

Timothy H Bertram

List of Publications by Year in descending order

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73
papers

4,404
citations

117625

34
h-index

114465

63
g-index

90
all docs

90
docs citations

90
times ranked

4176
citing authors

#	ARTICLE	IF	CITATIONS
1	Bringing the ocean into the laboratory to probe the chemical complexity of sea spray aerosol. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 7550-7555.	7.1	439
2	Sea spray aerosol as a unique source of ice nucleating particles. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 5797-5803.	7.1	323
3	Evaluation of space-based constraints on global nitrogen oxide emissions with regional aircraft measurements over and downwind of eastern North America. Journal of Geophysical Research, 2006, 111, .	3.3	181
4	Nitryl Chloride and Molecular Chlorine in the Coastal Marine Boundary Layer. Environmental Science & Technology, 2012, 46, 10463-10470.	10.0	177
5	Size-Dependent Changes in Sea Spray Aerosol Composition and Properties with Different Seawater Conditions. Environmental Science & Technology, 2013, 47, 5603-5612.	10.0	175
6	Microbial Control of Sea Spray Aerosol Composition: A Tale of Two Blooms. ACS Central Science, 2015, 1, 124-131.	11.3	172
7	Analysis of Organic Anionic Surfactants in Fine and Coarse Fractions of Freshly Emitted Sea Spray Aerosol. Environmental Science & Technology, 2016, 50, 2477-2486.	10.0	143
8	A Marine Aerosol Reference Tank system as a breaking wave analogue for the production of foam and sea-spray aerosols. Atmospheric Measurement Techniques, 2013, 6, 1085-1094.	3.1	129
9	Direct observations of N_2O_5 reactivity on ambient aerosol particles. Geophysical Research Letters, 2009, 36, .	4.0	124
10	Global airborne sampling reveals a previously unobserved dimethyl sulfide oxidation mechanism in the marine atmosphere. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 4505-4510.	7.1	118
11	Sea spray aerosol chemical composition: elemental and molecular mimics for laboratory studies of heterogeneous and multiphase reactions. Chemical Society Reviews, 2018, 47, 2374-2400.	38.1	117
12	Direct Measurements of the Convective Recycling of the Upper Troposphere. Science, 2007, 315, 816-820.	12.6	114
13	Molecular Diversity of Sea Spray Aerosol Particles: Impact of Ocean Biology on Particle Composition and Hygroscopicity. Chem, 2017, 2, 655-667.	11.7	111
14	A Chemical Ionization High-Resolution Time-of-Flight Mass Spectrometer Coupled to a Micro Orifice Volatilization Impactor (MOVI-HRToF-CIMS) for Analysis of Gas and Particle-Phase Organic Species. Aerosol Science and Technology, 2012, 46, 1313-1327.	3.1	99
15	Direct aerosol chemical composition measurements to evaluate the physicochemical differences between controlled sea spray aerosol generation schemes. Atmospheric Measurement Techniques, 2014, 7, 3667-3683.	3.1	95
16	Enrichment of Saccharides and Divalent Cations in Sea Spray Aerosol During Two Phytoplankton Blooms. Environmental Science & Technology, 2016, 50, 11511-11520.	10.0	90
17	Inside versus Outside: Ion Redistribution in Nitric Acid Reacted Sea Spray Aerosol Particles as Determined by Single Particle Analysis. Journal of the American Chemical Society, 2013, 135, 14528-14531.	13.7	89
18	Impact of marine biogeochemistry on the chemical mixing state and cloud forming ability of nascent sea spray aerosol. Journal of Geophysical Research D: Atmospheres, 2013, 118, 8553-8565.	3.3	84

