

# Tomoki Nakayama

## List of Publications by Year in descending order

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Version: 2024-02-01

78  
papers

1,714  
citations

279487

23  
h-index

344852

36  
g-index

88  
all docs

88  
docs citations

88  
times ranked

3077  
citing authors

#	ARTICLE	IF	CITATIONS
1	Laboratory studies on optical properties of secondary organic aerosols generated during the photooxidation of toluene and the ozonolysis of $\alpha$ -pinene. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	130
2	Wavelength and $\text{NO}_x$ dependent complex refractive index of SOAs generated from the photooxidation of toluene. <i>Atmospheric Chemistry and Physics</i> , 2013, 13, 531-545.	1.9	129
3	Stabilization of the Mass Absorption Cross Section of Black Carbon for Filter-Based Absorption Photometry by the use of a Heated Inlet. <i>Aerosol Science and Technology</i> , 2009, 43, 741-756.	1.5	113
4	Characterization of a Three Wavelength Photoacoustic Soot Spectrometer (PASS-3) and a Photoacoustic Extinctionmeter (PAX). <i>Journal of the Meteorological Society of Japan</i> , 2015, 93, 285-308.	0.7	68
5	Size-dependent correction factors for absorption measurements using filter-based photometers: PSAP and COSMOS. <i>Journal of Aerosol Science</i> , 2010, 41, 333-343.	1.8	57
6	Properties of light-absorbing aerosols in the Nagoya urban area, Japan, in August 2011 and January 2012: Contributions of brown carbon and lensing effect. <i>Journal of Geophysical Research D: Atmospheres</i> , 2014, 119, 12,721.	1.2	57
7	Light absorption and morphological properties of soot-containing aerosols observed at an East Asian outflow site, Noto Peninsula, Japan. <i>Atmospheric Chemistry and Physics</i> , 2016, 16, 2525-2541.	1.9	54
8	Development and evaluation of a palm-sized optical $\text{PM}_{2.5}$ sensor. <i>Aerosol Science and Technology</i> , 2018, 52, 2-12.	1.5	49
9	Atmospheric chemistry of $\text{C}_x\text{F}_{2x+1}\text{CHCH}_2$ ( $x=1, 2, 4, 6, \text{ and } 8$ ): Kinetics of gas-phase reactions with Cl atoms, OH radicals, and O <sub>3</sub> . <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2005, 176, 124-128.	2.0	45
10	Characterizing $\text{PM}_{2.5}$ in Hanoi with New High Temporal Resolution Sensor. <i>Aerosol and Air Quality Research</i> , 2018, 18, 2487-2497.	0.9	41
11	Observation of carbon and oxygen isotopic compositions of CO <sub>2</sub> at an urban site in Nagoya using Mid-IR laser absorption spectroscopy. <i>Atmospheric Environment</i> , 2011, 45, 1168-1174.	1.9	36
12	Atmospheric Chemistry of $\text{CF}_3\text{CHCH}_2$ and $\text{C}_4\text{F}_9\text{CHCH}_2$ : Products of the Gas-Phase Reactions with Cl Atoms and OH Radicals. <i>Journal of Physical Chemistry A</i> , 2007, 111, 909-915.	1.1	35
13	Fiber-optic ring-down spectroscopy using a tunable picosecond gain-switched diode laser. <i>Applied Physics B: Lasers and Optics</i> , 2007, 88, 131-135.	1.1	33
14	Evaluation of MAX-DOAS aerosol retrievals by coincident observations using CRDS, lidar, and sky radiometer in Tsukuba, Japan. <i>Atmospheric Measurement Techniques</i> , 2015, 8, 2775-2788.	1.2	33
15	Wavelength Dependence of Refractive Index of Secondary Organic Aerosols Generated during the Ozonolysis and Photooxidation of $\alpha$ -Pinene. <i>Scientific Online Letters on the Atmosphere</i> , 2012, 8, 119-123.	0.6	32
16	Measurements of aerosol optical properties in central Tokyo during summertime using cavity ring-down spectroscopy: Comparison with conventional techniques. <i>Atmospheric Environment</i> , 2010, 44, 3034-3042.	1.9	31
17	Radiative transfer modeling of filter-based measurements of light absorption by particles: Importance of particle size dependent penetration depth. <i>Journal of Aerosol Science</i> , 2010, 41, 401-412.	1.8	29
18	Nighttime measurements of ambient N <sub>2</sub> O <sub>5</sub> , NO <sub>2</sub> , NO and O <sub>3</sub> in a sub-urban area, Toyokawa, Japan. <i>Atmospheric Environment</i> , 2008, 42, 1995-2006.	1.9	28

