

# Markus Kalberer

## 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.

61  
papers

2,109  
citations

25  
h-index

45  
g-index

79  
ext. papers

2,563  
ext. citations

8.2  
avg, IF

4.68  
L-index

#	Paper	IF	Citations
61	Effect of Atmospheric Aging on Soot Particle Toxicity in Lung Cell Models at the Air-Liquid Interface: Differential Toxicological Impacts of Biogenic and Anthropogenic Secondary Organic Aerosols (SOAs).. <i>Environmental Health Perspectives</i> , <b>2022</b> , 130, 27003	8.4	8
60	Are reactive oxygen species (ROS) a suitable metric to predict toxicity of carbonaceous aerosol particles?. <i>Atmospheric Chemistry and Physics</i> , <b>2022</b> , 22, 1793-1809	6.8	4
59	Atmospheric conditions and composition that influence PM oxidative potential in Beijing, China. <i>Atmospheric Chemistry and Physics</i> , <b>2021</b> , 21, 5549-5573	6.8	4
58	Differences in the composition of organic aerosols between winter and summer in Beijing: a study by direct-infusion ultrahigh-resolution mass spectrometry. <i>Atmospheric Chemistry and Physics</i> , <b>2020</b> , 20, 13303-13318	6.8	6
57	Formation of metal-organic ligand complexes affects solubility of metals in airborne particles at an urban site in the Po valley. <i>Chemosphere</i> , <b>2020</b> , 241, 125025	8.4	14
56	Radical Formation by Fine Particulate Matter Associated with Highly Oxygenated Molecules. <i>Environmental Science &amp; Technology</i> , <b>2019</b> , 53, 12506-12518	10.3	30
55	Development of a Physiologically Relevant Online Chemical Assay To Quantify Aerosol Oxidative Potential. <i>Analytical Chemistry</i> , <b>2019</b> , 91, 13088-13095	7.8	10
54	Direct Depolymerization Coupled to Liquid Extraction Surface Analysis-High-Resolution Mass Spectrometry for the Characterization of the Surface of Plant Tissues. <i>Analytical Chemistry</i> , <b>2019</b> , 91, 8326-8333	7.8	5
53	Introduction to the special issue In-depth study of air pollution sources and processes within Beijing and its surrounding region (APHH-Beijing) <i>Atmospheric Chemistry and Physics</i> , <b>2019</b> , 19, 7519-7546	6.8	73
52	Impact of anthropogenic and biogenic sources on the seasonal variation in the molecular composition of urban organic aerosols: a field and laboratory study using ultra-high-resolution mass spectrometry. <i>Atmospheric Chemistry and Physics</i> , <b>2019</b> , 19, 5973-5991	6.8	21
51	A light-driven burst of hydroxyl radicals dominates oxidation chemistry in newly activated cloud droplets. <i>Science Advances</i> , <b>2019</b> , 5, eaav7689	14.3	25
50	Quantification of Particle-Bound Organic Radicals in Secondary Organic Aerosol. <i>Environmental Science &amp; Technology</i> , <b>2019</b> , 53, 6729-6737	10.3	14
49	Direct Injection Liquid Chromatography High-Resolution Mass Spectrometry for Determination of Primary and Secondary Terrestrial and Marine Biomarkers in Ice Cores. <i>Analytical Chemistry</i> , <b>2019</b> , 91, 5051-5057	7.8	2
48	An extractive electrospray ionization time-of-flight mass spectrometer (EESI-TOF) for online measurement of atmospheric aerosol particles. <i>Atmospheric Measurement Techniques</i> , <b>2019</b> , 12, 4867-4886	4.6	46
47	Direct target and non-target analysis of urban aerosol sample extracts using atmospheric pressure photoionisation high-resolution mass spectrometry. <i>Chemosphere</i> , <b>2019</b> , 224, 786-795	8.4	11
46	Ultra-fine Particulate Detection using Mode-localized MEMS Resonators <b>2019</b> ,		2
45	A new method for the determination of primary and secondary terrestrial and marine biomarkers in ice cores using liquid chromatography high-resolution mass spectrometry. <i>Talanta</i> , <b>2019</b> , 194, 233-242	6.2	5

