Rupert Holzinger

List of Publications by Year
in descending order

104 papers	8,120 citations	50276 46 h-index	58581 82 g-index
136 all docs	136 docs citations	136 times ranked	7097 citing authors

#	Article	IF	Citations
1	Global Air Pollution Crossroads over the Mediterranean. Science, 2002, 298, 794-799.	12.6	920
2	Proton transfer reaction mass spectrometry: on-line trace gas analysis at the ppb level. International Journal of Mass Spectrometry and Ion Processes, 1995, 149-150, 609-619.	1.8	623
3	Comprehensive laboratory measurements of biomass-burning emissions: 1. Emissions from Indonesian, African, and other fuels. Journal of Geophysical Research, 2003, 108, .	3.3	369
4	Biomass burning as a source of formaldehyde, acetaldehyde, methanol, acetone, acetonitrile, and hydrogen cyanide. Geophysical Research Letters, 1999, 26, 1161-1164.	4.0	313
5	Observations of oxidation products above a forest imply biogenic emissions of very reactive compounds. Atmospheric Chemistry and Physics, 2005, 5, 67-75.	4.9	226
6	Active Atmosphere-Ecosystem Exchange of the Vast Majority of Detected Volatile Organic Compounds. Science, 2013, 341, 643-647.	12.6	211
7	Micro- and Nanoplastics in Alpine Snow: A New Method for Chemical Identification and (Semi)Quantification in the Nanogram Range. Environmental Science & Technology, 2020, 54, 2353-2359.	10.0	187
8	Evaluation of a New Reagent-Ion Source and Focusing Ionâ€“Molecule Reactor for Use in Proton-Transfer-Reaction Mass Spectrometry. Analytical Chemistry, 2018, 90, 12011-12018.	6.5	168
9	Comprehensive laboratory measurements of biomass-burning emissions: 2. First intercomparison of open-path FTIR, PTR-MS, and GC-MS/FID/ECD. Journal of Geophysical Research, 2004, 109, .	3.3	158
10	Forest thinning experiment confirms ozone deposition to forest canopy is dominated by reaction with biogenic VOCs. Geophysical Research Letters, 2004, 31, .	4.0	151
11	Effect of UV radiation and temperature on the emission of methane from plant biomass and structural components. Biogeosciences, 2008, 5, 937-947.	3.3	150
12	Title is missing!. Journal of Atmospheric Chemistry, 2001, 38, 133-166.	3.2	145
13	Emissions of volatile organic compounds fromQuercus ilexL. measured by Proton Transfer Reaction Mass Spectrometry under different environmental conditions. Journal of Geophysical Research, 2000, 105, 20573-20579.	3.3	135
14	Measurements of organic species in air and seawater from the tropical Atlantic. Geophysical Research Letters, 2004, 31, .	4.0	126
15	Process-based modelling of biogenic monoterpene emissions combining production and release from storage. Atmospheric Chemistry and Physics, 2009, 9, 3409-3423.	4.9	120
16	Volatile Organic Compound Emissions from Dairy Cows and Their Waste as Measured by Proton-Transfer-Reaction Mass Spectrometry. Environmental Science & Technology, 2007, 41, 1310-1316.	10.0	119
17	Acetonitrile and benzene in the breath of smokers and non-smokers investigated by proton transfer reaction mass spectrometry (PTR-MS). International Journal of Mass Spectrometry and Ion Processes, 1995, 148, L1-L3.	1.8	116
18	High spatial and temporal resolution measurements of primary organics and their oxidation products over the tropical forests of Surinam. Atmospheric Environment, 2000, 34, 1161-1165.	4.1	111

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19	Title is missing!. Journal of Atmospheric Chemistry, 2001, 38, 167-185.	3.2	111
20	Secondary organic aerosols formed from oxidation of biogenic volatile organic compounds in the Sierra Nevada Mountains of California. Journal of Geophysical Research, 2006, 111, .	3.3	109