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19	Characteristics of atmospheric aerosols containing heavy metals measured on Fukue Island, Japan. <i>Atmospheric Environment</i> , 2014, 97, 447-455.	1.9	28
20	East Asian Monsoon controls on the inter-annual variability in precipitation isotope ratio in Japan. <i>Climate of the Past</i> , 2015, 11, 339-353.	1.3	28
21	Complex refractive index of secondary organic aerosol generated from isoprene/NO <sub>x</sub> photooxidation in the presence and absence of SO <sub>2</sub> . <i>Journal of Geophysical Research D: Atmospheres</i> , 2015, 120, 7777-7787.	1.2	27
22	Hygroscopicity and CCN activity of atmospheric aerosol particles and their relation to organics: Characteristics of urban aerosols in Nagoya, Japan. <i>Journal of Geophysical Research D: Atmospheres</i> , 2016, 121, 4100-4121.	1.2	27
23	Measurement of the light absorbing properties of diesel exhaust particles using a three-wavelength photoacoustic spectrometer. <i>Atmospheric Environment</i> , 2014, 94, 428-437.	1.9	25
24	Characterization and possible sources of nitrated mono- and di-aromatic hydrocarbons containing hydroxyl and/or carboxyl functional groups in ambient particles in Nagoya, Japan. <i>Atmospheric Environment</i> , 2019, 211, 91-102.	1.9	24
25	Observation of new particle formation over a mid-latitude forest facing the North Pacific. <i>Atmospheric Environment</i> , 2013, 64, 77-84.	1.9	23
26	The effects of meteorological conditions and long-range transport on PM <sub>2.5</sub> levels in Hanoi revealed from multi-site measurement using compact sensors and machine learning approach. <i>Journal of Aerosol Science</i> , 2021, 152, 105716.	1.8	22
27	Comparison of laser-induced fluorescence and chemiluminescence measurements of NO <sub>2</sub> at an urban site. <i>Atmospheric Environment</i> , 2011, 45, 6233-6240.	1.9	21
28	Total OH reactivity measurement in a BVOC dominated temperate forest during a summer campaign, 2014. <i>Atmospheric Environment</i> , 2016, 131, 41-54.	1.9	21
29	Hygroscopicity of Organic Aerosols and Their Contributions to CCN Concentrations Over a Midlatitude Forest in Japan. <i>Journal of Geophysical Research D: Atmospheres</i> , 2018, 123, 9703-9723.	1.2	21
30	Effective interaction energy of water dimer at room temperature: An experimental and theoretical study. <i>Journal of Chemical Physics</i> , 2007, 127, 134302.	1.2	19
31	Design and characterization of a novel single-particle polar nephelometer. <i>Aerosol Science and Technology</i> , 2016, 50, 392-404.	1.5	19
32	Effect of Oxidation Process on Complex Refractive Index of Secondary Organic Aerosol Generated from Isoprene. <i>Environmental Science &amp; Technology</i> , 2018, 52, 2566-2574.	4.6	19
33	Approach to Thermal Equilibrium in Atomic Collisions. <i>Physical Review Letters</i> , 2008, 100, 103001.	2.9	18
34	Relative and Absolute Sensitivity Analysis on Ozone Production in Tsukuba, a City in Japan. <i>Environmental Science &amp; Technology</i> , 2019, 53, 13629-13635.	4.6	17
35	Atmospheric Chemistry of CH <sub>3</sub> CHF <sub>2</sub> (HFC-152a): Kinetics, Mechanisms, and Products of Cl Atom- and OH Radical-Initiated Oxidation in the Presence and Absence of NO <sub>x</sub> . <i>Journal of Physical Chemistry A</i> , 2005, 109, 9061-9069.	1.1	16
36	A Gas-Phase Kinetic Study of the Reaction between Bromine Monoxide and Methylperoxy Radicals at Atmospheric Temperatures. <i>Journal of Physical Chemistry A</i> , 2007, 111, 3342-3348.	1.1	16

