Donald Dabdub

List of Publications by Year
in descending order

68 papers	3,328 citations	159525 30 h-index	161767 54 g-index
80 all docs	80 docs citations	80 times ranked	3374 citing authors

#	Article	IF	Citations
1	Estimate of global atmospheric organic aerosol from oxidation of biogenic hydrocarbons. Geophysical Research Letters, 1999, 26, 2721-2724.	1.5	325
2	Nonequilibrium atmospheric secondary organic aerosol formation and growth. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 2836-2841.	3.3	261
3	Heterogeneous Atmospheric Chemistry, Ambient Measurements, and Model Calculations of N₂O₅: A Review. Aerosol Science and Technology, 2011, 45, 665-695.	1.5	212
4	Images reveal that atmospheric particles can undergo liquidâ€“liquid phase separations. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 13188-13193.	3.3	205
5	Secondary organic aerosol 1. Atmospheric chemical mechanism for production of molecular constituents. Journal of Geophysical Research, 2002, 107, AAC 3-1-AAC 3-26.	3.3	183
6	Impact of Chlorine Emissions from Sea-Salt Aerosol on Coastal Urban Ozone. Environmental Science & Technology, 2003, 37, 275-284.	4.6	159
7	A Coupled Hydrophobic-Hydrophilic Model for Predicting Secondary Organic Aerosol Formation. Journal of Atmospheric Chemistry, 2003, 44, 171-190.	1.4	118
8	Chlorine activation indoors and outdoors via surface-mediated reactions of nitrogen oxides with hydrogen chloride. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 13647-13654.	3.3	107
9	Comparison of photochemical mechanisms for air quality modeling. Atmospheric Environment, 2003, 37, 4179-4194.	1.9	85
10	Three-dimensional simulations of inorganic aerosol distributions in east Asia during spring 2001. Journal of Geophysical Research, 2004, 109, .	3.3	80
11	Modeling Cl2formation from aqueous NaCl particles: Evidence for interfacial reactions and importance of Cl2decomposition in alkaline solution. Journal of Geophysical Research, 2002, 107, ACH 8-1.	3.3	76
12	The future of airborne sulfur-containing particles in the absence of fossil fuel sulfur dioxide emissions. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 13514-13519.	3.3	76
13	Development and initial evaluation of a dynamic species-resolved model for gas phase chemistry and size-resolved gas/particle partitioning associated with secondary organic aerosol formation. Journal of Geophysical Research, 2005, 110, .	3.3	74
14	Enhanced photolysis in aerosols: evidence for important surface effects. Physical Chemistry Chemical Physics, 2006, 8, 4700.	1.3	72
15	Secondary organic aerosol 3. Urban/regional scale model of size- and composition-resolved aerosols. Journal of Geophysical Research, 2002, 107, AAC 5-1-AAC 5-14.	3.3	71
16	Rethinking Ozone Production. Science, 2008, 319, 1624-1625.	6.0	65
17	Effect of relative humidity on the composition of secondary organic aerosol from the oxidation of toluene. Atmospheric Chemistry and Physics, 2018, 18, 1643-1652.	1.9	64
18	NO x and VOC Control and Its Effects on the Formation of Aerosols. Aerosol Science and Technology, 2002, 36, 560-572.	1.5	53

