

Jia Chen

List of Publications by Year in descending order

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Version: 2024-02-01

74
papers

1,590
citations

279701

23
h-index

360920

35
g-index

128
all docs

128
docs citations

128
times ranked

1461
citing authors

#	ARTICLE	IF	CITATIONS
1	On the Construction of Data Aggregation Tree With Maximizing Lifetime in Large-Scale Wireless Sensor Networks. <i>IEEE Sensors Journal</i> , 2016, 16, 7433-7440.	2.4	100
2	A review of computational fluid dynamics (CFD) simulations of the wind flow around buildings for urban wind energy exploitation. <i>Journal of Wind Engineering and Industrial Aerodynamics</i> , 2018, 180, 66-87.	1.7	85
3	Building the COllaborative Carbon Column Observing Network (COCCON): long-term stability and ensemble performance of the EM27/SUN Fourier transform spectrometer. <i>Atmospheric Measurement Techniques</i> , 2019, 12, 1513-1530.	1.2	82
4	Differential column measurements using compact solar-tracking spectrometers. <i>Atmospheric Chemistry and Physics</i> , 2016, 16, 8479-8498.	1.9	75
5	VCSEL-based calibration-free carbon monoxide sensor at 2.3 μm with in-line reference cell. <i>Applied Physics B: Lasers and Optics</i> , 2011, 102, 381-389.	1.1	52
6	CFD simulation of CO ₂ dispersion from urban thermal power plant: Analysis of turbulent Schmidt number and comparison with Gaussian plume model and measurements. <i>Journal of Wind Engineering and Industrial Aerodynamics</i> , 2017, 169, 177-193.	1.7	48
7	X ₂ CO ₂ , X ₂ CH ₄ , X ₂ CO, and X ₂ N ₂ O from a 0.5 μm resolution solar-viewing spectrometer. <i>Atmospheric Chemistry and Physics</i> , 2017, 17, 7509-7528.	1.2	45
8	Methane emissions from dairies in the Los Angeles Basin. <i>Atmospheric Chemistry and Physics</i> , 2017, 17, 7509-7528.	1.9	45
9	Laser spectroscopic oxygen sensor using diffuse reflector based optical cell and advanced signal processing. <i>Applied Physics B: Lasers and Optics</i> , 2010, 100, 417-425.	1.1	41
10	Wavelength modulation spectroscopy with a widely tunable InP-based 2.3 μm vertical-cavity surface-emitting laser. <i>Optics Letters</i> , 2008, 33, 1566.	1.7	38
11	Quantifying CH ₄ emissions from hard coal mines using mobile sun-viewing Fourier transform spectrometry. <i>Atmospheric Measurement Techniques</i> , 2019, 12, 5217-5230.	1.2	38
12	Phase rainbow refractometry for accurate droplet variation characterization. <i>Optics Letters</i> , 2016, 41, 4672.	1.7	35
13	MUCCnet: Munich Urban Carbon Column network. <i>Atmospheric Measurement Techniques</i> , 2021, 14, 1111-1126.	1.2	33
14	Analysis of total column CO ₂ and CH ₄ measurements in Berlin with WRF-GHG. <i>Atmospheric Chemistry and Physics</i> , 2019, 19, 11279-11302.	1.9	30
15	Phase interferometric particle imaging for simultaneous measurements of evaporating micron-sized droplet and nanoscale size changes. <i>Applied Physics Letters</i> , 2017, 111, .	1.5	29
16	3D imaging of individual burning char and volatile plume in a pulverized coal flame with digital inline holography. <i>Fuel</i> , 2017, 206, 429-436.	3.4	28
17	Self-Calibrated Multiharmonic CO ₂ Sensor Using VCSEL for Urban <i>In Situ</i> Measurement. <i>IEEE Transactions on Instrumentation and Measurement</i> , 2019, 68, 1140-1147.	2.4	28
18	Comparison of InP- and GaSb-based VCSELs emitting at 2.3 μm suitable for carbon monoxide detection. <i>Journal of Crystal Growth</i> , 2011, 323, 442-445.	0.7	27

