Xinrong Ren

List of Publications by Year
in descending order

94 papers	6,375 citations	71061 41 h-index	79644 73 g-index
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. Science, 2004, 304, 722-725.	6.0	431
2	Airborne measurement of OH reactivity during INTEX-B. Atmospheric Chemistry and Physics, 2009, 9, 163-173.	1.9	293
3	OH and HO2 Chemistry in the urban atmosphere of New York City. Atmospheric Environment, 2003, 37, 3639-3651.	1.9	283
4	Surface and lightning sources of nitrogen oxides over the United States: Magnitudes, chemical evolution, and outflow. Journal of Geophysical Research, 2007, 112, .	3.3	279
5	India Is Overtaking China as the Worldâ€™s Largest Emitter of Anthropogenic Sulfur Dioxide. Scientific Reports, 2017, 7, 14304.	1.6	230
6	Chemistry of hydrogen oxide radicals (HO_x) in the Arctic troposphere in spring. Atmospheric Chemistry and Physics, 2010, 10, 5823-5838.	1.9	220
7	Atmospheric oxidation capacity in the summer of Houston 2006: Comparison with summer measurements in other metropolitan studies. Atmospheric Environment, 2010, 44, 4107-4115.	1.9	214
8	Insights into hydroxyl measurements and atmospheric oxidation in a California forest. Atmospheric Chemistry and Physics, 2012, 12, 8009-8020.	1.9	211
9	Atmospheric oxidation in the Mexico City Metropolitan Area (MCMA) during April 2003. Atmospheric Chemistry and Physics, 2006, 6, 2753-2765.	1.9	204
10	A Laser-induced Fluorescence Instrument for Detecting Tropospheric OH and HO2: Characteristics and Calibration. Journal of Atmospheric Chemistry, 2004, 47, 139-167.	1.4	182
11	HOx concentrations and OH reactivity observations in New York City during PMTACS-NY2001. Atmospheric Environment, 2003, 37, 3627-3637.	1.9	175
12	HO_{<i>x</i>} chemistry during INTEXâ€A 2004: Observation, model calculation, and comparison with previous studies. Journal of Geophysical Research, 2008, 113, .	3.3	163
13	Behavior of OH and HO2 in the winter atmosphere in New York City. Atmospheric Environment, 2006, 40, 252-263.	1.9	154
14	Daytime HONO vertical gradients during SHARP 2009 in Houston, TX. Atmospheric Chemistry and Physics, 2012, 12, 635-652.	1.9	123
15	Large upper tropospheric ozone enhancements above midlatitude North America during summer: In situ evidence from the IONS and MOZAIC ozone measurement network. Journal of Geophysical Research, 2006, 111, .	3.3	113
16	Observational Insights into Aerosol Formation from Isoprene. Environmental Science & Technology, 2013, 47, 11403-11413.	4.6	113
17	Closing the peroxy acetyl nitrate budget: observations of acyl peroxy nitrates (PAN, PPN, and MPAN) during BEARPEX 2007. Atmospheric Chemistry and Physics, 2009, 9, 7623-7641.	1.9	105
18	Volatile chemical product emissions enhance ozone and modulate urban chemistry. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	103

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19	Top-down constraints on atmospheric mercury emissions and implications for global biogeochemical cycling. Atmospheric Chemistry and Physics, 2015, 15, 7103-7125.	1.9	96
20	Atmospheric oxidation chemistry and ozone production: Results from SHARP 2009 in Houston, Texas. Journal of Geophysical Research D: Atmospheres, 2013, 118, 5770-5780.	1.2	92
21	On the temperature dependence of organic reactivity, nitrogen oxides, ozone production, and the impact of emission controls in San Joaquin Valley, California. Atmospheric Chemistry and Physics, 2014, 14, 3373-3395.	1.9	92
22	OH, HO2, and OH reactivity during the PMTACS-NY Whiteface Mountain 2002 campaign: Observations and model comparison. Journal of Geophysical Research, 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. Scientific Reports, 2016, 6, 36940.	1.6	90
