

# John E Shilling

## List of Publications by Year in descending order

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Version: 2024-02-01

91  
papers

6,356  
citations

66343

42  
h-index

76900

74  
g-index

130  
all docs

130  
docs citations

130  
times ranked

5001  
citing authors

#	ARTICLE	IF	CITATIONS
1	Aerosol and Cloud Experiments in the Eastern North Atlantic (ACE-ENA). <i>Bulletin of the American Meteorological Society</i> , 2022, 103, E619-E641.	3.3	33
2	Tight Coupling of Surface and In-Plant Biochemistry and Convection Governs Key Fine Particulate Components over the Amazon Rainforest. <i>ACS Earth and Space Chemistry</i> , 2022, 6, 380-390.	2.7	11
3	Rapid growth of anthropogenic organic nanoparticles greatly alters cloud life cycle in the Amazon rainforest. <i>Science Advances</i> , 2022, 8, eabj0329.	10.3	19
4	Exploring dimethyl sulfide (DMS) oxidation and implications for global aerosol radiative forcing. <i>Atmospheric Chemistry and Physics</i> , 2022, 22, 1549-1573.	4.9	33
5	Pathways to Highly Oxidized Products in the $\text{I}^{\text{III}}$ -Carene + OH System. <i>Environmental Science &amp; Technology</i> , 2022, 56, 2213-2224.	10.0	8
6	Novel Application of Machine Learning Techniques for Rapid Source Apportionment of Aerosol Mass Spectrometer Datasets. <i>ACS Earth and Space Chemistry</i> , 2022, 6, 932-942.	2.7	6
7	Earth System Model Aerosol-Cloud Diagnostics (ESMAC Diags) package, version 1: assessing E3SM aerosol predictions using aircraft, ship, and surface measurements. <i>Geoscientific Model Development</i> , 2022, 15, 4055-4076.	3.6	3
8	Future changes in isoprene-epoxydiol-derived secondary organic aerosol (IEPOX SOA) under the Shared Socioeconomic Pathways: the importance of physicochemical dependency. <i>Atmospheric Chemistry and Physics</i> , 2021, 21, 3395-3425.	4.9	16
9	Aerosol characteristics at the Southern Great Plains site during the HI-SCALE campaign. <i>Atmospheric Chemistry and Physics</i> , 2021, 21, 5101-5116.	4.9	16
10	Impact of Urban Pollution on Organic-Mediated New-Particle Formation and Particle Number Concentration in the Amazon Rainforest. <i>Environmental Science &amp; Technology</i> , 2021, 55, 4357-4367.	10.0	12
11	Aircraft measurements of aerosol and trace gas chemistry in the eastern North Atlantic. <i>Atmospheric Chemistry and Physics</i> , 2021, 21, 7983-8002.	4.9	19
12	Vertical profiles of trace gas and aerosol properties over the eastern North Atlantic: variations with season and synoptic condition. <i>Atmospheric Chemistry and Physics</i> , 2021, 21, 11079-11098.	4.9	14
13	The response of the Amazon ecosystem to the photosynthetically active radiation fields: integrating impacts of biomass burning aerosol and clouds in the NASA GEOS Earth system model. <i>Atmospheric Chemistry and Physics</i> , 2021, 21, 14177-14197.	4.9	5
14	New particle formation in the remote marine boundary layer. <i>Nature Communications</i> , 2021, 12, 527.	12.8	45
15	A Near-Explicit Mechanistic Evaluation of Isoprene Photochemical Secondary Organic Aerosol Formation and Evolution: Simulations of Multiple Chamber Experiments with and without Added $\text{NO}_x$ . <i>ACS Earth and Space Chemistry</i> , 2020, 4, 1161-1181.	2.7	16
16	Comparison of aircraft measurements during GoAmazon2014/5 and ACRIDICON-CHUVA. <i>Atmospheric Measurement Techniques</i> , 2020, 13, 661-684.	3.1	12
17	Photolysis Controls Atmospheric Budgets of Biogenic Secondary Organic Aerosol. <i>Environmental Science &amp; Technology</i> , 2020, 54, 3861-3870.	10.0	36
18	Efficient Nighttime Biogenic SOA Formation in a Polluted Residual Layer. <i>Journal of Geophysical Research D: Atmospheres</i> , 2020, 125, e2019JD031583.	3.3	14