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19	Low-level and ultralow-volume hollow waveguide based carbon monoxide sensor. Optics Letters, 2010, 35, 3577.	1.7	26
20	Prediction of Satellite-Based Column CO ₂ Concentration by Combining Emission Inventory and LULC Information. IEEE Transactions on Geoscience and Remote Sensing, 2020, 58, 8285-8300.	2.7	26
21	Anthropogenic CO ₂ emissions assessment of Nile Delta using XCO ₂ and SIF data from OCO-2 satellite. Environmental Research Letters, 2020, 15, 095010.	2.2	26
22	On the urban geometry generalization for CFD simulation of gas dispersion from chimneys: Comparison with Gaussian plume model. Journal of Wind Engineering and Industrial Aerodynamics, 2018, 177, 1-18.	1.7	25
23	Mapping of Eucalyptus in Natura 2000 Areas Using Sentinel 2 Imagery and Artificial Neural Networks. Remote Sensing, 2020, 12, 2176.	1.8	25
24	Capturing the Impact of the 2018 European Drought and Heat across Different Vegetation Types Using OCO-2 Solar-Induced Fluorescence. Remote Sensing, 2020, 12, 3249.	1.8	25
25	Intercomparison of atmospheric CO ₂ and CH ₄ abundances on regional scales in boreal areas using Copernicus Atmosphere Monitoring Service (CAMS) analysis, COllaborative Carbon Column Observing Network (COCCON) spectrometers, and Sentinel-5 Precursor satellite observations. Atmospheric Measurement Techniques, 2020, 13, 4751-4771.	1.2	23
26	The Frequency Modulation Response of Vertical-Cavity Surface-Emitting Lasers: Experiment and Theory. IEEE Journal of Selected Topics in Quantum Electronics, 2011, 17, 1584-1593.	1.9	22
27	VCSEL-Based Atmospheric Trace Gas Sensor Using First Harmonic Detection. IEEE Sensors Journal, 2019, 19, 4923-4931.	2.4	21
28	Weather Classification Using an Automotive LIDAR Sensor Based on Detections on Asphalt and Atmosphere. Sensors, 2020, 20, 4306.	2.1	21
29	Assessment of Urban CO ₂ Measurement and Source Attribution in Munich Based on TDLAS-WMS and Trajectory Analysis. Atmosphere, 2020, 11, 58.	1.0	20
30	OCO-2 Solar-Induced Chlorophyll Fluorescence Variability across Ecoregions of the Amazon Basin and the Extreme Drought Effects of El Niño (2015–2016). Remote Sensing, 2020, 12, 1202.	1.8	19
31	Characterization and simulation of the effect of road dirt on the performance of a laser scanner. , 2017, , .		18
32	Methane emissions from the Munich Oktoberfest. Atmospheric Chemistry and Physics, 2020, 20, 3683-3696.	1.9	17
33	A Novel Gas Recognition and Concentration Detection Algorithm for Artificial Olfaction. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-14.	2.4	17
34	What Are the Different Measures of Mobility Telling Us About Surface Transportation CO ₂ Emissions During the COVID-19 Pandemic?. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2021JD034664.	1.2	17
35	Assessing urban methane emissions using column-observing portable Fourier transform infrared (FTIR) spectrometers and a novel Bayesian inversion framework. Atmospheric Chemistry and Physics, 2021, 21, 13131-13147.	1.9	17
36	Multi-harmonic detection in wavelength modulation spectroscopy systems. Applied Physics B: Lasers and Optics, 2013, 110, 177-185.	1.1	16

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37	Performance of a fire detector based on a compact laser spectroscopic carbon monoxide sensor. Optics Express, 2014, 22, 13680.	1.7	16
38	Experimental characterization of the frequency modulation behavior of vertical cavity surface emitting lasers. Applied Physics Letters, 2007, 91, 141105.	1.5	15
39	A Novel Gas Recognition and Concentration Estimation Model for an Artificial Olfactory System With a Gas Sensor Array. IEEE Sensors Journal, 2021, 21, 18459-18468.	2.4	15
40	Secondary PM _{2.5} ; decreases significantly less than NO ₂ ; emission reductions during COVID lockdown in Germany. Atmospheric Chemistry and Physics, 2022, 22, 7105-7129.	1.9	15
41	Tunable diode laser spectroscopy with optimum wavelength scanning. Applied Physics B: Lasers and Optics, 2010, 100, 331-339.	1.1	14
42	Simultaneous amplitude and phase contrast imaging of burning fuel particle and flame with digital inline holography: Model and verification. Journal of Quantitative Spectroscopy and Radiative Transfer, 2017, 199, 26-35.	1.1	14
43	Automated enclosure and protection system for compact solar-tracking spectrometers. Atmospheric Measurement Techniques, 2018, 11, 2173-2185.	1.2	14
44	Tropospheric NO ₂ and O ₃ Response to COVID-19 Lockdown Restrictions at the National and Urban Scales in Germany. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2021JD035440.	1.2	13
45	Spatial and temporal representativeness of point measurements for nitrogen dioxide pollution levels in cities. Atmospheric Chemistry and Physics, 2020, 20, 13241-13251.	1.9	13
46	A convolutional neural network for spatial downscaling of satellite-based solar-induced chlorophyll fluorescence (SIFnet). Biogeosciences, 2022, 19, 1777-1793.	1.3	12
47	Pollution Events at the High-Altitude Mountain Site Zugspitze-Schneefernerhaus (2670 m a.s.l.), Germany. Atmosphere, 2019, 10, 330.	1.0	11
48	Analysis of calculation of fresh-air demand for road tunnel ventilation design in China. Tunnelling and Underground Space Technology, 2020, 103, 103469.	3.0	10
49	An experimental study on the influence of local loss on ventilation characteristic of dividing flow in urban traffic link tunnel. Building and Environment, 2020, 174, 106793.	3.0	10
50	Data Augmentation of Automotive LIDAR Point Clouds under Adverse Weather Situations. Sensors, 2021, 21, 4503.	2.1	10
51	The Effect of Spray Water on an Automotive LIDAR Sensor: A Real-Time Simulation Study. IEEE Transactions on Intelligent Vehicles, 2022, 7, 57-72.	9.4	10
52	Stacked ResNet-LSTM and CORAL model for multi-site air quality prediction. Neural Computing and Applications, 2022, 34, 13849-13866.	3.2	10
53	Improved calibration procedures for the EM27/SUN spectrometers of the COllaborative Carbon Column Observing Network (COCCON). Atmospheric Measurement Techniques, 2022, 15, 2433-2463.	1.2	10
54	Observational constraints on methane emissions from Polish coal mines using a ground-based remote sensing network. Atmospheric Chemistry and Physics, 2022, 22, 5859-5876.	1.9	10

