

Frank Keutsch

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/3086003/publications.pdf>

Version: 2024-02-01

73
papers

3,272
citations

136950

32
h-index

168389

53
g-index

76
all docs

76
docs citations

76
times ranked

3721
citing authors

#	ARTICLE	IF	CITATIONS
1	Reconciling Observed and Predicted Tropical Rainforest OH Concentrations. Journal of Geophysical Research D: Atmospheres, 2022, 127, .	3.3	6
2	Catalytic role of formaldehyde in particulate matter formation. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	7.1	19
3	Evaluating the Impact of Chemical Complexity and Horizontal Resolution on Tropospheric Ozone Over the Conterminous US With a Global Variable Resolution Chemistry Model. Journal of Advances in Modeling Earth Systems, 2022, 14, .	3.8	20
4	Secondary PM _{2.5} decreases significantly less than NO ₂ emission reductions during COVID lockdown in Germany. Atmospheric Chemistry and Physics, 2022, 22, 7105-7129.	4.9	15
5	High resolution nanoscale chemical analysis of bitumen surface microstructures. Scientific Reports, 2021, 11, 13554.	3.3	6
6	What Are the Different Measures of Mobility Telling Us About Surface Transportation CO ₂ Emissions During the COVID-19 Pandemic?. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2021JD034664.	3.3	17
7	Organic Sulfur Products and Peroxy Radical Isomerization in the OH Oxidation of Dimethyl Sulfide. ACS Earth and Space Chemistry, 2021, 5, 2013-2020.	2.7	20
8	Competition of Partitioning and Reaction Controls Brown Carbon Formation from Butenedial in Particles. Environmental Science & Technology, 2021, 55, 11549-11556.	10.0	4
9	Tropospheric NO ₂ and O ₃ Response to COVID-19 Lockdown Restrictions at the National and Urban Scales in Germany. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2021JD035440.	3.3	13
10	Real-Time Laboratory Measurements of VOC Emissions, Removal Rates, and Byproduct Formation from Consumer-Grade Oxidation-Based Air Cleaners. Environmental Science and Technology Letters, 2021, 8, 1020-1025.	8.7	14
11	Contrasting Reactive Organic Carbon Observations in the Southeast United States (SOAS) and Southern California (CalNex). Environmental Science & Technology, 2020, 54, 14923-14935.	10.0	15
12	Global Importance of Hydroxymethanesulfonate in Ambient Particulate Matter: Implications for Air Quality. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2020JD032706.	3.3	28
13	Aqueous-Phase Decomposition of Isoprene Hydroxy Hydroperoxide and Hydroxyl Radical Formation by Fenton-like Reactions with Iron Ions. Journal of Physical Chemistry A, 2020, 124, 5230-5236.	2.5	21
14	Dimensionality-reduction techniques for complex mass spectrometric datasets: application to laboratory atmospheric organic oxidation experiments. Atmospheric Chemistry and Physics, 2020, 20, 1021-1041.	4.9	19
15	Experimental reaction rates constrain estimates of ozone response to calcium carbonate geoengineering. Communications Earth & Environment, 2020, 1, .	6.8	10
16	Agmantinite, Ag ₂ MnSnS ₄ , a new mineral with a wurtzite derivative structure from the Uchucchacua polymetallic deposit, Lima Department, Peru. Mineralogical Magazine, 2019, 83, 233-238.	1.4	1
17	Sulfate Formation via Cloud Processing from Isoprene Hydroxyl Hydroperoxides (ISOPOOH). Environmental Science & Technology, 2019, 53, 12476-12484.	10.0	31
18	Measurement techniques for identifying and quantifying hydroxymethanesulfonate (HMS) in an aqueous matrix and particulate matter using aerosol mass spectrometry and ion chromatography. Atmospheric Measurement Techniques, 2019, 12, 5303-5315.	3.1	23

