

Xinrong Ren

List of Publications by Year in descending order

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94
papers

6,375
citations

71102

41
h-index

79698

73
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131
all docs

131
docs citations

131
times ranked

5017
citing authors

#	ARTICLE	IF	CITATIONS
1	Missing OH Reactivity in a Forest: Evidence for Unknown Reactive Biogenic VOCs. <i>Science</i> , 2004, 304, 722-725.	12.6	431
2	Airborne measurement of OH reactivity during INTEX-B. <i>Atmospheric Chemistry and Physics</i> , 2009, 9, 163-173.	4.9	293
3	OH and HO ₂ Chemistry in the urban atmosphere of New York City. <i>Atmospheric Environment</i> , 2003, 37, 3639-3651.	4.1	283
4	Surface and lightning sources of nitrogen oxides over the United States: Magnitudes, chemical evolution, and outflow. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	279
5	India Is Overtaking China as the World's Largest Emitter of Anthropogenic Sulfur Dioxide. <i>Scientific Reports</i> , 2017, 7, 14304.	3.3	230
6	Chemistry of hydrogen oxide radicals (HO _x) in the Arctic troposphere in spring. <i>Atmospheric Chemistry and Physics</i> , 2010, 10, 5823-5838.	4.9	220
7	Atmospheric oxidation capacity in the summer of Houston 2006: Comparison with summer measurements in other metropolitan studies. <i>Atmospheric Environment</i> , 2010, 44, 4107-4115.	4.1	214
8	Insights into hydroxyl measurements and atmospheric oxidation in a California forest. <i>Atmospheric Chemistry and Physics</i> , 2012, 12, 8009-8020.	4.9	211
9	Atmospheric oxidation in the Mexico City Metropolitan Area (MCMA) during April 2003. <i>Atmospheric Chemistry and Physics</i> , 2006, 6, 2753-2765.	4.9	204
10	A Laser-induced Fluorescence Instrument for Detecting Tropospheric OH and HO ₂ : Characteristics and Calibration. <i>Journal of Atmospheric Chemistry</i> , 2004, 47, 139-167.	3.2	182
11	HO _x concentrations and OH reactivity observations in New York City during PMTACS-NY2001. <i>Atmospheric Environment</i> , 2003, 37, 3627-3637.	4.1	175
12	HO _x chemistry during INTEX-A 2004: Observation, model calculation, and comparison with previous studies. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	163
13	Behavior of OH and HO ₂ in the winter atmosphere in New York City. <i>Atmospheric Environment</i> , 2006, 40, 252-263.	4.1	154
14	Daytime HONO vertical gradients during SHARP 2009 in Houston, TX. <i>Atmospheric Chemistry and Physics</i> , 2012, 12, 635-652.	4.9	123
15	Large upper tropospheric ozone enhancements above midlatitude North America during summer: In situ evidence from the IONS and MOZAIC ozone measurement network. <i>Journal of Geophysical Research</i> , 2006, 111, .	3.3	113
16	Observational Insights into Aerosol Formation from Isoprene. <i>Environmental Science & Technology</i> , 2013, 47, 11403-11413.	10.0	113
17	Closing the peroxy acetyl nitrate budget: observations of acyl peroxy nitrates (PAN, PPN, and MPAN) during BEARPEX 2007. <i>Atmospheric Chemistry and Physics</i> , 2009, 9, 7623-7641.	4.9	105
18	Volatile chemical product emissions enhance ozone and modulate urban chemistry. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	7.1	103

