

Annmarie G Carlton

List of Publications by Year in descending order

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78
papers

6,486
citations

126708

33
h-index

79541

73
g-index

107
all docs

107
docs citations

107
times ranked

4495
citing authors

#	ARTICLE	IF	CITATIONS
1	A review of Secondary Organic Aerosol (SOA) formation from isoprene. Atmospheric Chemistry and Physics, 2009, 9, 4987-5005.	1.9	750
2	Atmospheric oxalic acid and SOA production from glyoxal: Results of aqueous photooxidation experiments. Atmospheric Environment, 2007, 41, 7588-7602.	1.9	487
3	Fine-particle water and pH in the southeastern United States. Atmospheric Chemistry and Physics, 2015, 15, 5211-5228.	1.9	413
4	Isoprene Forms Secondary Organic Aerosol through Cloud Processing: A Model Simulations. Environmental Science & Technology, 2005, 39, 4441-4446.	4.6	405
5	Model Representation of Secondary Organic Aerosol in CMAQv4.7. Environmental Science & Technology, 2010, 44, 8553-8560.	4.6	364
6	Oligomers formed through in-cloud methylglyoxal reactions: Chemical composition, properties, and mechanisms investigated by ultra-high resolution FT-ICR mass spectrometry. Atmospheric Environment, 2008, 42, 1476-1490.	1.9	325
7	Link between isoprene and secondary organic aerosol (SOA): Pyruvic acid oxidation yields low volatility organic acids in clouds. Geophysical Research Letters, 2006, 33, .	1.5	304
8	To What Extent Can Biogenic SOA be Controlled?. Environmental Science & Technology, 2010, 44, 3376-3380.	4.6	254
9	Secondary organic aerosol yields from cloud processing of isoprene oxidation products. Geophysical Research Letters, 2008, 35, .	1.5	238
10	On the implications of aerosol liquid water and phase separation for organic aerosol mass. Atmospheric Chemistry and Physics, 2017, 17, 343-369.	1.9	189
11	CMAQ Model Performance Enhanced When In-Cloud Secondary Organic Aerosol is Included: Comparisons of Organic Carbon Predictions with Measurements. Environmental Science & Technology, 2008, 42, 8798-8802.	4.6	183
12	SOA from methylglyoxal in clouds and wet aerosols: Measurement and prediction of key products. Atmospheric Environment, 2010, 44, 5218-5226.	1.9	181
13	Evidence for Oligomer Formation in Clouds: A Reactions of Isoprene Oxidation Products. Environmental Science & Technology, 2006, 40, 4956-4960.	4.6	175
14	Particle partitioning potential of organic compounds is highest in the Eastern US and driven by anthropogenic water. Atmospheric Chemistry and Physics, 2013, 13, 10203-10214.	1.9	162
15	Modeling the formation and aging of secondary organic aerosols in Los Angeles during CalNex 2010. Atmospheric Chemistry and Physics, 2015, 15, 5773-5801.	1.9	139
16	Liquid Water: Ubiquitous Contributor to Aerosol Mass. Environmental Science and Technology Letters, 2016, 3, 257-263.	3.9	121
17	Photochemical Modeling of the Ozark Isoprene Volcano: MEGAN, BEIS, and Their Impacts on Air Quality Predictions. Environmental Science & Technology, 2011, 45, 4438-4445.	4.6	114
18	Semivolatile POA and parameterized total combustion SOA in CMAQv5.2: impacts on source strength and partitioning. Atmospheric Chemistry and Physics, 2017, 17, 11107-11133.	1.9	109