#	ARTICLE	IF	CITATIONS
19	Hydrocarbon Removal in Power Plant Plumes Shows Nitrogen Oxide Dependence of Hydroxyl Radicals. <i>Geophysical Research Letters</i> , 2019, 46, 7752-7760.	4.0	9
20	Using collision-induced dissociation to constrain sensitivity of ammonia chemical ionization mass spectrometry (NH ₃ +) Tj ETQq0 0 0 rgBT /Overlo 1861-1870.	3.1	33
21	A new laser-based and ultra-portable gas sensor for indoor and outdoor formaldehyde (HCHO) monitoring. <i>Atmospheric Measurement Techniques</i> , 2019, 12, 6079-6089.	3.1	10
22	Mechanistic study of the formation of ring-retaining and ring-opening products from the oxidation of aromatic compounds under urban atmospheric conditions. <i>Atmospheric Chemistry and Physics</i> , 2019, 19, 15117-15129.	4.9	52
23	Isoprene photo-oxidation products quantify the effect of pollution on hydroxyl radicals over Amazonia. <i>Science Advances</i> , 2018, 4, ear2547.	10.3	28
24	Old defined minerals with complex, still unresolved structures: the case of st ¹ /4tzite, Ag ₅ Te ₃ . <i>Zeitschrift Fur Kristallographie - Crystalline Materials</i> , 2018, 233, 247-253.	0.8	5
25	Intercomparison of OH and OH reactivity measurements in a high isoprene and low NO environment during the Southern Oxidant and Aerosol Study (SOAS). <i>Atmospheric Environment</i> , 2018, 174, 227-236.	4.1	22
26	Structural and chemical study of weishanite, (Au,Ag,Hg), from the Keystone mine, Colorado, USA.. <i>Mineralogical Magazine</i> , 2018, 82, 1141-1145.	1.4	2
27	A comprehensive organic nitrate chemistry: insights into the lifetime of atmospheric organic nitrates. <i>Atmospheric Chemistry and Physics</i> , 2018, 18, 15419-15436.	4.9	57
28	Contribution of Hydroxymethane Sulfonate to Ambient Particulate Matter: A Potential Explanation for High Particulate Sulfur During Severe Winter Haze in Beijing. <i>Geophysical Research Letters</i> , 2018, 45, 11,969.	4.0	72
29	Oyonite, Ag ₃ Mn ₂ Pb ₄ Sb ₇ As ₄ S ₂₄ , a New Member of the Lillianite Homologous Series from the Uchucchacua Base-Metal Deposit, Oyon District, Peru. <i>Minerals (Basel, Switzerland)</i> , 2018, 8, 192.	2.0	5
30	Kinetics and Product Yields of the OH Initiated Oxidation of Hydroxymethyl Hydroperoxide. <i>Journal of Physical Chemistry A</i> , 2018, 122, 6292-6302.	2.5	33
31	Influence of Particle Physical State on the Uptake of Medium-Sized Organic Molecules. <i>Environmental Science & Technology</i> , 2018, 52, 8381-8389.	10.0	11
32	Modeling Ozone in the Eastern U.S. using a Fuel-Based Mobile Source Emissions Inventory. <i>Environmental Science & Technology</i> , 2018, 52, 7360-7370.	10.0	64
33	The Essential Role for Laboratory Studies in Atmospheric Chemistry. <i>Environmental Science & Technology</i> , 2017, 51, 2519-2528.	10.0	75
34	Formaldehyde (HCHO) As a Hazardous Air Pollutant: Mapping Surface Air Concentrations from Satellite and Inferring Cancer Risks in the United States. <i>Environmental Science & Technology</i> , 2017, 51, 5650-5657.	10.0	131
35	Emissions of Glyoxal and Other Carbonyl Compounds from Agricultural Biomass Burning Plumes Sampled by Aircraft. <i>Environmental Science & Technology</i> , 2017, 51, 11761-11770.	10.0	38
36	The Green Ocean Amazon Experiment (GoAmazon2014/5) Observes Pollution Affecting Gases, Aerosols, Clouds, and Rainfall over the Rain Forest. <i>Bulletin of the American Meteorological Society</i> , 2017, 98, 981-997.	3.3	128