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37	Buffer-gas pressure broadening for the (0003)â†(0000) band of N <sub>2</sub> O measured with continuous-wave cavity ring-down spectroscopy. <i>Chemical Physics</i> , 2007, 334, 196-203.	0.9	16
38	Formation and evolution of biogenic secondary organic aerosol over a forest site in Japan. <i>Journal of Geophysical Research D: Atmospheres</i> , 2014, 119, 259-273.	1.2	16
39	Kinetics and impacting factors of HO&lt;sub&gt;2&lt;/sub&gt; uptake onto submicron atmospheric aerosols during the 2019 Air QUALity Study (AQUAS) in Yokohama, Japan. <i>Atmospheric Chemistry and Physics</i> , 2021, 21, 12243-12260.	1.9	16
40	Can Delhi's Pollution be Affected by Crop Fires in the Punjab Region?. <i>Scientific Online Letters on the Atmosphere</i> , 2020, 16, 86-91.	0.6	16
41	Hygroscopicity of aerosol particles and CCN activity of nearly hydrophobic particles in the urban atmosphere over Japan during summer. <i>Journal of Geophysical Research D: Atmospheres</i> , 2016, 121, 7215-7234.	1.2	14
42	Investigation of dark condition nitrate radical- and ozone-initiated aging of toluene secondary organic aerosol: Importance of nitrate radical reactions with phenolic products. <i>Atmospheric Environment</i> , 2019, 219, 117049.	1.9	14
43	Hygroscopicity and cloud condensation nucleus activity of forest aerosol particles during summer in Wakayama, Japan. <i>Journal of Geophysical Research D: Atmospheres</i> , 2017, 122, 3042-3064.	1.2	13
44	Atmospheric lifetime of SF <sub>5</sub> CF <sub>3</sub> . <i>Geophysical Research Letters</i> , 2002, 29, 7-1-7-4.	1.5	12
45	Hydrogen Atom Formation in the Photolysis of Acetone at 193 nm. <i>Journal of Physical Chemistry A</i> , 2004, 108, 8002-8008.	1.1	12
46	Characterization of Aerosol Particles in the Tokyo Metropolitan Area using Two Different Particle Mass Spectrometers. <i>Aerosol Science and Technology</i> , 2011, 45, 315-326.	1.5	11
47	Diurnal variation and size dependence of the hygroscopicity of organic aerosol at a forest site in Wakayama, Japan: their relationship to CCN concentrations. <i>Atmospheric Chemistry and Physics</i> , 2019, 19, 5889-5903.	1.9	11
48	N(4S) Formation following the 193.3-nm ArF Laser Irradiation of NO and NO <sub>2</sub> and Its Application to Kinetic Studies of N(4S) Reactions with NO and NO <sub>2</sub> . <i>Journal of Physical Chemistry A</i> , 2005, 109, 10897-10902.	1.1	10
49	Measurements of the 3Î½ 3 band of <sup>14</sup> N <sup>15</sup> N <sup>16</sup> O and <sup>15</sup> N <sup>14</sup> N <sup>16</sup> O using continuous-wave cavity ring-down spectroscopy. <i>Applied Physics B: Lasers and Optics</i> , 2007, 88, 137-140.	1.1	10
50	Thermal decomposition rate of N <sub>2</sub> O <sub>5</sub> measured by cavity ring-down spectroscopy. <i>International Journal of Chemical Kinetics</i> , 2008, 40, 679-684.	1.0	10
51	Vacuum Ultraviolet Laser-Induced Fluorescence Detection of O(1S) Atom Produced in the 193 nm Photolysis of Ozone. <i>Journal of Physical Chemistry A</i> , 2003, 107, 9368-9373.	1.1	9
52	Total hydroxyl radical reactivity measurements in a suburban area during AQUASâ€™Tsukuba campaign in summer 2017. <i>Science of the Total Environment</i> , 2020, 740, 139897.	3.9	9
53	Quantum yield for N(4S) production in the ultraviolet photolysis of N <sub>2</sub> O. <i>Journal of Geophysical Research</i> , 2003, 108, .	3.3	8
54	Nitrate Radical Quantum Yield from Peroxyacetyl Nitrate Photolysis. <i>Journal of Physical Chemistry A</i> , 2005, 109, 2552-2558.	1.1	8

