

# Paul Martin Winkler

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

69  
papers

4,097  
citations

26  
h-index

64  
g-index

74  
ext. papers

4,956  
ext. citations

11.1  
avg, IF

4.28  
L-index

#	Paper	IF	Citations
69	Characterization techniques for heterogeneous nucleation from the gas phase. <i>Journal of Aerosol Science</i> , <b>2022</b> , 159, 105875	4.3	5
68	Towards a concentration closure of sub-6 nm aerosol particles and sub-3 nm atmospheric clusters. <i>Journal of Aerosol Science</i> , <b>2022</b> , 159, 105878	4.3	1
67	Synergistic HNO-HSO-NH upper tropospheric particle formation.. <i>Nature</i> , <b>2022</b> , 605, 483-489	50.4	5
66	Chemical composition of nanoparticles from $\alpha$ -pinene nucleation and the influence of isoprene and relative humidity at low temperature. <i>Atmospheric Chemistry and Physics</i> , <b>2021</b> , 21, 17099-17114	6.8	1
65	Determination of the collision rate coefficient between charged iodine acid clusters and iodine acid using the appearance time method. <i>Aerosol Science and Technology</i> , <b>2021</b> , 55, 231-242	3.4	8
64	Molecular characterization of ultrafine particles using extractive electrospray time-of-flight mass spectrometry. <i>Environmental Science Atmospheres</i> , <b>2021</b> , 1, 434-448		2
63	Role of iodine oxoacids in atmospheric aerosol nucleation. <i>Science</i> , <b>2021</b> , 371, 589-595	33.3	31
62	The driving factors of new particle formation and growth in the polluted boundary layer. <i>Atmospheric Chemistry and Physics</i> , <b>2021</b> , 21, 14275-14291	6.8	8
61	Rapid growth of new atmospheric particles by nitric acid and ammonia condensation. <i>Nature</i> , <b>2020</b> , 581, 184-189	50.4	72
60	Photo-oxidation of Aromatic Hydrocarbons Produces Low-Volatility Organic Compounds. <i>Environmental Science &amp; Technology</i> , <b>2020</b> , 54, 7911-7921	10.3	26
59	Development of an ultraviolet constant angle Mie scattering detector toward the determination of aerosol growth kinetics in the transition and free molecular regime. <i>Aerosol Science and Technology</i> , <b>2020</b> , 54, 917-928	3.4	2
58	Molecular understanding of new-particle formation from $\alpha$ -pinene between 0 °C and 25 °C <b>2020</b> ,		1
57	Enhanced growth rate of atmospheric particles from sulfuric acid. <i>Atmospheric Chemistry and Physics</i> , <b>2020</b> , 20, 7359-7372	6.8	21
56	Molecular understanding of the suppression of new-particle formation by isoprene. <i>Atmospheric Chemistry and Physics</i> , <b>2020</b> , 20, 11809-11821	6.8	16
55	New particle formation and sub-10 nm size distribution measurements during the A-LIFE field experiment in Paphos, Cyprus. <i>Atmospheric Chemistry and Physics</i> , <b>2020</b> , 20, 5645-5656	6.8	7
54	Molecular understanding of new-particle formation from $\alpha$ -pinene between 0 and +25 °C. <i>Atmospheric Chemistry and Physics</i> , <b>2020</b> , 20, 9183-9207	6.8	32
53	Counting on chemistry: laboratory evaluation of seed-material-dependent detection efficiencies of ultrafine condensation particle counters. <i>Atmospheric Measurement Techniques</i> , <b>2020</b> , 13, 3787-3798	4	12

