Hendrik Fuchs

List of Publications by Year
in descending order

79 papers	6,484 citations	81839 39 h-index	76872 74 g-index
166 all docs	166 docs citations	166 times ranked	3904 citing authors

#	Article	IF	Citations
1	Amplified Trace Gas Removal in the Troposphere. Science, 2009, 324, 1702-1704.	6.0	550
2	Nitrate radicals and biogenic volatile organic compounds: oxidation, mechanisms, and organic aerosol. Atmospheric Chemistry and Physics, 2017, 17, 2103-2162.	1.9	307
3	Organic nitrate and secondary organic aerosol yield from NO₃ oxidation of Î²-pinene evaluated using a gas-phase kinetics/aerosol partitioning model. Atmospheric Chemistry and Physics, 2009, 9, 1431-1449.	1.9	277
4	Observation and modelling of OH and HO₂ concentrations in the Pearl River Delta 2006: a missing OH source in a VOC rich atmosphere. Atmospheric Chemistry and Physics, 2012, 12, 1541-1569.	1.9	269
5	Aging of biogenic secondary organic aerosol via gas-phase OH radical reactions. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 13503-13508.	3.3	251
6	Radical chemistry at a rural site (Wangdu) in the North China Plain: observation and model calculations of OH, HO₂ and RO₂ radicals. Atmospheric Chemistry and Physics, 2017, 17, 663-690.	1.9	239
7	Atmospheric OH reactivities in the Pearl River Delta â€“ China in summer 2006: measurement and model results. Atmospheric Chemistry and Physics, 2010, 10, 11243-11260.	1.9	231
8	Exploring the atmospheric chemistry of nitrous acid (HONO) at a rural site in Southern China. Atmospheric Chemistry and Physics, 2012, 12, 1497-1513.	1.9	211
9	Isoprene oxidation by nitrate radical: alkyl nitrate and secondary organic aerosol yields. Atmospheric Chemistry and Physics, 2009, 9, 6685-6703.	1.9	208
10	Detection of HO₂ by laser-induced fluorescence: calibration and interferences from RO₂ radicals. Atmospheric Measurement Techniques, 2011, 4, 1209-1225.	1.2	199
11	Missing OH source in a suburban environment near Beijing: observed and modelled OH and HO₂ concentrations in summer 2006. Atmospheric Chemistry and Physics, 2013, 13, 1057-1080.	1.9	188
12	Wintertime photochemistry in Beijing: observations of RO_{<i>x</i>} radical concentrations in the North China Plain during the BEST-ONE campaign. Atmospheric Chemistry and Physics, 2018, 18, 12391-12411.	1.9	177
13	Measurement of glyoxal using an incoherent broadband cavity enhanced absorption spectrometer. Atmospheric Chemistry and Physics, 2008, 8, 7779-7793.	1.9	159
14	Missing Gas-Phase Source of HONO Inferred from Zeppelin Measurements in the Troposphere. Science, 2014, 344, 292-296.	6.0	154
15	Fast Photochemistry in Wintertime Haze: Consequences for Pollution Mitigation Strategies. Environmental Science & Technology, 2019, 53, 10676-10684.	4.6	147
16	Experimental evidence for efficient hydroxyl radical regeneration in isoprene oxidation. Nature Geoscience, 2013, 6, 1023-1026.	5.4	132
17	A Sensitive and Versatile Detector for Atmospheric NO₂ and NO_X Based on Blue Diode Laser Cavity Ring-Down Spectroscopy. Environmental Science & Technology, 2009, 43, 7831-7836.	4.6	124
18	Reactive uptake coefficients for N₂O₅ determined from aircraft measurements during the Second Texas Air Quality Study: Comparison to current model parameterizations. Journal of Geophysical Research, 2009, 114, .	3.3	124