44	A new processing scheme for ultra-high resolution direct infusion mass spectrometry data. <i>Atmospheric Environment</i> , <b>2018</b> , 178, 129-139	5.3	17
43	1064 nm Dispersive Raman Microspectroscopy and Optical Trapping of Pharmaceutical Aerosols. <i>Analytical Chemistry</i> , <b>2018</b> , 90, 8838-8844	7.8	10
42	Measuring Aerosol Phase Changes and Hygroscopicity with a Microresonator Mass Sensor. <i>Analytical Chemistry</i> , <b>2018</b> , 90, 9716-9724	7.8	7
41	Observations of sesquiterpenes and their oxidation products in central Amazonia during the wet and dry seasons. <i>Atmospheric Chemistry and Physics</i> , <b>2018</b> , 18, 10433-10457	6.8	2
40	Compositional Analysis of Adsorbed Organic Aerosol on a Microresonator Mass Sensor. <i>Aerosol Science and Engineering</i> , <b>2018</b> , 2, 118-129	1.6	2
39	Introduction to Special Issue "In-depth study of air pollution sources and processes within Beijing and its surrounding region (APHH-Beijing) <b>2018</b> ,		3
38	Observations of sesquiterpenes and their oxidation products in central Amazonia during the wet and dry seasons <b>2018</b> ,		1
37	Observations of sesquiterpenes and their oxidation products in central Amazonia during the wet and dry seasons. <i>Atmospheric Chemistry and Physics</i> , <b>2018</b> , 18, 10433-10457	6.8	29
36	Synthesis and characterisation of peroxydicarboxylic acids as proxies for highly oxygenated molecules (HOMs) in secondary organic aerosol. <i>Atmospheric Chemistry and Physics</i> , <b>2018</b> , 18, 10973-10983	6.8	8
35	Mass Spectrometry Characterization of Peroxycarboxylic Acids as Proxies for Reactive Oxygen Species and Highly Oxygenated Molecules in Atmospheric Aerosols. <i>Analytical Chemistry</i> , <b>2017</b> , 89, 2873-2879	7.8	12
34	Online Quantification of Criegee Intermediates of Pinene Ozonolysis by Stabilization with Spin Traps and Proton-Transfer Reaction Mass Spectrometry Detection. <i>Journal of the American Chemical Society</i> , <b>2017</b> , 139, 3999-4008	16.4	25
33	Online molecular characterisation of organic aerosols in an atmospheric chamber using Extractive Electrospray Ionisation Mass Spectrometry <b>2017</b> ,		1
32	Multiphase composition changes and reactive oxygen species formation during limonene oxidation in the new Cambridge Atmospheric Simulation Chamber (CASC) <b>2017</b> ,		1
31	Extending the Lifetime of Resonant Atmospheric Particulate Mass Sensors With Solvent Rinses <b>2017</b> , 1, 1-4		2
30	Cloud Processing of Secondary Organic Aerosol from Isoprene and Methacrolein Photooxidation. <i>Journal of Physical Chemistry A</i> , <b>2017</b> , 121, 7641-7654	2.8	13
29	Online molecular characterisation of organic aerosols in an atmospheric chamber using extractive electrospray ionisation mass spectrometry. <i>Atmospheric Chemistry and Physics</i> , <b>2017</b> , 17, 14485-14500	6.8	13
28	Multiphase composition changes and reactive oxygen species formation during limonene oxidation in the new Cambridge Atmospheric Simulation Chamber (CASC). <i>Atmospheric Chemistry and Physics</i> , <b>2017</b> , 17, 9853-9868	6.8	23
27	Heterogeneous reaction of ClONO <sub>2</sub> with TiO <sub>2</sub> and SiO <sub>2</sub> aerosol particles: implications for stratospheric particle injection for climate engineering. <i>Atmospheric Chemistry and Physics</i> , <b>2016</b> , 16, 15397-15412	6.8	12