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19	Aerosol Liquid Water Driven by Anthropogenic Nitrate: Implications for Lifetimes of Water-Soluble Organic Gases and Potential for Secondary Organic Aerosol Formation. <i>Environmental Science & Technology</i> , 2014, 48, 11127-11136.	4.6	94
20	Aerosol optical properties in the southeastern United States in summer – Part 1: Hygroscopic growth. <i>Atmospheric Chemistry and Physics</i> , 2016, 16, 4987-5007.	1.9	88
21	Simulating Aqueous-Phase Isoprene-Epoxydiol (IEPOX) Secondary Organic Aerosol Production During the 2013 Southern Oxidant and Aerosol Study (SOAS). <i>Environmental Science & Technology</i> , 2017, 51, 5026-5034.	4.6	86
22	Trends in particle-phase liquid water during the Southern Oxidant and Aerosol Study. <i>Atmospheric Chemistry and Physics</i> , 2014, 14, 10911-10930.	1.9	75
23	The Essential Role for Laboratory Studies in Atmospheric Chemistry. <i>Environmental Science & Technology</i> , 2017, 51, 2519-2528.	4.6	75
24	Synthesis of the Southeast Atmosphere Studies: Investigating Fundamental Atmospheric Chemistry Questions. <i>Bulletin of the American Meteorological Society</i> , 2018, 99, 547-567.	1.7	62
25	Aerosols from Fires: An Examination of the Effects on Ozone Photochemistry in the Western United States. <i>Environmental Science & Technology</i> , 2012, 46, 11878-11886.	4.6	61
26	Global in-cloud production of secondary organic aerosols: Implementation of a detailed chemical mechanism in the GFDL atmospheric model AM3. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	57
27	Potential of Aerosol Liquid Water to Facilitate Organic Aerosol Formation: Assessing Knowledge Gaps about Precursors and Partitioning. <i>Environmental Science & Technology</i> , 2017, 51, 3327-3335.	4.6	55
28	Impact of a new condensed toluene mechanism on air quality model predictions in the US. <i>Geoscientific Model Development</i> , 2011, 4, 183-193.	1.3	53
29	Organosulfates in cloud water above the Ozarks' isoprene source region. <i>Atmospheric Environment</i> , 2013, 77, 231-238.	1.9	52
30	A framework for expanding aqueous chemistry in the Community Multiscale Air Quality (CMAQ) model version 5.1. <i>Geoscientific Model Development</i> , 2017, 10, 1587-1605.	1.3	50
31	Gas and aerosol carbon in California: comparison of measurements and model predictions in Pasadena and Bakersfield. <i>Atmospheric Chemistry and Physics</i> , 2015, 15, 5243-5258.	1.9	48
32	Decreasing Aerosol Water Is Consistent with OC Trends in the Southeast U.S.. <i>Environmental Science & Technology</i> , 2015, 49, 7843-7850.	4.6	47
33	Analyzing experimental data and model parameters: implications for predictions of SOA using chemical transport models. <i>Atmospheric Chemistry and Physics</i> , 2013, 13, 12073-12088.	1.9	38
34	Evaluation of simulated photochemical partitioning of oxidized nitrogen in the upper troposphere. <i>Atmospheric Chemistry and Physics</i> , 2011, 11, 275-291.	1.9	37
35	Southeast Atmosphere Studies: learning from model-observation syntheses. <i>Atmospheric Chemistry and Physics</i> , 2018, 18, 2615-2651.	1.9	36
36	Additional Benefits of Federal Air-Quality Rules: Model Estimates of Controllable Biogenic Secondary Organic Aerosol. <i>Environmental Science & Technology</i> , 2018, 52, 9254-9265.	4.6	36

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37	Combining Bayesian methods and aircraft observations to constrain the HO ₂ + NO ₂ reaction rate. <i>Atmospheric Chemistry and Physics</i> , 2012, 12, 653-667.	1.9	33
38	Identifying precursors and aqueous organic aerosol formation pathways during the SOAS campaign. <i>Atmospheric Chemistry and Physics</i> , 2016, 16, 14409-14420.	1.9	33
39	Generation expansion planning considering health and societal damages – A simulation-based optimization approach. <i>Energy</i> , 2018, 164, 951-963.	4.5	32
40	Vertically resolved concentration and liquid water content of atmospheric nanoparticles at the US DOE Southern Great Plains site. <i>Atmospheric Chemistry and Physics</i> , 2018, 18, 311-326.	1.9	31
41	Evaluation of factors controlling global secondary organic aerosol production from cloud processes. <i>Atmospheric Chemistry and Physics</i> , 2013, 13, 1913-1926.	1.9	27
42	Modeling secondary organic aerosol using a dynamic partitioning approach incorporating particle aqueous-phase chemistry. <i>Atmospheric Environment</i> , 2011, 45, 1126-1137.	1.9	25
43	Microanalysis Methods for Characterization of Personal Aerosol Exposures. <i>Aerosol Science and Technology</i> , 1999, 31, 66-80.	1.5	23
44	Regional Air Quality Model Application of the Aqueous-Phase Photo Reduction of Atmospheric Oxidized Mercury by Dicarboxylic Acids. <i>Atmosphere</i> , 2014, 5, 1-15.	1.0	23
45	The Data Gap: Can a Lack of Monitors Obscure Loss of Clean Air Act Benefits in Fracking Areas?. <i>Environmental Science & Technology</i> , 2014, 48, 893-894.	4.6	23
46	Multiphase Atmospheric Chemistry in Liquid Water: Impacts and Controllability of Organic Aerosol. <i>Accounts of Chemical Research</i> , 2020, 53, 1715-1723.	7.6	23
47	The contribution of marine organics to the air quality of the western United States. <i>Atmospheric Chemistry and Physics</i> , 2010, 10, 7415-7423.	1.9	21
48	Examination of the impact of photoexcited NO ₂ chemistry on regional air quality. <i>Atmospheric Environment</i> , 2009, 43, 6383-6387.	1.9	20
49	Reconciling satellite aerosol optical thickness and surface fine particle mass through aerosol liquid water. <i>Geophysical Research Letters</i> , 2016, 43, 11,903.	1.5	18
50	Urban emissions of water vapor in winter. <i>Journal of Geophysical Research D: Atmospheres</i> , 2017, 122, 9467-9484.	1.2	18
51	Assessing the effects of power grid expansion on human health externalities. <i>Socio-Economic Planning Sciences</i> , 2019, 66, 92-104.	2.5	16
52	Temporalization of Peak Electric Generation Particulate Matter Emissions during High Energy Demand Days. <i>Environmental Science & Technology</i> , 2015, 49, 4696-4704.	4.6	14
53	Diurnal and Seasonal Variations in the Phase State of Secondary Organic Aerosol Material over the Contiguous US Simulated in CMAQ. <i>ACS Earth and Space Chemistry</i> , 2021, 5, 1971-1982.	1.2	12
54	Chemical composition of ultrafine aerosol particles in central Amazonia during the wet season. <i>Atmospheric Chemistry and Physics</i> , 2019, 19, 13053-13066.	1.9	11

