Christoph Knote

List of Publications by Year
in descending order

73 papers	3,771 citations	159585 30 h-index	138484 58 g-index
131 all docs	131 docs citations	131 times ranked	4671 citing authors

#	Article	IF	Citations
1	Effects of anthropogenic emissions on aerosol formation from isoprene and monoterpenes in the southeastern United States. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 37-42.	7.1	496
2	Examining the effects of anthropogenic emissions on isoprene-derived secondary organic aerosol formation during the 2013 Southern Oxidant and Aerosol Study (SOAS) at the Look Rock, Tennessee ground site. Atmospheric Chemistry and Physics, 2015, 15, 8871-8888.	4.9	213
3	Evaluation of operational on-line-coupled regional air quality models over Europe and North America in the context of AQMEII phase 2. Part I: Ozone. Atmospheric Environment, 2015, 115, 404-420.	4.1	168
4	Simulation of semi-explicit mechanisms of SOA formation from glyoxal in aerosol in a 3-D model. Atmospheric Chemistry and Physics, 2014, 14, 6213-6239.	4.9	166
5	Rapid cycling of reactive nitrogen in the marine boundary layer. Nature, 2016, 532, 489-491.	27.8	159
6	Residential energy use emissions dominate health impacts from exposure to ambient particulate matter in India. Nature Communications, 2018, 9, 617.	12.8	149
7	Evaluation of operational online-coupled regional air quality models over Europe and North America in the context of AQMEII phase 2. Part II: Particulate matter. Atmospheric Environment, 2015, 115, 421-441.	4.1	133
8	The effect of dry and wet deposition of condensable vapors on secondary organic aerosols concentrations over the continental US. Atmospheric Chemistry and Physics, 2015, 15, 1-18.	4.9	132
9	Modeling the Radical Chemistry in an Oxidation Flow Reactor: Radical Formation and Recycling, Sensitivities, and the OH Exposure Estimation Equation. Journal of Physical Chemistry A, 2015, 119, 4418-4432.	2.5	126
10	Aerosol characteristics and particle production in the upper troposphere over the Amazon Basin. Atmospheric Chemistry and Physics, 2018, 18, 921-961.	4.9	105
11	Secondary organic aerosol production from local emissions dominates the organic aerosol budget over Seoul, South Korea, during KORUS-AQ. Atmospheric Chemistry and Physics, 2018, 18, 17769-17800.	4.9	105
12	Influence of the choice of gas-phase mechanism on predictions of key gaseous pollutants during the AQMEII phase-2 intercomparison. Atmospheric Environment, 2015, 115, 553-568.	4.1	92
13	Comparative analysis of meteorological performance of coupled chemistry-meteorology models in the context of AQMEII phase 2. Atmospheric Environment, 2015, 115, 470-498.	4.1	85
14	Uncertainties of simulated aerosol optical properties induced by assumptions on aerosol physical and chemical properties: An AQMEII-2 perspective. Atmospheric Environment, 2015, 115, 541-552.	4.1	84
15	Towards an online-coupled chemistry-climate model: evaluation of trace gases and aerosols in COSMO-ART. Geoscientific Model Development, 2011, 4, 1077-1102.	3.6	78
16	Effects of dust aerosols on tropospheric chemistry during a typical pre-monsoon season dust storm in northern India. Atmospheric Chemistry and Physics, 2014, 14, 6813-6834.	4.9	68
17	Volatility dependence of Henry's law constants of condensable organics: Application to estimate depositional loss of secondary organic aerosols. Geophysical Research Letters, 2014, 41, 4795-4804.	4.0	67
18	Modeling the meteorological and chemical effects of secondary organic aerosols during an EUCAARI campaign. Atmospheric Chemistry and Physics, 2013, 13, 625-645.	4.9	66

