

Ulrich Pschl

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428
papers

32,973
citations

96
h-index

173
g-index

613
ext. papers

38,719
ext. citations

7.8
avg, IF

7.37
L-index

#	Paper	IF	Citations
428	Raman microspectroscopy of soot and related carbonaceous materials: Spectral analysis and structural information. <i>Carbon</i> , 2005 , 43, 1731-1742	10.4	2642
427	Atmospheric aerosols: composition, transformation, climate and health effects. <i>Angewandte Chemie - International Edition</i> , 2005 , 44, 7520-40	16.4	1473
426	Primary biological aerosol particles in the atmosphere: a review. <i>Tellus, Series B: Chemical and Physical Meteorology</i> , 2012 , 64, 15598	3.3	749
425	Exploring the severe winter haze in Beijing: the impact of synoptic weather, regional transport and heterogeneous reactions. <i>Atmospheric Chemistry and Physics</i> , 2015 , 15, 2969-2983	6.8	634
424	Reactive nitrogen chemistry in aerosol water as a source of sulfate during haze events in China. <i>Science Advances</i> , 2016 , 2, e1601530	14.3	608
423	An amorphous solid state of biogenic secondary organic aerosol particles. <i>Nature</i> , 2010 , 467, 824-7	50.4	600
422	Atmospheric composition change [Global and regional air quality. <i>Atmospheric Environment</i> , 2009 , 43, 5268-5350	5.3	592
421	Contribution of cryptogamic covers to the global cycles of carbon and nitrogen. <i>Nature Geoscience</i> , 2012 , 5, 459-462	18.3	533
420	Glass transition and phase state of organic compounds: dependency on molecular properties and implications for secondary organic aerosols in the atmosphere. <i>Physical Chemistry Chemical Physics</i> , 2011 , 13, 19238-55	3.6	465
419	Rainforest aerosols as biogenic nuclei of clouds and precipitation in the Amazon. <i>Science</i> , 2010 , 329, 1513-1516	33.6	461
418	Gas uptake and chemical aging of semisolid organic aerosol particles. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011 , 108, 11003-8	11.5	457
417	Bioaerosols in the Earth system: Climate, health, and ecosystem interactions. <i>Atmospheric Research</i> , 2016 , 182, 346-376	5.4	406
416	Critical assessment of the current state of scientific knowledge, terminology, and research needs concerning the role of organic aerosols in the atmosphere, climate, and global change. <i>Atmospheric Chemistry and Physics</i> , 2006 , 6, 2017-2038	6.8	394
415	Calibration and measurement uncertainties of a continuous-flow cloud condensation nuclei counter (DMT-CCNC): CCN activation of ammonium sulfate and sodium chloride aerosol particles in theory and experiment. <i>Atmospheric Chemistry and Physics</i> , 2008 , 8, 1153-1179	6.8	389
414	Contribution of fungi to primary biogenic aerosols in the atmosphere: wet and dry discharged spores, carbohydrates, and inorganic ions. <i>Atmospheric Chemistry and Physics</i> , 2007 , 7, 4569-4588	6.8	376
413	Amorphous and crystalline aerosol particles interacting with water vapor: conceptual framework and experimental evidence for restructuring, phase transitions and kinetic limitations. <i>Atmospheric Chemistry and Physics</i> , 2009 , 9, 9491-9522	6.8	375
412	Bacteria in the global atmosphere [Part 1: Review and synthesis of literature data for different ecosystems. <i>Atmospheric Chemistry and Physics</i> , 2009 , 9, 9263-9280	6.8	358