24	Summertime influence of Asian pollution in the free troposphere over North America. Journal of Geophysical Research, 2007, 112, .	3.3	86
25	Ozone production and its sensitivity to NO_{<i>x</i>} and VOCs: results from the DISCOVER-AQ field experiment, Houston 2013. Atmospheric Chemistry and Physics, 2016, 16, 14463-14474.	1.9	85
26	Characterization of Wintertime Reactive Oxygen Species Concentrations in Flushing, New York. Aerosol Science and Technology, 2007, 41, 97-111.	1.5	84
27	A relaxed eddy accumulation system for measuring vertical fluxes of nitrous acid. Atmospheric Measurement Techniques, 2011, 4, 2093-2103.	1.2	76
28	Evaluation and environmental correction of ambient CO₂ measurements from a low-cost NDIR sensor. Atmospheric Measurement Techniques, 2017, 10, 2383-2395.	1.2	72
29	Measurement of HO2NO2in the free troposphere during the Intercontinental Chemical Transport Experimentâ€“North America 2004. Journal of Geophysical Research, 2007, 112, .	3.3	68
30	A comparison of chemical mechanisms based on TRAMP-2006 field data. Atmospheric Environment, 2010, 44, 4116-4125.	1.9	67
31	Vertical profiles of NO₂, SO₂, 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. Atmospheric Chemistry and Physics, 2019, 19, 5417-5449.	1.9	66
32	Hydroxyl and Peroxy Radical Chemistry in a Rural Area of Central Pennsylvania: Observations and Model Comparisons. Journal of Atmospheric Chemistry, 2005, 52, 231-257.	1.4	61
33	Interference Testing for Atmospheric HOxMeasurements by Laser-induced Fluorescence. Journal of Atmospheric Chemistry, 2004, 47, 169-190.	1.4	59
34	Evidence for a nitrous acid (HONO) reservoir at the ground surface in Bakersfield, CA, during CalNex 2010. Journal of Geophysical Research D: Atmospheres, 2014, 119, 9093-9106.	1.2	59
35	Ozone production chemistry in the presence of urban plumes. Faraday Discussions, 2016, 189, 169-189.	1.6	56
36	Measurement of atmospheric nitrous acid at Bodgett Forest during BEARPEX2007. Atmospheric Chemistry and Physics, 2010, 10, 6283-6294.	1.9	55

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37	Formation and growth of ultrafine particles from secondary sources in Bakersfield, California. Journal of Geophysical Research, 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. Atmospheric Measurement Techniques, 2016, 9, 2647-2668.	1.2	50
39	SO₂ Emission Estimates Using OMI SO₂ Retrievals for 2005â€"2017. Journal of Geophysical Research D: Atmospheres, 2019, 124, 8336-8359.	1.2	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. Atmospheric Chemistry and Physics, 2011, 11, 11867-11894.	1.9	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. Atmospheric Measurement Techniques, 2016, 9, 6101-6116.	1.2	46
42	Impact of clouds and aerosols on ozone production in Southeast Texas. Atmospheric Environment, 2010, 44, 4126-4133.	1.9	45
43	Methane Emissions From the Baltimoreâ€Washington Area Based on Airborne Observations: Comparison to Emissions Inventories. Journal of Geophysical Research D: Atmospheres, 2018, 123, 8869-8882.	1.2	43
44	An analysis of fast photochemistry over high northern latitudes during spring and summer using in-situ observations from ARCTAS and TOPSE. Atmospheric Chemistry and Physics, 2012, 12, 6799-6825.	1.9	38
45	Airborne Vertical Profiling of Mercury Speciation near Tullahoma, TN, USA. Atmosphere, 2014, 5, 557-574.	1.0	37
46	Intercomparison of field measurements of nitrous acid (HONO) during the SHARP campaign. Journal of Geophysical Research D: Atmospheres, 2014, 119, 5583-5601.	1.2	36
47	On the use of data from commercial NOx analyzers for air pollution studies. Atmospheric Environment, 2019, 214, 116873.	1.9	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. Journal of Geophysical Research, 2008, 113, .	3.3	35