21	Long-term cloud condensation nuclei number concentration, particle number size distribution and chemical composition measurements at regionally representative observatories. Atmospheric Chemistry and Physics, 2018, 18, 2853-2881.	4.9	108
22	Ozone fluxes in a Pinus ponderosa ecosystem are dominated by non-stomatal processes: Evidence from long-term continuous measurements. Agricultural and Forest Meteorology, 2010, 150, 420-431.	4.8	97
23	Oxygenated compounds in aged biomass burning plumes over the Eastern Mediterranean: evidence for strong secondary production of methanol and acetone. Atmospheric Chemistry and Physics, 2005, 5, 39-46.	4.9	95
24	Total observed organic carbon (TOOC) in the atmosphere: a synthesis of North American observations. Atmospheric Chemistry and Physics, 2008, 8, 2007-2025.	4.9	94
25	Nanoplastics measurements in Northern and Southern polar ice. Environmental Research, 2022, 208, 112741.	7.5	93
26	Chemical speciation of organic aerosol during the International Consortium for Atmospheric Research on Transport and Transformation 2004: Results from in situ measurements. Journal of Geophysical Research, 2007, 112, .	3.3	92
27	Aerosol analysis using a Thermal-Desorption Proton-Transfer-Reaction Mass Spectrometer (TD-PTR-MS): a new approach to study processing of organic aerosols. Atmospheric Chemistry and Physics, 2010, 10, 2257-2267.	4.9	90
28	A comparison of new measurements of total monoterpene flux with improved measurements of speciated monoterpene flux. Atmospheric Chemistry and Physics, 2005, 5, 505-513.	4.9	87
29	The impact of monsoon outflow from India and Southeast Asia in the upper troposphere over the eastern Mediterranean. Atmospheric Chemistry and Physics, 2003, 3, 1589-1608.	4.9	86
30	Large emissions of sesquiterpenes and methyl chavicol quantified from branch enclosure measurements. Atmospheric Environment, 2009, 43, 389-401.	4.1	83
31	Analysis of the chemical composition of organic aerosol at the Mt. Sonnblick observatory using a novel high mass resolution thermal-desorption proton-transfer-reaction mass-spectrometer (hr-TD-PTR-MS). Atmospheric Chemistry and Physics, 2010, 10, 10111-10128.	4.9	83
32	PTRwid: A new widget tool for processing PTR-TOF-MS data. Atmospheric Measurement Techniques, 2015, 8, 3903-3922.	3.1	82
33	Ground-based PTR-MS measurements of reactive organic compounds during the MINOS campaign in Crete, Julyâ€“August 2001. Atmospheric Chemistry and Physics, 2003, 3, 925-940.	4.9	73
34	Seasonal variability of monoterpene emission factors for a ponderosa pine plantation in California. Atmospheric Chemistry and Physics, 2006, 6, 1267-1274.	4.9	73
35	Improved detection limit of the proton-transfer reaction mass spectrometer: on-line monitoring of volatile organic compounds at mixing ratios of a few pptv. Rapid Communications in Mass Spectrometry, 1998, 12, 871-875.	1.5	72
36	PTR-MS real time monitoring of the emission of volatile organic compounds during postharvest aging of berryfruit. Postharvest Biology and Technology, 1999, 17, 143-151.	6.0	67

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37	Automobile Emissions of Acetonitrile: Assessment of its Contribution to the Global Source. Journal of Atmospheric Chemistry, 2001, 38, 187-193.	3.2	66
38	Quantifying sesquiterpene and oxygenated terpene emissions from live vegetation using solid-phase microextraction fibers. Journal of Chromatography A, 2007, 1161, 113-120.	3.7	65
39	The stable isotope signature of methane emitted from plant material under UV irradiation. Atmospheric Environment, 2009, 43, 5637-5646.	4.1	65
40	Chemical characteristics assigned to trajectory clusters during the MINOS campaign. Atmospheric Chemistry and Physics, 2003, 3, 459-468.	4.9	61