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19	Exploration of oxidative chemistry and secondary organic aerosol formation in the Amazon during the wet season: explicit modeling of the Manaus urban plume with GECKO-A. <i>Atmospheric Chemistry and Physics</i> , 2020, 20, 5995-6014.	4.9	9
20	Resolving Ambient Organic Aerosol Formation and Aging Pathways with Simultaneous Molecular Composition and Volatility Observations. <i>ACS Earth and Space Chemistry</i> , 2020, 4, 391-402.	2.7	19
21	Particle-Phase Diffusion Modulates Partitioning of Semivolatile Organic Compounds to Aged Secondary Organic Aerosol. <i>Environmental Science &amp; Technology</i> , 2020, 54, 2595-2605.	10.0	37
22	A robust clustering algorithm for analysis of composition-dependent organic aerosol thermal desorption measurements. <i>Atmospheric Chemistry and Physics</i> , 2020, 20, 2489-2512.	4.9	9
23	High concentration of ultrafine particles in the Amazon free troposphere produced by organic new particle formation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 25344-25351.	7.1	49
24	Rapid evolution of aerosol particles and their optical properties downwind of wildfires in the western US. <i>Atmospheric Chemistry and Physics</i> , 2020, 20, 13319-13341.	4.9	44
25	An evaluation of global organic aerosol schemes using airborne observations. <i>Atmospheric Chemistry and Physics</i> , 2020, 20, 2637-2665.	4.9	90
26	New SOA Treatments Within the Energy Exascale Earth System Model (E3SM): Strong Production and Sinks Govern Atmospheric SOA Distributions and Radiative Forcing. <i>Journal of Advances in Modeling Earth Systems</i> , 2020, 12, e2020MS002266.	3.8	15
27	Overview of the HI-SCALE Field Campaign: A New Perspective on Shallow Convective Clouds. <i>Bulletin of the American Meteorological Society</i> , 2019, 100, 821-840.	3.3	44
28	Photochemical Aging Alters Secondary Organic Aerosol Partitioning Behavior. <i>ACS Earth and Space Chemistry</i> , 2019, 3, 2704-2716.	2.7	18
29	Chamber-based insights into the factors controlling epoxydiol (IEPOX) secondary organic aerosol (SOA) yield, composition, and volatility. <i>Atmospheric Chemistry and Physics</i> , 2019, 19, 11253-11265.	4.9	38
30	Anthropogenic enhancements to production of highly oxygenated molecules from autoxidation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 6641-6646.	7.1	78
31	Urban pollution greatly enhances formation of natural aerosols over the Amazon rainforest. <i>Nature Communications</i> , 2019, 10, 1046.	12.8	131
32	Cloud droplet activation of secondary organic aerosol is mainly controlled by molecular weight, not water solubility. <i>Atmospheric Chemistry and Physics</i> , 2019, 19, 941-954.	4.9	35
33	Spherical tarball particles form through rapid chemical and physical changes of organic matter in biomass-burning smoke. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 19336-19341.	7.1	70
34	Growth Kinetics and Size Distribution Dynamics of Viscous Secondary Organic Aerosol. <i>Environmental Science &amp; Technology</i> , 2018, 52, 1191-1199.	10.0	85
35	Understanding Composition, Formation, and Aging of Organic Aerosols in Wildfire Emissions via Combined Mountain Top and Airborne Measurements. <i>ACS Symposium Series</i> , 2018, , 363-385.	0.5	10
36	Isothermal Evaporation of $\alpha$ -Pinene Ozonolysis SOA: Volatility, Phase State, and Oligomeric Composition. <i>ACS Earth and Space Chemistry</i> , 2018, 2, 1058-1067.	2.7	49

