Birger Bohn

List of Publications by Year
in descending order

97 papers	6,911 citations	70961 41 h-index	71532 76 g-index
161 all docs	161 docs citations	161 times ranked	4319 citing authors

#	Article	IF	Citations
1	Overview: On the transport and transformation of pollutants in the outflow of major population centres â€“ observational data from the EMeRGe European intensive operational period in summer 2017. Atmospheric Chemistry and Physics, 2022, 22, 5877-5924.	1.9	16
2	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 69	1.9	3
3	Central role of nitric oxide in ozone production in the upper tropical troposphere over the Atlantic Ocean and western Africa. Atmospheric Chemistry and Physics, 2021, 21, 8195-8211.	1.9	12
4	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
5	Gas-Phase Reaction Kinetics of the Ortho and Ipso Adducts 1,2,4,5-Tetramethylbenzeneâ€“OH with O2. ACS Earth and Space Chemistry, 2021, 5, 2243-2251.	1.2	2
6	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
7	Modification of a conventional photolytic converter for improving aircraft measurements of NO₂ via chemiluminescence. Atmospheric Measurement Techniques, 2021, 14, 6759-6776.	1.2	14
8	Measurement report: Photochemical production and loss rates of formaldehyde and ozone across Europe. Atmospheric Chemistry and Physics, 2021, 21, 18413-18432.	1.9	11
9	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
10	Impact of the South Asian monsoon outflow on atmospheric hydroperoxides in the upper troposphere. Atmospheric Chemistry and Physics, 2020, 20, 12655-12673.	1.9	8
11	Photooxidation of pinonaldehyde at ambient conditions investigated in the atmospheric simulation chamber SAPHIR. Atmospheric Chemistry and Physics, 2020, 20, 13701-13719.	1.9	6
12	Fast Photochemistry in Wintertime Haze: Consequences for Pollution Mitigation Strategies. Environmental Science & Technology, 2019, 53, 10676-10684.	4.6	147
13	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
14	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
15	The TRIple-frequency and Polarimetric radar Experiment for improving process observations of winter precipitation. Earth System Science Data, 2019, 11, 845-863.	3.7	40
16	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
17	Insights into HO_{<i>x</i>} and RO_{<i>x</i>} chemistry in the boreal forest via measurement of peroxyacetic acid, peroxyacetic nitric anhydride (PAN) and hydrogen peroxide. Atmospheric Chemistry and Physics, 2018, 18, 13457-13479.	1.9	28
18	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

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19	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
20	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
21	The HD(CP)² Observational Prototype Experiment (HOPE) â€" an overview. Atmospheric Chemistry and Physics, 2017, 17, 4887-4914.	1.9	67
22	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
23	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
24	Calibration and evaluation of CCD spectroradiometers for ground-based and airborne measurements of spectral actinic flux densities. Atmospheric Measurement Techniques, 2017, 10, 3151-3174.	1.2	22
25	Comparison of OH reactivity measurements in the atmospheric simulation chamber SAPHIR. Atmospheric Measurement Techniques, 2017, 10, 4023-4053.	1.2	74
26	Characterisation and improvement of <i>j</i>(O¹D) filter radiometers. Atmospheric Measurement Techniques, 2016, 9, 3455-3466.	1.2	10
27	Significant concentrations of nitryl chloride sustained in the morning: investigations of the causes and impacts on ozone production in a polluted region of northern China. Atmospheric Chemistry and Physics, 2016, 16, 14959-14977.	1.9	146
28	Theoretical Study on the Formation of H- and O-Atoms, HONO, OH, NO, and NO₂from the Lowest Lying Singlet and Triplet States in<i>Ortho</i>-Nitrophenol Photolysis. International Journal of Chemical Kinetics, 2016, 48, 785-795.	1.0	24
29	Daytime formation of nitrous acid at a coastal remote site in Cyprus indicating a common ground source of atmospheric HONO and NO. Atmospheric Chemistry and Physics, 2016, 16, 14475-14493.	1.9	69
30	JOYCE: JÃ¼lich Observatory for Cloud Evolution. Bulletin of the American Meteorological Society, 2015, 96, 1157-1174.	1.7	87
31	A comparison of HONO budgets for two measurement heights at a field station within the boreal forest in Finland. Atmospheric Chemistry and Physics, 2015, 15, 799-813.	1.9	52
32	Secondary organic aerosol formation from hydroxyl radical oxidation and ozonolysis of monoterpenes. Atmospheric Chemistry and Physics, 2015, 15, 991-1012.	1.9	67
33	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
34	Kinetic and mechanistic study of the reaction of OH radicals with methylated benzenes: 1,4-dimethyl-, 1,3,5-trimethyl-, 1,2,4,5-, 1,2,3,5- and 1,2,3,4-tetramethyl-, pentamethyl-, and hexamethylbenzene. Physical Chemistry Chemical Physics, 2015, 17, 13053-13065.	1.3	10
35	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
36	Reversible addition of the OH radical to <i>p</i>-cymene in the gas phase: multiple adduct formation. Part 2. Physical Chemistry Chemical Physics, 2014, 16, 17315-17326.	1.3	17

