

# James F Davies

## List of Publications by Year in descending order

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Version: 2024-02-01

42  
papers

1,717  
citations

304602

22  
h-index

289141

40  
g-index

47  
all docs

47  
docs citations

47  
times ranked

1709  
citing authors

#	ARTICLE	IF	CITATIONS
1	Evidence for a semisolid phase state of aerosols and droplets relevant to the airborne and surface survival of pathogens. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2022, 119, .	3.3	47
2	An Open Port Sampling Interface for the Chemical Characterization of Levitated Microparticles. <i>Analytical Chemistry</i> , 2022, 94, 3441-3445.	3.2	12
3	Hygroscopic Growth, Phase Morphology, and Optical Properties of Model Aqueous Brown Carbon Aerosol. <i>Environmental Science &amp; Technology</i> , 2022, 56, 3941-3951.	4.6	9
4	Multicomponent diffusion in atmospheric aerosol particles. <i>Environmental Science Atmospheres</i> , 2021, 1, 45-55.	0.9	9
5	Hygroscopic growth of simulated lung fluid aerosol particles under ambient environmental conditions. <i>Chemical Communications</i> , 2021, 57, 3243-3246.	2.2	13
6	Effects of liquid-liquid phase separation and relative humidity on the heterogeneous OH oxidation of inorganic-organic aerosols: insights from methylglutaric acid and ammonium sulfate particles. <i>Atmospheric Chemistry and Physics</i> , 2021, 21, 2053-2066.	1.9	16
7	A dual-droplet approach for measuring the hygroscopicity of aqueous aerosol. <i>Atmospheric Measurement Techniques</i> , 2021, 14, 5001-5013.	1.2	6
8	Measuring the Chemical Evolution of Levitated Particles: A Study on the Evaporation of Multicomponent Organic Aerosol. <i>Analytical Chemistry</i> , 2021, 93, 12472-12479.	3.2	21
9	Ion-molecule interactions enable unexpected phase transitions in organic-inorganic aerosol. <i>Science Advances</i> , 2020, 6, .	4.7	36
10	Effect of inorganic-to-organic mass ratio on the heterogeneous OH reaction rates of erythritol: implications for atmospheric chemical stability of 2-methyltetrols. <i>Atmospheric Chemistry and Physics</i> , 2020, 20, 3879-3893.	1.9	10
11	Paper spray mass spectrometry for the analysis of picoliter droplets. <i>Analyst</i> , 2020, 145, 2639-2648.	1.7	8
12	Simultaneous Retrieval of the Size and Refractive Index of Suspended Droplets in a Linear Quadrupole Electrodynamic Balance. <i>Journal of Physical Chemistry A</i> , 2020, 124, 1811-1820.	1.1	34
13	Effects of inorganic salts on the heterogeneous OH oxidation of organic compounds: insights from methylglutaric acid-ammonium sulfate. <i>Atmospheric Chemistry and Physics</i> , 2019, 19, 9581-9593.	1.9	9
14	Molecular insight into the lower critical solution temperature transition of aqueous alkyl phosphonium benzene sulfonates. <i>Communications Chemistry</i> , 2019, 2, .	2.0	22
15	Technical note: The role of evolving surface tension in the formation of cloud droplets. <i>Atmospheric Chemistry and Physics</i> , 2019, 19, 2933-2946.	1.9	32
16	Heterogeneous OH oxidation of isoprene-epoxydiol-derived organosulfates: kinetics, chemistry and formation of inorganic sulfate. <i>Atmospheric Chemistry and Physics</i> , 2019, 19, 2433-2440.	1.9	26
17	Mass, charge, and radius of droplets in a linear quadrupole electrodynamic balance. <i>Aerosol Science and Technology</i> , 2019, 53, 309-320.	1.5	34
18	Importance of sulfate radical anion formation and chemistry in heterogeneous OH oxidation of sodium methyl sulfate, the smallest organosulfate. <i>Atmospheric Chemistry and Physics</i> , 2018, 18, 2809-2820.	1.9	42