52	Characterization of a non-thermal plasma source for use as a mass spectrometric calibration tool and non-radioactive aerosol charger. <i>Atmospheric Measurement Techniques</i> , <b>2020</b> , 13, 5993-6006	4	2
51	Precision characterization of three ultrafine condensation particle counters using singly charged salt clusters in the 14 nm size range generated by a bipolar electrospray source. <i>Aerosol Science and Technology</i> , <b>2020</b> , 54, 396-409	3.4	7
50	Molecular understanding of the suppression of new-particle formation by isoprene <b>2020</b> ,		1
49	Molecular Composition and Volatility of Nucleated Particles from Pinene Oxidation between -50 °C and +25 °C. <i>Environmental Science &amp; Technology</i> , <b>2019</b> , 53, 12357-12365	10.3	14
48	In-situ aerosol nanoparticle characterization by small angle X-ray scattering at ultra-low volume fraction. <i>Nature Communications</i> , <b>2019</b> , 10, 1122	17.4	19
47	Humidity effects on the detection of soluble and insoluble nanoparticles in butanol operated condensation particle counters. <i>Atmospheric Measurement Techniques</i> , <b>2019</b> , 12, 3659-3671	4	12
46	Enhanced growth rate of atmospheric particles from sulfuric acid <b>2019</b> ,		1
45	Resolving nanoparticle growth mechanisms from size- and time-dependent growth rate analysis. <i>Atmospheric Chemistry and Physics</i> , <b>2018</b> , 18, 1307-1323	6.8	15
44	Influence of temperature on the molecular composition of ions and charged clusters during pure biogenic nucleation. <i>Atmospheric Chemistry and Physics</i> , <b>2018</b> , 18, 65-79	6.8	39
43	Rapid growth of organic aerosol nanoparticles over a wide tropospheric temperature range. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2018</b> , 115, 9122-9127	11.5	73
42	Multicomponent new particle formation from sulfuric acid, ammonia, and biogenic vapors. <i>Science Advances</i> , <b>2018</b> , 4, eaau5363	14.3	105
41	Robust metric for quantifying the importance of stochastic effects on nanoparticle growth. <i>Scientific Reports</i> , <b>2018</b> , 8, 14160	4.9	8
40	Heterogeneous Nucleation onto Monoatomic Ions: Support for the Kelvin-Thomson Theory. <i>ChemPhysChem</i> , <b>2018</b> , 19, 3144-3149	3.2	21
39	A unifying identity for the work of cluster formation in heterogeneous and homogeneous nucleation theory. <i>Journal of Chemical Physics</i> , <b>2018</b> , 149, 084702	3.9	4
38	Causes and importance of new particle formation in the present-day and preindustrial atmospheres. <i>Journal of Geophysical Research D: Atmospheres</i> , <b>2017</b> , 122, 8739-8760	4.4	119
37	Temperature Dependence in Heterogeneous Nucleation with Application to the Direct Determination of Cluster Energy on Nearly Molecular Scale. <i>Scientific Reports</i> , <b>2017</b> , 7, 16896	4.9	6
36	The role of ions in new particle formation in the CLOUD chamber. <i>Atmospheric Chemistry and Physics</i> , <b>2017</b> , 17, 15181-15197	6.8	32
35	Influence of temperature on the molecular composition of ions and charged clusters during pure biogenic nucleation <b>2017</b> ,		1

34	A DMA-train for precision measurement of sub-10 nm aerosol dynamics. <i>Atmospheric Measurement Techniques</i> , <b>2017</b> , 10, 1639-1651	4	30
33	Unexpectedly acidic nanoparticles formed in dimethylamine-ammonia-sulfuric acid nucleation experiments at CLOUD <b>2016</b> ,		1
32	Global atmospheric particle formation from CERN CLOUD measurements. <i>Science</i> , <b>2016</b> , 354, 1119-1124	33.3	207
31	The effect of acid-base clustering and ions on the growth of atmospheric nano-particles. <i>Nature Communications</i> , <b>2016</b> , 7, 11594	17.4	88
30	Unexpectedly acidic nanoparticles formed in dimethylamine-ammonia-sulfuric acid nucleation experiments at CLOUD. <i>Atmospheric Chemistry and Physics</i> , <b>2016</b> , 16, 13601-13618	6.8	18
29	Observation of viscosity transition in $\alpha$ -pinene secondary organic aerosol. <i>Atmospheric Chemistry and Physics</i> , <b>2016</b> , 16, 4423-4438	6.8	47
28	The versatile size analyzing nuclei counter (vSANC). <i>Aerosol Science and Technology</i> , <b>2016</b> , 50, 947-958	3.4	7
27	BAECC: A Field Campaign to Elucidate the Impact of Biogenic Aerosols on Clouds and Climate. <i>Bulletin of the American Meteorological Society</i> , <b>2016</b> , 97, 1909-1928	6.1	57
26	The role of low-volatility organic compounds in initial particle growth in the atmosphere. <i>Nature</i> , <b>2016</b> , 533, 527-31	50.4	388
25	Ion-induced nucleation of pure biogenic particles. <i>Nature</i> , <b>2016</b> , 533, 521-6	50.4	377
24	Reduced anthropogenic aerosol radiative forcing caused by biogenic new particle formation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2016</b> , 113, 12053-12058	11.5	79
23	Neutral molecular cluster formation of sulfuric acid-dimethylamine observed in real time under atmospheric conditions. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2014</b> , 111, 15019-24	11.5	155
22	Near-unity mass accommodation coefficient of organic molecules of varying structure. <i>Environmental Science &amp; Technology</i> , <b>2014</b> , 48, 12083-9	10.3	65
21	Secondary organic aerosol formation and organic nitrate yield from NO <sub>3</sub> oxidation of biogenic hydrocarbons. <i>Environmental Science &amp; Technology</i> , <b>2014</b> , 48, 11944-53	10.3	134
20	Insight into acid-base nucleation experiments by comparison of the chemical composition of positive, negative, and neutral clusters. <i>Environmental Science &amp; Technology</i> , <b>2014</b> , 48, 13675-84	10.3	40
19	Temperature dependence of heterogeneous nucleation of water vapor on Ag and NaCl particles <b>2013</b> ,		2
18	A fast-scanning DMA train for precision quantification of early nanoparticle growth <b>2013</b> ,		3
17	Unusual Temperature Dependence of Heterogeneous Nucleation of Water Vapor on Ag Particles. <i>Aerosol Science and Technology</i> , <b>2013</b> , 47, i-iv	3.4	16