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37	Missing Gas-Phase Source of HONO Inferred from Zeppelin Measurements in the Troposphere. Science, 2014, 344, 292-296.	6.0	154
38	Maximum efficiency in the hydroxyl-radical-based self-cleansing of the troposphere. Nature Geoscience, 2014, 7, 559-563.	5.4	110
39	Parameterization of Thermal Properties of Aging Secondary Organic Aerosol Produced by Photo-Oxidation of Selected Terpene Mixtures. Environmental Science & Technology, 2014, 48, 6168-6176.	4.6	14
40	Atmospheric photochemistry of aromatic hydrocarbons: OH budgets during SAPHIR chamber experiments. Atmospheric Chemistry and Physics, 2014, 14, 6941-6952.	1.9	21
41	Missing SO₂ oxidant in the coastal atmosphere? â€“ observations from high-resolution measurements of OH and atmospheric sulfur compounds. Atmospheric Chemistry and Physics, 2014, 14, 12209-12223.	1.9	38
42	Observation and modelling of HO_x radicals in a boreal forest. Atmospheric Chemistry and Physics, 2014, 14, 8723-8747.	1.9	109
43	Influence of local surface albedo variability and ice crystal shape on passive remote sensing of thin cirrus. Atmospheric Chemistry and Physics, 2014, 14, 1943-1958.	1.9	18
44	OH regeneration from methacrolein oxidation investigated in the atmosphere simulation chamber SAPHIR. Atmospheric Chemistry and Physics, 2014, 14, 7895-7908.	1.9	38
45	Experimental evidence for efficient hydroxyl radical regeneration in isoprene oxidation. Nature Geoscience, 2013, 6, 1023-1026.	5.4	132
46	Influence of surface albedo inhomogeneities on passive remote sensing of cirrus properties. , 2013, , .		1
47	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
48	Seasonal measurements of OH, NO<i>_x</i>, and J(O¹D) at Mace Head, Ireland. Geophysical Research Letters, 2013, 40, 1659-1663.	1.5	8
49	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
50	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
51	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
52	Significant concentrations of nitryl chloride observed in rural continental Europe associated with the influence of sea salt chloride and anthropogenic emissions. Geophysical Research Letters, 2012, 39, .	1.5	116
53	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
54	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

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55	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
56	Prompt HO2 Formation Following the Reaction of OH with Aromatic Compounds under Atmospheric Conditions. Journal of Physical Chemistry A, 2012, 116, 6015-6026.	1.1	15
57	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
58	Factors affecting O₃ and NO₂photolysis frequencies measured in the eastern Mediterranean during the fiveâ€year period 2002â€"2006. Journal of Geophysical Research, 2012, 117, .	3.3	23
59	Kinetics and mechanism of the reaction of OH with the trimethylbenzenes â€" experimental evidence for the formation of adduct isomers. Physical Chemistry Chemical Physics, 2012, 14, 13933.	1.3	19
60	HO2 formation from the OH + benzene reaction in the presence of O2. Physical Chemistry Chemical Physics, 2011, 13, 10699.	1.3	25
61	Volatility of secondary organic aerosol during OH radical induced ageing. Atmospheric Chemistry and Physics, 2011, 11, 11055-11067.	1.9	66
62	Measurements of gaseous H₂SO₄ by AP-ID-CIMS during CAREBeijing 2008 Campaign. Atmospheric Chemistry and Physics, 2011, 11, 7755-7765.	1.9	60
63	Detection of HO₂ by laser-induced fluorescence: calibration and interferences from RO₂ radicals. Atmospheric Measurement Techniques, 2011, 4, 1209-1225.	1.2	199
64	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
65	Isotope effect in the formation of H₂ from H₂CO studied at the atmospheric simulation chamber SAPHIR. Atmospheric Chemistry and Physics, 2010, 10, 5343-5357.	1.9	25
66	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
67	Relationship between the NO₂ photolysis frequency and the solar global irradiance. Atmospheric Measurement Techniques, 2009, 2, 725-739.	1.2	69
68	Amplified Trace Gas Removal in the Troposphere. Science, 2009, 324, 1702-1704.	6.0	550
69	Influence of clouds on the spectral actinic flux density in the lower troposphere (INSPECTRO): overview of the field campaigns. Atmospheric Chemistry and Physics, 2008, 8, 1789-1812.	1.9	24
70	Photolysis frequency measurement techniques: results of a comparison within the ACCENT project. Atmospheric Chemistry and Physics, 2008, 8, 5373-5391.	1.9	99
71	Wildfire particulate matter in Europe during summer 2003: meso-scale modeling of smoke emissions, transport and radiative effects. Atmospheric Chemistry and Physics, 2007, 7, 4043-4064.	1.9	198
72	Light induced conversion of nitrogen dioxide into nitrous acid on submicron humic acid aerosol. Atmospheric Chemistry and Physics, 2007, 7, 4237-4248.	1.9	234