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19	Satellite measurements of daily variations in soil NO _x emissions. <i>Geophysical Research Letters</i> , 2005, 32, .	4.0	82
20	Characterization of a Quadrotor Unmanned Aircraft System for Aerosol-Particle-Concentration Measurements. <i>Environmental Science & Technology</i> , 2016, 50, 1376-1383.	10.0	82
21	Acidity across the interface from the ocean surface to sea spray aerosol. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	7.1	73
22	The Impact of Aerosol Particle Mixing State on the Hygroscopicity of Sea Spray Aerosol. <i>ACS Central Science</i> , 2015, 1, 132-141.	11.3	64
23	On the Role of Particle Inorganic Mixing State in the Reactive Uptake of N ₂ O ₅ to Ambient Aerosol Particles. <i>Environmental Science & Technology</i> , 2014, 48, 1618-1627.	10.0	58
24	Transition Metal Associations with Primary Biological Particles in Sea Spray Aerosol Generated in a Wave Channel. <i>Environmental Science & Technology</i> , 2014, 48, 1324-1333.	10.0	58
25	Establishing the impact of model surfactants on cloud condensation nuclei activity of sea spray aerosol mimics. <i>Atmospheric Chemistry and Physics</i> , 2018, 18, 10985-11005.	4.9	54
26	Phytoplankton blooms weakly influence the cloud forming ability of sea spray aerosol. <i>Geophysical Research Letters</i> , 2016, 43, 9975-9983.	4.0	52
27	The Role of Clouds in the Tropospheric NO _x Cycle: A New Modeling Approach for Cloud Chemistry and Its Global Implications. <i>Geophysical Research Letters</i> , 2019, 46, 4980-4990.	4.0	51
28	HONO Emissions from Western U.S. Wildfires Provide Dominant Radical Source in Fresh Wildfire Smoke. <i>Environmental Science & Technology</i> , 2020, 54, 5954-5963.	10.0	51
29	Size-Resolved Sea Spray Aerosol Particles Studied by Vibrational Sum Frequency Generation. <i>Journal of Physical Chemistry A</i> , 2013, 117, 6589-6601.	2.5	50
30	Observational assessment of the role of nocturnal residual-layer chemistry in determining daytime surface particulate nitrate concentrations. <i>Atmospheric Chemistry and Physics</i> , 2017, 17, 14747-14770.	4.9	45
31	Observations of gas phase hydrochloric acid in the polluted marine boundary layer. <i>Journal of Geophysical Research D: Atmospheres</i> , 2014, 119, 6897-6915.	3.3	44
32	Sensitivity of Ozone Production to NO _x and VOC Along the Lake Michigan Coastline. <i>Journal of Geophysical Research D: Atmospheres</i> , 2019, 124, 10989-11006.	3.3	43
33	A controlling role for the air-sea interface in the chemical processing of reactive nitrogen in the coastal marine boundary layer. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 3943-3948.	7.1	42
34	Air-sea exchange of biogenic volatile organic compounds and the impact on aerosol particle size distributions. <i>Geophysical Research Letters</i> , 2017, 44, 3887-3896.	4.0	42
35	Connecting Land-Air Interactions to Surface Heterogeneity in CHEESEHEAD19. <i>Bulletin of the American Meteorological Society</i> , 2021, 102, E421-E445.	3.3	40
36	Real-Time Emission Factor Measurements of Isocyanic Acid from Light Duty Gasoline Vehicles. <i>Environmental Science & Technology</i> , 2014, 48, 11405-11412.	10.0	38

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37	Role of convection in redistributing formaldehyde to the upper troposphere over North America and the North Atlantic during the summer 2004 INTEX campaign. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	35
38	Role of Organic Coatings in Regulating N_2O_5 Reactive Uptake to Sea Spray Aerosol. <i>Journal of Physical Chemistry A</i> , 2015, 119, 11683-11692.	2.5	34
39	Linking variations in sea spray aerosol particle hygroscopicity to composition during two microcosm experiments. <i>Atmospheric Chemistry and Physics</i> , 2016, 16, 9003-9018.	4.9	31
40	PM _{2.5} chemistry, organosulfates, and secondary organic aerosol during the 2017 Lake Michigan Ozone Study. <i>Atmospheric Environment</i> , 2021, 244, 117939.	4.1	31
41	Organic Enrichment, Physical Phase State, and Surface Tension Depression of Nascent Core-Shell Sea Spray Aerosols during Two Phytoplankton Blooms. <i>ACS Earth and Space Chemistry</i> , 2020, 4, 650-660.	2.7	29
42	Reactive VOC Production from Photochemical and Heterogeneous Reactions Occurring at the Air-Ocean Interface. <i>Accounts of Chemical Research</i> , 2020, 53, 1014-1023.	15.6	28
43	Rapid cloud removal of dimethyl sulfide oxidation products limits SO_2 and cloud condensation nuclei production in the marine atmosphere. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	7.1	28
44	Strategies to minimize SARS-CoV-2 transmission in classroom settings: combined impacts of ventilation and mask effective filtration efficiency. <i>Science and Technology for the Built Environment</i> , 2021, 27, 1181-1203.	1.7	26
45	Volatility of Primary Organic Aerosol Emitted from Light Duty Gasoline Vehicles. <i>Environmental Science & Technology</i> , 2015, 49, 1569-1577.	10.0	21
46	Diel Profile of Hydroperoxymethyl Thioformate: Evidence for Surface Deposition and Multiphase Chemistry. <i>Environmental Science & Technology</i> , 2020, 54, 12521-12529.	10.0	21
47	Overview of the Lake Michigan Ozone Study 2017. <i>Bulletin of the American Meteorological Society</i> , 2021, 102, E2207-E2225.	3.3	20
48	Revisiting benzene cluster cations for the chemical ionization of dimethyl sulfide and select volatile organic compounds. <i>Atmospheric Measurement Techniques</i> , 2016, 9, 1473-1484.	3.1	19
49	The Impact of Divalent Cations on the Enrichment of Soluble Saccharides in Primary Sea Spray Aerosol. <i>Atmosphere</i> , 2018, 9, 476.	2.3	19
50	Reactions of N_2O_5 with Salty and Surfactant-Coated Glycerol: Interfacial Conversion of Br^+ to Br_2 Mediated by Alkylammonium Cations. <i>Journal of Physical Chemistry A</i> , 2017, 121, 3708-3719.	2.5	18
51	N_2O_5 at water surfaces: binding forces, charge separation, energy accommodation and atmospheric implications. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 17961-17976.	2.8	18
52	Sulfate and Carboxylate Suppress the Formation of ClNO_2 at Atmospheric Interfaces. <i>ACS Earth and Space Chemistry</i> , 2019, 3, 1987-1997.	2.7	18
53	On the export of reactive nitrogen from Asia: NO_x ; partitioning and effects on ozone. <i>Atmospheric Chemistry and Physics</i> , 2013, 13, 4617-4630.	4.9	17
54	Efficient Production of Carbonyl Sulfide in the Low NO_x Oxidation of Dimethyl Sulfide. <i>Geophysical Research Letters</i> , 2022, 49, .	4.0	16