411	Cardiovascular disease burden from ambient air pollution in Europe reassessed using novel hazard ratio functions. <i>European Heart Journal</i> , 2019 , 40, 1590-1596	9.5	349
410	High diversity of fungi in air particulate matter. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009 , 106, 12814-9	11.5	334
409	Soil nitrite as a source of atmospheric HONO and OH radicals. <i>Science</i> , 2011 , 333, 1616-8	33.3	330
408	Multiphase chemistry at the atmosphere-biosphere interface influencing climate and public health in the anthropocene. <i>Chemical Reviews</i> , 2015 , 115, 4440-75	68.1	326
407	An overview of current issues in the uptake of atmospheric trace gases by aerosols and clouds. <i>Atmospheric Chemistry and Physics</i> , 2010 , 10, 10561-10605	6.8	296
406	Cloud condensation nuclei in pristine tropical rainforest air of Amazonia: size-resolved measurements and modeling of atmospheric aerosol composition and CCN activity. <i>Atmospheric Chemistry and Physics</i> , 2009 , 9, 7551-7575	6.8	289
405	Interaction of Ozone and Water Vapor with Spark Discharge Soot Aerosol Particles Coated with Benzo[a]pyrene: O ₃ and H ₂ O Adsorption, Benzo[a]pyrene Degradation, and Atmospheric Implications. <i>Journal of Physical Chemistry A</i> , 2001 , 105, 4029-4041	2.8	276
404	High concentrations of biological aerosol particles and ice nuclei during and after rain. <i>Atmospheric Chemistry and Physics</i> , 2013 , 13, 6151-6164	6.8	268
403	Cloud condensation nuclei in polluted air and biomass burning smoke near the mega-city Guangzhou, China [Part 1: Size-resolved measurements and implications for the modeling of aerosol particle hygroscopicity and CCN activity. <i>Atmospheric Chemistry and Physics</i> , 2010 , 10, 3365-3383	6.8	243
402	Aerosol- and updraft-limited regimes of cloud droplet formation: influence of particle number, size and hygroscopicity on the activation of cloud condensation nuclei (CCN). <i>Atmospheric Chemistry and Physics</i> , 2009 , 9, 7067-7080	6.8	241
401	Relative roles of biogenic emissions and Saharan dust as ice nuclei in the Amazon basin. <i>Nature Geoscience</i> , 2009 , 2, 402-405	18.3	239
400	Polycyclic aromatic hydrocarbons in urban air particulate matter: decadal and seasonal trends, chemical degradation, and sampling artifacts. <i>Environmental Science & Technology</i> , 2003 , 37, 2861-8	10.3	238
399	Sources and properties of Amazonian aerosol particles. <i>Reviews of Geophysics</i> , 2010 , 48,	23.1	237
398	Aerosol Health Effects from Molecular to Global Scales. <i>Environmental Science & Technology</i> , 2017 , 51, 13545-13567	10.3	235
397	General overview: European Integrated project on Aerosol Cloud Climate and Air Quality interactions (EUCAARI) [Integrating aerosol research from nano to global scales. <i>Atmospheric Chemistry and Physics</i> , 2011 , 11, 13061-13143	6.8	231
396	"What We Breathe Impacts Our Health: Improving Understanding of the Link between Air Pollution and Health". <i>Environmental Science & Technology</i> , 2016 , 50, 4895-904	10.3	229
395	Bacteria in the global atmosphere [Part 2: Modeling of emissions and transport between different ecosystems. <i>Atmospheric Chemistry and Physics</i> , 2009 , 9, 9281-9297	6.8	228
394	Kinetic model framework for aerosol and cloud surface chemistry and gas-particle interactions [Part 1: General equations, parameters, and terminology. <i>Atmospheric Chemistry and Physics</i> , 2007 , 7, 5989-6023	6.8	210