49	Direct measurement of ozone production rates in Houston in 2009 and comparison with two estimation methods. Atmospheric Chemistry and Physics, 2012, 12, 1203-1212.	1.9	35
50	Topâ€Down Estimates of NO_{<i>x</i>} and CO Emissions From Washington, D.C.â€Baltimore During the WINTER Campaign. Journal of Geophysical Research D: Atmospheres, 2018, 123, 7705-7724.	1.2	35
51	Summertime buildup and decay of lightning NO_x and aged thunderstorm outflow above North America. Journal of Geophysical Research, 2009, 114, .	3.3	34
52	Correcting model biases of CO in East Asia: impact on oxidant distributions during KORUS-AQ. Atmospheric Chemistry and Physics, 2020, 20, 14617-14647.	1.9	34
53	Intercomparison of peroxy radical measurements at a rural site using laser-induced fluorescence and Peroxy Radical Chemical Ionization Mass Spectrometer (PerCIMS) techniques. Journal of Geophysical Research, 2003, 108, .	3.3	33
54	Estimating Methane Emissions From Underground Coal and Natural Gas Production in Southwestern Pennsylvania. Geophysical Research Letters, 2019, 46, 4531-4540.	1.5	32

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55	Using Shortâ€Term CO/CO₂ Ratios to Assess Air Mass Differences Over the Korean Peninsula During KORUSâ€AQ. Journal of Geophysical Research D: Atmospheres, 2019, 124, 10951-10972.	1.2	31
56	Multi-model study of mercury dispersion in the atmosphere: vertical and interhemispheric distribution of mercury species. Atmospheric Chemistry and Physics, 2017, 17, 6925-6955.	1.9	30
57	Performance evaluation of an air quality forecast modeling system for a summer and winter season â€" Photochemical oxidants and their precursors. Atmospheric Environment, 2008, 42, 8585-8599.	1.9	29
58	Airborne intercomparison of HO_x measurements using laser-induced fluorescence and chemical ionization mass spectrometry during ARCTAS. Atmospheric Measurement Techniques, 2012, 5, 2025-2037.	1.2	28
59	Automated Calibration of Atmospheric Oxidized Mercury Measurements. Environmental Science & Technology, 2016, 50, 12921-12927.	4.6	28
60	Vertical distributions of aerosol optical properties during the spring 2016 ARIAs airborne campaign in the North China Plain. Atmospheric Chemistry and Physics, 2018, 18, 8995-9010.	1.9	28
61	Measuring atmospheric naphthalene with laser-induced fluorescence. Atmospheric Chemistry and Physics, 2004, 4, 563-569.	1.9	27
62	An Atmospheric Constraint on the NO₂ Dependence of Daytime Near-Surface Nitrous Acid (HONO). Environmental Science & Technology, 2015, 49, 12774-12781.	4.6	26
63	Methane Emissions from the Marcellus Shale in Southwestern Pennsylvania and Northern West Virginia Based on Airborne Measurements. Journal of Geophysical Research D: Atmospheres, 2019, 124, 1862-1878.	1.2	26
64	Wintertime CO₂, CH₄, and CO Emissions Estimation for the Washington, DCâ€"Baltimore Metropolitan Area Using an Inverse Modeling Technique. Environmental Science & Technology, 2020, 54, 2606-2614.	4.6	25
65	Convective transport and scavenging of peroxides by thunderstorms observed over the central U.S. during DC3. Journal of Geophysical Research D: Atmospheres, 2016, 121, 4272-4295.	1.2	24
66	Observational Constraints on the Oxidation of NOx in the Upper Troposphere. Journal of Physical Chemistry A, 2016, 120, 1468-1478.	1.1	23
67	Measurement report: Aircraft observations of ozone, nitrogen oxides, and volatile organic compounds over Hebei Province, China. Atmospheric Chemistry and Physics, 2020, 20, 14523-14545.	1.9	23
68	Extreme oxidant amounts produced by lightning in storm clouds. Science, 2021, 372, 711-715.	6.0	22
