

# Stephen R Springston

## List of Publications by Year in descending order

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100  
papers

6,339  
citations

50276

46  
h-index

79698

73  
g-index

135  
all docs

135  
docs citations

135  
times ranked

5516  
citing authors

#	ARTICLE	IF	CITATIONS
1	The VAMOS Ocean-Cloud-Atmosphere-Land Study Regional Experiment (VOCALS-REx): goals, platforms, and field operations. <i>Atmospheric Chemistry and Physics</i> , 2011, 11, 627-654.	4.9	272
2	The time evolution of aerosol composition over the Mexico City plateau. <i>Atmospheric Chemistry and Physics</i> , 2008, 8, 1559-1575.	4.9	250
3	Ozone formation at a rural site in the southeastern United States. <i>Journal of Geophysical Research</i> , 1994, 99, 3469.	3.3	199
4	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
5	Tropospheric Ozone Assessment Report: Database and metrics data of global surface ozone observations. <i>Elementa</i> , 2017, 5, .	3.2	172
6	Ozone production rate and hydrocarbon reactivity in 5 urban areas: A cause of high ozone concentration in Houston. <i>Geophysical Research Letters</i> , 2002, 29, 105-1-105-4.	4.0	160
7	Dependence of ozone production on NO and hydrocarbons in the troposphere. <i>Geophysical Research Letters</i> , 1997, 24, 2299-2302.	4.0	147
8	Atmospheric chemistry and distribution of formaldehyde and several multioxygenated carbonyl compounds during the 1995 Nashville/Middle Tennessee Ozone Study. <i>Journal of Geophysical Research</i> , 1998, 103, 22449-22462.	3.3	146
9	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
10	Instrumental aspects of capillary supercritical fluid chromatography. <i>Analytical Chemistry</i> , 1982, 54, 1090-1093.	6.5	139
11	Capillary Supercritical Fluid Chromatography. <i>Analytical Chemistry</i> , 1981, 53, 407A-414A.	6.5	135
12	Chemical evolution of volatile organic compounds in the outflow of the Mexico City Metropolitan area. <i>Atmospheric Chemistry and Physics</i> , 2010, 10, 2353-2375.	4.9	131
13	Urban pollution greatly enhances formation of natural aerosols over the Amazon rainforest. <i>Nature Communications</i> , 2019, 10, 1046.	12.8	131
14	Measurements of volatile organic compounds at a suburban ground site (T1) in Mexico City during the MILAGRO 2006 campaign: measurement comparison, emission ratios, and source attribution. <i>Atmospheric Chemistry and Physics</i> , 2011, 11, 2399-2421.	4.9	127
15	The T1-T2 study: evolution of aerosol properties downwind of Mexico City. <i>Atmospheric Chemistry and Physics</i> , 2007, 7, 1585-1598.	4.9	124
16	Deriving brown carbon from multiwavelength absorption measurements: method and application to AERONET and Aethalometer observations. <i>Atmospheric Chemistry and Physics</i> , 2016, 16, 12733-12752.	4.9	123
17	South East Pacific atmospheric composition and variability sampled along 20° S during VOCALS-REx. <i>Atmospheric Chemistry and Physics</i> , 2011, 11, 5237-5262.	4.9	119
18	Amazon boundary layer aerosol concentration sustained by vertical transport during rainfall. <i>Nature</i> , 2016, 539, 416-419.	27.8	112