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19	SOA from limonene: role of NO₃ in its generation and degradation. Atmospheric Chemistry and Physics, 2011, 11, 3879-3894.	1.9	123
20	Maximum efficiency in the hydroxyl-radical-based self-cleansing of the troposphere. Nature Geoscience, 2014, 7, 559-563.	5.4	110
21	Effects of NO_{<i>x</i>} and SO₂ on the secondary organic aerosol formation from photooxidation of <i>Î±</i>-pinene and limonene. Atmospheric Chemistry and Physics, 2018, 18, 1611-1628.	1.9	110
22	Technical Note: Formal blind intercomparison of OH measurements: results from the international campaign HOxComp. Atmospheric Chemistry and Physics, 2009, 9, 7923-7948.	1.9	98
23	Experimental budgets of OH, HO₂, and RO₂ radicals and implications for ozone formation in the Pearl River Delta in China 2014. Atmospheric Chemistry and Physics, 2019, 19, 7129-7150.	1.9	92
24	The South Asian monsoonâ€"pollution pump and purifier. Science, 2018, 361, 270-273.	6.0	85
25	Determination of Inlet Transmission and Conversion Efficiencies for in Situ Measurements of the Nocturnal Nitrogen Oxides, NO₃, N₂O₅ and NO₂, via Pulsed Cavity Ring-Down Spectroscopy. Analytical Chemistry, 2008, 80, 6010-6017.	3.2	80
26	Intercomparison of measurements of NO₂ concentrations in the atmosphere simulation chamber SAPHIR during the NO3Comp campaign. Atmospheric Measurement Techniques, 2010, 3, 21-37.	1.2	77
27	Intercomparison of Two Hydroxyl Radical Measurement Techniques at the Atmosphere Simulation Chamber SAPHIR. Journal of Atmospheric Chemistry, 2007, 56, 187-205.	1.4	76
28	Comparison of OH concentration measurements by DOAS and LIF during SAPHIR chamber experiments at high OH reactivity and low NO concentration. Atmospheric Measurement Techniques, 2012, 5, 1611-1626.	1.2	75
29	Comparison of OH reactivity measurements in the atmospheric simulation chamber SAPHIR. Atmospheric Measurement Techniques, 2017, 10, 4023-4053.	1.2	74
30	Measurement of tropospheric RO2 and HO2 radicals by a laser-induced fluorescence instrument. Review of Scientific Instruments, 2008, 79, 084104.	0.6	73
31	Formation of anthropogenic secondary organic aerosol (SOA) and its influence on biogenic SOA properties. Atmospheric Chemistry and Physics, 2013, 13, 2837-2855.	1.9	73
32	Ubiquitous atmospheric production of organic acids mediated by cloud droplets. Nature, 2021, 593, 233-237.	13.7	71
33	Secondary organic aerosol formation from hydroxyl radical oxidation and ozonolysis of monoterpenes. Atmospheric Chemistry and Physics, 2015, 15, 991-1012.	1.9	67
34	No Evidence for a Significant Impact of Heterogeneous Chemistry on Radical Concentrations in the North China Plain in Summer 2014. Environmental Science & Technology, 2020, 54, 5973-5979.	4.6	67
35	Volatility of secondary organic aerosol during OH radical induced ageing. Atmospheric Chemistry and Physics, 2011, 11, 11055-11067.	1.9	66
36	OH reactivity at a rural site (Wangdu) in the North China Plain: contributions from OH reactants and experimental OH budget. Atmospheric Chemistry and Physics, 2017, 17, 645-661.	1.9	63