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73	Intercomparison of Two Hydroxyl Radical Measurement Techniques at the Atmosphere Simulation Chamber SAPHIR. Journal of Atmospheric Chemistry, 2007, 56, 187-205.	1.4	76
74	The photolysis of ortho-nitrophenols: a new gas phase source of HONO. Physical Chemistry Chemical Physics, 2006, 8, 2028.	1.3	221
75	Strong daytime production of OH from HNO2at a rural mountain site. Geophysical Research Letters, 2006, 33, .	1.5	185
76	Seasonal variations and profile measurements of photolysis frequenciesj(O1D) andj(NO2) at the ECHO forest field site. Journal of Geophysical Research, 2006, 111, .	3.3	8
77	Solar spectral actinic flux and photolysis frequency measurements in a deciduous forest. Journal of Geophysical Research, 2006, 111, .	3.3	7
78	Model-aided radiometric determination of photolysis frequencies in a sunlit atmosphere simulation chamber. Atmospheric Chemistry and Physics, 2005, 5, 191-206.	1.9	53
79	Characterisation of the photolytic HONO-source in the atmosphere simulation chamber SAPHIR. Atmospheric Chemistry and Physics, 2005, 5, 2189-2201.	1.9	237
80	Actinometric measurements of NO₂ photolysis frequencies in the atmosphere simulation chamber SAPHIR. Atmospheric Chemistry and Physics, 2005, 5, 493-503.	1.9	82
81	Measurement of atmospheric O3â†’ O(1D) photolysis frequencies using filterradiometry. Journal of Geophysical Research, 2004, 109, .	3.3	26
82	Photolysis frequency of O3to O(1D): Measurements and modeling during the International Photolysis Frequency Measurement and Modeling Intercomparison (IPMMI). Journal of Geophysical Research, 2004, 109, .	3.3	33
83	Chemical Mechanism Development: Laboratory Studies and Model Applications. Journal of Atmospheric Chemistry, 2002, 42, 323-357.	1.4	22
84	Chemical Mechanism Development: Laboratory Studies and Model Applications. , 2002, , 323-357.		4
85	Formation of Peroxy Radicals from OHâ^'Toluene Adducts and O2. Journal of Physical Chemistry A, 2001, 105, 6092-6101.	1.1	86
86	Vibrational relaxation of NO(=1â€“3) and NO2(0,0,1) with atmospheric gases. Physical Chemistry Chemical Physics, 1999, 1, 1833-1842.	1.3	16
87	Gas-phase reaction of the OHâ€“benzene adduct with O2: reversibility and secondary formation of HO2. Physical Chemistry Chemical Physics, 1999, 1, 5097-5107.	1.3	91
88	Formation of HO2 from OH and C2H2 in the presence of O2. Journal of the Chemical Society, Faraday Transactions, 1998, 94, 1203-1210.	1.7	35
89	Rate Constants of HO2 + NO Covering Atmospheric Conditions. 1. HO2 Formed by OH + H2O2. Journal of Physical Chemistry A, 1997, 101, 1488-1493.	1.1	43
90	Kinetics of the OH + C2H2 reaction in the presence of O2. Journal of the Chemical Society, Faraday Transactions, 1996, 92, 1459.	1.7	37

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91	Temperature dependence of the rate constants of the reactions of oxygen atoms withtrans-2-butene,cis-2-butene, 2-methylpropene, 2-methyl-2-butene, and 2,3-dimethyl-2-butene. International Journal of Chemical Kinetics, 1995, 27, 277-285.	1.0	13
92	The generation of CH(Xâ€‰2Î,vâ€˜,Nâ€˜) fragments in the photolysis of CH2(1â€‰3B1) radicals. Journal of Chemical Physics, 1995, 102, 8842-8845.	1.2	14
93	Formation of O2(b1.SIGMA.g+) in the Reaction of NH/ND(a1.DELTA.,v) with O2. The Journal of Physical Chemistry, 1995, 99, 965-969.	2.9	3
94	Imidogen (NH/ND) (a1.DELTA.,v'') vibrational distributions in the UV photolyses of hydrazoic acid (HN3/DN3) and isocyanic acid (HNCO/DNCO). The Journal of Physical Chemistry, 1993, 97, 4891-4898.	2.9	36
95	Quenching and relaxation of vibrational levels of imidogen (NH/ND)(a1.DELTA.,v). The Journal of Physical Chemistry, 1993, 97, 7234-7238.	2.9	10
96	Predissociation of the NH/ND(câ€‰1Î,vâ€™,Jâ€™) states. Journal of Chemical Physics, 1992, 96, 5059-5068.	1.2	39
97	Rate constants of the reaction oxygen atom (3P) + acetylene at low temperatures. The Journal of Physical Chemistry, 1990, 94, 8010-8011.	2.9	8