Makoto Koike

List of Publications by Year
in descending order

90 papers	3,907 citations	126907 33 h-index	149698 56 g-index
106 all docs	106 docs citations	106 times ranked	3549 citing authors

#	Article	IF	Citations
1	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
2	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
3	Urban photochemistry in central Tokyo: 1. Observed and modeled OH and HO₂ radical concentrations during the winter and summer of 2004. Journal of Geophysical Research, 2007, 112, .	3.3	187
4	Temporal variations of elemental carbon in Tokyo. Journal of Geophysical Research, 2006, 111, .	3.3	161
5	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
6	A global three-dimensional model analysis of the atmospheric budgets of HCN and CH3CN: Constraints from aircraft and ground measurements. Journal of Geophysical Research, 2003, 108, .	3.3	126
7	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
8	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
9	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
10	Glacially sourced dust as a potentially significant source of ice nucleating particles. Nature Geoscience, 2019, 12, 253-258.	12.9	101
11	Spectroscopic measurements of tropospheric CO, C2H6, C2H2, and HCN in northern Japan. Journal of Geophysical Research, 2002, 107, ACH 2-1.	3.3	95
12	Chemical characteristics of waterâ€soluble organic carbon in the Asian outflow. Journal of Geophysical Research, 2007, 112, .	3.3	91
13	Spatial and temporal variations of aerosols around Beijing in summer 2006: Model evaluation and source apportionment. Journal of Geophysical Research, 2009, 114, .	3.3	86
14	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
15	Anthropogenic combustion iron as a complex climate forcer. Nature Communications, 2018, 9, 1593.	12.8	86
16	Impacts of biomass burning in Southeast Asia on ozone and reactive nitrogen over the western Pacific in spring. Journal of Geophysical Research, 2004, 109, .	3.3	80
17	Export of anthropogenic reactive nitrogen and sulfur compounds from the East Asia region in spring. Journal of Geophysical Research, 2003, 108, .	3.3	78
18	Secondary organic aerosol formation in urban air: Temporal variations and possible contributions from unidentified hydrocarbons. Journal of Geophysical Research, 2009, 114, .	3.3	75

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19	Synoptic-scale transport of reactive nitrogen over the western Pacific in spring. Journal of Geophysical Research, 2003, 108, .	3.3	73
20	Anthropogenic iron oxide aerosols enhance atmospheric heating. Nature Communications, 2017, 8, 15329.	12.8	73
21	Aging of black carbon in outflow from anthropogenic sources using a mixing state resolved model: 2. Aerosol optical properties and cloud condensation nuclei activities. Journal of Geophysical Research, 2009, 114, .	3.3	69
22	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
23	Evolution of submicron organic aerosol in polluted air exported from Tokyo. Geophysical Research Letters, 2006, 33, .	4.0	64
24	Impact of new particle formation on the concentrations of aerosols and cloud condensation nuclei around Beijing. Journal of Geophysical Research, 2011, 116, .	3.3	62
25	A key process controlling the wet removal of aerosols: new observational evidence. Scientific Reports, 2016, 6, 34113.	3.3	52
26	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
27	Removal of NOxand NOyin Asian outflow plumes: Aircraft measurements over the western Pacific in January 2002. Journal of Geophysical Research, 2004, 109, .	3.3	50
28	Anthropogenic aerosols observed in Asian continental outflow at Jeju Island, Korea, in spring 2005. Journal of Geophysical Research, 2009, 114, .	3.3	50
29	Formation and transport of oxidized reactive nitrogen, ozone, and secondary organic aerosol in Tokyo. Journal of Geophysical Research, 2008, 113, .	3.3	43
30	Volatility basis-set approach simulation of organic aerosol formation in East Asia: implications for anthropogenicâ€“biogenic interaction and controllable amounts. Atmospheric Chemistry and Physics, 2014, 14, 9513-9535.	4.9	43
31	Photochemistry of ozone over the western Pacific from winter to spring. Journal of Geophysical Research, 2004, 109, .	3.3	37
32	Spatial and temporal variations of new particle formation in East Asia using an NPFâ€explicit WRFâ€chem model: Northâ€south contrast in new particle formation frequency. Journal of Geophysical Research D: Atmospheres, 2013, 118, 11,647.	3.3	35
33	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
34	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
35	Asian chemical outflow to the Pacific in late spring observed during the PEACE-B aircraft mission. Journal of Geophysical Research, 2004, 109, .	3.3	33
36	Seasonal variations of atmospheric C₂â€“C₇ nonmethane hydrocarbons in Tokyo. Journal of Geophysical Research, 2007, 112, .	3.3	33