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19	New estimate of particulate emissions from Indonesian peat fires in 2015. Atmospheric Chemistry and Physics, 2019, 19, 11105-11121.	4.9	63
20	Meteorology influencing springtime air quality, pollution transport, and visibility in Korea. Elementa, 2019, 7, .	3.2	62
21	Assessment of the MACC reanalysis and its influence as chemical boundary conditions for regional air quality modeling in AQMEII-2. Atmospheric Environment, 2015, 115, 371-388.	4.1	59
22	Influence of crustal dust and sea spray supermicron particle concentrations and acidity on inorganic NO₃^{â^'} aerosol during the 2013 Southern Oxidant and Aerosol Study. Atmospheric Chemistry and Physics, 2015, 15, 10669-10685.	4.9	56
23	Exploring the impacts of anthropogenic emission sectors on PM_{2.5} and human health in South and East Asia. Atmospheric Chemistry and Physics, 2019, 19, 11887-11910.	4.9	55
24	Global nitrous acid emissions and levels of regional oxidants enhanced by wildfires. Nature Geoscience, 2020, 13, 681-686.	12.9	51
25	Characterization, sources and reactivity of volatile organic compounds (VOCs) in Seoul and surrounding regions during KORUS-AQ. Elementa, 2020, 8, .	3.2	44
26	Influx of African biomass burning aerosol during the Amazonian dry season through layered transatlantic transport of black carbon-rich smoke. Atmospheric Chemistry and Physics, 2020, 20, 4757-4785.	4.9	40
27	Aircraft-based observations of isoprene-epoxydiol-derived secondary organic aerosol (IEPOX-SOA) in the tropical upper troposphere over the Amazon region. Atmospheric Chemistry and Physics, 2018, 18, 14979-15001.	4.9	39
28	Changes in weather extremes: Assessment of return values using high resolution climate simulations at convection-resolving scale. Meteorologische Zeitschrift, 2010, 19, 11-23.	1.0	37
29	A multi-model assessment for the 2006 and 2010 simulations under the Air Quality Model Evaluation International Initiative (AQMEII) phase 2 over North America: Part I. Indicators of the sensitivity of O3 and PM2.5 formation regimes. Atmospheric Environment, 2015, 115, 569-586.	4.1	36
30	Quantifying the contribution of thermally driven recirculation to a high-ozone event along the Colorado Front Range using lidar. Journal of Geophysical Research D: Atmospheres, 2016, 121, 10,377-10,390.	3.3	34
31	Using Shortâ€Term CO/CO₂ Ratios to Assess Air Mass Differences Over the Korean Peninsula During KORUSâ€AQ. Journal of Geophysical Research D: Atmospheres, 2019, 124, 10951-10972.	3.3	31
32	Air Pollution From Forest and Vegetation Fires in Southeast Asia Disproportionately Impacts the Poor. GeoHealth, 2021, 5, e2021GH000418.	4.0	31
33	Large air quality and human health impacts due to Amazon forest and vegetation fires. Environmental Research Communications, 2020, 2, 095001.	2.3	31
34	Chemistryâ€turbulence interactions and mesoscale variability influence the cleansing efficiency of the atmosphere. Geophysical Research Letters, 2015, 42, 10,894.	4.0	30
35	Air quality and health impacts of vegetation and peat fires in Equatorial Asia during 2004â€“2015. Environmental Research Letters, 2020, 15, 094054.	5.2	30
36	Stringent Emission Control Policies Can Provide Large Improvements in Air Quality and Public Health in India. GeoHealth, 2018, 2, 196-211.	4.0	27

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37	Biomass burning nitrogen dioxide emissions derived from space with TROPOMI: methodology and validation. Atmospheric Measurement Techniques, 2021, 14, 7929-7957.	3.1	27
38	Assessing costs of Indonesian fires and the benefits of restoring peatland. Nature Communications, 2021, 12, 7044.	12.8	26
39	A multi-model assessment for the 2006 and 2010 simulations under the Air Quality Model Evaluation International Initiative (AQMEII) Phase 2 over North America: Part II. Evaluation of column variable predictions using satellite data. Atmospheric Environment, 2015, 115, 587-603.	4.1	25
40	Integration of airborne and ground observations of nitryl chloride in the Seoul metropolitan area and the implications on regional oxidation capacity during KORUS-AQ 2016. Atmospheric Chemistry and Physics, 2019, 19, 12779-12795.	4.9	24
41	An advanced scheme for wet scavenging and liquid-phase chemistry in a regional online-coupled chemistry transport model. Atmospheric Chemistry and Physics, 2013, 13, 1177-1192.	4.9	22
42	Source Contributions to Carbon Monoxide Concentrations During KORUSâ€AQ Based on CAMâ€chem Model Applications. Journal of Geophysical Research D: Atmospheres, 2019, 124, 2796-2822.	3.3	21
43	Asian dust observed during KORUS-AQ facilitates the uptake and incorporation of soluble pollutants during transport to South Korea. Atmospheric Environment, 2020, 224, 117305.	4.1	21
44	CRI-HOM: A novel chemical mechanism for simulating highly oxygenated organic molecules (HOMs) in global chemistryâ€“aerosolâ€“climate models. Atmospheric Chemistry and Physics, 2020, 20, 10889-10910.	4.9	19
45	Pollutant emission reductions deliver decreased PM_{2.5}-caused mortality across China during 2015â€“2017. Atmospheric Chemistry and Physics, 2020, 20, 11683-11695.	4.9	19
46	On the changes in surface ozone over the twenty-first century: sensitivity to changes in surface temperature and chemical mechanisms. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2020, 378, 20190329.	3.4	18
47	Estimating Upper Silesian coal mine methane emissions from airborne in situ observations and dispersion modeling. Atmospheric Chemistry and Physics, 2021, 21, 8791-8807.	4.9	18
48	Overview: Fusion of radar polarimetry and numerical atmospheric modelling towards an improved understanding of cloud and precipitation processes. Atmospheric Chemistry and Physics, 2021, 21, 17291-17314.	4.9	18
49	Limited effect of anthropogenic nitrogen oxides on secondary organic aerosol formation. Atmospheric Chemistry and Physics, 2015, 15, 13487-13506.	4.9	17
50	Current and Future Disease Burden From Ambient Ozone Exposure in India. GeoHealth, 2018, 2, 334-355.	4.0	17
51	Large Air Quality and Public Health Impacts due to Amazonian Deforestation Fires in 2019. GeoHealth, 2021, 5, e2021GH000429.	4.0	16
52	Impact of the 2019/2020 Australian Megafires on Air Quality and Health. GeoHealth, 2021, 5, e2021GH000454.	4.0	16
53	Seasonal distribution and drivers of surface fine particulate matter and organic aerosol over the Indo-Gangetic Plain. Atmospheric Chemistry and Physics, 2021, 21, 10881-10909.	4.9	15
54	A complete transition to clean household energy can save oneâ€“quarter of the healthy life lost to particulate matter pollution exposure in India. Environmental Research Letters, 2020, 15, 094096.	5.2	15