41	Transport of forest fire emissions from Alaska and the Yukon Territory to Nova Scotia during summer 2004. Journal of Geophysical Research, 2007, 112, .	3.3	61
42	Aerosol chemical composition at Cabauw, The Netherlands as observed in two intensive periods in May 2008 and March 2009. Atmospheric Chemistry and Physics, 2012, 12, 4723-4742.	4.9	60
43	Eddy covariance methane measurements at a Ponderosa pine plantation in California. Atmospheric Chemistry and Physics, 2009, 9, 8365-8375.	4.9	59
44	Eddy covariance emission and deposition flux measurements using proton transfer reaction â€“ time of flight â€“ mass spectrometry (PTR-TOF-MS): comparison with PTR-MS measured vertical gradients and fluxes. Atmospheric Chemistry and Physics, 2013, 13, 1439-1456.	4.9	59
45	Proton-transfer-reaction mass spectrometry (PTR-MS): on-line monitoring of volatile organic compounds at volume mixing ratios of a few pptv. Plasma Sources Science and Technology, 1999, 8, 332-336.	3.1	58
46	Formaldehyde over the eastern Mediterranean during MINOS: Comparison of airborne in-situ measurements with 3D-model results. Atmospheric Chemistry and Physics, 2003, 3, 851-861.	4.9	56
47	Nanoplastics transport to the remote, high-altitude Alps. Environmental Pollution, 2021, 288, 117697.	7.5	54
48	Title is missing!. Journal of Atmospheric Chemistry, 2001, 38, 115-132.	3.2	53
49	Validity and limitations of simple reaction kinetics to calculate concentrations of organic compounds from ion counts in PTR-MS. Atmospheric Measurement Techniques, 2019, 12, 6193-6208.	3.1	53
50	Methyl chavicol: characterization of its biogenic emission rate, abundance, and oxidation products in the atmosphere. Atmospheric Chemistry and Physics, 2009, 9, 2061-2074.	4.9	52
51	Presence of nanoplastics in rural and remote surface waters. Environmental Research Letters, 2022, 17, 054036.	5.2	52
52	Chemical characteristics of North American surface layer outflow: Insights from Chebogue Point, Nova Scotia. Journal of Geophysical Research, 2006, 111, .	3.3	48
53	Wintertime Airborne Measurements of Ice Nucleating Particles in the High Arctic: A Hint to a Marine, Biogenic Source for Ice Nucleating Particles. Geophysical Research Letters, 2020, 47, e2020GL087770.	4.0	46
54	Collocated observations of cloud condensation nuclei, particle size distributions, and chemical composition. Scientific Data, 2017, 4, 170003.	5.3	44

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55	Variability-lifetime relationship for organic trace gases: A novel aid to compound identification and estimation of HO concentrations. Journal of Geophysical Research, 2000, 105, 20473-20486.	3.3	42
56	Emission, oxidation, and secondary organic aerosol formation of volatile organic compounds as observed at Chebogue Point, Nova Scotia. Journal of Geophysical Research, 2007, 112, .	3.3	42
57	Methanol measurements in the lower troposphere near Innsbruck (047Â°16â€²N; 011Â°24â€²E), Austria. Atmospheric Environment, 2001, 35, 2525-2532.	4.1	41
58	Field intercomparison of the gas/particle partitioning of oxygenated organics during the Southern Oxidant and Aerosol Study (SOAS) in 2013. Aerosol Science and Technology, 2017, 51, 30-56.	3.1	39
59	Biogenic volatile release from permafrost thaw is determined by the soil microbial sink. Nature Communications, 2018, 9, 3412.	12.8	39
60	Bidirectional Ecosystemâ€“Atmosphere Fluxes of Volatile Organic Compounds Across the Mass Spectrum: How Many Matter?. ACS Earth and Space Chemistry, 2018, 2, 764-777.	2.7	39
61	Inter-comparison between airborne measurements of methanol, acetonitrile and acetone using two differently configured PTR-MS instruments. International Journal of Mass Spectrometry, 2004, 239, 129-137.	1.5	38