#	ARTICLE	IF	CITATIONS
37	Spryite, $\text{Ag}_8\text{As}_{0.5^3}\text{As}_{0.5^5}\text{S}_6$: structure determination and inferred absence of superionic conduction of the first As ³⁺ -bearing argyrodite. <i>Physics and Chemistry of Minerals</i> , 2017, 44, 75-82.	0.8	6
38	Polloneite, a new complex Pb(-Ag)-As-Sb sulfosalt from the Pollone mine, Apuan Alps, Tuscany, Italy. <i>Mineralogical Magazine</i> , 2017, 81, 1303-1322.	1.4	5
39	Instrumentation and measurement strategy for the NOAA SENEX aircraft campaign as part of the Southeast Atmosphere Study 2013. <i>Atmospheric Measurement Techniques</i> , 2016, 9, 3063-3093.	3.1	58
40	Investigation of a potential HCHO measurement artifact from ISOPOOH. <i>Atmospheric Measurement Techniques</i> , 2016, 9, 4561-4568.	3.1	8
41	Petå™Åkrite, CuSe ₂ , a New Member of the Marcasite Group from the PÅ™edboÅ™ice Deposit, Central Bohemia Region, Czech Republic. <i>Minerals (Basel, Switzerland)</i> , 2016, 6, 33.	2.0	10
42	Ozone production chemistry in the presence of urban plumes. <i>Faraday Discussions</i> , 2016, 189, 169-189.	3.2	56
43	Observational constraints on glyoxal production from isoprene oxidation and its contribution to organic aerosol over the Southeast United States. <i>Journal of Geophysical Research D: Atmospheres</i> , 2016, 121, 9849-9861.	3.3	48
44	Stratospheric solar geoengineering without ozone loss. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 14910-14914.	7.1	108
45	Isoprene suppression of new particle formation: Potential mechanisms and implications. <i>Journal of Geophysical Research D: Atmospheres</i> , 2016, 121, 14,621.	3.3	37
46	Isoprene photochemistry over the Amazon rainforest. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 6125-6130.	7.1	85
47	Testing Atmospheric Oxidation in an Alabama Forest. <i>Journals of the Atmospheric Sciences</i> , 2016, 73, 4699-4710.	1.7	54
48	Efficient Isoprene Secondary Organic Aerosol Formation from a Non-IEPOX Pathway. <i>Environmental Science & Technology</i> , 2016, 50, 9872-9880.	10.0	100
49	Improved aerosol radiative properties as a foundation for solar geoengineering risk assessment. <i>Geophysical Research Letters</i> , 2016, 43, 7758-7766.	4.0	74
50	Formaldehyde production from isoprene oxidation acrossÅNO<sub><i>x>/i>/sub>Åregimes. <i>Atmospheric Chemistry and Physics</i> , 2016, 16, 2597-2610.	4.9	124
51	Speciation of OH reactivity above the canopy of an isoprene-dominated forest. <i>Atmospheric Chemistry and Physics</i> , 2016, 16, 9349-9359.	4.9	59
52	Kinetics and Products of the Reaction of the First-Generation Isoprene Hydroxy Hydroperoxide (ISOPOOH) with OH. <i>Journal of Physical Chemistry A</i> , 2016, 120, 1441-1451.	2.5	111
53	Airborne measurements of organosulfates over the continental U.S.. <i>Journal of Geophysical Research D: Atmospheres</i> , 2015, 120, 2990-3005.	3.3	96
54	Formation of Low Volatility Organic Compounds and Secondary Organic Aerosol from Isoprene Hydroxyhydroperoxide Low-NO Oxidation. <i>Environmental Science & Technology</i> , 2015, 49, 10330-10339.	10.0	172