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19	Top-down constraints on atmospheric mercury emissions and implications for global biogeochemical cycling. <i>Atmospheric Chemistry and Physics</i> , 2015, 15, 7103-7125.	4.9	96
20	Atmospheric oxidation chemistry and ozone production: Results from SHARP 2009 in Houston, Texas. <i>Journal of Geophysical Research D: Atmospheres</i> , 2013, 118, 5770-5780.	3.3	92
21	On the temperature dependence of organic reactivity, nitrogen oxides, ozone production, and the impact of emission controls in San Joaquin Valley, California. <i>Atmospheric Chemistry and Physics</i> , 2014, 14, 3373-3395.	4.9	92
22	OH, HO ₂ , and OH reactivity during the PMTACS-NY Whiteface Mountain 2002 campaign: Observations and model comparison. <i>Journal of Geophysical Research</i> , 2006, 111, n/a-n/a.	3.3	90
23	Impacts of brown carbon from biomass burning on surface UV and ozone photochemistry in the Amazon Basin. <i>Scientific Reports</i> , 2016, 6, 36940.	3.3	90
24	Summertime influence of Asian pollution in the free troposphere over North America. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	86
25	Ozone production and its sensitivity to NO _x and VOCs: results from the DISCOVER-AQ field experiment, Houston 2013. <i>Atmospheric Chemistry and Physics</i> , 2016, 16, 14463-14474.	4.9	85
26	Characterization of Wintertime Reactive Oxygen Species Concentrations in Flushing, New York. <i>Aerosol Science and Technology</i> , 2007, 41, 97-111.	3.1	84
27	A relaxed eddy accumulation system for measuring vertical fluxes of nitrous acid. <i>Atmospheric Measurement Techniques</i> , 2011, 4, 2093-2103.	3.1	76
28	Evaluation and environmental correction of ambient CO ₂ measurements from a low-cost NDIR sensor. <i>Atmospheric Measurement Techniques</i> , 2017, 10, 2383-2395.	3.1	72
29	Measurement of HO ₂ NO ₂ in the free troposphere during the Intercontinental Chemical Transport Experiment—North America 2004. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	68
30	A comparison of chemical mechanisms based on TRAMP-2006 field data. <i>Atmospheric Environment</i> , 2010, 44, 4116-4125.	4.1	67
31	Vertical profiles of NO ₂ , SO ₂ , HONO, HCHO, CHOCHO and aerosols derived from MAX-DOAS measurements at a rural site in the central western North China Plain and their relation to emission sources and effects of regional transport. <i>Atmospheric Chemistry and Physics</i> , 2019, 19, 5417-5449.	4.9	66
32	Hydroxyl and Peroxy Radical Chemistry in a Rural Area of Central Pennsylvania: Observations and Model Comparisons. <i>Journal of Atmospheric Chemistry</i> , 2005, 52, 231-257.	3.2	61
33	Interference Testing for Atmospheric HO _x Measurements by Laser-induced Fluorescence. <i>Journal of Atmospheric Chemistry</i> , 2004, 47, 169-190.	3.2	59
34	Evidence for a nitrous acid (HONO) reservoir at the ground surface in Bakersfield, CA, during CalNex 2010. <i>Journal of Geophysical Research D: Atmospheres</i> , 2014, 119, 9093-9106.	3.3	59
35	Ozone production chemistry in the presence of urban plumes. <i>Faraday Discussions</i> , 2016, 189, 169-189.	3.2	56
36	Measurement of atmospheric nitrous acid at Bodgett Forest during BEARPEX2007. <i>Atmospheric Chemistry and Physics</i> , 2010, 10, 6283-6294.	4.9	55