393	HONO emissions from soil bacteria as a major source of atmospheric reactive nitrogen. <i>Science</i> , 2013 , 341, 1233-5	33.3	207
392	Substantial convection and precipitation enhancements by ultrafine aerosol particles. <i>Science</i> , 2018 , 359, 411-418	33.3	206
391	Autofluorescence of atmospheric bioaerosols [Fluorescent biomolecules and potential interferences. <i>Atmospheric Measurement Techniques</i> , 2012 , 5, 37-71	4	205
390	Global distribution of particle phase state in atmospheric secondary organic aerosols. <i>Nature Communications</i> , 2017 , 8, 15002	17.4	192
389	Biomass burning aerosol emissions from vegetation fires: particle number and mass emission factors and size distributions. <i>Atmospheric Chemistry and Physics</i> , 2010 , 10, 1427-1439	6.8	191
388	Loss of life expectancy from air pollution compared to other risk factors: a worldwide perspective. <i>Cardiovascular Research</i> , 2020 , 116, 1910-1917	9.9	185
387	Global distribution of the effective aerosol hygroscopicity parameter for CCN activation. <i>Atmospheric Chemistry and Physics</i> , 2010 , 10, 5241-5255	6.8	182
386	Fluorescent biological aerosol particle concentrations and size distributions measured with an Ultraviolet Aerodynamic Particle Sizer (UV-APS) in Central Europe. <i>Atmospheric Chemistry and Physics</i> , 2010 , 10, 3215-3233	6.8	179
385	Interaction of aerosol particles composed of protein and salt with water vapor: hygroscopic growth and microstructural rearrangement. <i>Atmospheric Chemistry and Physics</i> , 2004 , 4, 323-350	6.8	179
384	Arctic ozone loss due to denitrification. <i>Science</i> , 1999 , 283, 2064-9	33.3	178
383	Development and Intercomparison of Condensed Isoprene Oxidation Mechanisms for Global Atmospheric Modeling. <i>Journal of Atmospheric Chemistry</i> , 2000 , 37, 29-52	3.2	177
382	Ice nuclei in marine air: biogenic particles or dust?. <i>Atmospheric Chemistry and Physics</i> , 2013 , 13, 245-267	6.8	175
381	Introduction: European Integrated Project on Aerosol Cloud Climate and Air Quality interactions (EUCAARI) [Integrating aerosol research from nano to global scales. <i>Atmospheric Chemistry and Physics</i> , 2009 , 9, 2825-2841	6.8	170
380	Bioprecipitation: a feedback cycle linking earth history, ecosystem dynamics and land use through biological ice nucleators in the atmosphere. <i>Global Change Biology</i> , 2014 , 20, 341-51	11.4	169
379	Sensitivities in global scale modeling of isoprene. <i>Atmospheric Chemistry and Physics</i> , 2004 , 4, 1-17	6.8	167
378	Atmospheric polycyclic aromatic hydrocarbons observed over the North Pacific Ocean and the Arctic area: Spatial distribution and source identification. <i>Atmospheric Environment</i> , 2007 , 41, 2061-2072	5.3	166
377	Global cloud condensation nuclei influenced by carbonaceous combustion aerosol. <i>Atmospheric Chemistry and Physics</i> , 2011 , 11, 9067-9087	6.8	164
376	Introduction: Observations and Modeling of the Green Ocean Amazon (GoAmazon2014/5). <i>Atmospheric Chemistry and Physics</i> , 2016 , 16, 4785-4797	6.8	162

