Jianguo Liu

List of Publications by Year
in descending order

127 papers	2,667 citations	186265 28 h-index	243625 44 g-index
130 all docs	130 docs citations	130 times ranked	2625 citing authors

#	Article	IF	Citations
1	Retrieval of refractive index of ultrafine single particle using hygroscopic growth factor obtained by high sensitive surface plasmon resonance microscopy. Journal of Environmental Sciences, 2023, 126, 483-493.	6.1	3
2	Retrieval of Global Carbon Dioxide From TanSat Satellite and Comprehensive Validation With TCCON Measurements and Satellite Observations. IEEE Transactions on Geoscience and Remote Sensing, 2022, 60, 1-16.	6.3	12
3	Real-world gaseous emission characteristics of natural gas heavy-duty sanitation trucks. Journal of Environmental Sciences, 2022, 115, 319-329.	6.1	13
4	Characterization of submicron aerosol particles in winter at Albany, New York. Journal of Environmental Sciences, 2022, 111, 118-129.	6.1	2
5	Vertical profile of aerosol number size distribution during a haze pollution episode in Hefei, China. Science of the Total Environment, 2022, 814, 152693.	8.0	13
6	Simultaneous detection of heavy metals in solutions by electrodeposition assisted laser induced breakdown spectroscopy. Journal of Laser Applications, 2022, 34, 012021.	1.7	5
7	Nocturnal atmospheric chemistry of NO3 and N2O5 over Changzhou in the Yangtze River Delta in China. Journal of Environmental Sciences, 2022, 114, 376-390.	6.1	7
8	Measurement of HONO flux using the aerodynamic gradient method over an agricultural field in the Huaihe River Basin, China. Journal of Environmental Sciences, 2022, 114, 297-307.	6.1	7
9	Advances in coastal ocean boundary layer detection technology and equipment in China. Journal of Environmental Sciences, 2022, , .	6.1	1
10	Technical note: Real-time diagnosis of the hygroscopic growth micro-dynamics of nanoparticles with Fourier transform infrared spectroscopy. Atmospheric Chemistry and Physics, 2022, 22, 3097-3109.	4.9	2
11	Atmospheric Processing at the Sea–Land Interface Over the South China Sea: Secondary Aerosol Formation, Aerosol Acidity, and Role of Sea Salts. Journal of Geophysical Research D: Atmospheres, 2022, 127, .	3.3	7
12	Three-dimensional reconstruction of a leaking gas cloud based on two scanning FTIR remote-sensing imaging systems. Optics Express, 2022, 30, 25581.	3.4	3
13	Measurement of tropospheric HO2 radical using fluorescence assay by gas expansion with low interferences. Journal of Environmental Sciences, 2021, 99, 40-50.	6.1	8
14	Ozone profile retrievals from TROPOMI: Implication for the variation of tropospheric ozone during the outbreak of COVID-19 in China. Science of the Total Environment, 2021, 764, 142886.	8.0	34
15	Vertical distributions of tropospheric SO2 based on MAX-DOAS observations: Investigating the impacts of regional transport at different heights in the boundary layer. Journal of Environmental Sciences, 2021, 103, 119-134.	6.1	16
16	Development of a laser heterodyne spectroradiometer for high-resolution measurements of CO_2, CH_4, H_2O and O_2 in the atmospheric column. Optics Express, 2021, 29, 2003.	3.4	15
17	A Build-In Data Inversion Method to Retrieve Aerosol Size Distributions for a Portable Ultrafine Particle Sizer (PUPS). IEEE Access, 2021, 9, 2879-2889.	4.2	4
18	Heterogeneous reaction and condensation growth observation of NaCl/dicarboxylic acids nanoparticles by aerosol time-of-flight mass spectrometer with water-based particle size amplifier. Atmospheric Environment, 2021, 246, 118162.	4.1	1

#	Article	IF	Citations
19	Ammonium nitrate is a risk for environment: A case study of Beirut (Lebanon) chemical explosion and the effects on environment. Ecotoxicology and Environmental Safety, 2021, 210, 111834.	6.0	12