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19	Intercomparison of ground-based NO <sub>y</sub> measurement techniques. Journal of Geophysical Research, 1998, 103, 22261-22280.	3.3	109
20	A comparative study of ozone production in five U.S. metropolitan areas. Journal of Geophysical Research, 2005, 110, .	3.3	107
21	Continuous particle fractionation based on gravitational sedimentation in split-flow thin cells. Analytical Chemistry, 1987, 59, 344-350.	6.5	104
22	Ozone production efficiency in an urban area. Journal of Geophysical Research, 2002, 107, ACH 23-1-ACH 23-12.	3.3	104
23	Overview of the 2010 Carbonaceous Aerosols and Radiative Effects Study (CARES). Atmospheric Chemistry and Physics, 2012, 12, 7647-7687.	4.9	94
24	Ozone production in the New York City urban plume. Journal of Geophysical Research, 2000, 105, 14495-14511.	3.3	93
25	Regional Influence of Aerosol Emissions from Wildfires Driven by Combustion Efficiency: Insights from the BBOP Campaign. Environmental Science & Technology, 2016, 50, 8613-8622.	10.0	89
26	Aircraft observations of aerosol composition and ageing in New England and Mid-Atlantic States during the summer 2002 New England Air Quality Study field campaign. Journal of Geophysical Research, 2007, 112, .	3.3	87
27	Isoprene photochemistry over the Amazon rainforest. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 6125-6130.	7.1	85
28	Peroxy radical concentration and ozone formation rate at a rural site in the southeastern United States. Journal of Geophysical Research, 1995, 100, 7263-7273.	3.3	81
29	Ozone production efficiency and NO <sub>x</sub> depletion in an urban plume: Interpretation of field observations and implications for evaluating O <sub>3</sub> -NO <sub>x</sub> -VOC sensitivity. Journal of Geophysical Research, 2003, 108, .	3.3	81
30	Characterization of the Nashville urban plume on July 3 and July 18, 1995. Journal of Geophysical Research, 1998, 103, 28129-28148.	3.3	78
31	A comparative study of O <sub>3</sub> formation in the Houston urban and industrial plumes during the 2000 Texas Air Quality Study. Journal of Geophysical Research, 2003, 108, .	3.3	77
32	Evaluating WRF-Chem aerosol indirect effects in Southeast Pacific marine stratocumulus during VOCALS-REx. Atmospheric Chemistry and Physics, 2012, 12, 3045-3064.	4.9	77
33	The Ascension Island Boundary Layer in the Remote Southeast Atlantic is Often Smoky. Geophysical Research Letters, 2018, 45, 4456-4465.	4.0	77
34	CCN activity and organic hygroscopicity of aerosols downwind of an urban region in central Amazonia: seasonal and diel variations and impact of anthropogenic emissions. Atmospheric Chemistry and Physics, 2017, 17, 11779-11801.	4.9	71
35	Spherical tarball particles form through rapid chemical and physical changes of organic matter in biomass-burning smoke. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 19336-19341.	7.1	70
36	Nighttime chemical evolution of aerosol and trace gases in a power plant plume: Implications for secondary organic nitrate and organosulfate aerosol formation, NO <sub>3</sub> radical chemistry, and N <sub>2</sub> O <sub>5</sub> heterogeneous hydrolysis. Journal of Geophysical Research, 2010, 115, .	3.3	67

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37	Transport and mixing patterns over Central California during the carbonaceous aerosol and radiative effects study (CARES). Atmospheric Chemistry and Physics, 2012, 12, 1759-1783.	4.9	67
38	Formation and evolution of tar balls from northwestern US wildfires. Atmospheric Chemistry and Physics, 2018, 18, 11289-11301.	4.9	67
39	Aerosol concentration and size distribution measured below, in, and above cloud from the DOE G-1 during VOCALS-REx. Atmospheric Chemistry and Physics, 2012, 12, 207-223.	4.9	65
40	Secondary organic aerosol formation from ambient air in an oxidation flow reactor in central Amazonia. Atmospheric Chemistry and Physics, 2018, 18, 467-493.	4.9	63
41	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. Atmospheric Chemistry and Physics, 2014, 14, 10013-10060.	4.9	62
42	Origin and properties of plumes of high ozone observed during the Texas 2000 Air Quality Study (TexAQ5 2000). Journal of Geophysical Research, 2004, 109, .	3.3	61
43	Sensitivity of ozone production rate to ozone precursors. Geophysical Research Letters, 2001, 28, 2903-2906.	4.0	60
44	Photochemical age determinations in the Phoenix metropolitan area. Journal of Geophysical Research, 2003, 108, n/a-n/a.	3.3	60
45	The time evolution of aerosol size distribution over the Mexico City plateau. Atmospheric Chemistry and Physics, 2009, 9, 4261-4278.	4.9	60
46	Stationary-phase phenomena in capillary supercritical fluid chromatography. Analytical Chemistry, 1986, 58, 997-1002.	6.5	52
47	NOylifetimes and O3production efficiencies in urban and power plant plumes: Analysis of field data. Journal of Geophysical Research, 2000, 105, 9165-9176.	3.3	52
48	Marine boundary layer aerosol in the eastern North Atlantic: seasonal variations and key controlling processes. Atmospheric Chemistry and Physics, 2018, 18, 17615-17635.	4.9	51
49	Cloud microphysical relationships and their implication on entrainment and mixing mechanism for the stratocumulus clouds measured during the VOCALS project. Journal of Geophysical Research D: Atmospheres, 2015, 120, 5047-5069.	3.3	50
50	Measurements of peroxides and related species during the 1995 summer intensive of the Southern Oxidants Study in Nashville, Tennessee. Journal of Geophysical Research, 1998, 103, 22361-22373.	3.3	49
51	Influence of urban pollution on the production of organic particulate matter from isoprene epoxydiols in central Amazonia. Atmospheric Chemistry and Physics, 2017, 17, 6611-6629.	4.9	45
52	Overview of the HI-SCALE Field Campaign: A New Perspective on Shallow Convective Clouds. Bulletin of the American Meteorological Society, 2019, 100, 821-840.	3.3	44
53	Rapid evolution of aerosol particles and their optical properties downwind of wildfires in the western US. Atmospheric Chemistry and Physics, 2020, 20, 13319-13341.	4.9	44
54	Observations of the first aerosol indirect effect in shallow cumuli. Geophysical Research Letters, 2011, 38, n/a-n/a.	4.0	43