26	Molecular composition of organic aerosols in central Amazonia: an ultra-high-resolution mass spectrometry study. <i>Atmospheric Chemistry and Physics</i> , <b>2016</b> , 16, 11899-11913	6.8	37
25	An automated online instrument to quantify aerosol-bound reactive oxygen species (ROS) for ambient measurement and health-relevant aerosol studies. <i>Atmospheric Measurement Techniques</i> , <b>2016</b> , 9, 4891-4900	4	33
24	Particulate mass sensing with piezoelectric bulk acoustic mode resonators <b>2016</b> ,		8
23	Dynamic viscosity mapping of the oxidation of squalene aerosol particles. <i>Physical Chemistry Chemical Physics</i> , <b>2016</b> , 18, 30385-30393	3.6	26
22	Enhanced Volatile Organic Compounds emissions and organic aerosol mass increase the oligomer content of atmospheric aerosols. <i>Scientific Reports</i> , <b>2016</b> , 6, 35038	4.9	64
21	Molecular composition of organic aerosols at urban background and road tunnel sites using ultra-high resolution mass spectrometry. <i>Faraday Discussions</i> , <b>2016</b> , 189, 51-68	3.6	31
20	Factors Affecting the Ambient Physicochemical Properties of Cerium-Containing Particles Generated by Nanoparticle Diesel Fuel Additive Use. <i>Aerosol Science and Technology</i> , <b>2015</b> , 49, 371-380	3.4	15
19	Toxicity of aged gasoline exhaust particles to normal and diseased airway epithelia. <i>Scientific Reports</i> , <b>2015</b> , 5, 11801	4.9	60
18	Direct surface analysis coupled to high-resolution mass spectrometry reveals heterogeneous composition of the cuticle of Hibiscus trionum petals. <i>Analytical Chemistry</i> , <b>2015</b> , 87, 9900-7	7.8	14
17	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> , <b>2015</b> , 15, 5585-5598	6.8	52
16	The molecular identification of organic compounds in the atmosphere: state of the art and challenges. <i>Chemical Reviews</i> , <b>2015</b> , 115, 3919-83	68.1	300
15	Compilation and evaluation of gas phase diffusion coefficients of reactive trace gases in the atmosphere: volume 1. Inorganic compounds. <i>Atmospheric Chemistry and Physics</i> , <b>2014</b> , 14, 9233-9247	6.8	91
14	Responses of lung cells to realistic exposure of primary and aged carbonaceous aerosols. <i>Atmospheric Environment</i> , <b>2013</b> , 68, 143-150	5.3	33
13	Molecular composition of boreal forest aerosol from HyytiäFinland, using ultrahigh resolution mass spectrometry. <i>Environmental Science &amp; Technology</i> , <b>2013</b> , 47, 4069-79	10.3	59
12	Characterizing an extractive electrospray ionization (EESI) source for the online mass spectrometry analysis of organic aerosols. <i>Environmental Science &amp; Technology</i> , <b>2013</b> , 47, 7324-31	10.3	50
11	Fluorescent lifetime imaging of atmospheric aerosols: a direct probe of aerosol viscosity. <i>Faraday Discussions</i> , <b>2013</b> , 165, 343-56	3.6	61
10	The effect of humidity on the ozonolysis of unsaturated compounds in aerosol particles. <i>Physical Chemistry Chemical Physics</i> , <b>2012</b> , 14, 8023-31	3.6	27
9	Organosulfates in humic-like substance fraction isolated from aerosols at seven locations in East Asia: a study by ultra-high-resolution mass spectrometry. <i>Environmental Science &amp; Technology</i> , <b>2012</b> , 46, 13118-27	10.3	126

8	Elemental composition of HULIS in the Pearl River Delta Region, China: results inferred from positive and negative electrospray high resolution mass spectrometric data. <i>Environmental Science &amp; Technology</i> , <b>2012</b> , 46, 7454-62	10.3	147
7	Seasonal differences of urban organic aerosol composition in an ultra-high resolution mass spectrometry study. <i>Environmental Chemistry</i> , <b>2012</b> , 9, 298	3.2	32
6	Atmospheric analytical chemistry. <i>Analytical Chemistry</i> , <b>2011</b> , 83, 4649-64	7.8	52
5	Ultrahigh mass resolution and accurate mass measurements as a tool to characterize oligomers in secondary organic aerosols. <i>Analytical Chemistry</i> , <b>2007</b> , 79, 4074-82	7.8	154
4	Secondary organic aerosol formation by irradiation of 1,3,5-trimethylbenzene-NO <sub>x</sub> -H <sub>2</sub> O in a new reaction chamber for atmospheric chemistry and physics. <i>Environmental Science &amp; Technology</i> , <b>2005</b> , 39, 2668-78	10.3	167
3	Compilation and evaluation of gas-phase diffusion coefficients of inorganic reactive trace gases in the atmosphere		1
2	Compilation and evaluation of gas-phase diffusion coefficients of reactive trace gases in the atmosphere: volume 2. Organic compounds and Knudsen numbers for gas uptake calculations		1
1	An Extractive Electrospray Ionization Time-of-Flight Mass Spectrometer (EESI-TOF) for online measurement of atmospheric aerosol particles		4