

Arthur W H Chan

List of Publications by Year in descending order

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62
papers

7,467
citations

109137

35
h-index

114278

63
g-index

74
all docs

74
docs citations

74
times ranked

4628
citing authors

#	ARTICLE	IF	CITATIONS
1	Reactive intermediates revealed in secondary organic aerosol formation from isoprene. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 6640-6645.	3.3	854
2	Secondary organic aerosol formation from α -pinene, m-xylene, toluene, and benzene. Atmospheric Chemistry and Physics, 2007, 7, 3909-3922.	1.9	720
3	Organosulfate Formation in Biogenic Secondary Organic Aerosol. Journal of Physical Chemistry A, 2008, 112, 8345-8378.	1.1	594
4	Effect of NO_x level on secondary organic aerosol (SOA) formation from the photooxidation of terpenes. Atmospheric Chemistry and Physics, 2007, 7, 5159-5174.	1.9	423
5	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.	3.3	409
6	Glyoxal uptake on ammonium sulphate seed aerosol: reaction products and reversibility of uptake under dark and irradiated conditions. Atmospheric Chemistry and Physics, 2009, 9, 3331-3345.	1.9	380
7	Secondary organic aerosol (SOA) formation from reaction of isoprene with nitrate radicals (NO_3). Atmospheric Chemistry and Physics, 2008, 8, 4117-4140.	1.9	317
8	Secondary organic aerosol formation from photooxidation of naphthalene and alkylnaphthalenes: implications for oxidation of intermediate volatility organic compounds (IVOCs). Atmospheric Chemistry and Physics, 2009, 9, 3049-3060.	1.9	300
9	Global modeling of organic aerosol: the importance of reactive nitrogen (NO_x and NO_3). Atmospheric Chemistry and Physics, 2010, 10, 11261-11276.	1.9	242
10	Chemical Composition of Gas- and Aerosol-Phase Products from the Photooxidation of Naphthalene. Journal of Physical Chemistry A, 2010, 114, 913-934.	1.1	233
11	Role of aldehyde chemistry and NO_x concentrations in secondary organic aerosol formation. Atmospheric Chemistry and Physics, 2010, 10, 7169-7188.	1.9	190
12	Secondary organic aerosol formation from biomass burning intermediates: phenol and methoxyphenols. Atmospheric Chemistry and Physics, 2013, 13, 8019-8043.	1.9	181
13	Terpenylic Acid and Related Compounds from the Oxidation of α -Pinene: Implications for New Particle Formation and Growth above Forests. Environmental Science & Technology, 2009, 43, 6976-6982.	4.6	175
14	Lubricating Oil Dominates Primary Organic Aerosol Emissions from Motor Vehicles. Environmental Science & Technology, 2014, 48, 3698-3706.	4.6	145
15	Influence of aerosol acidity on the chemical composition of secondary organic aerosol from β -caryophyllene. Atmospheric Chemistry and Physics, 2011, 11, 1735-1751.	1.9	139
16	Reactions of Semivolatile Organics and Their Effects on Secondary Organic Aerosol Formation. Environmental Science & Technology, 2007, 41, 3545-3550.	4.6	129
17	Particulate organic acids and overall water-soluble aerosol composition measurements from the 2006 Gulf of Mexico Atmospheric Composition and Climate Study (GoMACCS). Journal of Geophysical Research, 2007, 112, .	3.3	121
18	Observational Insights into Aerosol Formation from Isoprene. Environmental Science & Technology, 2013, 47, 11403-11413.	4.6	113