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37	Development of an aerosol microphysical module: Aerosol Two-dimensional bin module for foRmation and Aging Simulation (ATRAS). Atmospheric Chemistry and Physics, 2014, 14, 10315-10331.	4.9	33
38	Black Carbon and Inorganic Aerosols in Arctic Snowpack. Journal of Geophysical Research D: Atmospheres, 2019, 124, 13325-13356.	3.3	31
39	YearâEŘound In Situ Measurements of Arctic LowâEŁevel Clouds: Microphysical Properties and Their Relationships With Aerosols. Journal of Geophysical Research D: Atmospheres, 2019, 124, 1798-1822.	3.3	31
40	Vertical transport mechanisms of black carbon over East Asia in spring during the AâEŦORCE aircraft campaign. Journal of Geophysical Research D: Atmospheres, 2013, 118, 13,175.	3.3	30
41	Validation of NO2and HNO3measurements from the Improved Limb Atmospheric Spectrometer (ILAS) with the version 5.20 retrieval algorithm. Journal of Geophysical Research, 2002, 107, ILS 3-1.	3.3	29
42	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
43	Photochemical production of ozone in the upper troposphere in association with cumulus convection over Indonesia. Journal of Geophysical Research, 2003, 108, BIB 4-1.	3.3	28
44	Measurements of regionalâEŝcale 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
45	Seasonal variations of HCN over northern Japan measured by ground-based infrared solar spectroscopy. Geophysical Research Letters, 2000, 27, 2085-2088.	4.0	27
46	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
47	Photochemical production of O3in biomass burning plumes in the boundary layer over northern Australia. Geophysical Research Letters, 2003, 30, n/a-n/a.	4.0	25
48	Measurements of reactive nitrogen produced by tropical thunderstorms during BIBLEâEC. Journal of Geophysical Research, 2007, 112, .	3.3	25
49	Formation and Transport of Aerosols in Tokyo in Relation to Their Physical and Chemical Properties: A Review. Journal of the Meteorological Society of Japan, 2010, 88, 597-624.	1.8	24
50	Hygroscopicity of materials internally mixed with black carbon measured in Tokyo. Journal of Geophysical Research D: Atmospheres, 2016, 121, 362-381.	3.3	23
51	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
52	Seasonal Progression of the Deposition of Black Carbon by Snowfall at NyâEÃ…lesund, Spitsbergen. Journal of Geophysical Research D: Atmospheres, 2018, 123, 997-1016.	3.3	21
53	In situ HNO 3 to NO y instrument comparison during SOLVE. Journal of Geophysical Research, 2003, 108, .	3.3	20
54	Spatial and temporal variations of aerosols around Beijing in summer 2006: 2. Local and column aerosol optical properties. Journal of Geophysical Research, 2010, 115, .	3.3	20