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37	Formation and growth of ultrafine particles from secondary sources in Bakersfield, California. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	51
38	Nitrogen dioxide observations from the Geostationary Trace gas and Aerosol Sensor Optimization (GeoTASO) airborne instrument: Retrieval algorithm and measurements during DISCOVER-AQ Texas 2013. <i>Atmospheric Measurement Techniques</i> , 2016, 9, 2647-2668.	3.1	50
39	SO ₂ Emission Estimates Using OMI SO ₂ Retrievals for 2005–2017. <i>Journal of Geophysical Research D: Atmospheres</i> , 2019, 124, 8336-8359.	3.3	47
40	Detailed comparisons of airborne formaldehyde measurements with box models during the 2006 INTEX-B and MILAGRO campaigns: potential evidence for significant impacts of unmeasured and multi-generation volatile organic carbon compounds. <i>Atmospheric Chemistry and Physics</i> , 2011, 11, 11867-11894.	4.9	46
41	Detection of formaldehyde emissions from an industrial zone in the Yangtze River Delta region of China using a proton transfer reaction ion-drift chemical ionization mass spectrometer. <i>Atmospheric Measurement Techniques</i> , 2016, 9, 6101-6116.	3.1	46
42	Impact of clouds and aerosols on ozone production in Southeast Texas. <i>Atmospheric Environment</i> , 2010, 44, 4126-4133.	4.1	45
43	Methane Emissions From the Baltimore–Washington Area Based on Airborne Observations: Comparison to Emissions Inventories. <i>Journal of Geophysical Research D: Atmospheres</i> , 2018, 123, 8869-8882.	3.3	43
44	An analysis of fast photochemistry over high northern latitudes during spring and summer using in-situ observations from ARCTAS and TOPSE. <i>Atmospheric Chemistry and Physics</i> , 2012, 12, 6799-6825.	4.9	38
45	Airborne Vertical Profiling of Mercury Speciation near Tullahoma, TN, USA. <i>Atmosphere</i> , 2014, 5, 557-574.	2.3	37
46	Intercomparison of field measurements of nitrous acid (HONO) during the SHARP campaign. <i>Journal of Geophysical Research D: Atmospheres</i> , 2014, 119, 5583-5601.	3.3	36
47	On the use of data from commercial NO _x analyzers for air pollution studies. <i>Atmospheric Environment</i> , 2019, 214, 116873.	4.1	36
48	Role of convection in redistributing formaldehyde to the upper troposphere over North America and the North Atlantic during the summer 2004 INTEX campaign. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	35
49	Direct measurement of ozone production rates in Houston in 2009 and comparison with two estimation methods. <i>Atmospheric Chemistry and Physics</i> , 2012, 12, 1203-1212.	4.9	35
50	Top-Down Estimates of NO _x and CO Emissions From Washington, D.C.–Baltimore During the WINTER Campaign. <i>Journal of Geophysical Research D: Atmospheres</i> , 2018, 123, 7705-7724.	3.3	35
51	Summertime buildup and decay of lightning NO _x and aged thunderstorm outflow above North America. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	34
52	Correcting model biases of CO in East Asia: impact on oxidant distributions during KORUS-AQ. <i>Atmospheric Chemistry and Physics</i> , 2020, 20, 14617-14647.	4.9	34
53	Intercomparison of peroxy radical measurements at a rural site using laser-induced fluorescence and Peroxy Radical Chemical Ionization Mass Spectrometer (PerCIMS) techniques. <i>Journal of Geophysical Research</i> , 2003, 108, .	3.3	33
54	Estimating Methane Emissions From Underground Coal and Natural Gas Production in Southwestern Pennsylvania. <i>Geophysical Research Letters</i> , 2019, 46, 4531-4540.	4.0	32