20	Mapping the drivers of formaldehyde (HCHO) variability from 2015 to 2019 over eastern China: insights from Fourier transform infrared observation and GEOS-Chem model simulation. Atmospheric Chemistry and Physics, 2021, 21, 6365-6387.	4.9	20
21	Development and Application of a Wide Dynamic Range and High Resolution Atmospheric Aerosol Water-Based Supersaturation Condensation Growth Measurement System. Atmosphere, 2021, 12, 558.	2.3	0
22	Development of a Laser Gas Analyzer for Fast CO_2 and H_2O Flux Measurements Utilizing Derivative Absorption Spectroscopy at a 100 Hz Data Rate. Sensors, 2021, 21, 3392.	3.8	5
23	Lidar vertical observation network and data assimilation reveal key processes driving the 3-D dynamic evolution of PM&lt;sub&gt;2.5&lt;/sub&gt; concentrations over the North China Plain. Atmospheric Chemistry and Physics, 2021, 21, 7023-7037.	4.9	16
24	Quantifying variability, source, and transport of CO in the urban areas over the Himalayas and Tibetan Plateau. Atmospheric Chemistry and Physics, 2021, 21, 9201-9222.	4.9	10
25	Vertical distributions of wintertime atmospheric nitrogenous compounds and the corresponding OH radicals production in Leshan, southwest China. Journal of Environmental Sciences, 2021, 105, 44-55.	6.1	18
26	Reconstruction of a leaking gas cloud from a passive FTIR scanning remote-sensing imaging system. Applied Optics, 2021, 60, 9396.	1.8	7
27	Vertical profile of aerosols in the Himalayas revealed by lidar: New insights into their seasonal/diurnal patterns, sources, and transport. Environmental Pollution, 2021, 285, 117686.	7.5	11
28	An active RH-controlled dry-ambient aerosol size spectrometer (DAASS) for the accurate measurement of ambient aerosol water content. Journal of Aerosol Science, 2021, 158, 105831.	3.8	2
29	Development of a static test apparatus for evaluating the performance of three PM2.5 separators commonly used in China. Journal of Environmental Sciences, 2020, 87, 238-249.	6.1	7
30	Simulation of three-stage operating temperature for supersaturation water-based condensational growth tube. Journal of Environmental Sciences, 2020, 90, 275-285.	6.1	6
31	Identifying the wintertime sources of volatile organic compounds (VOCs) from MAX-DOAS measured formaldehyde and glyoxal in Chongqing, southwest China. Science of the Total Environment, 2020, 715, 136258.	8.0	45
32	Design and evaluation of a condensation particle counter with high performance for single-particle counting. Instrumentation Science and Technology, 2020, 48, 212-229.	1.8	3
33	Development and Application of HECORA Cloud Retrieval Algorithm Based On the O2-O2 477 nm Absorption Band. Remote Sensing, 2020, 12, 3039.	4.0	4
34	Real-Time Measurement of the Hygroscopic Growth Dynamics of Single Aerosol Nanoparticles with Bloch Surface Wave Microscopy. ACS Nano, 2020, 14, 9136-9144.	14.6	23
35	Concentration-Emission Matrix (CEM) Spectroscopy Combined with GA-SVM: An Analytical Method to Recognize Oil Species in Marine. Molecules, 2020, 25, 5124.	3.8	0
36	An automated dynamic chamber system for exchange flux measurement of reactive nitrogen oxides (HONO and NOX) in farmland ecosystems of the Huaihe River Basin, China. Science of the Total Environment, 2020, 745, 140867.	8.0	7

#	Article	IF	Citations
37	Validation of Water Vapor Vertical Distributions Retrieved from MAX-DOAS over Beijing, China. Remote Sensing, 2020, 12, 3193.	4.0	10
38	First observation of tropospheric nitrogen dioxide from the Environmental Trace Gases Monitoring Instrument onboard the GaoFen-5 satellite. Light: Science and Applications, 2020, 9, 66.	16.6	76