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55	Kinetic optimization of capillary supercritical fluid chromatography using carbon dioxide as the mobile phase. <i>Chromatographia</i> , 1981, 14, 679-684.	1.3	39
56	Analysis of O <sub>3</sub> formation during a stagnation episode in central Tennessee in summer 1995. <i>Journal of Geophysical Research</i> , 2000, 105, 9107-9119.	3.3	37
57	Analysis of the processing of Nashville urban emissions on July 3 and July 18, 1995. <i>Journal of Geophysical Research</i> , 2000, 105, 9155-9164.	3.3	37
58	Contributions of biomass-burning, urban, and biogenic emissions to the concentrations and light-absorbing properties of particulate matter in central Amazonia during the dry season. <i>Atmospheric Chemistry and Physics</i> , 2019, 19, 7973-8001.	4.9	36
59	Mobile-phase solute mass transfer in supercritical fluid chromatography. <i>Analytical Chemistry</i> , 1984, 56, 1762-1766.	6.5	35
60	Influences of upwind emission sources and atmospheric processing on aerosol chemistry and properties at a rural location in the Northeastern U.S.. <i>Journal of Geophysical Research D: Atmospheres</i> , 2016, 121, 6049-6065.	3.3	35
61	Overview of the Cumulus Humilis Aerosol Processing Study. <i>Bulletin of the American Meteorological Society</i> , 2009, 90, 1653-1668.	3.3	33
62	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
63	Transport of ozone and sulfur to the North Atlantic atmosphere during the North Atlantic Regional Experiment. <i>Journal of Geophysical Research</i> , 1996, 101, 29091-29104.	3.3	32
64	Chemical evolution of an isolated power plant plume during the TexAQS 2000 study. <i>Atmospheric Environment</i> , 2005, 39, 3431-3443.	4.1	32
65	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
66	High summertime aerosol organic functional group concentrations from marine and seabird sources at Ross Island, Antarctica, during AWARE. <i>Atmospheric Chemistry and Physics</i> , 2018, 18, 8571-8587.	4.9	31
67	Correction to “Ozone production rate and hydrocarbon reactivity in 5 urban areas: A cause of high ozone concentration in Houston” <i>Geophysical Research Letters</i> , 2003, 30, .	4.0	30
68	Capillary gas chromatographic separation of alkyl nitrates and peroxy-carboxylic nitric anhydrides. <i>Analytical Chemistry</i> , 1989, 61, 771-772.	6.5	29
69	Formation mechanisms and chemical characteristics of elevated photochemical layers over the northeast United States. <i>Journal of Geophysical Research</i> , 1998, 103, 10631-10647.	3.3	29
70	Quantitative Analysis of Hydroperoxyl Radical Using Flow Injection Analysis with Chemiluminescence Detection. <i>Analytical Chemistry</i> , 2003, 75, 4696-4700.	6.5	29
71	Isoprene photo-oxidation products quantify the effect of pollution on hydroxyl radicals over Amazonia. <i>Science Advances</i> , 2018, 4, eaar2547.	10.3	28
72	Noise Characteristics of an Instrumental Particle Absorbance Technique. <i>Aerosol Science and Technology</i> , 2007, 41, 1110-1116.	3.1	27