375	Isoprene and monoterpene fluxes from Central Amazonian rainforest inferred from tower-based and airborne measurements, and implications on the atmospheric chemistry and the local carbon budget. <i>Atmospheric Chemistry and Physics</i> , 2007 , 7, 2855-2879	6.8	159
374	Dryland photoautotrophic soil surface communities endangered by global change. <i>Nature Geoscience</i> , 2018 , 11, 185-189	18.3	158
373	The Amazon Tall Tower Observatory (ATTO): overview of pilot measurements on ecosystem ecology, meteorology, trace gases, and aerosols. <i>Atmospheric Chemistry and Physics</i> , 2015 , 15, 10723-10776	6.8	155
372	Mass spectral characterization of submicron biogenic organic particles in the Amazon Basin. <i>Geophysical Research Letters</i> , 2009 , 36,	4.9	153
371	Rapid aerosol particle growth and increase of cloud condensation nucleus activity by secondary aerosol formation and condensation: A case study for regional air pollution in northeastern China. <i>Journal of Geophysical Research</i> , 2009 , 114,		153
370	Protein nitration by polluted air. <i>Environmental Science & Technology</i> , 2005 , 39, 1673-8	10.3	151
369	Biogenic potassium salt particles as seeds for secondary organic aerosol in the Amazon. <i>Science</i> , 2012 , 337, 1075-8	33.3	150
368	The role of long-lived reactive oxygen intermediates in the reaction of ozone with aerosol particles. <i>Nature Chemistry</i> , 2011 , 3, 291-5	17.6	150
367	Chemical exposure-response relationship between air pollutants and reactive oxygen species in the human respiratory tract. <i>Scientific Reports</i> , 2016 , 6, 32916	4.9	149
366	Size distributions and temporal variations of biological aerosol particles in the Amazon rainforest characterized by microscopy and real-time UV-APS fluorescence techniques during AMAZE-08. <i>Atmospheric Chemistry and Physics</i> , 2012 , 12, 11997-12019	6.8	148
365	The Palaeoanthropocene – The beginnings of anthropogenic environmental change. <i>Anthropocene</i> , 2013 , 3, 83-88	3.9	145
364	Ice nucleation by water-soluble macromolecules. <i>Atmospheric Chemistry and Physics</i> , 2015 , 15, 4077-4091	6.8	145
363	An overview of the Amazonian Aerosol Characterization Experiment 2008 (AMAZE-08). <i>Atmospheric Chemistry and Physics</i> , 2010 , 10, 11415-11438	6.8	143
362	Seasonal cycle and temperature dependence of pinene oxidation products, dicarboxylic acids and nitrophenols in fine and coarse air particulate matter. <i>Atmospheric Chemistry and Physics</i> , 2010 , 10, 7859-7873	6.8	143
361	Comprehensive kinetic characterization of the oxidation and gasification of model and real diesel soot by nitrogen oxides and oxygen under engine exhaust conditions: Measurement, Langmuir-Hinshelwood, and Arrhenius parameters. <i>Carbon</i> , 2006 , 44, 307-324	10.4	141
360	Raman microspectroscopic analysis of changes in the chemical structure and reactivity of soot in a diesel exhaust aftertreatment model system. <i>Environmental Science & Technology</i> , 2007 , 41, 3702-7	10.3	138
359	Kinetic multi-layer model of aerosol surface and bulk chemistry (KM-SUB): the influence of interfacial transport and bulk diffusion on the oxidation of oleic acid by ozone. <i>Atmospheric Chemistry and Physics</i> , 2010 , 10, 3673-3691	6.8	135
358	Effects of reversible adsorption and Langmuir-Hinshelwood surface reactions on gas uptake by atmospheric particles. <i>Physical Chemistry Chemical Physics</i> , 2003 , 5, 351-356	3.6	134