62	Aerosol source apportionment from 1-year measurements at the CESAR tower in Cabauw, the Netherlands. Atmospheric Chemistry and Physics, 2016, 16, 8831-8847.	4.9	38
63	Methane flux, vertical gradient and mixing ratio measurements in a tropical forest. Atmospheric Chemistry and Physics, 2011, 11, 7943-7953.	4.9	37
64	Chemical evolution of organic aerosol in Los Angeles during the CalNex 2010 study. Atmospheric Chemistry and Physics, 2013, 13, 10125-10141.	4.9	36
65	Quantification of passive smoking using proton-transfer-reaction mass spectrometry. International Journal of Mass Spectrometry, 1998, 178, L1-L4.	1.5	35
66	The contribution of fossil sources to the organic aerosol in the Netherlands. Atmospheric Environment, 2013, 74, 169-176.	4.1	34
67	Sources and formation mechanisms of carbonaceous aerosol at a regional background site in the Netherlands: insights from a year-long radiocarbon study. Atmospheric Chemistry and Physics, 2017, 17, 3233-3251.	4.9	34
68	On the relationship between acetone and carbon monoxide in different air masses. Atmospheric Chemistry and Physics, 2003, 3, 1709-1723.	4.9	32
69	Methyl chloride and C2â€“C5 hydrocarbon emissions from dry leaf litter and their dependence on temperature. Atmospheric Environment, 2011, 45, 3112-3119.	4.1	32
70	Reconstruction of Northern Hemisphere 1950â€“2010 atmospheric non-methane hydrocarbons. Atmospheric Chemistry and Physics, 2014, 14, 1463-1483.	4.9	31
71	New insights in the global cycle of acetonitrile: release from theocean and dry deposition in the tropical savanna of Venezuela. Atmospheric Chemistry and Physics, 2004, 4, 275-280.	4.9	28
72	Aromatic hydrocarbons at urban, sub-urban, rural (8Â°52â€²N; 67Â°19â€²W) and remote sites in Venezuela. Atmospheric Environment, 2001, 35, 4917-4927.	4.1	27

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73	Diurnal cycles and seasonal variation of isoprene and its oxidation products in the tropical savanna atmosphere. Global Biogeochemical Cycles, 2002, 16, 22-1-22-13.	4.9	27
74	Emissions of H2 and CO from leaf litter of Sequoiadendron giganteum, and their dependence on UV radiation and temperature. Atmospheric Environment, 2011, 45, 7520-7524.	4.1	27
75	Characteristics, sources and evolution of fine aerosol (PM 1) at urban, coastal and forest background sites in Lithuania. Atmospheric Environment, 2017, 148, 62-76.	4.1	26
76	Methyl chloride emissions from halophyte leaf litter: Dependence on temperature and chloride content. Chemosphere, 2012, 87, 483-489.	8.2	25
77	Sources and atmospheric processing of size segregated aerosol particles revealed by stable carbon isotope ratios and chemical speciation. Environmental Pollution, 2018, 240, 286-296.	7.5	24
78	Atmospheric VOC measurements at a High Arctic site: characteristics and source apportionment. Atmospheric Chemistry and Physics, 2021, 21, 2895-2916.	4.9	23
79	A European aerosol phenomenology - 7: High-time resolution chemical characteristics of submicron particulate matter across Europe. Atmospheric Environment: X, 2021, 10, 100108.	1.4	23
80	Water drives the deuterium content of the methane emitted from plants. Geochimica Et Cosmochimica Acta, 2010, 74, 3865-3873.	3.9	20
81	Offline thermal-desorption proton-transfer-reaction mass spectrometry to study composition of organic aerosol. Journal of Aerosol Science, 2015, 79, 1-14.	3.8	19
82	Gas-to-particle partitioning of major biogenic oxidation products: a study on freshly formed and aged biogenic SOA. Atmospheric Chemistry and Physics, 2018, 18, 12969-12989.	4.9	18