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55	Atmospheric Chemistry of BrO Radicals: Kinetics of the Reaction with $C_2H_5O_2$ Radicals at 233–333 K. <i>Journal of Physical Chemistry A</i> , 2009, 113, 10231-10237.	1.1	8
56	Isotopic Variations Associated with North-South Displacement of the Baiu Front. <i>Scientific Online Letters on the Atmosphere</i> , 2013, 9, 187-190.	0.6	8
57	Thermalization cross sections of suprathreshold N(4S) atoms in collisions with atmospheric molecules. <i>Geophysical Research Letters</i> , 2005, 32, .	1.5	7
58	Vacuum ultraviolet laser-induced fluorescence kinetic study of the reactions of Cl atoms with fluoroalkenes ( $C_xF_{2x+1}CH_2$ , x = 1,2,4, 6, and 8) at low pressures. <i>International Journal of Chemical Kinetics</i> , 2007, 39, 328-332.	1.0	7
59	Kinetics and Mechanism of the Reaction of Chlorine Atoms with n-Pentanal. <i>Journal of Physical Chemistry A</i> , 2008, 112, 1741-1746.	1.1	7
60	Genesis of a Severe Dust Storm Over the Indian Subcontinent: Dynamics and Impacts. <i>Earth and Space Science</i> , 2022, 9, e2021EA001702.	1.1	7
61	Zhang <i>et al.</i> Reply. <i>Physical Review Letters</i> , 2009, 103, .	2.9	6
62	Fluorescence detection of atmospheric nitrogen dioxide using a blue light-emitting diode as an excitation source. <i>Applied Optics</i> , 2010, 49, 3762.	2.1	6
63	Development of a balloon-borne instrument for CO <sub>2</sub> vertical profile observations in the troposphere. <i>Atmospheric Measurement Techniques</i> , 2019, 12, 5639-5653.	1.2	6
64	Optical Properties and Chemical Compositions of Iodine-Containing Aerosols Produced from the Atmospheric Photolysis of Methylene Iodide in the Presence of Ozone. <i>Bulletin of the Chemical Society of Japan</i> , 2009, 82, 910-913.	2.0	5
65	Quantum yield for hydrogen atom formation from H <sub>2</sub> O <sub>2</sub> photolysis in the range 193-240 nm. <i>International Journal of Chemical Kinetics</i> , 2005, 37, 751-754.	1.0	4
66	Laboratory Study of O(1S) Formation Process in the Photolysis of O <sub>3</sub> and its Atmospheric Implications. <i>Journal of Atmospheric Chemistry</i> , 2006, 53, 107-122.	1.4	4
67	PLP-LIF study of the reactions of chlorine atoms with C <sub>2</sub> H <sub>2</sub> , C <sub>2</sub> H <sub>4</sub> , and C <sub>3</sub> H <sub>6</sub> in ~100 Torr of N <sub>2</sub> diluent at 295 K. <i>Chemical Physics Letters</i> , 2010, 494, 174-178.	1.2	4
68	Variabilities in PM <sub>2.5</sub> and Black Carbon Surface Concentrations Reproduced by Aerosol Optical Properties Estimated by In-Situ Data, Ground Based Remote Sensing and Modeling. <i>Remote Sensing</i> , 2021, 13, 3163.	1.8	4
69	Ground-based measurement of column-averaged mixing ratios of methane and carbon dioxide in the Sichuan Basin of China by a desktop optical spectrum analyzer. <i>Journal of Applied Remote Sensing</i> , 2017, 12, 1.	0.6	4
70	Continuous measurements of stable isotopes of carbon dioxide and water vapour in an urban atmosphere: isotopic variations associated with meteorological conditions. <i>Isotopes in Environmental and Health Studies</i> , 2017, 53, 646-659.	0.5	3
71	Reaction kinetics of O(1S) atom with atmospheric molecules. <i>Chemical Physics Letters</i> , 2004, 398, 163-167.	1.2	2
72	Buffer-gas Pressure Broadening for the Third Overtone Band of NO Measured with Continuous-wave Cavity Ring-down Spectroscopy. <i>Chemistry Letters</i> , 2009, 38, 1000-1001.	0.7	2

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73	<i>In situ</i> measurement of CO <sub>2</sub> and water vapour isotopic compositions at a forest site using mid-infrared laser absorption spectroscopy. <i>Isotopes in Environmental and Health Studies</i> , 2016, 52, 603-618.	0.5	2
74	Missing ozone-induced potential aerosol formation in a suburban deciduous forest. <i>Atmospheric Environment</i> , 2017, 171, 91-97.	1.9	2
75	Assessment of the Sphericity of Submicrometer Particles Using a Single-particle Polar Nephelometer at an Urban Site in Japan. <i>Aerosol and Air Quality Research</i> , 2020, 20, 2474-2484.	0.9	2
76	Offline analysis of the chemical composition and hygroscopicity of submicrometer aerosol at an Asian outflow receptor site and comparison with online measurements. <i>Atmospheric Chemistry and Physics</i> , 2022, 22, 5515-5533.	1.9	2
77	Observation of column-averaged molar mixing ratios of carbon dioxide in Tokyo. <i>Atmospheric Environment: X</i> , 2019, 2, 100022.	0.8	1
78	Nitrate radical, ozone and hydroxyl radical initiated aging of limonene secondary organic aerosol. <i>Atmospheric Environment: X</i> , 2021, 9, 100102.	0.8	0