William R Stockwell

List of Publications by Year
in descending order

75 papers	5,511 citations	126708 33 h-index	85405 71 g-index
77 all docs	77 docs citations	77 times ranked	3942 citing authors

#	Article	IF	Citations
1	The second generation regional acid deposition model chemical mechanism for regional air quality modeling. Journal of Geophysical Research, 1990, 95, 16343-16367.	3.3	981
2	A new mechanism for regional atmospheric chemistry modeling. Journal of Geophysical Research, 1997, 102, 25847-25879.	3.3	883
3	The mechanism of the HO-SO2 reaction. Atmospheric Environment, 1983, 17, 2231-2235.	1.1	326
4	Aggregation and analysis of volatile organic compound emissions for regional modeling. Atmospheric Environment Part A General Topics, 1990, 24, 1107-1133.	1.3	213
5	Acid generation in the troposphere by gas-phase chemistry. Environmental Science & Technology, 1983, 17, 428A-443A.	4.6	210
6	The regional atmospheric chemistry mechanism, version 2. Atmospheric Environment, 2013, 68, 174-185.	1.9	192
7	Application of a multiscale, coupled MM5/chemistry model to the complex terrain of the VOTALP valley campaign. Atmospheric Environment, 2000, 34, 1435-1453.	1.9	188
8	A homogeneous gas phase mechanism for use in a regional acid deposition model. Atmospheric Environment, 1986, 20, 1615-1632.	1.1	159
9	New indices for wet scavenging of air pollutants (O3, CO, NO2, SO2, and PM10) by summertime rain. Atmospheric Environment, 2014, 82, 226-237.	1.9	138
10	Evolution of the Magnitude and Spatial Extent of the Weekend Ozone Effect in Californiaâ€™s South Coast Air Basin, 1981â€“2000. Journal of the Air and Waste Management Association, 2003, 53, 802-815.	0.9	104
11	The mechanism of NO₃ and HONO formation in the nighttime chemistry of the urban atmosphere. Journal of Geophysical Research, 1983, 88, 6673-6682.	3.3	99
12	Kinetic study of the nitrate free radical (NO3)-formaldehyde reaction and its possible role in nighttime tropospheric chemistry. The Journal of Physical Chemistry, 1985, 89, 139-146.	2.9	91
13	Trace gas exchange and gas phase chemistry in a Norway spruce forest: A study with a coupled 1-dimensional canopy atmospheric chemistry emission model. Atmospheric Environment, 2006, 40, 28-42.	1.9	91
14	On the HO2+ HO2reaction: Its misapplication in atmospheric chemistry models. Journal of Geophysical Research, 1995, 100, 11695.	3.3	88
15	The influence of aqueous-phase chemical reactions on ozone formation in polluted and nonpolluted clouds. Atmospheric Environment, 1997, 31, 1221-1237.	1.9	88
16	Effect of peroxy radical reactions on the predicted concentrations of ozone, nitrogenous compounds, and radicals. Journal of Geophysical Research, 1996, 101, 21007-21022.	3.3	85
17	The near ultraviolet absorption spectrum of gaseous HONO and N2O3. Journal of Photochemistry and Photobiology, 1978, 8, 193-203.	0.6	83
18	The impacts of reactive terpene emissions from plants on air quality in Las Vegas, Nevada. Atmospheric Environment, 2009, 43, 4109-4123.	1.9	75