357	Characterization of primary biogenic aerosol particles in urban, rural, and high-alpine air by DNA sequence and restriction fragment analysis of ribosomal RNA genes. <i>Biogeosciences</i> , 2007 , 4, 1127-1141	4.6	133
356	Pressure and Temperature Dependence of the Gas-Phase Reaction of SO ₃ with H ₂ O and the Heterogeneous Reaction of SO ₃ with H ₂ O/H ₂ SO ₄ Surfaces. <i>Journal of Physical Chemistry A</i> , 1997 , 101, 10000-10011	2.8	129
355	Ice-nucleating bacteria control the order and dynamics of interfacial water. <i>Science Advances</i> , 2016 , 2, e1501630	14.3	128
354	Hazardous components and health effects of atmospheric aerosol particles: reactive oxygen species, soot, polycyclic aromatic compounds and allergenic proteins. <i>Free Radical Research</i> , 2012 , 46, 927-39	4	128
353	Aerosol optical properties in a rural environment near the mega-city Guangzhou, China: implications for regional air pollution, radiative forcing and remote sensing. <i>Atmospheric Chemistry and Physics</i> , 2008 , 8, 5161-5186	6.8	125
352	Biogeography in the air: fungal diversity over land and oceans. <i>Biogeosciences</i> , 2012 , 9, 1125-1136	4.6	124
351	An Atmospheric Chemistry Interpretation of Mass Scans Obtained from a Proton Transfer Mass Spectrometer Flown over the Tropical Rainforest of Surinam. <i>Journal of Atmospheric Chemistry</i> , 2001 , 38, 133-166	3.2	124
350	Air Pollution and Climate Change Effects on Allergies in the Anthropocene: Abundance, Interaction, and Modification of Allergens and Adjuvants. <i>Environmental Science & Technology</i> , 2017 , 51, 4119-4141	10.3	123
349	Cloud condensation nuclei in polluted air and biomass burning smoke near the mega-city Guangzhou, China [Part 2: Size-resolved aerosol chemical composition, diurnal cycles, and externally mixed weakly CCN-active soot particles. <i>Atmospheric Chemistry and Physics</i> , 2011 , 11, 2817-2836	6.8	123
348	Severe Pollution in China Amplified by Atmospheric Moisture. <i>Scientific Reports</i> , 2017 , 7, 15760	4.9	122
347	Biological aerosol particles as a key determinant of ice nuclei populations in a forest ecosystem. <i>Journal of Geophysical Research D: Atmospheres</i> , 2013 , 118, 10,100-10,110	4.4	122
346	Kinetic multi-layer model of gas-particle interactions in aerosols and clouds (KM-GAP): linking condensation, evaporation and chemical reactions of organics, oxidants and water. <i>Atmospheric Chemistry and Physics</i> , 2012 , 12, 2777-2794	6.8	121
345	Competition between water uptake and ice nucleation by glassy organic aerosol particles. <i>Atmospheric Chemistry and Physics</i> , 2014 , 14, 12513-12531	6.8	118
344	Microstructure and oxidation behaviour of Euro IV diesel engine soot: a comparative study with synthetic model soot substances. <i>Catalysis Today</i> , 2004 , 90, 127-132	5.3	117
343	Microbiology and atmospheric processes: chemical interactions of primary biological aerosols. <i>Biogeosciences</i> , 2008 , 5, 1073-1084	4.6	116
342	Cloud condensation nuclei (CCN) from fresh and aged air pollution in the megacity region of Beijing. <i>Atmospheric Chemistry and Physics</i> , 2011 , 11, 11023-11039	6.8	115
341	Enhanced organic mass fraction and decreased hygroscopicity of cloud condensation nuclei (CCN) during new particle formation events. <i>Geophysical Research Letters</i> , 2010 , 37, n/a-n/a	4.9	114
340	Raman Microspectroscopic Analysis of Size-Resolved Atmospheric Aerosol Particle Samples Collected with an ELPI: Soot, Humic-Like Substances, and Inorganic Compounds. <i>Aerosol Science and Technology</i> , 2007 , 41, 655-671	3.4	113