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55	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
56	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
57	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
58	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
59	Removal of NOxand NOyin biomass burning plumes in the boundary layer over northern Australia. Journal of Geophysical Research, 2003, 108, .	3.3	18
60	Contribution of particulate nitrate to airborne measurements of total reactive nitrogen. Journal of Geophysical Research, 2005, 110, .	3.3	18
61	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
62	Carbon monoxide column abundances and tropospheric concentrations retrieved from high resolution ground-based infrared solar spectra at 43.5Â°N over Japan. Journal of Geophysical Research, 1997, 102, 23403-23411.	3.3	16
63	Seasonal Variation of Wet Deposition of Black Carbon in Arctic Alaska. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2019JD032240.	3.3	16
64	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
65	A long-term study of cloud residuals from low-level Arctic clouds. Atmospheric Chemistry and Physics, 2021, 21, 8933-8959.	4.9	15
66	Redistribution of reactive nitrogen in the Arctic lower stratosphere in the 1999/2000 winter. Journal of Geophysical Research, 2002, 107, SOL 17-1.	3.3	14
67	Black carbon in aerosol during BIBLE B. Journal of Geophysical Research, 2003, 108, BIB 3-1.	3.3	14
68	Seasonal variation of carbon monoxide in northern Japan: Fourier transform IR measurements and source-labeled model calculations. Journal of Geophysical Research, 2006, 111, .	3.3	14
69	Measurement of NO2by the photolysis conversion technique during the Transport and Chemical Evolution Over the Pacific (TRACE-P) campaign. Journal of Geophysical Research, 2003, 108, n/a-n/a.	3.3	13
70	Springtime photochemical ozone production observed in the upper troposphere over east Asia. Journal of Geophysical Research, 2003, 108, BIB 2-1.	3.3	12
71	Seasonal variations of black carbon observed at the remote mountain site Happo in Japan. Journal of Geophysical Research D: Atmospheres, 2013, 118, 3709-3722.	3.3	12
72	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

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73	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
74	The Ny-Ã…lesund Aerosol Cloud Experiment (NASCENT): Overview and First Results. Bulletin of the American Meteorological Society, 2022, 103, E2533-E2558.	3.3	12
75	Arctic black carbon during PAMARCMiP 2018 and previous aircraft experiments in spring. Atmospheric Chemistry and Physics, 2021, 21, 15861-15881.	4.9	11
76	Variability of active chlorine in the lowermost Arctic stratosphere. Journal of Geophysical Research, 2005, 110, .	3.3	10
77	Reactive nitrogen over the tropical western Pacific: Influence from lightning and biomass burning during BIBLE A. Journal of Geophysical Research, 2003, 108, BIB 7-1.	3.3	9
78	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
79	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
80	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
81	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
82	Mechanisms that influence the formation of highâ€ozone regions in the boundary layer downwind of the Asian continent in winter and spring. Journal of Geophysical Research, 2008, 113, .	3.3	6
83	Liquid ternary aerosols of HNO3/H2SO4/H2O in the Arctic tropopause region. Geophysical Research Letters, 2004, 31, .	4.0	5
84	Studies on the variability of the Greenland Ice Sheet and climate. Polar Science, 2021, 27, 100557.	1.2	5
85	The Terminal Velocity of Axisymmetric Cloud Drops and Raindrops Evaluated by the Immersed Boundary Method. Journals of the Atmospheric Sciences, 2021, 78, 1129-1146.	1.7	4
86	Modulations of aerosol impacts on cloud microphysics induced by the warm Kuroshio Current under the East Asian winter monsoon. Journal of Geophysical Research D: Atmospheres, 2016, 121, 12,282.	3.3	3
87	Enhancement of aerosol responses to changes in emissions over East Asia by gasâ€oxidantâ€aerosol coupling and detailed aerosol processes. Journal of Geophysical Research D: Atmospheres, 2016, 121, 7161-7171.	3.3	3
88	Studies on Arctic aerosols and clouds during the ArCS project. Polar Science, 2021, 27, 100621.	1.2	3
89	Meteoritic materials within sulfate aerosol particles in the troposphere are detected with transmission electron microscopy. Communications Earth & Environment, 2022, 3, .	6.8	2
90	Modeling Performance of SCALEâ€AMPS: Simulations of Arctic Mixedâ€Phase Clouds Observed during SHEBA. Journal of Advances in Modeling Earth Systems, 0, , .	3.8	0