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55	Using Short-Term CO/CO ₂ Ratios to Assess Air Mass Differences Over the Korean Peninsula During KORUS-AQ. <i>Journal of Geophysical Research D: Atmospheres</i> , 2019, 124, 10951-10972.	3.3	31
56	Multi-model study of mercury dispersion in the atmosphere: vertical and interhemispheric distribution of mercury species. <i>Atmospheric Chemistry and Physics</i> , 2017, 17, 6925-6955.	4.9	30
57	Performance evaluation of an air quality forecast modeling system for a summer and winter season of Photochemical oxidants and their precursors. <i>Atmospheric Environment</i> , 2008, 42, 8585-8599.	4.1	29
58	Airborne intercomparison of HO ₂ measurements using laser-induced fluorescence and chemical ionization mass spectrometry during ARCTAS. <i>Atmospheric Measurement Techniques</i> , 2012, 5, 2025-2037.	3.1	28
59	Automated Calibration of Atmospheric Oxidized Mercury Measurements. <i>Environmental Science & Technology</i> , 2016, 50, 12921-12927.	10.0	28
60	Vertical distributions of aerosol optical properties during the spring 2016 ARIAs airborne campaign in the North China Plain. <i>Atmospheric Chemistry and Physics</i> , 2018, 18, 8995-9010.	4.9	28
61	Measuring atmospheric naphthalene with laser-induced fluorescence. <i>Atmospheric Chemistry and Physics</i> , 2004, 4, 563-569.	4.9	27
62	An Atmospheric Constraint on the NO ₂ Dependence of Daytime Near-Surface Nitrous Acid (HONO). <i>Environmental Science & Technology</i> , 2015, 49, 12774-12781.	10.0	26
63	Methane Emissions from the Marcellus Shale in Southwestern Pennsylvania and Northern West Virginia Based on Airborne Measurements. <i>Journal of Geophysical Research D: Atmospheres</i> , 2019, 124, 1862-1878.	3.3	26
64	Wintertime CO ₂ , CH ₄ , and CO Emissions Estimation for the Washington, DC-Baltimore Metropolitan Area Using an Inverse Modeling Technique. <i>Environmental Science & Technology</i> , 2020, 54, 2606-2614.	10.0	25
65	Convective transport and scavenging of peroxides by thunderstorms observed over the central U.S. during DC3. <i>Journal of Geophysical Research D: Atmospheres</i> , 2016, 121, 4272-4295.	3.3	24
66	Observational Constraints on the Oxidation of NO _x in the Upper Troposphere. <i>Journal of Physical Chemistry A</i> , 2016, 120, 1468-1478.	2.5	23
67	Measurement report: Aircraft observations of ozone, nitrogen oxides, and volatile organic compounds over Hebei Province, China. <i>Atmospheric Chemistry and Physics</i> , 2020, 20, 14523-14545.	4.9	23
68	Extreme oxidant amounts produced by lightning in storm clouds. <i>Science</i> , 2021, 372, 711-715.	12.6	22
69	Contribution of nitrous acid to the atmospheric oxidation capacity in an industrial zone in the Yangtze River Delta region of China. <i>Atmospheric Chemistry and Physics</i> , 2020, 20, 5457-5475.	4.9	21
70	Atmospheric mercury measurements at a suburban site in the Mid-Atlantic United States: Inter-annual, seasonal and diurnal variations and source-receptor relationships. <i>Atmospheric Environment</i> , 2016, 146, 141-152.	4.1	20
71	Mercury Speciation at a Coastal Site in the Northern Gulf of Mexico: Results from the Grand Bay Intensive Studies in Summer 2010 and Spring 2011. <i>Atmosphere</i> , 2014, 5, 230-251.	2.3	19
72	Urban emissions of water vapor in winter. <i>Journal of Geophysical Research D: Atmospheres</i> , 2017, 122, 9467-9484.	3.3	18