339	Kinetic limitations in gas-particle reactions arising from slow diffusion in secondary organic aerosol. <i>Faraday Discussions</i> , 2013 , 165, 391-406	3.6	112
338	Atmospheric nucleation: highlights of the EUCAARI project and future directions. <i>Atmospheric Chemistry and Physics</i> , 2010 , 10, 10829-10848	6.8	112
337	Biological soil crusts accelerate the nitrogen cycle through large NO and HONO emissions in drylands. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015 , 112, 15384-15389	11.5	109
336	Hydroxyl radicals from secondary organic aerosol decomposition in water. <i>Atmospheric Chemistry and Physics</i> , 2016 , 16, 1761-1771	6.8	101
335	Size dependence of phase transitions in aerosol nanoparticles. <i>Nature Communications</i> , 2015 , 6, 5923	17.4	99
334	Isoprene and Its Oxidation Products Methyl Vinyl Ketone, Methacrolein, and Isoprene Related Peroxides Measured Online over the Tropical Rain Forest of Surinam in March 1998. <i>Journal of Atmospheric Chemistry</i> , 2001 , 38, 167-185	3.2	99
333	Ice nucleation activity in the widespread soil fungus &Mortierella alpina&. <i>Biogeosciences</i> , 2015 , 12, 1057-1071	4.6	96
332	The impact of rain on ice nuclei populations at a forested site in Colorado. <i>Geophysical Research Letters</i> , 2013 , 40, 227-231	4.9	96
331	Nitration enhances the allergenic potential of proteins. <i>International Archives of Allergy and Immunology</i> , 2006 , 141, 265-75	3.7	96
330	High spatial and temporal resolution measurements of primary organics and their oxidation products over the tropical forests of Surinam. <i>Atmospheric Environment</i> , 2000 , 34, 1161-1165	5.3	96
329	ACRIDICON-CHUVA Campaign: Studying Tropical Deep Convective Clouds and Precipitation over Amazonia Using the New German Research Aircraft HALO. <i>Bulletin of the American Meteorological Society</i> , 2016 , 97, 1885-1908	6.1	95
328	The Green Ocean Amazon Experiment (GoAmazon2014/5) Observes Pollution Affecting Gases, Aerosols, Clouds, and Rainfall over the Rain Forest. <i>Bulletin of the American Meteorological Society</i> , 2017 , 98, 981-997	6.1	94
327	Thermophoretic deposition of soot aerosol particles under experimental conditions relevant for modern diesel engine exhaust gas systems. <i>Journal of Aerosol Science</i> , 2003 , 34, 1009-1021	4.3	91
326	Molecular corridors and parameterizations of volatility in the chemical evolution of organic aerosols. <i>Atmospheric Chemistry and Physics</i> , 2016 , 16, 3327-3344	6.8	90
325	Hygroscopicity distribution concept for measurement data analysis and modeling of aerosol particle mixing state with regard to hygroscopic growth and CCN activation. <i>Atmospheric Chemistry and Physics</i> , 2010 , 10, 7489-7503	6.8	89
324	Analysis of nitrated polycyclic aromatic hydrocarbons by liquid chromatography with fluorescence and mass spectrometry detection: air particulate matter, soot, and reaction product studies. <i>Analytical and Bioanalytical Chemistry</i> , 2004 , 378, 725-36	4.4	87
323	Influence of soot mixing state on aerosol light absorption and single scattering albedo during air mass aging at a polluted regional site in northeastern China. <i>Journal of Geophysical Research</i> , 2009 , 114,		86
322	Effects of atmospheric conditions on ice nucleation activity of &Pseudomonas&. <i>Atmospheric Chemistry and Physics</i> , 2012 , 12, 10667-10677	6.8	85