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55	Changing Nature of Organic Carbon over the United States. <i>Environmental Science & Technology</i> , 2020, 54, 10524-10532.	4.6	11
56	High Electricity Demand in the Northeast U.S.: PJM Reliability Network and Peaking Unit Impacts on Air Quality. <i>Environmental Science & Technology</i> , 2016, 50, 8375-8384.	4.6	10
57	On Aerosol Liquid Water and Sulfate Associations: The Potential for Fine Particulate Matter Biases. <i>Atmosphere</i> , 2020, 11, 194.	1.0	9
58	Modeling secondary organic aerosol formation from xylene and aromatic mixtures using a dynamic partitioning approach incorporating particle aqueous-phase chemistry (II). <i>Atmospheric Environment</i> , 2012, 56, 250-260.	1.9	8
59	Multiphase Chemistry: Experimental Design for Coordinated Measurement and Modeling Studies of Cloud Processing at a Mountaintop. <i>Bulletin of the American Meteorological Society</i> , 2017, 98, ES163-ES167.	1.7	8
60	No evidence for brown carbon formation in ambient particles undergoing atmospherically relevant drying. <i>Environmental Sciences: Processes and Impacts</i> , 2020, 22, 442-450.	1.7	8
61	Overview of the CPOC Pilot Study at Whiteface Mountain, NY: Cloud Processing of Organics within Clouds (CPOC). <i>Bulletin of the American Meteorological Society</i> , 2020, 101, E1820-E1841.	1.7	8
62	Design of a Cost-Effective Weighing Facility for PM2.5 Quality Assurance. <i>Journal of the Air and Waste Management Association</i> , 2002, 52, 506-510.	0.9	7
63	Aerosol Optical Thickness: Organic Composition, Associated Particle Water, and Aloft Extinction. <i>ACS Earth and Space Chemistry</i> , 2019, 3, 403-412.	1.2	7
64	Differences in fine particle chemical composition on clear and cloudy days. <i>Atmospheric Chemistry and Physics</i> , 2020, 20, 11607-11624.	1.9	7
65	Box Model Intercomparison of Cloud Chemistry. <i>Journal of Geophysical Research D: Atmospheres</i> , 2021, 126, .	1.2	7
66	Partitioning of Ambient Organic Gases to Inorganic Salt Solutions: Influence of Salt Identity, Ionic Strength, and pH. <i>Geophysical Research Letters</i> , 2021, 48, e2021GL095247.	1.5	5
67	Investigating the evolution of water-soluble organic carbon in evaporating cloud water. <i>Environmental Science Atmospheres</i> , 2021, 1, 21-30.	0.9	2
68	Urban aerosol chemistry at a land-water transition site during summer Part 1: Impact of agricultural and industrial ammonia emissions. <i>Atmospheric Chemistry and Physics</i> , 2021, 21, 13051-13065.	1.9	2
69	Urban aerosol chemistry at a land-water transition site during summer Part 2: Aerosol pH and liquid water content. <i>Atmospheric Chemistry and Physics</i> , 2021, 21, 18271-18281.	1.9	2
70	Partitioning of HNO ₃ , H ₂ O ₂ and SO ₂ to cloud ice: Simulations with CMAQ. <i>Atmospheric Environment</i> , 2014, 88, 239-246.	1.9	1
71	Federal Science Matters: We All Live Downwind of a Harvey-Arkema Disaster. <i>Environmental Science & Technology</i> , 2017, 51, 10930-10931.	4.6	1
72	Why and How to Write a High-Impact Review Paper: Lessons From Eight Years of Editorial Board Service to <i>Reviews of Geophysics</i> . <i>Reviews of Geophysics</i> , 2017, 55, 860-863.	9.0	1

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73	A Metamodeling Framework for Quantifying Health Damages of Power Grid Expansion Plans. International Journal of Environmental Research and Public Health, 2019, 16, 1857.	1.2	1
74	Detailed Characterization of Organic Carbon from Fire: Capitalizing on Analytical Advances To Improve Atmospheric Models. ACS Symposium Series, 2018, , 349-361.	0.5	0
75	Thank You to Our Peer Reviewers for 2019. Reviews of Geophysics, 2020, 58, no.	9.0	0
76	Thank You to Our Peer Reviewers for 2020. Reviews of Geophysics, 2021, 59, e2021RG000741.	9.0	0
77	Controlling Biogenic Particle Mass with NOx and SOx. Em: Air and Waste Management Association's Magazine for Environmental Managers, 2019, null, 9-13.	0.2	0
78	Thank You to Our 2021 Peer Reviewers. Reviews of Geophysics, 2022, 60, .	9.0	0