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19	Simulation and analysis of secondary organic aerosol dynamics in the South Coast Air Basin of California. Journal of Geophysical Research, 2006, 111, n/a-n/a.	3.3	53
20	Semi-Lagrangian Flux Scheme for the Solution of the Aerosol Condensation/Evaporation Equation. Aerosol Science and Technology, 2002, 36, 407-418.	1.5	52
21	Gas-Phase Molecular Halogen Formation from NaCl and NaBr Aerosols:â€‰ When Are Interface Reactions Important?. Journal of Physical Chemistry A, 2006, 110, 1859-1867.	1.1	50
22	Two-level time-marching scheme using splines for solving the advection equation. Atmospheric Environment, 2001, 35, 1627-1637.	1.9	49
23	IMAGES-SCAPE2: A modeling study of size- and chemically resolved aerosol thermodynamics in a global chemical transport model. Journal of Geophysical Research, 2004, 109, .	3.3	49
24	Contribution of gas phase oxidation of volatile organic compounds to atmospheric carbon monoxide levels in two areas of the United States. Journal of Geophysical Research, 2007, 112, .	3.3	43
25	Description and evaluation of the Multiscale Online Nonhydrostatic AtmospheRe CHemistry model (NMMB-MONARCH) version 1.0: gas-phase chemistry at global scale. Geoscientific Model Development, 2017, 10, 609-638.	1.3	41
26	Determining Air Quality and Greenhouse Gas Impacts of Hydrogen Infrastructure and Fuel Cell Vehicles. Environmental Science & Technology, 2009, 43, 9022-9029.	4.6	38
27	Parallel computation in atmospheric chemical modeling. Parallel Computing, 1996, 22, 111-130.	1.3	34
28	A New Aerosol Flow System for Photochemical and Thermal Studies of Tropospheric Aerosols. Aerosol Science and Technology, 2010, 44, 329-338.	1.5	34
29	Modeling bronchial circulation with application to soluble gas exchange: description and sensitivity analysis. Journal of Applied Physiology, 1998, 84, 2070-2088.	1.2	33
30	Air quality impacts of fuel cell electric hydrogen vehicles with high levels of renewable power generation. International Journal of Hydrogen Energy, 2016, 41, 16592-16603.	3.8	33
31	Multiscale simulations of tropospheric chemistry in the eastern Pacific and on the U.S. West Coast during spring 2002. Journal of Geophysical Research, 2004, 109, .	3.3	30
32	Air quality modeling on massively parallel computers. Atmospheric Environment, 1994, 28, 1679-1687.	1.9	27
33	An uncertainty for clean air: Air quality modeling implications of underestimating VOC emissions in urban inventories. Atmospheric Environment, 2019, 211, 256-267.	1.9	27
34	Considering future regional air quality impacts of the transportation sector. Energy Policy, 2019, 124, 63-80.	4.2	26
35	Projecting full build-out environmental impacts and roll-out strategies associated with viable hydrogen fueling infrastructure strategies. International Journal of Hydrogen Energy, 2011, 36, 14309-14323.	3.8	25
36	Comprehensively assessing the drivers of future air quality in California. Environment International, 2019, 125, 386-398.	4.8	24

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37	Effect of alveolar volume and sequential filling on the diffusing capacity of the lungs: II. Experiment. Respiration Physiology, 2000, 120, 251-271.	2.8	22
38	Air Quality Modeling in the South Coast Air Basin of California: What Do the Numbers Really Mean?. Journal of the Air and Waste Management Association, 2006, 56, 1184-1195.	0.9	22
39	Central power generation versus distributed generation â€“ An air quality assessment in the South Coast Air Basin of California. Atmospheric Environment, 2010, 44, 3215-3223.	1.9	22
40	Impact of global climate change on ozone, particulate matter, and secondary organic aerosol concentrations in California: A model perturbation analysis. Atmospheric Environment, 2017, 153, 1-17.	1.9	22
41	Secondary organic aerosol from atmospheric photooxidationÂofÂindole. Atmospheric Chemistry and Physics, 2017, 17, 11605-11621.	1.9	21
42	Modeling reactive ammonia uptake by secondary organic aerosol in CMAQ: application to the continental US. Atmospheric Chemistry and Physics, 2018, 18, 3641-3657.	1.9	21
43	Development of aroCACM/MPMPO 1.0: a model to simulate secondary organic aerosol from aromatic precursors in regional models. Geoscientific Model Development, 2016, 9, 2143-2151.	1.3	19
44	Highâ€“resolution pollutant transport in the San Pedro Bay of California. Atmospheric Pollution Research, 2011, 2, 237-246.	1.8	18
45	Assessment of the emissions and air quality impacts of biomass and biogas use in California. Journal of the Air and Waste Management Association, 2016, 66, 134-150.	0.9	18
46	Partitioning phase preference for secondary organic aerosol in an urban atmosphere. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 6705-6710.	3.3	17
47	Performance and portability of an air quality model. Parallel Computing, 1997, 23, 2187-2200.	1.3	16
48	Monte Carlo uncertainty and sensitivity analysis of the CACM chemical mechanism. Journal of Geophysical Research, 2003, 108, .	3.3	16
49	Modeling the Oxidative Capacity of the Atmosphere of the South Coast Air Basin of California. 1. Ozone Formation Metrics. Environmental Science & Technology, 2004, 38, 746-752.	4.6	16
50	Calculations of Incremental Secondary Organic Aerosol Reactivity. Environmental Science & Technology, 2005, 39, 1724-1730.	4.6	16
51	Modeling Ammonia and Its Uptake by Secondary Organic Aerosol Over China. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2020JD034109.	1.2	15
52	Reactive uptake of ammonia by secondary organic aerosols: Implications for air quality. Atmospheric Environment, 2018, 189, 1-8.	1.9	14
53	Emission estimates of HCFCs and HFCs in California from the 2010 CalNex study. Journal of Geophysical Research D: Atmospheres, 2013, 118, 2019-2030.	1.2	10
54	An Episodic Assessment of Vehicle Emission Regulations on Saving Lives in California. Environmental Science & Technology, 2021, 55, 547-552.	4.6	9

