hygroscopicity of materials internally mixed with black carbon measured in Tokyo. Journal of Geophysical Research D: Atmospheres, 2016, 121, 362-381.	3.3	23
50	Accumulation-mode aerosol number concentrations in the Arctic during the ARCTAS aircraft campaign: Long-range transport of polluted and clean air from the Asian continent. Journal of Geophysical Research, 2011, 116, .	3.3	22
51	Seasonal Progression of the Deposition of Black Carbon by Snowfall at Nyâ€Ã…lesund, Spitsbergen. Journal of Geophysical Research D: Atmospheres, 2018, 123, 997-1016.	3.3	21
52	Abundance of Lightâ€Absorbing Anthropogenic Iron Oxide Aerosols in the Urban Atmosphere and Their Emission Sources. Journal of Geophysical Research D: Atmospheres, 2018, 123, 8115-8134.	3.3	20
53	Abundance and Emission Flux of the Anthropogenic Iron Oxide Aerosols From the East Asian Continental Outflow. Journal of Geophysical Research D: Atmospheres, 2018, 123, 11,194.	3.3	20
54	Case study of absorption aerosol optical depth closure of black carbon over the East China Sea. Journal of Geophysical Research D: Atmospheres, 2014, 119, 122-136.	3.3	19

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55	Estimates of mass absorption cross sections of black carbon for filter-based absorption photometers in the Arctic. Atmospheric Measurement Techniques, 2021, 14, 6723-6748.	3.1	19
56	Seasonal Trends of Atmospheric Ice Nucleating Particles Over Tokyo. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2020JD033658.	3.3	18
57	Corrigendum to "Evaluation of black carbon estimations in global aerosol models" published in Atmos. Chem. Phys., 9, 9001-9026, 2009. Atmospheric Chemistry and Physics, 2010, 10, 79-81.	4.9	17
58	Discrete dipole approximation for black carbon-containing aerosols in arbitrary mixing state: A hybrid discretization scheme. Journal of Quantitative Spectroscopy and Radiative Transfer, 2016, 178, 306-314.	2.3	17
59	Concentrations and Size Distributions of Black Carbon in the Surface Snow of Eastern Antarctica in 2011. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2019JD030737.	3.3	17
60	Compositions and mixing states of aerosol particles by aircraft observations in the Arctic springtime, 2018. Atmospheric Chemistry and Physics, 2021, 21, 3607-3626.	4.9	17
61	Capabilities and limitations of the single-particle extinction and scattering method for estimating the complex refractive index and size-distribution of spherical and non-spherical submicron particles. Journal of Quantitative Spectroscopy and Radiative Transfer, 2020, 243, 106811.	2.3	16
62	Seasonal Variation of Wet Deposition of Black Carbon in Arctic Alaska. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2019JD032240.	3.3	16
63	Abundances and Microphysical Properties of Lightâ€Absorbing Iron Oxide and Black Carbon Aerosols Over East Asia and the Arctic. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2019JD032301.	3.3	15
64	High Sensitivity of Arctic Black Carbon Radiative Effects to Subgrid Vertical Velocity in Aerosol Activation. Geophysical Research Letters, 2020, 47, e2020GL088978.	4.0	13
65	Enhanced New Particle Formation Above the Marine Boundary Layer Over the Yellow Sea: Potential Impacts on Cloud Condensation Nuclei. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2019JD031448.	3.3	12
66	Contrasting source contributions of Arctic black carbon to atmospheric concentrations, deposition flux, and atmospheric and snow radiative effects. Atmospheric Chemistry and Physics, 2022, 22, 8989-9009.	4.9	12
67	Evaluation of a Heated-Inlet for Calibration of the SP2. Aerosol Science and Technology, 2013, 47, 895-905.	3.1	11
68	Arctic black carbon during PAMARCMiP 2018 and previous aircraft experiments in spring. Atmospheric Chemistry and Physics, 2021, 21, 15861-15881.	4.9	11
69	Variability of aerosol particle number concentrations observed over the western Pacific in the spring of 2009. Journal of Geophysical Research D: Atmospheres, 2014, 119, 13,474.	3.3	9
70	An empirical correction factor for filter-based photo-absorption black carbon measurements. Journal of Aerosol Science, 2015, 80, 86-97.	3.8	9
71	Measuring the complex forward-scattering amplitude of single particles by self-reference interferometry: CAS-v1 protocol. Optics Express, 2021, 29, 20688.	3.4	9
72	Condensation Particle Counters Combined with a Low-Pressure Impactor for Fast Measurement of Mode-Segregated Aerosol Number Concentration. Aerosol Science and Technology, 2013, 47, 1059-1065.	3.1	8

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73	Changes in black carbon and PM_{2.5} in Tokyo in 2003â€"2017. Proceedings of the Japan Academy Series B: Physical and Biological Sciences, 2020, 96, 122-129.	3.8	8
74	Seasonal Variation of Wet Deposition of Black Carbon at Nyâ€Ã…lesund, Svalbard. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2020JD034110.	3.3	8
75	Theoretical analysis of a method to measure size distributions of solid particles in water by aerosolization. Journal of Aerosol Science, 2015, 83, 25-31.	3.8	6
76	Multiangle Polarimetry of Thermal Emission and Light Scattering by Individual Particles in Airflow. Aerosol Science and Technology, 2011, 45, 1184-1198.	3.1	5
77	Analysis of the mixing state of airborne particles using a tandem combination of laser-induced fluorescence and incandescence techniques. Journal of Aerosol Science, 2015, 87, 102-110.	3.8	4
78	Identification and particle sizing of submicron mineral dust by using complex forward-scattering amplitude data. Aerosol Science and Technology, 2022, 56, 609-622.	3.1	4
79	Studies on Arctic aerosols and clouds during the ArCS project. Polar Science, 2021, 27, 100621.	1.2	3
80	Emission Regulations Altered the Concentrations, Origin, and Formation of Carbonaceous Aerosols in the Tokyo Metropolitan Area. Aerosol and Air Quality Research, 2016, 16, 1603-1614.	2.1	3
81	A new theoretical method for calculating temperature and water vapor saturation ratio in an expansion cloud chamber. Journal of Geophysical Research D: Atmospheres, 2013, 118, 6633-6642.	3.3	2
82	Meteoritic materials within sulfate aerosol particles in the troposphere are detected with transmission electron microscopy. Communications Earth & Environment, 2022, 3, .	6.8	2
83	Corrigendum to â€œCapabilities and limitations of the single-particle extinction and scattering method for estimating the complex refractive index and size-distribution of spherical and non-spherical submicron particlesâ€•[JQSRT 243 (2020) 106811]. Journal of Quantitative Spectroscopy and Radiative Transfer, 2021, 263, 107551.	2.3	1
84	Corona-Imaging Colorimetric Method for Accurate Measurement of the Size of Water Droplets in an Expansion Chamber. Aerosol Science and Technology, 2013, 47, 1134-1143.	3.1	0