39	High-resolution vertical distribution and sources of HONO and NO_2 in the nocturnal boundary layer in urban Beijing, China. Atmospheric Chemistry and Physics, 2020, 20, 5071-5092.	4.9	40
40	Long-distance mobile MAX-DOAS observations of NO2 and SO2 over the North China Plain and identification of regional transport and power plant emissions. Atmospheric Research, 2020, 245, 105037.	4.1	11
41	The Determination of Aerosol Distribution by a No-Blind-Zone Scanning Lidar. Remote Sensing, 2020, 12, 626.	4.0	10
42	Fourier transform infrared time series of tropospheric HCN in eastern China: seasonality, interannual variability, and source attribution. Atmospheric Chemistry and Physics, 2020, 20, 5437-5456.	4.9	17
43	*In Situ* Quantitative Observation of Hygroscopic Growth of Single Nanoparticle Aerosol by Surface Plasmon Resonance Microscopy. Analytical Chemistry, 2020, 92, 11062-11071.	6.5	10
44	Concentration Quantification of Oil Samples by Three-Dimensional Concentration-Emission Matrix (CEM) Spectroscopy. Applied Sciences (Switzerland), 2020, 10, 315.	2.5	5
45	Using Lidar technology to assess regional air pollution and improve estimates of $PM_{2.5}$ transport in the North China Plain. Environmental Research Letters, 2020, 15, 094071.	5.2	15
46	Ground-based FTIR observation of hydrogen chloride (HCl) over Hefei, China, and comparisons with GEOS-Chem model data and other ground-based FTIR stations data. Optics Express, 2020, 28, 8041.	3.4	29
47	Elevated dust layers inhibit dissipation of heavy anthropogenic surface air pollution. Atmospheric Chemistry and Physics, 2020, 20, 14917-14932.	4.9	14
48	An improved TROPOMI tropospheric HCHO retrieval over China. Atmospheric Measurement Techniques, 2020, 13, 6271-6292.	3.1	34
49	Optimal chlorophyll fluorescence parameter selection for rapid and sensitive detection of lead toxicity to marine microalgae Nitzschia closterium based on chlorophyll fluorescence technology. Journal of Photochemistry and Photobiology B: Biology, 2019, 197, 111551.	3.8	38
50	A new method to determine the aerosol optical properties from multiple-wavelength O_4 absorptions by MAX-DOAS observation. Atmospheric Measurement Techniques, 2019, 12, 3289-3302.	3.1	23
51	Development of respirable virtual-cyclone samplers. Journal of Occupational and Environmental Hygiene, 2019, 16, 785-792.	1.0	2
52	Simultaneous measurement of NO and NO_2 by a dual-channel cavity ring-down spectroscopy technique. Atmospheric Measurement Techniques, 2019, 12, 3223-3236.	3.1	20
53	Primary and secondary sources of ambient formaldehyde in the Yangtze River Delta based on Ozone Mapping and Profiler Suite (OMPS) observations. Atmospheric Chemistry and Physics, 2019, 19, 6717-6736.	4.9	60
54	Design of On-Line Measurement System for Fine Particle Number Concentration of Vehicle Exhaust Based on Diffusion Charge Theory. Lecture Notes in Electrical Engineering, 2019, , 1874-1884.	0.4	0

#	Article	IF	Citations
55	Evolution of the vertical structure of air pollutants during winter heavy pollution episodes: The role of regional transport and potential sources. Atmospheric Research, 2019, 228, 206-222.	4.1	45
56	Simulation of Miniature PDMA for Ultrafine-Particle Measurement. Atmosphere, 2019, 10, 116.	2.3	5
57	Label-free surface-sensitive photonic microscopy with high spatial resolution using azimuthal rotation illumination. Science Advances, 2019, 5, eaav5335.	10.3	48
58	Satellite UV-Vis spectroscopy: implications for air quality trends and their driving forces in China during 2005–2017. Light: Science and Applications, 2019, 8, 100.	16.6	105
59	Analysis and Adjustment of Positioning Error of PSD System for Mobile SOF-FTIR. Sensors, 2019, 19, 5081.	3.8	2
60	Estimation of winter time NOx emissions in Hefei, a typical inland city of China, using mobile MAX-DOAS observations. Atmospheric Environment, 2019, 200, 228-242.	4.1	16