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19	Chemical Transformation of Methanesulfonic Acid and Sodium Methanesulfonate through Heterogeneous OH Oxidation. ACS Earth and Space Chemistry, 2018, 2, 895-903.	1.2	18
20	Heterogeneous Reactions in Aerosol. , 2018, , 403-433.		1
21	The frequency-dependent response of single aerosol particles to vapour phase oscillations and its application in measuring diffusion coefficients. Physical Chemistry Chemical Physics, 2017, 19, 3922-3931.	1.3	19
22	Effects of Relative Humidity and Particle Phase Water on the Heterogeneous OH Oxidation of 2-Methylglutaric Acid Aqueous Droplets. Journal of Physical Chemistry A, 2017, 121, 1666-1674.	1.1	30
23	Exploring Chemistry in Microcompartments Using Guided Droplet Collisions in a Branched Quadrupole Trap Coupled to a Single Droplet, Paper Spray Mass Spectrometer. Analytical Chemistry, 2017, 89, 12511-12519.	3.2	60
24	Compositional evolution of particle-phase reaction products and water in the heterogeneous OH oxidation of model aqueous organic aerosols. Atmospheric Chemistry and Physics, 2017, 17, 14415-14431.	1.9	17
25	The influence of the surface composition of mixed monolayer films on the evaporation coefficient of water. Physical Chemistry Chemical Physics, 2016, 18, 19847-19858.	1.3	19
26	Raman Spectroscopy of Isotopic Water Diffusion in Ultraviscous, Glassy, and Gel States in Aerosol by Use of Optical Tweezers. Analytical Chemistry, 2016, 88, 2361-2366.	3.2	89
27	An interfacial mechanism for cloud droplet formation on organic aerosols. Science, 2016, 351, 1447-1450.	6.0	193
28	Dynamics of Particle Size on Inhalation of Environmental Aerosol and Impact on Deposition Fraction. Environmental Science & Technology, 2015, 49, 14512-14521.	4.6	41
29	Nanoscale interfacial gradients formed by the reactive uptake of OH radicals onto viscous aerosol surfaces. Chemical Science, 2015, 6, 7020-7027.	3.7	95
30	Water diffusion in atmospherically relevant $\alpha$ -pinene secondary organic material. Chemical Science, 2015, 6, 4876-4883.	3.7	116
31	Dynamics of aerosol size during inhalation: Hygroscopic growth of commercial nebulizer formulations. International Journal of Pharmaceutics, 2014, 463, 50-61.	2.6	41
32	Temperature dependence of the vapor pressure and evaporation coefficient of supercooled water. Journal of Geophysical Research D: Atmospheres, 2014, 119, 10,931-10,940.	1.2	26
33	Control over hygroscopic growth of saline aqueous aerosol using Pluronic polymer additives. International Journal of Pharmaceutics, 2013, 443, 183-192.	2.6	16
34	Measurements of the Sensitivity of Aerosol Hygroscopicity and the $\kappa$ Parameter to the O/C Ratio. Journal of Physical Chemistry A, 2013, 117, 14120-14131.	1.1	93
35	Simultaneous Analysis of the Equilibrium Hygroscopicity and Water Transport Kinetics of Liquid Aerosol. Analytical Chemistry, 2013, 85, 5819-5826.	3.2	46
36	Influence of organic films on the evaporation and condensation of water in aerosol. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 8807-8812.	3.3	125

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37	Time-Resolved Measurements of the Evaporation of Volatile Components from Single Aerosol Droplets. <i>Aerosol Science and Technology</i> , 2012, 46, 666-677.	1.5	88
38	Glass formation and unusual hygroscopic growth of iodic acid solution droplets with relevance for iodine mediated particle formation in the marine boundary layer. <i>Atmospheric Chemistry and Physics</i> , 2012, 12, 8575-8587.	1.9	64
39	Bulk, Surface, and Gas-Phase Limited Water Transport in Aerosol. <i>Journal of Physical Chemistry A</i> , 2012, 116, 10987-10998.	1.1	67
40	Accounting for Changes in Particle Charge, Dry Mass and Composition Occurring During Studies of Single Levitated Particles. <i>Journal of Physical Chemistry A</i> , 2012, 116, 9941-9953.	1.1	23
41	Importance of relative humidity in the oxidative ageing of organic aerosols: case study of the ozonolysis of maleic acid aerosol. <i>Atmospheric Chemistry and Physics</i> , 2011, 11, 12181-12195.	1.9	40
42	Optical manipulation of aerosol particle arrays. <i>Proceedings of SPIE</i> , 2011, , .	0.8	1