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37	Aircraft observations of the chemical composition and aging of aerosol in the Manaus urban plume during GoAmazon 2014/5. <i>Atmospheric Chemistry and Physics</i> , 2018, 18, 10773-10797.	4.9	32
38	A Closure Study of Total Scattering Using Airborne In Situ Measurements from the Winter Phase of TCAP. <i>Atmosphere</i> , 2018, 9, 228.	2.3	2
39	Parameterized Yields of Semivolatile Products from Isoprene Oxidation under Different NO <sub>x</sub> Levels: Impacts of Chemical Aging and Wall-Loss of Reactive Gases. <i>Environmental Science &amp; Technology</i> , 2018, 52, 9225-9234.	10.0	3
40	Urban influence on the concentration and composition of submicron particulate matter in central Amazonia. <i>Atmospheric Chemistry and Physics</i> , 2018, 18, 12185-12206.	4.9	30
41	Airborne observations reveal elevational gradient in tropical forest isoprene emissions. <i>Nature Communications</i> , 2017, 8, 15541.	12.8	53
42	Airborne measurements of western U.S. wildfire emissions: Comparison with prescribed burning and air quality implications. <i>Journal of Geophysical Research D: Atmospheres</i> , 2017, 122, 6108-6129.	3.3	184
43	Isomerization of Second-Generation Isoprene Peroxy Radicals: Epoxide Formation and Implications for Secondary Organic Aerosol Yields. <i>Environmental Science &amp; Technology</i> , 2017, 51, 4978-4987.	10.0	53
44	The Green Ocean Amazon Experiment (GoAmazon2014/5) Observes Pollution Affecting Gases, Aerosols, Clouds, and Rainfall over the Rain Forest. <i>Bulletin of the American Meteorological Society</i> , 2017, 98, 981-997.	3.3	128
45	Influence of urban pollution on the production of organic particulate matter from isoprene epoxydiols in central Amazonia. <i>Atmospheric Chemistry and Physics</i> , 2017, 17, 6611-6629.	4.9	45
46	Molecular composition and volatility of isoprene photochemical oxidation secondary organic aerosol under low- and high-NO <sub>x</sub> conditions. <i>Atmospheric Chemistry and Physics</i> , 2017, 17, 159-174.	3.3	10
47	Recent advances in understanding secondary organic aerosol: Implications for global climate forcing. <i>Reviews of Geophysics</i> , 2017, 55, 509-559.	23.0	548
48	Sensitivity of biogenic volatile organic compounds to land surface parameterizations and vegetation distributions in California. <i>Geoscientific Model Development</i> , 2016, 9, 1959-1976.	3.6	34
49	Regional Influence of Aerosol Emissions from Wildfires Driven by Combustion Efficiency: Insights from the BBOP Campaign. <i>Environmental Science &amp; Technology</i> , 2016, 50, 8613-8622.	10.0	89
50	Ice nucleation activity of diesel soot particles at cirrus relevant temperature conditions: Effects of hydration, secondary organics coating, soot morphology, and coagulation. <i>Geophysical Research Letters</i> , 2016, 43, 3580-3588.	4.0	47
51	Model representations of aerosol layers transported from North America over the Atlantic Ocean during the Two-Column Aerosol Project. <i>Journal of Geophysical Research D: Atmospheres</i> , 2016, 121, 9814-9848.	3.3	15
52	The Two-Column Aerosol Project: Phase I Overview and impact of elevated aerosol layers on aerosol optical depth. <i>Journal of Geophysical Research D: Atmospheres</i> , 2016, 121, 336-361.	3.3	33
53	Efficient Isoprene Secondary Organic Aerosol Formation from a Non-IEPOX Pathway. <i>Environmental Science &amp; Technology</i> , 2016, 50, 9872-9880.	10.0	100
54	Optical properties and aging of light-absorbing secondary organic aerosol. <i>Atmospheric Chemistry and Physics</i> , 2016, 16, 12815-12827.	4.9	150