61	Comparison of mixing layer height inversion algorithms using lidar and a pollution case study in Baoding, China. Journal of Environmental Sciences, 2019, 79, 81-90.	6.1	19
62	Detection of heavy metals in water samples by laser-induced breakdown spectroscopy combined with annular groove graphite flakes. Plasma Science and Technology, 2019, 21, 034002.	1.5	15
63	A dual dynamic chamber system based on IBBCEAS for measuring fluxes of nitrous acid in agricultural fields in the North China Plain. Atmospheric Environment, 2019, 196, 10-19.	4.1	24
64	Atmosphere boundary layer height and its effect on air pollutants in Beijing during winter heavy pollution. Atmospheric Research, 2019, 215, 305-316.	4.1	79
65	Development of a field system for measurement of tropospheric OH radical using laser-induced fluorescence technique. Optics Express, 2019, 27, A419.	3.4	25
66	FTIR time series of stratospheric NO_2 over Hefei, China, and comparisons with OMI and GEOS-Chem model data. Optics Express, 2019, 27, A1225.	3.4	32
67	Aerosol Pollution Characterization before Chinese New Year in Zhengzhou in 2014. Aerosol and Air Quality Research, 2019, 19, 1294-1306.	2.1	10
68	Scanning vertical distributions of typical aerosols along the Yangtze River using elastic lidar. Science of the Total Environment, 2018, 628-629, 631-641.	8.0	12
69	Preflight Evaluation of the Performance of the Chinese Environmental Trace Gas Monitoring Instrument (EMI) by Spectral Analyses of Nitrogen Dioxide. IEEE Transactions on Geoscience and Remote Sensing, 2018, 56, 3323-3332.	6.3	25
70	Investigations of temporal and spatial distribution of precursors SO_2 and NO_2 vertical columns in the North China Plain using mobile DOAS. Atmospheric Chemistry and Physics, 2018, 18, 1535-1554.	4.9	32
71	Underdetermined blind separation of three-way fluorescence spectra of PAHs in water. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2018, 199, 80-85.	3.9	1
72	A hydroxyl radical detection system using gas expansion and fast gating laser-induced fluorescence techniques. Journal of Environmental Sciences, 2018, 65, 190-200.	6.1	7

#	Article	IF	Citations
73	Characterization of urban CO2 column abundance with a portable low resolution spectrometer (PLRS): Comparisons with GOSAT and GEOS-Chem model data. Science of the Total Environment, 2018, 612, 1593-1609.	8.0	11
74	Design and evaluation of a unipolar aerosol particle charger with built-in electrostatic precipitator. Instrumentation Science and Technology, 2018, 46, 326-347.	1.8	7
75	Tropospheric NO_2, SO_2, and HCHO over the East China Sea, using ship-based MAX-DOAS observations and comparison with OMI and OMPS satellite data. Atmospheric Chemistry and Physics, 2018, 18, 15387-15402.	4.9	49
76	Ozone seasonal evolution and photochemical production regime in the polluted troposphere in eastern China derived from high-resolution Fourier transform spectrometry (FTS) observations. Atmospheric Chemistry and Physics, 2018, 18, 14569-14583.	4.9	42
77	The Influence of Instrumental Line Shape Degradation on the Partial Columns of O3, CO,CH4 and N2O Derived from High-Resolution FTIR spectrometry. Remote Sensing, 2018, 10, 2041.	4.0	8
78	On the Performance of an Aerosol Electrometer with Enhanced Detection Limit. Sensors, 2018, 18, 3889.	3.8	9
79	Ship-based MAX-DOAS measurements of tropospheric NO_2, SO_2, and HCHO distribution along the Yangtze River. Atmospheric Chemistry and Physics, 2018, 18, 5931-5951.	4.9	38
80	Number size distribution of atmospheric particles in a suburban Beijing in the summer and winter of 2015. Atmospheric Environment, 2018, 186, 32-44.	4.1	13