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19	Yields of oxidized volatile organic compounds during the OH radical initiated oxidation of isoprene, methyl vinyl ketone, and methacrolein under high-NO _x conditions. <i>Atmospheric Chemistry and Physics</i> , 2011, 11, 10779-10790.	1.9	112
20	Improved Resolution of Hydrocarbon Structures and Constitutional Isomers in Complex Mixtures Using Gas Chromatography-Vacuum Ultraviolet-Mass Spectrometry. <i>Analytical Chemistry</i> , 2012, 84, 2335-2342.	3.2	101
21	Characterization of Vapor Wall Loss in Laboratory Chambers. <i>Environmental Science & Technology</i> , 2010, 44, 5074-5078.	4.6	98
22	Online derivatization for hourly measurements of gas- and particle-phase semi-volatile oxygenated organic compounds by thermal desorption aerosol gas chromatography (SV-TAG). <i>Atmospheric Measurement Techniques</i> , 2014, 7, 4417-4429.	1.2	96
23	Mass spectrometric characterization of isomeric terpenoic acids from the oxidation of α -pinene, β -pinene, δ -limonene, and β -carene in fine forest aerosol. <i>Journal of Mass Spectrometry</i> , 2011, 46, 425-442.	0.7	89
24	Novel pathway of SO ₂ oxidation in the atmosphere: reactions with monoterpene ozonolysis intermediates and secondary organic aerosol. <i>Atmospheric Chemistry and Physics</i> , 2018, 18, 5549-5565.	1.9	89
25	Multiphase Oxidation of Sulfur Dioxide in Aerosol Particles: Implications for Sulfate Formation in Polluted Environments. <i>Environmental Science & Technology</i> , 2021, 55, 4227-4242.	4.6	88
26	Kinetic modeling of secondary organic aerosol formation: effects of particle- and gas-phase reactions of semivolatile products. <i>Atmospheric Chemistry and Physics</i> , 2007, 7, 4135-4147.	1.9	74
27	Peroxy radical chemistry and OH radical production during the NO ₃ -initiated oxidation of isoprene. <i>Atmospheric Chemistry and Physics</i> , 2012, 12, 7499-7515.	1.9	72
28	Relationship between chemical composition and oxidative potential of secondary organic aerosol from polycyclic aromatic hydrocarbons. <i>Atmospheric Chemistry and Physics</i> , 2018, 18, 3987-4003.	1.9	72
29	Detailed chemical characterization of unresolved complex mixtures in atmospheric organics: Insights into emission sources, atmospheric processing, and secondary organic aerosol formation. <i>Journal of Geophysical Research D: Atmospheres</i> , 2013, 118, 6783-6796.	1.2	69
30	Comprehensive characterization of atmospheric organic carbon at a forested site. <i>Nature Geoscience</i> , 2017, 10, 748-753.	5.4	66
31	Overview of the Manitou Experimental Forest Observatory: site description and selected science results from 2008 to 2013. <i>Atmospheric Chemistry and Physics</i> , 2014, 14, 6345-6367.	1.9	62
32	Organic Peroxides and Sulfur Dioxide in Aerosol: Source of Particulate Sulfate. <i>Environmental Science & Technology</i> , 2019, 53, 10695-10704.	4.6	53
33	The Influence of Molecular Structure and Aerosol Phase on the Heterogeneous Oxidation of Normal and Branched Alkanes by OH. <i>Journal of Physical Chemistry A</i> , 2013, 117, 3990-4000.	1.1	52
34	Photooxidation of 2-Methyl-3-Buten-2-ol (MBO) as a Potential Source of Secondary Organic Aerosol. <i>Environmental Science & Technology</i> , 2009, 43, 4647-4652.	4.6	50
35	Heterogeneous OH Oxidation of Motor Oil Particles Causes Selective Depletion of Branched and Less Cyclic Hydrocarbons. <i>Environmental Science & Technology</i> , 2012, 46, 10632-10640.	4.6	39
36	Comprehensive Chemical Characterization of Hydrocarbons in NIST Standard Reference Material 2779 Gulf of Mexico Crude Oil. <i>Environmental Science & Technology</i> , 2015, 49, 13130-13138.	4.6	39