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19	A study of formaldehyde chemistry above a forest canopy. Journal of Geophysical Research, 2001, 106, 24387-24405.	3.3	73
20	Biogenic Hydrocarbon Chemistry within and Above a Mixed Deciduous Forest. Journal of Atmospheric Chemistry, 2007, 56, 165-185.	1.4	73
21	A Review of Tropospheric Atmospheric Chemistry and Gas-Phase Chemical Mechanisms for Air Quality Modeling. Atmosphere, 2012, 3, 1-32.	1.0	71
22	The ammonium nitrate particle equivalent of NOx emissions for wintertime conditions in Central California's San Joaquin Valley. Atmospheric Environment, 2000, 34, 4711-4717.	1.9	66
23	Observations of reactive oxidized nitrogen and speciation of NOyduring the PROPHET summer 1998 intensive. Journal of Geophysical Research, 2001, 106, 24359-24386.	3.3	66
24	Diurnal and Weekday Variations in the Source Contributions of Ozone Precursors in Californiaâ€™s South Coast Air Basin. Journal of the Air and Waste Management Association, 2003, 53, 844-863.	0.9	56
25	Impact of sulfur dioxide oxidation by Stabilized Criegee Intermediate on sulfate. Atmospheric Environment, 2014, 85, 204-214.	1.9	55
26	Deviations from the O3â€“NOâ€“NO2 photostationary state in tropospheric chemistry. Canadian Journal of Chemistry, 1983, 61, 983-992.	0.6	54
27	Spatiotemporal variations of air pollutants (O₃,) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 5 and Physics, 2015, 15, 10857-10885.	1.9	53
28	Comparison of the EMEP, RADM2 and RACM Mechanisms. Journal of Atmospheric Chemistry, 2003, 44, 151-170.	1.4	51
29	Uncertainties in Incremental Reactivities of Volatile Organic Compounds. Environmental Science & Technology, 1995, 29, 1336-1345.	4.6	46
30	First-order sensitivity analysis of models with time-dependent parameters: an application to PAN and ozone. Atmospheric Environment, 1999, 33, 2941-2953.	1.9	45
31	A comparison of atmospheric composition using the Carbon Bond and Regional Atmospheric Chemistry Mechanisms. Atmospheric Chemistry and Physics, 2013, 13, 9695-9712.	1.9	44
32	Past and future ozone trends in California's South Coast Air Basin: Reconciliation of ambient measurements with past and projected emission inventories. Journal of the Air and Waste Management Association, 2013, 63, 54-69.	0.9	39
33	Evaluation of simulated photochemical partitioning of oxidized nitrogen in the upper troposphere. Atmospheric Chemistry and Physics, 2011, 11, 275-291.	1.9	37
34	Kinetics and atmospheric implications of peroxy radical cross reactions involving the CH3C(O)O2radical. Journal of Geophysical Research, 1998, 103, 25273-25285.	3.3	36
35	The Treasure Valley secondary aerosol study II: modeling of the formation of inorganic secondary aerosols and precursors for southwestern Idaho. Atmospheric Environment, 2003, 37, 525-534.	1.9	33
36	Linking Air Quality and Human Health Effects Models: An Application to the Los Angeles Air Basin. Environmental Health Insights, 2017, 11, 117863021773755.	0.6	33

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37	Effects of turbulence on gas-phase atmospheric chemistry: Calculation of the relationship between time scales for diffusion and chemical reaction. Meteorology and Atmospheric Physics, 1995, 57, 159-171.	0.9	32
38	Photochemical Modeling in California with Two Chemical Mechanisms: Model Intercomparison and Response to Emission Reductions. Journal of the Air and Waste Management Association, 2011, 61, 559-572.	0.9	27
39	The effect of gas-phase chemistry on aqueous-phase sulfur dioxide oxidation rates. Journal of Atmospheric Chemistry, 1994, 19, 317-329.	1.4	24
40	The Treasure Valley secondary aerosol study I: measurements and equilibrium modeling of inorganic secondary aerosols and precursors for southwestern Idaho. Atmospheric Environment, 2003, 37, 511-524.	1.9	24
41	Projected ozone trends and changes in the ozone-precursor relationship in the South Coast Air Basin in response to varying reductions of precursor emissions. Journal of the Air and Waste Management Association, 2016, 66, 201-214.	0.9	23
42	Chemical Mechanism Development: Laboratory Studies and Model Applications. Journal of Atmospheric Chemistry, 2002, 42, 323-357.	1.4	22
43	Nonlinear coupling in the NOx-SOx reactive organic system. Atmospheric Environment, 1988, 22, 2481-2490.	1.1	21
44	Theoretical estimates of the dynamic, radiative and chemical effects of clouds on tropospheric trace gases. Atmospheric Research, 1990, 25, 53-69.	1.8	20
45	Effect of Chemical Product Yield Uncertainties on Reactivities of VOCs and Emissions from Reformulated Gasolines and Methanol Fuels. Environmental Science & Technology, 1996, 30, 1392-1397.	4.6	18
46	Scenarios for Modeling Multiphase Tropospheric Chemistry. Journal of Atmospheric Chemistry, 2001, 40, 77-86.	1.4	18
47	A perspective on the development of gas-phase chemical mechanisms for Eulerian air quality models. Journal of the Air and Waste Management Association, 2020, 70, 44-70.	0.9	18
48	Comment on â€œSimulation of a reacting pollutant puff using an adaptive grid algorithmâ€•by R. K. Srivastava et al.. Journal of Geophysical Research, 2002, 107, ACH 18-1.	3.3	17
49	Measurement of actinic flux and the calculation of photolysis rate parameters for the Central California Ozone Study. Atmospheric Environment, 2004, 38, 5169-5177.	1.9	17
50	A Method to Determine the Spatial Resolution Required to Observe Air Quality From Space. IEEE Transactions on Geoscience and Remote Sensing, 2007, 45, 1308-1314.	2.7	16
51	Dominant volatile organic compounds (VOCs) measured at four <i>Cannabis</i> growing facilities: Pilot study results. Journal of the Air and Waste Management Association, 2019, 69, 1267-1276.	0.9	15
52	NOx or VOC Limitation in East German Ozone Plumes?. Journal of Atmospheric Chemistry, 2000, 35, 1-18.	1.4	13
53	Volatile organic compounds at a rural site in western Senegal. Journal of Atmospheric Chemistry, 2008, 60, 19-35.	1.4	13
54	Investigation of the Successive Ozone Episodes in the El Pasoâ€"Juarez Region in the Summer of 2017. Atmosphere, 2020, 11, 532.	1.0	13