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55	What do correlations tell us about anthropogenic–biogenic interactions and SOA formation in the Sacramento plume during CARES?. <i>Atmospheric Chemistry and Physics</i> , 2016, 16, 1729-1746.	4.9	6
56	Highly functionalized organic nitrates in the southeast United States: Contribution to secondary organic aerosol and reactive nitrogen budgets. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 1516-1521.	7.1	269
57	Airborne Aerosol in Situ Measurements during TCAP: A Closure Study of Total Scattering. <i>Atmosphere</i> , 2015, 6, 1069-1101.	2.3	16
58	Reactivity of Liquid and Semisolid Secondary Organic Carbon with Chloride and Nitrate in Atmospheric Aerosols. <i>Journal of Physical Chemistry A</i> , 2015, 119, 4498-4508.	2.5	73
59	Molecular characterization of brown carbon (BrC) chromophores in secondary organic aerosol generated from photo-oxidation of toluene. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 23312-23325.	2.8	210
60	Morphology of diesel soot residuals from supercooled water droplets and ice crystals: implications for optical properties. <i>Environmental Research Letters</i> , 2015, 10, 114010.	5.2	35
61	Modeling kinetic partitioning of secondary organic aerosol and size distribution dynamics: representing effects of volatility, phase state, and particle-phase reaction. <i>Atmospheric Chemistry and Physics</i> , 2014, 14, 5153-5181.	4.9	137
62	Effects of NO <sub>x</sub> on the Volatility of Secondary Organic Aerosol from Isoprene Photooxidation. <i>Environmental Science &amp; Technology</i> , 2014, 48, 2253-2262.	10.0	99
63	Modeling regional aerosol and aerosol precursor variability over California and its sensitivity to emissions and long-range transport during the 2010 CalNex and CARES campaigns. <i>Atmospheric Chemistry and Physics</i> , 2014, 14, 10013-10060.	4.9	62
64	Chemistry of new particle growth in mixed urban and biogenic emissions – insights from CARES. <i>Atmospheric Chemistry and Physics</i> , 2014, 14, 6477-6494.	4.9	52
65	Simultaneous retrieval of effective refractive index and density from size distribution and light-scattering data: weakly absorbing aerosol. <i>Atmospheric Measurement Techniques</i> , 2014, 7, 3247-3261.	3.1	21
66	Field and laboratory studies of reactions between atmospheric water soluble organic acids and inorganic particles. , 2013, , .		0
67	Viscosity of $\alpha$ -pinene secondary organic material and implications for particle growth and reactivity. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 8014-8019.	7.1	388
68	Similarities in STXM-NEXAFS Spectra of Atmospheric Particles and Secondary Organic Aerosol Generated from Glyoxal, $\alpha$ -Pinene, Isoprene, 1,2,4-Trimethylbenzene, and d-Limonene. <i>Aerosol Science and Technology</i> , 2013, 47, 543-555.	3.1	6
69	Enhanced SOA formation from mixed anthropogenic and biogenic emissions during the CARES campaign. <i>Atmospheric Chemistry and Physics</i> , 2013, 13, 2091-2113.	4.9	146
70	Light absorption by secondary organic aerosol from $\alpha$ -pinene: Effects of oxidants, seed aerosol acidity, and relative humidity. <i>Journal of Geophysical Research D: Atmospheres</i> , 2013, 118, 11,741.	3.3	54
71	Hydrolysis of Organonitrate Functional Groups in Aerosol Particles. <i>Aerosol Science and Technology</i> , 2012, 46, 1359-1369.	3.1	153
72	Images reveal that atmospheric particles can undergo liquid–liquid phase separations. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 13188-13193.	7.1	205