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37	Evolution of the complex refractive index in the UV spectral region in ageing secondary organic aerosol. Atmospheric Chemistry and Physics, 2014, 14, 5793-5806.	1.9	60
38	Intercomparison of NO₃ radical detection instruments in the atmosphere simulation chamber SAPHIR. Atmospheric Measurement Techniques, 2013, 6, 1111-1140.	1.2	49
39	Investigation of potential interferences in the detection of atmospheric RO_{<i>x</i>} radicals by laser-induced fluorescence under dark conditions. Atmospheric Measurement Techniques, 2016, 9, 1431-1447.	1.2	49
40	Importance of isomerization reactions for OH radical regeneration from the photo-oxidation of isoprene investigated in the atmospheric simulation chamber SAPHIR. Atmospheric Chemistry and Physics, 2020, 20, 3333-3355.	1.9	44
41	Cloud condensation nuclei activity, droplet growth kinetics, and hygroscopicity of biogenic and anthropogenic secondary organic aerosol (SOA). Atmospheric Chemistry and Physics, 2016, 16, 1105-1121.	1.9	43
42	Nighttime observation and chemistry of HO_x in the Pearl River Delta and Beijing in summer 2006. Atmospheric Chemistry and Physics, 2014, 14, 4979-4999.	1.9	40
43	Technical Note: Formal blind intercomparison of HO₂ measurements in the atmosphere simulation chamber SAPHIR during the HOxComp campaign. Atmospheric Chemistry and Physics, 2010, 10, 12233-12250.	1.9	38
44	HO_x budgets during HOxComp: A case study of HO_x chemistry under NO_xâ€limited conditions. Journal of Geophysical Research, 2012, 117, .	3.3	38
45	OH regeneration from methacrolein oxidation investigated in the atmosphere simulation chamber SAPHIR. Atmospheric Chemistry and Physics, 2014, 14, 7895-7908.	1.9	38
46	Evidence for an unidentified non-photochemical ground-level source of formaldehyde in the Po Valley with potential implications for ozone production. Atmospheric Chemistry and Physics, 2015, 15, 1289-1298.	1.9	36
47	Chemical Production of Oxygenated Volatile Organic Compounds Strongly Enhances Boundary-Layer Oxidation Chemistry and Ozone Production. Environmental Science & Technology, 2021, 55, 13718-13727.	4.6	31
48	Intercomparison of peroxy radical measurements obtained at atmospheric conditions by laser-induced fluorescence and electron spin resonance spectroscopy. Atmospheric Measurement Techniques, 2009, 2, 55-64.	1.2	30
49	Comparisons of observed and modeled OH and HO₂ concentrations during the ambient measurement period of the HO_xComp field campaign. Atmospheric Chemistry and Physics, 2012, 12, 2567-2585.	1.9	30
50	Highly oxygenated organic molecule (HOM) formation in the isoprene oxidation by NO₃ radical. Atmospheric Chemistry and Physics, 2021, 21, 9681-9704.	1.9	30
51	Investigation of the <i>Î²</i>-pinene photooxidation by OH in the atmosphere simulation chamber SAPHIR. Atmospheric Chemistry and Physics, 2017, 17, 6631-6650.	1.9	27
52	HO2 formation from the OH + benzene reaction in the presence of O2. Physical Chemistry Chemical Physics, 2011, 13, 10699.	1.3	25
53	Uptake of Waterâ€soluble Gasâ€phase Oxidation Products Drives Organic Particulate Pollution in Beijing. Geophysical Research Letters, 2021, 48, e2020GL091351.	1.5	24
54	Investigation of the oxidation of methyl vinyl ketone (MVK) by OH radicals in the atmospheric simulation chamber SAPHIR. Atmospheric Chemistry and Physics, 2018, 18, 8001-8016.	1.9	22