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73	Atmospheric oxidation in the presence of clouds during the Deep Convective Clouds and Chemistry (DC3) study. <i>Atmospheric Chemistry and Physics</i> , 2018, 18, 14493-14510.	4.9	18
74	Assessing Measurements of Pollution in the Troposphere (MOPITT) carbon monoxide retrievals over urban versus non-urban regions. <i>Atmospheric Measurement Techniques</i> , 2020, 13, 1337-1356.	3.1	16
75	Using near-road observations of CO, NO _y , and CO ₂ to investigate emissions from vehicles: Evidence for an impact of ambient temperature and specific humidity. <i>Atmospheric Environment</i> , 2020, 232, 117558.	4.1	16
76	Synergistic aircraft and ground observations of transported wildfire smoke and its impact on air quality in New York City during the summer 2018 LISTOS campaign. <i>Science of the Total Environment</i> , 2021, 773, 145030.	8.0	16
77	Modeling the global atmospheric transport and deposition of mercury to the Great Lakes. <i>Elementa</i> , 2016, 4, .	3.2	16
78	Quantitative relationship between production and removal of OH and HO ₂ radicals in urban atmosphere. <i>Science Bulletin</i> , 2004, 49, 2253.	1.7	14
79	Projections of atmospheric mercury levels and their effect on air quality in the United States. <i>Atmospheric Chemistry and Physics</i> , 2014, 14, 783-795.	4.9	14
80	Budget of nitrous acid and its impacts on atmospheric oxidative capacity at an urban site in the central Yangtze River Delta region of China. <i>Atmospheric Environment</i> , 2020, 238, 117725.	4.1	13
81	Fluxes of Atmospheric Greenhouse Gases in Maryland (FLAGG-MD): Emissions of Carbon Dioxide in the Baltimore, MD-Washington, D.C. Area. <i>Journal of Geophysical Research D: Atmospheres</i> , 2020, 125, e2019JD032004.	3.3	11
82	Observations of bay-breeze and ozone events over a marine site during the OWLETS-2 campaign. <i>Atmospheric Environment</i> , 2021, 263, 118669.	4.1	10
83	Sensitivity of total column NO ₂ at a marine site within the Chesapeake Bay during OWLETS-2. <i>Atmospheric Environment</i> , 2022, 277, 119063.	4.1	10
84	Controls on urban ozone production rate as indicated by formaldehyde oxidation rate and nitric oxide. <i>Atmospheric Environment</i> , 2010, 44, 5395-5406.	4.1	7
85	Long-Term Observations of Atmospheric Speciated Mercury at a Coastal Site in the Northern Gulf of Mexico during 2007-2018. <i>Atmosphere</i> , 2020, 11, 268.	2.3	7
86	Carbon Monoxide Emissions from the Washington, DC, and Baltimore Metropolitan Area: Recent Trend and COVID-19 Anomaly. <i>Environmental Science & Technology</i> , 2022, 56, 2172-2180.	10.0	7
87	Meteorological Modeling Using the WRF-ARW Model for Grand Bay Intensive Studies of Atmospheric Mercury. <i>Atmosphere</i> , 2015, 6, 209-233.	2.3	5
88	Global sensitivity analysis of GEOS-Chem modeled ozone and hydrogen oxides during the INTEX campaigns. <i>Atmospheric Chemistry and Physics</i> , 2018, 18, 2443-2460.	4.9	5
89	Airborne Observations of CFCs Over Hebei Province, China in Spring 2016. <i>Journal of Geophysical Research D: Atmospheres</i> , 2021, 126, e2021JD035152.	3.3	5
90	A multi-city urban atmospheric greenhouse gas measurement data synthesis. <i>Scientific Data</i> , 2022, 9, .	5.3	5

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91	Gaseous Elemental Mercury Concentrations along the Northern Gulf of Mexico Using Passive Air Sampling, with a Comparison to Active Sampling. <i>Atmosphere</i> , 2020, 11, 1034.	2.3	4
92	Seasonality of nitrous acid near an industry zone in the Yangtze River Delta region of China: Formation mechanisms and contribution to the atmospheric oxidation capacity. <i>Atmospheric Environment</i> , 2021, 254, 118420.	4.1	4
93	Conversion rates of surface HOx radicals in Beijing City. <i>Chinese Geographical Science</i> , 2004, 14, 34-38.	3.0	2
94	Fluxes of Atmospheric Greenhouse-Gases in Maryland (FLAGG-MD): Emissions of Carbon Dioxide in the Baltimore, MD-Washington, D.C. area. <i>Journal of Geophysical Research D: Atmospheres</i> , 2020, 125, .	3.3	0