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55	Development and analysis of a non-splitting solution for three-dimensional air quality models. Atmospheric Environment, 2003, 37, 3741-3748.	1.9	8
56	A methodology for developing Distributed Generation scenarios in urban areas using geographical information systems. International Journal of Energy Technology and Policy, 2008, 6, 413.	0.1	8
57	Potential for Atmospheric-Driven Lead Paint Degradation in the South Coast Air Basin of California. Environmental Science & Technology, 2009, 43, 8881-8887.	4.6	6
58	Reactive Uptake of Ammonia by Biogenic and Anthropogenic Organic Aerosols. ACS Symposium Series, 2018, , 127-147.	0.5	6
59	Air quality impacts of liquefied natural gas in the South Coast Air Basin of California. Journal of Natural Gas Science and Engineering, 2014, 21, 680-690.	2.1	5
60	Emission factor estimation in regional air quality studies of residential natural gas fuel interchangeability. Fuel, 2014, 119, 129-140.	3.4	5
61	Secondary organic aerosol formation from naphthalene roadway emissions in the South Coast Air Basin of California. International Journal of Environment and Pollution, 2013, 52, 206.	0.2	4
62	Simulated sensitivity of secondary organic aerosol in the South Coast Air Basin of California to nitrogen oxides and other chemical parameters. Aerosol Science and Technology, 2018, 52, 679-692.	1.5	3
63	Benefits of near-zero freight: The air quality and health impacts of low-NO_x compressed natural gas trucks. Journal of the Air and Waste Management Association, 2021, 71, 1428-1444.	0.9	3
64	Effect of Humidity on the Reactive Uptake of Ammonia and Dimethylamine by Nitrogen-Containing Secondary Organic Aerosol. Atmosphere, 2021, 12, 1502.	1.0	3
65	Chemistry Across Multiple Phases (CAMP) version 1.0: an integrated multiphase chemistry model. Geoscientific Model Development, 2022, 15, 3663-3689.	1.3	3
66	Modeling Reactive Ammonia Uptake by Secondary Organic Aerosol in a Changing Climate: A WRF-CMAQ Evaluation. Frontiers in Environmental Science, 2022, 10, .	1.5	2
67	Health Benefits in California of Strengthening the Fine Particulate Matter Standards. Environmental Science & Technology, 2021, 55, 12223-12232.	4.6	1
68	Evaluating the Impacts of Cloud Processing on Resuspended Aerosol Particles After Cloud Evaporation Using a Particleâ€Resolved Model. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2021JD034992.	1.2	0