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55	Consistency of Ozone and Nitrogen Oxides Standards at Tropospherically Relevant Mixing Ratios. <i>Journal of the Air and Waste Management Association</i> , 2005, 55, 1473-1479.	1.9	15
56	On the primary emission of formic acid from light duty gasoline vehicles and ocean-going vessels. <i>Atmospheric Environment</i> , 2014, 98, 426-433.	4.1	15
57	Oceanic emissions of dimethyl sulfide and methanethiol and their contribution to sulfur dioxide production in the marine atmosphere. <i>Atmospheric Chemistry and Physics</i> , 2022, 22, 6309-6325.	4.9	15
58	Regional Similarities and NO _x -Related Increases in Biogenic Secondary Organic Aerosol in Summertime Southeastern United States. <i>Journal of Geophysical Research D: Atmospheres</i> , 2018, 123, 10620-10636.	3.3	14
59	Simultaneous detection of ozone and nitrogen dioxide by oxygen anion chemical ionization mass spectrometry: a fast-time-response sensor suitable for eddy covariance measurements. <i>Atmospheric Measurement Techniques</i> , 2020, 13, 1887-1907.	3.1	13
60	A miniature Marine Aerosol Reference Tank (miniMART) as a compact breaking wave analogue. <i>Atmospheric Measurement Techniques</i> , 2016, 9, 4257-4267.	3.1	12
61	The sensitivity of benzene cluster cation chemical ionization mass spectrometry to select biogenic terpenes. <i>Atmospheric Measurement Techniques</i> , 2018, 11, 3251-3262.	3.1	12
62	Control of Interfacial Cl ₂ and N ₂ O ₅ Reactivity by a Zwitterionic Phospholipid in Comparison with Ionic and Uncharged Surfactants. <i>Journal of Physical Chemistry A</i> , 2018, 122, 6593-6604.	2.5	12
63	Production of Br ₂ from N ₂ O ₅ and Br [•] in Salty and Surfactant-Coated Water Microjets. <i>Journal of Physical Chemistry A</i> , 2019, 123, 8942-8953.	2.5	11
64	Simultaneous Measurements of O ₃ and HCOOH Vertical Fluxes Indicate Rapid In-Canopy Terpene Chemistry Enhances O ₃ Removal Over Mixed Temperate Forests. <i>Geophysical Research Letters</i> , 2021, 48, e2020GL090996.	4.0	11
65	Characterization of ground-based atmospheric pollution and meteorology sampling stations during the Lake Michigan Ozone Study 2017. <i>Journal of the Air and Waste Management Association</i> , 2021, 71, 866-889.	1.9	11
66	The Sea Spray Chemistry and Particle Evolution study (SeaSCAPE): overview and experimental methods. <i>Environmental Sciences: Processes and Impacts</i> , 2022, 24, 290-315.	3.5	11
67	Marine gas-phase sulfur emissions during an induced phytoplankton bloom. <i>Atmospheric Chemistry and Physics</i> , 2022, 22, 1601-1613.	4.9	11
68	Atmospheric Benzothiazoles in a Coastal Marine Environment. <i>Environmental Science & Technology</i> , 2021, 55, 15705-15714.	10.0	9
69	Bacteria-driven production of alkyl nitrates in seawater. <i>Geophysical Research Letters</i> , 2015, 42, 597-604.	4.0	8
70	S _N 2 Reactions of N ₂ O ₅ with Ions in Water: Microscopic Mechanisms, Intermediates, and Products. <i>Journal of Physical Chemistry A</i> , 2020, 124, 711-720.	2.5	8
71	Reactive Uptake of Hydroperoxymethyl Thioformate to Sodium Chloride and Sodium Iodide Aerosol Particles. <i>Journal of Physical Chemistry A</i> , 2022, 126, 4476-4481.	2.5	6
72	A novel box for aerosol and droplet guarding and evacuation in respiratory infection (BADGER) for COVID-19 and future outbreaks. <i>Scientific Reports</i> , 2021, 11, 3179.	3.3	4

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73	The Wisconsin Oscillator: A Low-Cost Circuit for Powering Ion Guides, Funnel, and Traps. Journal of the American Society for Mass Spectrometry, 2021, 32, 2821-2826.	2.8	1