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73	Characterization of submicron particles influenced by mixed biogenic and anthropogenic emissions using high-resolution aerosol mass spectrometry: results from CARES. <i>Atmospheric Chemistry and Physics</i> , 2012, 12, 8131-8156.	4.9	146
74	Overview of the 2010 Carbonaceous Aerosols and Radiative Effects Study (CARES). <i>Atmospheric Chemistry and Physics</i> , 2012, 12, 7647-7687.	4.9	94
75	Particle-Phase Chemistry of Secondary Organic Material: Modeled Compared to Measured O:C and H:C Elemental Ratios Provide Constraints. <i>Environmental Science &amp; Technology</i> , 2011, 45, 4763-4770.	10.0	167
76	Effect of Hydrophilic Organic Seed Aerosols on Secondary Organic Aerosol Formation from Ozonolysis of $\alpha$ -Pinene. <i>Environmental Science &amp; Technology</i> , 2011, 45, 7323-7329.	10.0	21
77	Droplet activation, separation, and compositional analysis: laboratory studies and atmospheric measurements. <i>Atmospheric Measurement Techniques</i> , 2011, 4, 2333-2343.	3.1	16
78	Cloud droplet activation of mixed organic-sulfate particles produced by the photooxidation of isoprene. <i>Atmospheric Chemistry and Physics</i> , 2010, 10, 3953-3964.	4.9	86
79	Increased cloud activation potential of secondary organic aerosol for atmospheric mass loadings. <i>Atmospheric Chemistry and Physics</i> , 2009, 9, 2959-2971.	4.9	100
80	Loading-dependent elemental composition of $\alpha$ -pinene SOA particles. <i>Atmospheric Chemistry and Physics</i> , 2009, 9, 771-782.	4.9	272
81	Particle mass yield in secondary organic aerosol formed by the dark ozonolysis of $\alpha$ -pinene. <i>Atmospheric Chemistry and Physics</i> , 2008, 8, 2073-2088.	4.9	175
82	Mass Spectral Evidence That Small Changes in Composition Caused by Oxidative Aging Processes Alter Aerosol CCN Properties. <i>Journal of Physical Chemistry A</i> , 2007, 111, 3358-3368.	2.5	103
83	Cloud condensation nucleus activity of secondary organic aerosol particles mixed with sulfate. <i>Geophysical Research Letters</i> , 2007, 34, .	4.0	68
84	Depositional ice nucleation on crystalline organic and inorganic solids. <i>Journal of Geophysical Research</i> , 2006, 111, .	3.3	69
85	Measurements of the vapor pressure of cubic ice and their implications for atmospheric ice clouds. <i>Geophysical Research Letters</i> , 2006, 33, .	4.0	93
86	Uptake of Small Oxygenated Organic Molecules onto Ammonium Nitrate under Upper Tropospheric Conditions. <i>Journal of Physical Chemistry A</i> , 2006, 110, 6687-6695.	2.5	12
87	Uptake of Acetic Acid on Thin Ammonium Nitrate Films as a Function of Temperature and Relative Humidity. <i>Journal of Physical Chemistry A</i> , 2004, 108, 11314-11320.	2.5	10
88	Hygroscopic growth of ammonium sulfate/dicarboxylic acids. <i>Journal of Geophysical Research</i> , 2003, 108, .	3.3	130
89	Uptake of Nitric Acid on Ice at Tropospheric Temperatures: Implications for Cirrus Clouds. <i>Journal of Physical Chemistry A</i> , 2002, 106, 9874-9882.	2.5	57
90	Infrared spectroscopic study of the low-temperature phase behavior of ammonium sulfate. <i>Journal of Geophysical Research</i> , 2002, 107, AAC 4-1-AAC 4-9.	3.3	19

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91	Observed Relationships between Cloud Droplet Effective Radius and Biogenic Gas Concentrations in Summertime Marine Stratocumulus over the Eastern North Atlantic. Earth and Space Science, 0, , .	2.6	2