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73	Ozone production and transport near Nashville, Tennessee: Results from the 1994 study at New Hendersonville. <i>Journal of Geophysical Research</i> , 2000, 105, 9137-9153.	3.3	26
74	Aircraft and ground-based measurements of hydroperoxides during the 2006 MILAGRO field campaign. <i>Atmospheric Chemistry and Physics</i> , 2008, 8, 7619-7636.	4.9	26
75	Sub-30 nm particles observed at the coastal and continental sites in the United States. <i>Journal of Geophysical Research D: Atmospheres</i> , 2014, 119, 860-879.	3.3	26
76	Fundamentals of column performance in supercritical fluid chromatography. <i>Journal of Chromatography A</i> , 1983, 279, 417-422.	3.7	23
77	Dilution impacts on smoke aging: evidence in Biomass Burning Observation Project (BBOP) data. <i>Atmospheric Chemistry and Physics</i> , 2021, 21, 6839-6855.	4.9	23
78	Measurement of O <sub>3</sub> and related compounds over southern Nova Scotia: 1. Vertical distributions. <i>Journal of Geophysical Research</i> , 1996, 101, 29043-29060.	3.3	20
79	Atmospheric Radiation Measurement (ARM) Aerosol Observing Systems (AOS) for Surface-Based In Situ Atmospheric Aerosol and Trace Gas Measurements. <i>Journal of Atmospheric and Oceanic Technology</i> , 2019, 36, 2429-2447.	1.3	19
80	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
81	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
82	Efficient Nighttime Biogenic SOA Formation in a Polluted Residual Layer. <i>Journal of Geophysical Research D: Atmospheres</i> , 2020, 125, e2019JD031583.	3.3	14
83	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
84	Coiling-induced secondary flow in capillary supercritical fluid chromatography. <i>Analytical Chemistry</i> , 1986, 58, 2699-2704.	6.5	13
85	Immobilization of silicone stationary phases for capillary chromatography through the action of azoisobutyronitrile. <i>Journal of Chromatography A</i> , 1983, 267, 395-398.	3.7	12
86	Ground-based and aircraft measurements of trace gases in Phoenix, Arizona (1998). <i>Atmospheric Environment</i> , 2004, 38, 4941-4956.	4.1	12
87	Comparison of aircraft measurements during GoAmazon2014/5 and ACRIDICON-CHUVA. <i>Atmospheric Measurement Techniques</i> , 2020, 13, 661-684.	3.1	12
88	Photochemistry of O <sub>3</sub> and related compounds over southern Nova Scotia. <i>Journal of Geophysical Research</i> , 1998, 103, 13519-13529.	3.3	11
89	Cryogenic-focusing, ohmically heated on-column trap for capillary gas chromatography. <i>Journal of Chromatography A</i> , 1990, 517, 67-75.	3.7	10
90	Measurement of O <sub>3</sub> and related compounds over southern Nova Scotia: 2. Photochemical age and vertical transport. <i>Journal of Geophysical Research</i> , 1996, 101, 29061-29074.	3.3	10

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91	An ozone episode in the Philadelphia metropolitan area. Journal of Geophysical Research, 2004, 109, .	3.3	10
92	Observation of ambient aerosol particle growth due to in-cloud processes within boundary layers. Journal of Geophysical Research, 2007, 112, .	3.3	10
93	Chemical composition and sources of coastal marine aerosol particles during the 2008 VOCALS-REx campaign. Atmospheric Chemistry and Physics, 2014, 14, 5057-5072.	4.9	9
94	Identifying a regional aerosol baseline in the eastern North Atlantic using collocated measurements and a mathematical algorithm to mask high-submicron-number-concentration aerosol events. Atmospheric Chemistry and Physics, 2020, 20, 7553-7573.	4.9	7
95	What do correlations tell us about anthropogenic-biogenic interactions and SOA formation in the Sacramento plume during CARES?. Atmospheric Chemistry and Physics, 2016, 16, 1729-1746.	4.9	6
96	Reconciling Observed and Predicted Tropical Rainforest OH Concentrations. Journal of Geophysical Research D: Atmospheres, 2022, 127, .	3.3	6
97	Non-extractable stationary phases for gas chromatography cross-linked by exposure to low-temperature plasmas. Journal of Chromatography A, 1989, 473, 79-92.	3.7	4
98	Trace-gas mixing in isolated urban boundary layers: Results from the 2001 Phoenix sunrise experiment. Atmospheric Environment, 2006, 40, 50-57.	4.1	4
99	Tropospheric Sampling with Aircraft. Advances in Chemistry Series, 1993, , 101-132.	0.6	2
100	Sub-3 nm particle observations in the atmosphere of two sites in Eastern United States. , 2013, , .		1