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37	Enhancement in Secondary Organic Aerosol Formation in the Presence of Preexisting Organic Particle. <i>Environmental Science & Technology</i> , 2016, 50, 3572-3579.	4.6	38
38	Improved molecular level identification of organic compounds using comprehensive two-dimensional chromatography, dual ionization energies and high resolution mass spectrometry. <i>Analyst, The</i> , 2017, 142, 2395-2403.	1.7	33
39	Soluble Wood Smoke Extract Promotes Barrier Dysfunction in Alveolar Epithelial Cells through a MAPK Signaling Pathway. <i>Scientific Reports</i> , 2019, 9, 10027.	1.6	30
40	Proteome-wide effects of naphthalene-derived secondary organic aerosol in BEAS-2B cells are caused by short-lived unsaturated carbonyls. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 25386-25395.	3.3	30
41	Speciated measurements of semivolatile and intermediate volatility organic compounds (S/IVOCs) in a pine forest during BEACHON-RoMBAS 2011. <i>Atmospheric Chemistry and Physics</i> , 2016, 16, 1187-1205.	1.9	28
42	Modeling of secondary organic aerosol yields from laboratory chamber data. <i>Atmospheric Chemistry and Physics</i> , 2009, 9, 5669-5680.	1.9	26
43	Sources of organic aerosol investigated using organic compounds as tracers measured during CalNex in Bakersfield. <i>Journal of Geophysical Research D: Atmospheres</i> , 2013, 118, 11,388.	1.2	26
44	Heterogeneous interactions between SO ₂ and organic peroxides in submicron aerosol. <i>Atmospheric Chemistry and Physics</i> , 2021, 21, 6647-6661.	1.9	24
45	OH-Initiated Heterogeneous Oxidation of Cholestane: A Model System for Understanding the Photochemical Aging of Cyclic Alkane Aerosols. <i>Journal of Physical Chemistry A</i> , 2013, 117, 12449-12458.	1.1	23
46	Assessment of Alkylated and Unsubstituted Polycyclic Aromatic Hydrocarbons in Air in Urban and Semi-Urban Areas in Toronto, Canada. <i>Environmental Science & Technology</i> , 2022, 56, 2959-2967.	4.6	21
47	Predicting Secondary Organic Aerosol Enhancement in the Presence of Atmospherically Relevant Organic Particles. <i>ACS Earth and Space Chemistry</i> , 2018, 2, 1035-1046.	1.2	19
48	Volatility Distribution and Evaporation Rates of Organic Aerosol from Cooking Oils and their Evolution upon Heterogeneous Oxidation. <i>ACS Earth and Space Chemistry</i> , 2019, 3, 1717-1728.	1.2	19
49	Sources and composition of metals in indoor house dust in a mid-size Canadian city. <i>Environmental Pollution</i> , 2021, 289, 117867.	3.7	19
50	Characterization of secondary organic aerosol from heated-cooking-oil emissions: evolution in composition and volatility. <i>Atmospheric Chemistry and Physics</i> , 2021, 21, 5137-5149.	1.9	16
51	Limited Retention of Wildfire-Derived PAHs and Trace Elements in Indoor Environments. <i>Geophysical Research Letters</i> , 2019, 46, 383-391.	1.5	14
52	Dynamic Oxidative Potential of Organic Aerosol from Heated Cooking Oil. <i>ACS Earth and Space Chemistry</i> , 2021, 5, 1150-1162.	1.2	13
53	Isomer-Resolved Reactivity of Organic Peroxides in Monoterpene-Derived Secondary Organic Aerosol. <i>Environmental Science & Technology</i> , 2022, 56, 4882-4893.	4.6	13
54	Development of a Novel Simulation Reactor for Chronic Exposure to Atmospheric Particulate Matter. <i>Scientific Reports</i> , 2017, 7, 42317.	1.6	11

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55	Measuring and modeling the primary organic aerosol volatility from a modern non-road diesel engine. Atmospheric Environment, 2020, 223, 117221.	1.9	11
56	Gas- and Particle-Phase Amide Emissions from Cooking: Mechanisms and Air Quality Impacts. Environmental Science & Technology, 2022, 56, 7741-7750.	4.6	11
57	Resolving detailed molecular structures in complex organic mixtures and modeling their secondary organic aerosol formation. Atmospheric Environment, 2016, 128, 276-285.	1.9	9
58	Formation pathways of aldehydes from heated cooking oils. Environmental Sciences: Processes and Impacts, 2023, 25, 165-175.	1.7	8
59	Comparison of advanced offline and in situ techniques of organic aerosol composition measurement during the CalNex campaign. Atmospheric Measurement Techniques, 2015, 8, 5177-5187.	1.2	7
60	Secondary Organic Aerosol Formation Enhanced by Organic Seeds of Similar Polarity at Atmospherically Relative Humidity. STEM Fellowship Journal, 2015, 1, 6-10.	0.5	6
61	Improved method for the optical analysis of particulate black carbon (BC) using smartphones. Atmospheric Environment, 2020, 224, 117291.	1.9	4
62	HVAC filtration of particles and trace metals: Airborne measurements and the evaluation of quantitative filter forensics. Environmental Pollution, 2021, 271, 116388.	3.7	1