Gabriel Isaacman-VanWertz

List of Publications by Year
in descending order

57 papers	4,632 citations	117625 34 h-index	144013 57 g-index
80 all docs	80 docs citations	80 times ranked	4601 citing authors

#	Article	IF	Citations
1	Volatile chemical products emerging as largest petrochemical source of urban organic emissions. Science, 2018, 359, 760-764.	12.6	716
2	Effects of anthropogenic emissions on aerosol formation from isoprene and monoterpenes in the southeastern United States. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 37-42.	7.1	496
3	Elucidating secondary organic aerosol from diesel and gasoline vehicles through detailed characterization of organic carbon emissions. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 18318-18323.	7.1	409
4	Organic aerosol composition and sources in Pasadena, California, during the 2010 CalNex campaign. Journal of Geophysical Research D: Atmospheres, 2013, 118, 9233-9257.	3.3	231
5	On the implications of aerosol liquid water and phase separation for organic aerosol mass. Atmospheric Chemistry and Physics, 2017, 17, 343-369.	4.9	189
6	Monoterpenes are the largest source of summertime organic aerosol in the southeastern United States. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 2038-2043.	7.1	186
7	Characterization of a real-time tracer for isoprene epoxydiols-derived secondary organic aerosol (IEPOX-SOA) from aerosol mass spectrometer measurements. Atmospheric Chemistry and Physics, 2015, 15, 11807-11833.	4.9	185
8	Lubricating Oil Dominates Primary Organic Aerosol Emissions from Motor Vehicles. Environmental Science & Technology, 2014, 48, 3698-3706.	10.0	145
9	Chemical Composition of Gas-Phase Organic Carbon Emissions from Motor Vehicles and Implications for Ozone Production. Environmental Science & Technology, 2013, 47, 11837-11848.	10.0	137
10	Urban pollution greatly enhances formation of natural aerosols over the Amazon rainforest. Nature Communications, 2019, 10, 1046.	12.8	131
11	Volatile chemical product emissions enhance ozone and modulate urban chemistry. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	103
12	Improved Resolution of Hydrocarbon Structures and Constitutional Isomers in Complex Mixtures Using Gas Chromatography-Vacuum Ultraviolet-Mass Spectrometry. Analytical Chemistry, 2012, 84, 2335-2342.	6.5	101
13	Online derivatization for hourly measurements of gas- and particle-phase semi-volatile oxygenated organic compounds by thermal desorption aerosol gas chromatography (SV-TAG). Atmospheric Measurement Techniques, 2014, 7, 4417-4429.	3.1	96
14	Chemical evolution of atmospheric organic carbon over multiple generations of oxidation. Nature Chemistry, 2018, 10, 462-468.	13.6	92
15	Calibration and assessment of electrochemical air quality sensors by co-location with regulatory-grade instruments. Atmospheric Measurement Techniques, 2018, 11, 315-328.	3.1	89
16	Detailed chemical characterization of unresolved complex mixtures in atmospheric organics: Insights into emission sources, atmospheric processing, and secondary organic aerosol formation. Journal of Geophysical Research D: Atmospheres, 2013, 118, 6783-6796.	3.3	69
17	Ambient Gas-Particle Partitioning of Tracers for Biogenic Oxidation. Environmental Science & Technology, 2016, 50, 9952-9962.	10.0	69
18	Coupling of organic and inorganic aerosol systems and the effect on gasâ€“particle partitioning in the southeastern US. Atmospheric Chemistry and Physics, 2018, 18, 357-370.	4.9	66

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19	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
20	Insights into Secondary Organic Aerosol Formation Mechanisms from Measured Gas/Particle Partitioning of Specific Organic Tracer Compounds. Environmental Science & Technology, 2013, 47, 3781-3787.	10.0	58
21	An improved, automated whole air sampler and gas chromatography mass spectrometry analysis system for volatile organic compounds in the atmosphere. Atmospheric Measurement Techniques, 2017, 10, 291-313.	3.1	54
22	Observations of sesquiterpenes and their oxidation products in central Amazonia during the wet and dry seasons. Atmospheric Chemistry and Physics, 2018, 18, 10433-10457.	4.9	53
23	The Influence of Molecular Structure and Aerosol Phase on the Heterogeneous Oxidation of Normal and Branched Alkanes by OH. Journal of Physical Chemistry A, 2013, 117, 3990-4000.	2.5	52
24	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
25	Chemistry of Volatile Organic Compounds in the Los Angeles Basin: Formation of Oxygenated Compounds and Determination of Emission Ratios. Journal of Geophysical Research D: Atmospheres, 2018, 123, 2298-2319.	3.3	43
26	Organosulfates in aerosols downwind of an urban region in central Amazon. Environmental Sciences: Processes and Impacts, 2018, 20, 1546-1558.	3.5	40
27	Heterogeneous OH Oxidation of Motor Oil Particles Causes Selective Depletion of Branched and Less Cyclic Hydrocarbons. Environmental Science & Technology, 2012, 46, 10632-10640.	10.0	39
28	Comprehensive Chemical Characterization of Hydrocarbons in NIST Standard Reference Material 2779 Gulf of Mexico Crude Oil. Environmental Science & Technology, 2015, 49, 13130-13138.	10.0	39
29	Field intercomparison of the gas/particle partitioning of oxygenated organics during the Southern Oxidant and Aerosol Study (SOAS) in 2013. Aerosol Science and Technology, 2017, 51, 30-56.	3.1	39
30	Thermal Desorption Comprehensive Two-Dimensional Gas Chromatography: An Improved Instrument for In-Situ Speciated Measurements of Organic Aerosols. Aerosol Science and Technology, 2012, 46, 380-393.	3.1	37
31	Using advanced mass spectrometry techniques to fully characterize atmospheric organic carbon: current capabilities and remaining gaps. Faraday Discussions, 2017, 200, 579-598.	3.2	37
32	Chemistry of Volatile Organic Compounds in the Los Angeles basin: Nighttime Removal of Alkenes and Determination of Emission Ratios. Journal of Geophysical Research D: Atmospheres, 2017, 122, 11,843.	3.3	37
33	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. Atmospheric Chemistry and Physics, 2019, 19, 7973-8001.	4.9	36
34	Understanding evolution of product composition and volatility distribution through in-situ GC Ã— GC analysis: a case study of longifolene ozonolysis. Atmospheric Chemistry and Physics, 2011, 11, 5335-5346.	4.9	35
35	Automated single-ion peak fitting as an efficient approach for analyzing complex chromatographic data. Journal of Chromatography A, 2017, 1529, 81-92.	3.7	35
36	Modeling the formation and growth of organic films on indoor surfaces. Indoor Air, 2019, 29, 17-29.	4.3	35