81	On-line analysis of algae in water by discrete three-dimensional fluorescence spectroscopy. Optics Express, 2018, 26, A251.	3.4	18
82	Phytoplankton photosynthetic rate measurement using tunable pulsed light induced fluorescence kinetics. Optics Express, 2018, 26, A293.	3.4	14
83	Development of a portable cavity ring down spectroscopy instrument for simultaneous, in situ measurement of NO3 and N2O5. Optics Express, 2018, 26, A433.	3.4	24
84	Feature issue introduction: light, energy and the environment, 2017. Optics Express, 2018, 26, A636.	3.4	3
85	Full-circle range and microradian resolution angle measurement using the orthogonal mirror self-mixing interferometry. Optics Express, 2018, 26, 10371.	3.4	37
86	Design and Evaluation of an Aerosol Electrometer with Low Noise and a Wide Dynamic Range. Sensors, 2018, 18, 1614.	3.8	10
87	Mercaptopropionic acid-capped Mn-doped ZnS quantum dots and Pb2+ as sensing system for rapid and sensitive room-temperature phosphorescence detection of sulfide in water. Journal of Photochemistry and Photobiology A: Chemistry, 2018, 364, 88-96.	3.9	6
88	Observations of ozone vertical profiles and corresponding precursors in the low troposphere in Beijing, China. Atmospheric Research, 2018, 213, 224-235.	4.1	40
89	A ultra-small-angle self-mixing sensor system with high detection resolution and wide measurement range. Optics and Laser Technology, 2017, 91, 92-97.	4.6	17
90	Calibration-free wavelength modulation spectroscopy for gas concentration measurements using a quantum cascade laser. Applied Physics B: Lasers and Optics, 2017, 123, 1.	2.2	11

#	Article	IF	Citations
91	Mercaptopropionic acid-capped Mn-doped ZnS quantum dots as a probe for selective room-temperature phosphorescence detection of Pb^{2+} in water. New Journal of Chemistry, 2017, 41, 13425-13434.	2.8	16
92	Comparative study of cylindrical and parallel‐plate electrophoretic separations for the removal of ions and sub‐23Â nm particles. Journal of Separation Science, 2017, 40, 4813-4824.	2.5	4
93	Characteristics of aerosol size distribution and vertical backscattering coefficient profile during 2014 APEC in Beijing. Atmospheric Environment, 2017, 148, 30-41.	4.1	40
94	Identification of long-range transport pathways and potential sources of PM2.5 and PM10 in Beijing from 2014 to 2015. Journal of Environmental Sciences, 2017, 56, 214-229.	6.1	56
95	Characterization of ozone in the lower troposphere during the 2016 G20 conference in Hangzhou. Scientific Reports, 2017, 7, 17368.	3.3	67
96	Observations of the vertical distributions of summertime atmospheric pollutants and the corresponding ozone productionÂinÂShanghai,ÂChina. Atmospheric Chemistry and Physics, 2017, 17, 14275-14289.	4.9	122
97	Investigating the performance of a greenhouse gas observatory in Hefei, China. Atmospheric Measurement Techniques, 2017, 10, 2627-2643.	3.1	44
98	Emission Flux Measurement Error with a Mobile DOAS System and Application to NOx Flux Observations. Sensors, 2017, 17, 231.	3.8	11
99	Using Lidar, in-situ measurements and Trajectory Analysis to observe air pollution in Beijing, 2014. EPJ Web of Conferences, 2016, 119, 24008.	0.3	3
100	Observations of New Particle Formation, Subsequent Growth and Shrinkage during Summertime in Beijing. Aerosol and Air Quality Research, 2016, 16, 1591-1602.	2.1	14
101	All-Fiber Configuration Laser Self-Mixing Doppler Velocimeter Based on Distributed Feedback Fiber Laser. Sensors, 2016, 16, 1179.	3.8	18
102	â€œAPEC Blueâ€• Secondary Aerosol Reductions from Emission Controls in Beijing. Scientific Reports, 2016, 6, 20668.	3.3	155
103	Speciated atmospheric mercury on haze and non-haze days in an inland city in China. Atmospheric Chemistry and Physics, 2016, 16, 13807-13821.	4.9	45