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55	Theoretical and experimental study of peroxy and alkoxy radicals in the NO₃-initiated oxidation of isoprene. Physical Chemistry Chemical Physics, 2021, 23, 5496-5515.	1.3	22
56	Intraoperative Corneal Topography for Image Registration. Journal of Refractive Surgery, 2002, 18, .	1.1	22
57	Comparison of N₂O₅ mixing ratios during NO3Comp 2007 in SAPHIR. Atmospheric Measurement Techniques, 2012, 5, 2763-2777.	1.2	21
58	Atmospheric photochemistry of aromatic hydrocarbons: OH budgets during SAPHIR chamber experiments. Atmospheric Chemistry and Physics, 2014, 14, 6941-6952.	1.9	21
59	Evaluation of OH and HO₂ concentrations and their budgets during photooxidation of 2-methyl-3-butene-2-ol (MBO) in the atmospheric simulation chamber SAPHIR. Atmospheric Chemistry and Physics, 2018, 18, 11409-11422.	1.9	20
60	Experimental and theoretical study on the impact of a nitrate group on the chemistry of alkoxy radicals. Physical Chemistry Chemical Physics, 2021, 23, 5474-5495.	1.3	20
61	Molecular composition and volatility of multi-generation products formed from isoprene oxidation by nitrate radical. Atmospheric Chemistry and Physics, 2021, 21, 10799-10824.	1.9	19
62	Measurements of hydroperoxy radicals (HO₂) at atmospheric concentrations using bromide chemical ionisation mass spectrometry. Atmospheric Measurement Techniques, 2019, 12, 891-902.	1.2	18
63	Investigation of the <i>Î±</i>-pinene photooxidation by OH in the atmospheric simulation chamber SAPHIR. Atmospheric Chemistry and Physics, 2019, 19, 11635-11649.	1.9	17
64	Highly Oxygenated Organic Nitrates Formed from NO₃ Radical-Initiated Oxidation of Î²-Pinene. Environmental Science & Technology, 2021, 55, 15658-15671.	4.6	17
65	Gas-Particle Partitioning and SOA Yields of Organonitrate Products from NO₃-Initiated Oxidation of Isoprene under Varied Chemical Regimes. ACS Earth and Space Chemistry, 2021, 5, 785-800.	1.2	15
66	Comparison of formaldehyde measurements by Hantzsch, CRDS and DOAS in the SAPHIR chamber. Atmospheric Measurement Techniques, 2021, 14, 4239-4253.	1.2	14
67	Influence of aerosol copper on HO₂ uptake: a novel parameterized equation. Atmospheric Chemistry and Physics, 2020, 20, 15835-15850.	1.9	14
68	Response to Comment on â€œMissing gas-phase source of HONO inferred from Zeppelin measurements in the troposphereâ€ Science, 2015, 348, 1326-1326.	6.0	10
69	Evolution of NO₃ reactivity during the oxidation of isoprene. Atmospheric Chemistry and Physics, 2020, 20, 10459-10475.	1.9	10
70	Characterization of a chemical modulation reactor (CMR) for the measurement of atmospheric concentrations of hydroxyl radicals with a laser-induced fluorescence instrument. Atmospheric Measurement Techniques, 2021, 14, 1851-1877.	1.2	8
71	Atmospheric photooxidation and ozonolysis of Î”³-carene and 3-caronaldehyde: rate constants and product yields. Atmospheric Chemistry and Physics, 2021, 21, 12665-12685.	1.9	8
72	A Four Carbon Organonitrate as a Significant Product of Secondary Isoprene Chemistry. Geophysical Research Letters, 2022, 49, .	1.5	8

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73	Experimental determination of the orientation of excited state transition dipoles in tetrapyrroles with different molecular symmetries. Optics Communications, 2003, 220, 119-127.	1.0	7
74	Photooxidation of pinonaldehyde at ambient conditions investigated in the atmospheric simulation chamber SAPHIR. Atmospheric Chemistry and Physics, 2020, 20, 13701-13719.	1.9	6
75	Application of chemical derivatization techniques combined with chemical ionization mass spectrometry to detect stabilized Criegee intermediates and peroxy radicals in the gas phase. Atmospheric Measurement Techniques, 2021, 14, 2501-2513.	1.2	5
76	Atmospheric photo-oxidation of myrcene: OH reaction rate constant, gas-phase oxidation products and radical budgets. Atmospheric Chemistry and Physics, 2021, 21, 16067-16091.	1.9	4
77	The absorption spectrum and absolute absorption cross sections of acetylperoxy radicals, CH3C(O)O2 in the near IR. Journal of Quantitative Spectroscopy and Radiative Transfer, 2020, 245, 106877.	1.1	3
78	Investigation of the limonene photooxidation by OH at different NO concentrations in the atmospheric simulation chamber SAPHIR (Simulation of Atmospheric PHotochemistry In a large) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 5	1.9	3
79	Design of a rugged 308 nm tunable UV laser for airborne LIF measurements on top of Zeppelin NT. , 2013, , .		1