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55	Absorption of Near UV Light by HNO₃/NO₃^{â€“} on Sapphire Surfaces. Journal of Physical Chemistry A, 2016, 120, 2877-2884.	1.1	12
56	Projected changes in particulate matter concentrations in the South Coast Air Basin due to basin-wide reductions in nitrogen oxides, volatile organic compounds, and ammonia emissions. Journal of the Air and Waste Management Association, 2019, 69, 192-208.	0.9	12
57	Sensitivity Modeling Study for an Ozone Occurrence during the 1996 Paso Del Norte Ozone Campaign. International Journal of Environmental Research and Public Health, 2008, 5, 181-203.	1.2	11
58	Numerical simulation for a wind dust event in the US/Mexico border region. Air Quality, Atmosphere and Health, 2013, 6, 317-331.	1.5	9
59	A phase-space method for arbitrary bimolecular gas-phase reactions: Theoretical description. International Journal of Quantum Chemistry, 2001, 84, 479-492.	1.0	8
60	A phase-space method for arbitrary bimolecular gas-phase reactions: Application to the CH3CHO+HO and CH3OOH+HO reactions. International Journal of Quantum Chemistry, 2001, 84, 493-512.	1.0	8
61	Estimation of incremental reactivities for multiple day scenarios: an application to ethane and dimethyoxymethane. Atmospheric Environment, 2001, 35, 929-939.	1.9	8
62	Multi-site tropospheric ozone measurements across the North Tropical Atlantic during the summer of 2010. Atmospheric Environment, 2013, 70, 131-148.	1.9	8
63	Multi-Scale Atmospheric Emissions, Circulation and Meteorological Drivers of Ozone Episodes in El Paso-JuÃ¡rez Airshed. Atmosphere, 2021, 12, 1575.	1.0	8
64	Communication concerning ?the role of clouds in tropospheric photochemistry? by Lelieveld and Crutzen. Journal of Atmospheric Chemistry, 1994, 18, 397-399.	1.4	6
65	A comparison of photolysis rate parameters estimated from measured and simulated actinic flux for wintertime conditions at Storm Peak Laboratory, Colorado. Journal of Atmospheric Chemistry, 2007, 57, 59-71.	1.4	6
66	Nighttime air quality under desert conditions. Atmospheric Environment, 2015, 114, 102-111.	1.9	6
67	A hybrid model for ozone forecasting. Atmospheric Environment, 2008, 42, 7002-7012.	1.9	5
68	Differences in the variability of measured and simulated tropospheric ozone mixing ratios over the Paso del Norte Region. Journal of Atmospheric Chemistry, 2013, 70, 91-104.	1.4	5
69	Optical Characterization of Mineral Dust and Soot Particles in the El Paso-Juarez Airshed. Aerosol Science and Engineering, 2018, 2, 11-19.	1.1	5
70	Some Considerations of the Important Chemical Processes in Acid Deposition. , 1986, , 615-647.		5
71	Chemical Mechanism Development: Laboratory Studies and Model Applications. , 2002, , 323-357.		4
72	Intercomparison of Sonde, WRF/CAMx and Satellite Sounder Profile Data for the Paso Del Norte Region. Aerosol Science and Engineering, 2020, 4, 277-292.	1.1	3

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73	An online coupled meteorological and air quality modeling study of the effect of complex terrain on the regional transport and transformation of air pollutants over the Western United States. Atmospheric Environment, 2008, 42, 4006-4021.	1.9	2
74	Meteorological controls on particle growth events in Beltsville, MD, USA during July 2011. Journal of Atmospheric Chemistry, 2015, 72, 423-440.	1.4	2
75	An Improved Method for Optical Characterization of Mineral Dust and Soot Particles in the El Paso-JuÃ¡rez Airshed. Atmosphere, 2020, 11, 866.	1.0	1