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55	Leaf Area Index Specification for Use in Mesoscale Weather Prediction Systems. Monthly Weather Review, 2009, 137, 3535-3550.	1.4	14
56	Observations of Acyl Peroxy Nitrates During the Front Range Air Pollution and Photochemistry Ã‰xperiment (FRAPPÃ‰). Journal of Geophysical Research D: Atmospheres, 2017, 122, 12,416.	3.3	14
57	Sensitivity of Air Pollution Exposure and Disease Burden to Emission Changes in China Using Machine Learning Emulation. GeoHealth, 2022, 6, .	4.0	13
58	Statistical Emulation of Winter Ambient Fine Particulate Matter Concentrations From Emission Changes in China. GeoHealth, 2021, 5, e2021GH000391.	4.0	12
59	Late-spring and summertime tropospheric ozone and NO₂ in western Siberia and the Russian Arctic: regional model evaluation and sensitivities. Atmospheric Chemistry and Physics, 2021, 21, 4677-4697.	4.9	11
60	Observational constraints on methane emissions from Polish coal mines using a ground-based remote sensing network. Atmospheric Chemistry and Physics, 2022, 22, 5859-5876.	4.9	10
61	Regional Policies Targeting Residential Solid Fuel and Agricultural Emissions Can Improve Air Quality and Public Health in the Greater Bay Area and Across China. GeoHealth, 2021, 5, e2020GH000341.	4.0	9
62	Airborne observations of mercury emissions from the Chicago/Gary urban/industrial area during the 2013 NOMADSS campaign. Atmospheric Environment, 2016, 145, 415-423.	4.1	8
63	Quantifying Nitrous Oxide Emissions in the U.S. Midwest: A Topâ€Down Study Using High Resolution Airborne Inâ€Situ Observations. Geophysical Research Letters, 2021, 48, e2020GL091266.	4.0	8
64	Impact on air quality and health due to the Saddleworth Moor fire in northern England. Environmental Research Letters, 2020, 15, 074018.	5.2	8
65	Taehwa Research Forest: a receptor site for severe domestic pollution events in Korea during 2016. Atmospheric Chemistry and Physics, 2019, 19, 5051-5067.	4.9	7
66	Carbon Monoxide in Optically Thick Wildfire Smoke: Evaluating TROPOMI Using CU Airborne SOF Column Observations. ACS Earth and Space Chemistry, 2022, 6, 1799-1812.	2.7	6
67	Contrasting roles of clouds as a sink and source of aerosols: A quantitative assessment using WRF-Chem over East Asia. Atmospheric Environment, 2022, 277, 119073.	4.1	5
68	The challenge of simulating the sensitivity of the Amazonian cloud microstructure to cloud condensation nuclei number concentrations. Atmospheric Chemistry and Physics, 2020, 20, 1591-1605.	4.9	4
69	Evaluation of convective cloud microphysics in numerical weather prediction models with dual-wavelength polarimetric radar observations: methods and examples. Atmospheric Measurement Techniques, 2022, 15, 1033-1054.	3.1	3
70	BEATBOX v1.0: Background Error Analysis Testbed with Box Models. Geoscientific Model Development, 2018, 11, 561-573.	3.6	2
71	Novel Pathways to Form Secondary Organic Aerosols: Glyoxal SOA in WRF/Chem. Springer Proceedings in Complexity, 2014, , 149-154.	0.3	0
72	Re: Code availability. , 0, , .		0

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73	Role of Upwind Precipitation in Transboundary Pollution and Secondary Aerosol Formation: A Case Study during the KORUS-AQ Field Campaign. Journal of Applied Meteorology and Climatology, 2022, 61, 159-174.	1.5	0