16	On quantitative determination of volatile organic compound concentrations using proton transfer reaction time-of-flight mass spectrometry. <i>Environmental Science &amp; Technology</i> , <b>2012</b> , 46, 2283-90	10.3	190
15	Quantitative characterization of critical nanoclusters nucleated on large single molecules. <i>Physical Review Letters</i> , <b>2012</b> , 108, 085701	7.4	24
14	Identification of the biogenic compounds responsible for size-dependent nanoparticle growth. <i>Geophysical Research Letters</i> , <b>2012</b> , 39,	4.9	50
13	Role of sulphuric acid, ammonia and galactic cosmic rays in atmospheric aerosol nucleation. <i>Nature</i> , <b>2011</b> , 476, 429-33	50.4	863
12	Unary and Binary Heterogeneous Nucleation of Organic Vapors on Monodisperse WO <sub>x</sub> Seed Particles with Diameters Down to 1.4 nm. <i>Aerosol Science and Technology</i> , <b>2011</b> , 45, 493-498	3.4	4
11	Experiments on the temperature dependence of heterogeneous nucleation on nanometer-sized NaCl and Ag particles. <i>ChemPhysChem</i> , <b>2010</b> , 11, 3874-82	3.2	15
10	Condensation particle counting below 200 nm seed particle diameter and the transition from heterogeneous to homogeneous nucleation. <i>Atmospheric Research</i> , <b>2008</b> , 90, 125-131	5.4	19
9	Effects of seed particle size and composition on heterogeneous nucleation of n-nonane. <i>Atmospheric Research</i> , <b>2008</b> , 90, 187-194	5.4	21
8	Heterogeneous nucleation experiments bridging the scale from molecular ion clusters to nanoparticles. <i>Science</i> , <b>2008</b> , 319, 1374-7	33.3	209
7	Overview of the biosphere-aerosol-cloud-climate interactions (BACCI) studies. <i>Tellus, Series B: Chemical and Physical Meteorology</i> , <b>2008</b> , 60, 300-317	3.3	7
6	Heterogeneous multicomponent nucleation theorems for the analysis of nanoclusters. <i>Journal of Chemical Physics</i> , <b>2007</b> , 126, 174707	3.9	26
5	The condensation particle counter battery (CPCB): A new tool to investigate the activation properties of nanoparticles. <i>Journal of Aerosol Science</i> , <b>2007</b> , 38, 289-304	4.3	126
4	Condensational Growth of n-Propanol and n-Nonane Droplets: Experiments and Model Calculations <b>2007</b> , 1028-1032		
3	Mass and thermal accommodation during gas-liquid condensation of water. <i>Physical Review Letters</i> , <b>2004</b> , 93, 075701	7.4	90
2	Light scattering from droplets with inclusions and the impact on optical measurement of aerosols. <i>Journal of Aerosol Science</i> , <b>2004</b> , 35, 1173-1188	4.3	9
1	Size characterization and detection of aerosolized nanoplastics originating from evaporated thermoplastics. <i>Aerosol Science and Technology</i> , 1-11	3.4	1