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55	Intrinsic spatial shift of local focus metric curves in digital inline holography for accurate 3D morphology measurement of irregular micro-objects. Applied Physics Letters, 2016, 109, 121903.	1.5	9
56	Atmospheric CO ₂ and δ ¹³ C Measurements from 2012 to 2014 at the Environmental Research Station Schneesfernerhaus, Germany: Technical Corrections, Temporal Variations and Trajectory Clustering. Aerosol and Air Quality Research, 2019, 19, 657-670.	0.9	9
57	Importance of ozone precursors information in modelling urban surface ozone variability using machine learning algorithm. Scientific Reports, 2022, 12, 5646.	1.6	9
58	Laser Spectroscopic Oxygen Sensor for Real Time Combustion Optimization. Procedia Chemistry, 2009, 1, 955-958.	0.7	8
59	Resolution limits of laser spectroscopic absorption measurements with hollow glass waveguides. Applied Optics, 2010, 49, 5254.	2.1	8
60	Feasibility study of Zeeman modulation spectrometry with a hollow capillary fiber based gas cell. Optics Letters, 2012, 37, 1265.	1.7	8
61	Spatio-temporal prediction of land surface temperature using semantic kriging. Transactions in GIS, 2020, 24, 189-212.	1.0	7
62	Modeling of the n-th harmonic spectra used in wavelength modulation spectroscopy and their properties. Applied Physics B: Lasers and Optics, 2008, 90, 249-254.	1.1	6
63	Simplified Model of the Dynamic Thermal Tuning Behavior of VCSELs. IEEE Photonics Technology Letters, 2008, 20, 1082-1084.	1.3	6
64	Miniaturized Laser Spectroscopic CO Sensor for Industrial and Safety Applications. Procedia Chemistry, 2009, 1, 1383-1386.	0.7	6
65	Accurate extraction method for the FM response of tunable diode lasers based on wavelength modulation spectroscopy. Applied Physics B: Lasers and Optics, 2008, 90, 243-247.	1.1	5
66	Vertical-Cavity Surface-Emitting Laser Lightâ€™Current Characteristic at Constant Internal Temperature. IEEE Photonics Technology Letters, 2011, 23, 1295-1297.	1.3	5
67	A Signal Response Visualization Gas Recognition Algorithm Based on a Wavelet Transform Coefficient Map-Capsule Network for Artificial Olfaction. IEEE Sensors Journal, 2022, 22, 14717-14726.	2.4	5
68	Semantic Kriging for Spatio-temporal Prediction. Studies in Computational Intelligence, 2019, , .	0.7	4
69	Tensor ABCD law for misaligned inline particle holography of inclusions in a host droplet. Applied Optics, 2017, 56, 1526.	2.1	2
70	Forecasting Interannual Space-based CO ₂ Concentration using Geostatistical Mapping Approach. , 2020, , .		1
71	Mapping the spatial distribution of NO ₂ with in situ and remote sensing instruments during the Munich NO ₂ imaging campaign. Atmospheric Measurement Techniques, 2022, 15, 1609-1629.	1.2	1
72	High-speed tuning in vertical-cavity surface-emitting lasers. , 2009, , .		0

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73	Laser-spectroscopic, ultra low volume and low level carbon monoxide sensor. Procedia Engineering, 2010, 5, 1256-1259.	1.2	0
74	A Two-Stage Model for Sequential Engine-Out and Tailpipe Emission Estimation. Emission Control Science and Technology, 2020, 6, 47-57.	0.8	0