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37	Improved molecular level identification of organic compounds using comprehensive two-dimensional chromatography, dual ionization energies and high resolution mass spectrometry. Analyst, The, 2017, 142, 2395-2403.	3.5	33
38	Urban influence on the concentration and composition of submicron particulate matter in central Amazonia. Atmospheric Chemistry and Physics, 2018, 18, 12185-12206.	4.9	30
39	A versatile and reproducible automatic injection system for liquid standard introduction: application to in-situ calibration. Atmospheric Measurement Techniques, 2011, 4, 1937-1942.	3.1	28
40	Sources of organic aerosol investigated using organic compounds as tracers measured during CalNex in Bakersfield. Journal of Geophysical Research D: Atmospheres, 2013, 118, 11,388.	3.3	26
41	OH-Initiated Heterogeneous Oxidation of Cholestane: A Model System for Understanding the Photochemical Aging of Cyclic Alkane Aerosols. Journal of Physical Chemistry A, 2013, 117, 12449-12458.	2.5	23
42	Fundamental Time Scales Governing Organic Aerosol Multiphase Partitioning and Oxidative Aging. Environmental Science & Technology, 2015, 49, 9768-9777.	10.0	23
43	Natural and Anthropogenically Influenced Isoprene Oxidation in Southeastern United States and Central Amazon. Environmental Science & Technology, 2020, 54, 5980-5991.	10.0	22
44	Observations of sesquiterpenes and their oxidation products in central Amazonia during the wet and dry seasons. Atmospheric Chemistry and Physics, 2018, 18, 10433-10457.	4.9	22
45	Impact of organic molecular structure on the estimation of atmospherically relevant physicochemical parameters. Atmospheric Chemistry and Physics, 2021, 21, 6541-6563.	4.9	20
46	Organic Sulfur Products and Peroxy Radical Isomerization in the OH Oxidation of Dimethyl Sulfide. ACS Earth and Space Chemistry, 2021, 5, 2013-2020.	2.7	20
47	Development of an automated high-temperature valveless injection system for online gas chromatography. Atmospheric Measurement Techniques, 2014, 7, 4431-4444.	3.1	16
48	Contrasting Reactive Organic Carbon Observations in the Southeast United States (SOAS) and Southern California (CalNex). Environmental Science & Technology, 2020, 54, 14923-14935.	10.0	15
49	Quantification of isomer-resolved iodide chemical ionization mass spectrometry sensitivity and uncertainty using a voltage-scanning approach. Atmospheric Measurement Techniques, 2021, 14, 6835-6850.	3.1	12
50	Coupling a gas chromatograph simultaneously to a flame ionization detector and chemical ionization mass spectrometer for isomer-resolved measurements of particle-phase organic compounds. Atmospheric Measurement Techniques, 2021, 14, 3895-3907.	3.1	10
51	Measurement report: Variability in the composition of biogenic volatile organic compounds in a Southeastern US forest and their role in atmospheric reactivity. Atmospheric Chemistry and Physics, 2021, 21, 15755-15770.	4.9	10
52	Embracing Complexity: Deciphering Origins and Transformations of Atmospheric Organics through Speciated Measurements. Environmental Science & Technology, 2012, 46, 5265-5266.	10.0	7
53	Characterization of Hydrocarbon Groups in Complex Mixtures Using Gas Chromatography with Unit-Mass Resolution Electron Ionization Mass Spectrometry. Analytical Chemistry, 2020, 92, 12481-12488.	6.5	6
54	A new approach for measuring the carbon and oxygen content of atmospherically relevant compounds and mixtures. Atmospheric Measurement Techniques, 2020, 13, 4911-4925.	3.1	5

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55	Correcting bias in log-linear instrument calibrations in the context of chemical ionization mass spectrometry. Atmospheric Measurement Techniques, 2021, 14, 6551-6560.	3.1	3
56	Modeled Emission of Hydroxyl and Ozone Reactivity from Evaporation of Fragrance Mixtures. Environmental Science & Technology, 2021, 55, 15672-15679.	10.0	3
57	Detailed chemical characterization of the composition and variability of soil gas at remediated residential heating oil discharges. Journal of Hazardous Materials, 2021, 413, 125372.	12.4	1