83	Comparison of three aerosol chemical characterization techniques utilizing PTR-ToF-MS: a study on freshly formed and aged biogenic SOA. Atmospheric Measurement Techniques, 2018, 11, 1481-1500.	3.1	17
84	Alkali Promotion in the Formation of CH₄ from CO₂ and Renewably Produced H₂ over Supported Ni Catalysts. ChemCatChem, 2020, 12, 2792-2800.	3.7	17
85	Design and field application of an automated cartridge sampler for VOC concentration and flux measurements. Journal of Environmental Monitoring, 2005, 7, 568.	2.1	15
86	Chemical characterization of organic particulate matter from on-road traffic in SÃ£o Paulo, Brazil. Atmospheric Chemistry and Physics, 2016, 16, 14397-14408.	4.9	15
87	Technical note: Aerosol light absorption measurements with a carbon analyser â€“ Calibration and precision estimates. Atmospheric Environment, 2017, 164, 1-7.	4.1	15
88	Characterisation of the semi-volatile component of Dissolved Organic Matter by Thermal Desorption â€“ Proton Transfer Reaction â€“ Mass Spectrometry. Scientific Reports, 2017, 7, 15936.	3.3	15
89	UV-induced emissions of C2 - C5 hydrocarbons from leaf litter. Environmental Chemistry, 2011, 8, 602.	1.5	15
90	A thermal desorption system for measuring Î´13C ratios on organic aerosol. Journal of Aerosol Science, 2013, 66, 72-82.	3.8	14

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91	Chemical and isotopic composition of secondary organic aerosol generated by <i>Î±</i>-pinene ozonolysis. Atmospheric Chemistry and Physics, 2017, 17, 6373-6391.	4.9	14
92	Analytical system for stable carbon isotope measurements of low molecular weight (C₂-C₆) hydrocarbons. Atmospheric Measurement Techniques, 2011, 4, 1161-1175.	3.1	12
93	Brief communication: Analysis of organic matter in surface snow by PTR-MS â€“ implications for dry deposition dynamics in the Alps. Cryosphere, 2019, 13, 297-307.	3.9	12
94	Extreme ¹³C depletion of CCl₂F₂ in firn air samples from NEEM, Greenland. Atmospheric Chemistry and Physics, 2013, 13, 599-609.	4.9	11
95	Evolution of NO₃ reactivity during the oxidation of isoprene. Atmospheric Chemistry and Physics, 2020, 20, 10459-10475.	4.9	10
96	Stable carbon isotope fractionation in the UV photolysis of CFC-11 and CFC-12. Atmospheric Chemistry and Physics, 2012, 12, 4379-4385.	4.9	9
97	Understanding Dissolved Organic Matter Reactivity and Composition in Lakes and Streams Using Proton-Transfer-Reaction Mass Spectrometry (PTR-MS). Environmental Science and Technology Letters, 2018, 5, 739-744.	8.7	9
98	Exhaled Breath Reflects Prolonged Exercise and Statin Use during a Field Campaign. Metabolites, 2021, 11, 192.	2.9	8
99	Non-Invasive Monitoring of Inflammation in Inflammatory Bowel Disease Patients during Prolonged Exercise via Exhaled Breath Volatile Organic Compounds. Metabolites, 2022, 12, 224.	2.9	8
100	An early comparison of nano to microplastic mass in a remote catchment's atmospheric deposition. Journal of Hazardous Materials Advances, 2022, 7, 100104.	3.0	8
101	A plant chamber system with downstream reaction chamber to study the effects of pollution on biogenic emissions. Environmental Sciences: Processes and Impacts, 2014, 16, 2301-2312.	3.5	7
102	Comparison of advanced offline and in situ techniques of organic aerosol composition measurement during the CalNex campaign. Atmospheric Measurement Techniques, 2015, 8, 5177-5187.	3.1	7
103	On a possible bias in elemental carbon measurements with the Sunset thermal/optical carbon analyser caused by unstable laser signal. Atmospheric Environment, 2015, 122, 571-576.	4.1	7
104	A large contribution of methylsiloxanes to particulate matter from ship emissions. Environment International, 2022, 165, 107324.	10.0	2