321	Quantification of environmentally persistent free radicals and reactive oxygen species in atmospheric aerosol particles. <i>Atmospheric Chemistry and Physics</i> , 2016 , 16, 13105-13119	6.8	84
320	Chemical ageing and transformation of diffusivity in semi-solid multi-component organic aerosol particles. <i>Atmospheric Chemistry and Physics</i> , 2011 , 11, 7343-7354	6.8	83
319	Aerosol optical properties observed during Campaign of Air Quality Research in Beijing 2006 (CAREBeijing-2006): Characteristic differences between the inflow and outflow of Beijing city air. <i>Journal of Geophysical Research</i> , 2009 , 114,		83
318	Kinetic double-layer model of aerosol surface chemistry and gas-particle interactions (K2-SURF): Degradation of polycyclic aromatic hydrocarbons exposed to O ₃ , NO ₂ , H ₂ O, OH and NO ₃ . <i>Atmospheric Chemistry and Physics</i> , 2009 , 9, 9571-9586	6.8	83
317	Cloud droplet activation of mixed organic-sulfate particles produced by the photooxidation of isoprene. <i>Atmospheric Chemistry and Physics</i> , 2010 , 10, 3953-3964	6.8	80
316	Ozone uptake on glassy, semi-solid and liquid organic matter and the role of reactive oxygen intermediates in atmospheric aerosol chemistry. <i>Physical Chemistry Chemical Physics</i> , 2016 , 18, 12662-74	3.6	78
315	Mass Accommodation Coefficient of H ₂ SO ₄ Vapor on Aqueous Sulfuric Acid Surfaces and Gaseous Diffusion Coefficient of H ₂ SO ₄ in N ₂ /H ₂ O. <i>Journal of Physical Chemistry A</i> , 1998 , 102, 10082-10089	2.8	78
314	Model Calculations of Aerosol Transmission and Infection Risk of COVID-19 in Indoor Environments. <i>International Journal of Environmental Research and Public Health</i> , 2020 , 17,	4.6	78
313	Direct imaging of changes in aerosol particle viscosity upon hydration and chemical aging. <i>Chemical Science</i> , 2016 , 7, 1357-1367	9.4	77
312	Submicron particle mass concentrations and sources in the Amazonian wet season (AMAZE-08). <i>Atmospheric Chemistry and Physics</i> , 2015 , 15, 3687-3701	6.8	77
311	Nitrous oxide and methane emissions from cryptogamic covers. <i>Global Change Biology</i> , 2015 , 21, 3889-900	10.4	75
310	Multiphase chemical kinetics of OH radical uptake by molecular organic markers of biomass burning aerosols: humidity and temperature dependence, surface reaction, and bulk diffusion. <i>Journal of Physical Chemistry A</i> , 2015 , 119, 4533-44	2.8	75
309	Estimating global carbon uptake by lichens and bryophytes with a process-based model. <i>Biogeosciences</i> , 2013 , 10, 6989-7033	4.6	75
308	Aerosol particle analysis: challenges and progress. <i>Analytical and Bioanalytical Chemistry</i> , 2003 , 375, 30-24	4.4	75
307	Estimating impacts of lichens and bryophytes on global biogeochemical cycles. <i>Global Biogeochemical Cycles</i> , 2014 , 28, 71-85	5.9	73
306	Microstructural rearrangement of sodium chloride condensation aerosol particles on interaction with water vapor. <i>Journal of Aerosol Science</i> , 2000 , 31, 673-685	4.3	73
305	Face masks effectively limit the probability of SARS-CoV-2 transmission. <i>Science</i> , 2021 , 372,	33.3	73
304	Long-term observations of cloud condensation nuclei in the Amazon rain forest [Part 1: Aerosol size distribution, hygroscopicity, and new model parametrizations for CCN prediction. <i>Atmospheric Chemistry and Physics</i> , 2016 , 16, 15709-15740	6.8	72