104	Determination of Polycyclic Aromatic Hydrocarbons in the Presence of Humic Acid in water. Applied Spectroscopy, 2016, 70, 1520-1528.	2.2	6
105	Characterization of temperature non-uniformity over a premixed CH4â€"air flame based on line-of-sight TDLAS. Applied Physics B: Lasers and Optics, 2016, 122, 1.	2.2	33
106	Determination of polycyclic aromatic hydrocarbons by four-way parallel factor analysis in presence of humic acid. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2016, 152, 384-390.	3.9	21
107	Diode laser cavity ring-down spectroscopy for in situ measurement of NO3 radical in ambient air. Journal of Quantitative Spectroscopy and Radiative Transfer, 2015, 166, 23-29.	2.3	20
108	Research on information acquisition and manipulation representation (MR) method of traditional chinese medical massage (TCMM) based on multi-dimension force sensor. , 2015, , .		3

#	Article	IF	Citations
109	Haze observations by simultaneous lidar and WPS in Beijing before and during APEC, 2014. Science China Chemistry, 2015, 58, 1385-1392.	8.2	25
110	Blind separation of fluorescence spectra using sparse nonânegative matrix factorization on right hand factor. Journal of Chemometrics, 2015, 29, 442-447.	1.3	9
111	Study on Physical Characteristics of a Bipolar Cloud-to-Ground Lightning Discharge Plasma. IEEE Transactions on Plasma Science, 2015, 43, 851-856.	1.3	4
112	The design of rapid turbidity measurement system based on single photon detection techniques. Optics and Laser Technology, 2015, 73, 44-49.	4.6	19
113	Transcriptomic Analyses of the Biological Effects of Airborne PM2.5 Exposure on Human Bronchial Epithelial Cells. PLoS ONE, 2015, 10, e0138267.	2.5	72
114	Remote open-path cavity-ringdown spectroscopic sensing of trace gases in air, based on distributed passive sensors linked by km-long optical fibers. Optics Express, 2014, 22, 13170.	3.4	24
115	A kinetic model for heterogeneous condensation of vapor on an insoluble spherical particle. Journal of Chemical Physics, 2014, 140, 024708.	3.0	23
116	Self-Mixing Fiber Ring Laser Velocimeter With Orthogonal-Beam Incident System. IEEE Photonics Journal, 2014, 6, 1-11.	2.0	18
117	Haze insights and mitigation in China: An overview. Journal of Environmental Sciences, 2014, 26, 2-12.	6.1	91
118	The channel radius and energy of cloud-to-ground lightning discharge plasma with multiple return strokes. Physics of Plasmas, 2014, 21, 033503.	1.9	19
119	Open-path Detection Of Atmospheric CH4 And N2O Based On Quantum Cascade Laser. , 2014, , .		1
120	Remote sensing of chemical gas cloud emission by passive infrared scanning imaging system. , 2013, , .		5
121	Characteristics and applications of near-infrared emissions from lightning. Journal of Applied Physics, 2013, 114, 163303.	2.5	8
122	Study on Mash Gas Monitoring with Distributed Multipoint Fiber Optic Sensors System in Coal Mine. , 2012, , .		5
123	Research and design of resonant mass sensor based on tapered oscillating element. Proceedings of SPIE, 2009, , .	0.8	1
124	Impacts of imperfect geometry structure on the nonlinear and chromatic dispersion properties of a microstructure fiber. Applied Optics, 2007, 46, 7771.	2.1	1
125	Theoretical study of the red- and blue-shifted hydrogen bonds of nitroxyl and acetylene dimers. International Journal of Quantum Chemistry, 2006, 106, 2122-2128.	2.0	23
126	Correlation study between suspended particulate matter and DOAS data. Advances in Atmospheric Sciences, 2006, 23, 461-467.	4.3	2

#	Article	IF	Citations
127	Intercomparison of NO x , SO2, O3, and aromatic hydrocarbons measured by a commercial DOAS system and traditional point monitoring techniques. Advances in Atmospheric Sciences, 2004, 21, 211-219.	4.3	14