#	ARTICLE	IF	CITATIONS
55	Atmospheric benzenoid emissions from plants rival those from fossil fuels. <i>Scientific Reports</i> , 2015, 5, 12064.	3.3	104
56	Response to Comment on "Missing gas-phase source of HONO inferred from Zeppelin measurements in the troposphere". <i>Science</i> , 2015, 348, 1326-1326.	12.6	10
57	Airborne measurements of the atmospheric emissions from a fuel ethanol refinery. <i>Journal of Geophysical Research D: Atmospheres</i> , 2015, 120, 4385-4397.	3.3	16
58	Conversion of hydroperoxides to carbonyls in field and laboratory instrumentation: Observational bias in diagnosing pristine versus anthropogenically controlled atmospheric chemistry. <i>Geophysical Research Letters</i> , 2014, 41, 8645-8651.	4.0	99
59	Missing peroxy radical sources within a summertime ponderosa pine forest. <i>Atmospheric Chemistry and Physics</i> , 2014, 14, 4715-4732.	4.9	56
60	Similarities in STXM-NEXAFS Spectra of Atmospheric Particles and Secondary Organic Aerosol Generated from Glyoxal, α -Pinene, Isoprene, 1,2,4-Trimethylbenzene, and d-Limonene. <i>Aerosol Science and Technology</i> , 2013, 47, 543-555.	3.1	6
61	OH and HO ₂ radical chemistry during PROPHET 2008 and CABINEX 2009 " Part 1: Measurements and model comparison. <i>Atmospheric Chemistry and Physics</i> , 2013, 13, 5403-5423.	4.9	62
62	Insights into hydroxyl measurements and atmospheric oxidation in a California forest. <i>Atmospheric Chemistry and Physics</i> , 2012, 12, 8009-8020.	4.9	211
63	Menchettiite, AgPb _{2.40} Mn _{1.60} Sb ₃ As ₂ S ₁₂ , a new sulfosalt belonging to the lillianite series from the Uchucchacua polymetallic deposit, Lima Department, Peru. <i>American Mineralogist</i> , 2012, 97, 440-446.	1.9	11
64	Photolysis, OH reactivity and ozone reactivity of a proxy for isoprene-derived hydroperoxyenals (HPALDs). <i>Physical Chemistry Chemical Physics</i> , 2012, 14, 7276.	2.8	86
65	Formation and growth of ultrafine particles from secondary sources in Bakersfield, California. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	51
66	Manganogadrodite, AgMnAsS ₃ , a new manganese-bearing sulfosalt from the Uchucchacua polymetallic deposit, Lima Department, Peru: Description and crystal structure. <i>American Mineralogist</i> , 2012, 97, 1199-1205.	1.9	6
67	Reply to Comment on "Hydroxycarboxylic Acid-Derived Organosulfates: Synthesis, Stability and Quantification in Ambient Aerosols". <i>Environmental Science & Technology</i> , 2011, 45, 9111-9111.	10.0	1
68	Analysis of photochemical and dark glyoxal uptake: Implications for SOA formation. <i>Geophysical Research Letters</i> , 2011, 38, n/a-n/a.	4.0	56
69	Photochemical modeling of glyoxal at a rural site: observations and analysis from BEARPEX 2007. <i>Atmospheric Chemistry and Physics</i> , 2011, 11, 8883-8897.	4.9	41
70	Fettelite, [Ag ₆ As ₂ S ₇][Ag ₁₀ HgAs ₂ S ₈] from Chanarcillo, Chile: Crystal structure, pseudosymmetry, twinning, and revised chemical formula. <i>American Mineralogist</i> , 2009, 94, 609-615.	1.9	14
71	Observations of deep convective influence on stratospheric water vapor and its isotopic composition. <i>Geophysical Research Letters</i> , 2007, 34, .	4.0	109
72	Complete characterization of the water dimer vibrational ground state and testing the VRT(ASP-W)III, SAPT-5st, and VRT(MCY-5f) surfaces. <i>Molecular Physics</i> , 2003, 101, 3477-3492.	1.7	59

#	ARTICLE	IF	CITATIONS
73	Composition Dependence of Stratospheric Aerosol Shortwave Radiative Forcing in Northern Midlatitudes. Geophysical Research Letters, 0, , e2021GL094427.	4.0	4