303	Kinetic model framework for aerosol and cloud surface chemistry and gas-particle interactions □ Part 2: Exemplary practical applications and numerical simulations. <i>Atmospheric Chemistry and Physics</i> , 2007 , 7, 6025-6045	6.8	70
302	Aerosol characteristics and particle production in the upper troposphere over the Amazon Basin. <i>Atmospheric Chemistry and Physics</i> , 2018 , 18, 921-961	6.8	69
301	Molecular corridors and kinetic regimes in the multiphase chemical evolution of secondary organic aerosol. <i>Atmospheric Chemistry and Physics</i> , 2014 , 14, 8323-8341	6.8	69
300	Satellite retrieval of cloud condensation nuclei concentrations by using clouds as CCN chambers. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016 , 113, 5828-34	11.5	68
299	Seasonal cycles of fluorescent biological aerosol particles in boreal and semi-arid forests of Finland and Colorado. <i>Atmospheric Chemistry and Physics</i> , 2013 , 13, 11987-12001	6.8	68
298	On the background photochemistry of tropospheric ozone. <i>Tellus, Series A: Dynamic Meteorology and Oceanography</i> , 1999 , 51, 123-146	2	66
297	Mass accommodation of water: bridging the gap between molecular dynamics simulations and kinetic condensation models. <i>Journal of Physical Chemistry A</i> , 2013 , 117, 410-20	2.8	65
296	Correction for a measurement artifact of the Multi-Angle Absorption Photometer (MAAP) at high black carbon mass concentration levels. <i>Atmospheric Measurement Techniques</i> , 2013 , 6, 81-90	4	63
295	Long-term cloud condensation nuclei number concentration, particle number size distribution and chemical composition measurements at regionally representative observatories. <i>Atmospheric Chemistry and Physics</i> , 2018 , 18, 2853-2881	6.8	62
294	Temperature effect on phase state and reactivity controls atmospheric multiphase chemistry and transport of PAHs. <i>Science Advances</i> , 2018 , 4, eaap7314	14.3	62
293	Chemists can help to solve the air-pollution health crisis. <i>Nature</i> , 2017 , 551, 291-293	50.4	61
292	Ambient measurements of biological aerosol particles near Killarney, Ireland: a comparison between real-time fluorescence and microscopy techniques. <i>Atmospheric Chemistry and Physics</i> , 2014 , 14, 8055-8069	6.8	61
291	Autofluorescence of atmospheric bioaerosols: spectral fingerprints and taxonomic trends of pollen. <i>Atmospheric Measurement Techniques</i> , 2013 , 6, 3369-3392	4	61
290	Size-resolved measurement of the mixing state of soot in the megacity Beijing, China: diurnal cycle, aging and parameterization. <i>Atmospheric Chemistry and Physics</i> , 2012 , 12, 4477-4491	6.8	60
289	Strong impact of wildfires on the abundance and aging of black carbon in the lowermost stratosphere. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018 , 115, E11595-E11603	11.5	59
288	Kinetic regimes and limiting cases of gas uptake and heterogeneous reactions in atmospheric aerosols and clouds: a general classification scheme. <i>Atmospheric Chemistry and Physics</i> , 2013 , 13, 6663-6686	6.8	58
287	Spatiotemporal variability and contribution of different aerosol types to the Aerosol Optical Depth over the Eastern Mediterranean. <i>Atmospheric Chemistry and Physics</i> , 2016 , 16, 13853-13884	6.8	57
286	Multiphase chemical kinetics of the nitration of aerosolized protein by ozone and nitrogen dioxide. <i>Environmental Science & Technology</i> , 2012 , 46, 6672-80	10.3	56

285	Comparative measurements of ambient atmospheric concentrations of ice nucleating particles using multiple immersion freezing methods and a continuous flow diffusion chamber. <i>Atmospheric Chemistry and Physics</i> , 2017 , 17, 11227-11245	6.8	55
284	Fluorescent bioaerosol particle, molecular tracer, and fungal spore concentrations during dry and rainy periods in a semi-arid forest. <i>Atmospheric Chemistry and Physics</i> , 2016 , 16, 15165-15184	6.8	52
283	Compilation and evaluation of gas phase diffusion coefficients of reactive trace gases in the atmosphere: Volume 2. Diffusivities of organic compounds, pressure-normalised mean free paths, and average Knudsen numbers for gas uptake calculations. <i>Atmospheric Chemistry and Physics</i> , 2015 , 15, 5585-5598	6.8	52
282	Multiphase buffer theory explains contrasts in atmospheric aerosol acidity. <i>Science</i> , 2020 , 369, 1374-1377	3.3	52
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