69	Contribution of nitrous acid to the atmospheric oxidation capacity in an industrial zone in the Yangtze River Delta region of China. Atmospheric Chemistry and Physics, 2020, 20, 5457-5475.	1.9	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. Atmospheric Environment, 2016, 146, 141-152.	1.9	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. Atmosphere, 2014, 5, 230-251.	1.0	19
72	Urban emissions of water vapor in winter. Journal of Geophysical Research D: Atmospheres, 2017, 122, 9467-9484.	1.2	18

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73	Atmospheric oxidation in the presence of clouds during the Deep Convective Clouds and Chemistry (DC3) study. Atmospheric Chemistry and Physics, 2018, 18, 14493-14510.	1.9	18
74	Assessing Measurements of Pollution in the Troposphere (MOPITT) carbon monoxide retrievals over urban versus non-urban regions. Atmospheric Measurement Techniques, 2020, 13, 1337-1356.	1.2	16
75	Using near-road observations of CO, NOy, and CO2 to investigate emissions from vehicles: Evidence for an impact of ambient temperature and specific humidity. Atmospheric Environment, 2020, 232, 117558.	1.9	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. Science of the Total Environment, 2021, 773, 145030.	3.9	16
77	Modeling the global atmospheric transport and deposition of mercury to the Great Lakes. Elementa, 2016, 4, .	1.1	16
78	Quantitative relationship between production and removal of OH and HO2 radicals in urban atmosphere. Science Bulletin, 2004, 49, 2253.	1.7	14
79	Projections of atmospheric mercury levels and their effect on air quality in the United States. Atmospheric Chemistry and Physics, 2014, 14, 783-795.	1.9	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. Atmospheric Environment, 2020, 238, 117725.	1.9	13
81	Fluxes of Atmospheric Greenhouseâ€Gases in Maryland (FLAGGâ€MD): Emissions of Carbon Dioxide in the Baltimore, MDâ€Washington, D.C. Area. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2019JD032004.	1.2	11
82	Observations of bay-breeze and ozone events over a marine site during the OWLETS-2 campaign. Atmospheric Environment, 2021, 263, 118669.	1.9	10
83	Sensitivity of total column NO2 at a marine site within the Chesapeake Bay during OWLETS-2. Atmospheric Environment, 2022, 277, 119063.	1.9	10
84	Controls on urban ozone production rate as indicated by formaldehyde oxidation rate and nitric oxide. Atmospheric Environment, 2010, 44, 5395-5406.	1.9	7
85	Long-Term Observations of Atmospheric Speciated Mercury at a Coastal Site in the Northern Gulf of Mexico during 2007â€"2018. Atmosphere, 2020, 11, 268.	1.0	7
86	Carbon Monoxide Emissions from the Washington, DC, and Baltimore Metropolitan Area: Recent Trend and COVID-19 Anomaly. Environmental Science & Technology, 2022, 56, 2172-2180.	4.6	7
87	Meteorological Modeling Using the WRF-ARW Model for Grand Bay Intensive Studies of Atmospheric Mercury. Atmosphere, 2015, 6, 209-233.	1.0	5
88	Global sensitivity analysis of GEOS-Chem modeled ozone and hydrogen oxides during the INTEX campaigns. Atmospheric Chemistry and Physics, 2018, 18, 2443-2460.	1.9	5
89	Airborne Observations of CFCs Over Hebei Province, China in Spring 2016. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2021JD035152.	1.2	5
90	A multi-city urban atmospheric greenhouse gas measurement data synthesis. Scientific Data, 2022, 9, .	2.4	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. Atmosphere, 2020, 11, 1034.	1.0	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. Atmospheric Environment, 2021, 254, 118420.	1.9	4
93	Conversion rates of surface HOx radicals in Beijing City. Chinese Geographical Science, 2004, 14, 34-38.	1.2	2
94	Fluxes of Atmospheric Greenhouse-Gases in Maryland (FLAGG-MD): Emissions of Carbon Dioxide in the Baltimore, MD-Washington, D.C. area. Journal of Geophysical Research D: Atmospheres, 2020, 125, .	1.2	0