Chelsea R Thompson

List of Publications by Year
in descending order

35	1,533	304743 22	361022 35
papers	citations	h-index	g-index

62	62	62	2208
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	High winter ozone pollution from carbonyl photolysis in an oil and gas basin. Nature, 2014, 514, 351-354.	27.8	265
2	Understanding high wintertime ozone pollution events in an oil- and natural gas-producing region of the western US. Atmospheric Chemistry and Physics, 2015, 15, 411-429.	4.9	154
3	Highly Elevated Atmospheric Levels of Volatile Organic Compounds in the Uintah Basin, Utah. Environmental Science & Technology, 2014, 48, 4707-4715.	10.0	142
4	Global airborne sampling reveals a previously unobserved dimethyl sulfide oxidation mechanism in the marine atmosphere. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 4505-4510.	7.1	118
5	The global impacts of COVID-19 lockdowns on urban air pollution. Elementa, 2021, 9, .	3.2	94
6	Mapping hydroxyl variability throughout the global remote troposphere via synthesis of airborne and satellite formaldehyde observations. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 11171-11180.	7.1	58
7	Influence of oil and gas emissions on ambient atmospheric non-methane hydrocarbons in residential areas of Northeastern Colorado. Elementa, 2014, 3, .	3.2	55
8	Large contribution of biomass burning emissions to ozone throughout the global remote troposphere. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	51
9	Observations of VOC emissions and photochemical products over US oil- and gas-producing regions using high-resolution H₃O⁺ CIMS (PTR-ToF-MS). Atmospheric Measurement Techniques, 2017, 10, 2941-2968.	3.1	44
10	Atmospheric Acetaldehyde: Importance of Airâ€Sea Exchange and a Missing Source in the Remote Troposphere. Geophysical Research Letters, 2019, 46, 5601-5613.	4.0	41
11	Temporal and spatial characteristics of ozone depletion events from measurements in the Arctic. Atmospheric Chemistry and Physics, 2014, 14, 4875-4894.	4.9	40
12	The NASA Atmospheric Tomography (ATom) Mission: Imaging the Chemistry of the Global Atmosphere. Bulletin of the American Meteorological Society, 2022, 103, E761-E790.	3.3	39
13	Methyl, Ethyl, and Propyl Nitrates: Global Distribution and Impacts on Reactive Nitrogen in Remote Marine Environments. Journal of Geophysical Research D: Atmospheres, 2018, 123, 12,429.	3.3	33
14	On the sources and sinks of atmospheric VOCs: an integrated analysis of recent aircraft campaigns over North America. Atmospheric Chemistry and Physics, 2019, 19, 9097-9123.	4.9	32
15	Reconstruction of Northern Hemisphere 1950â€“2010 atmospheric non-methane hydrocarbons. Atmospheric Chemistry and Physics, 2014, 14, 1463-1483.	4.9	31
16	Global-scale distribution of ozone in the remote troposphere from the ATom and HIPPO airborne field missions. Atmospheric Chemistry and Physics, 2020, 20, 10611-10635.	4.9	31
17	Interactions of bromine, chlorine, and iodine photochemistry during ozone depletions in Barrow, Alaska. Atmospheric Chemistry and Physics, 2015, 15, 9651-9679.	4.9	29
18	Radiative and chemical implications of the size and composition of aerosol particles in the existing or modified global stratosphere. Atmospheric Chemistry and Physics, 2021, 21, 8915-8932.	4.9	29

#	Article	IF	Citations
19	Rapid cloud removal of dimethyl sulfide oxidation products limits SO ₂ and cloud condensation nuclei production in the marine atmosphere. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	28
20	Missing OH reactivity in the global marine boundary layer. Atmospheric Chemistry and Physics, 2020, 20, 4013-4029.	4.9	25
21	The NO_{<i>x</i>} dependence of bromine chemistry in the Arctic atmospheric boundary layer. Atmospheric Chemistry and Physics, 2015, 15, 10799-10809.	4.9	23
22	Quantifying Methane and Ozone Precursor Emissions from Oil and Gas Production Regions across the Contiguous US. Environmental Science & Technology, 2021, 55, 9129-9139.	10.0	23
23	Development of a Fuel-Based Oil and Gas Inventory of Nitrogen Oxides Emissions. Environmental Science & Technology, 2018, 52, 10175-10185.	10.0	19
24	Global Atmospheric Budget of Acetone: Airâ€Sea Exchange and the Contribution to Hydroxyl Radicals. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2020JD032553.	3.3	17
25	Arctic springtime observations of volatile organic compounds during the OASISâ€2009 campaign. Journal of Geophysical Research D: Atmospheres, 2016, 121, 9789-9813.	3.3	16
26	Quantifying wintertime boundary layer ozone production from frequent profile measurements in the Uinta Basin, UT, oil and gas region. Journal of Geophysical Research D: Atmospheres, 2016, 121, 11,038.	3.3	15
27	Ambient aerosol properties in the remote atmosphere from global-scale in situ measurements. Atmospheric Chemistry and Physics, 2021, 21, 15023-15063.	4.9	15
28	Bromine atom production and chain propagation during springtime Arctic ozone depletion events in Barrow, Alaska. Atmospheric Chemistry and Physics, 2017, 17, 3401-3421.	4.9	11
29	Errors in top-down estimates of emissions using a known source. Atmospheric Chemistry and Physics, 2020, 20, 11855-11868.	4.9	11
30	UAS Chromatograph for Atmospheric Trace Species (UCATS) â€“ a versatile instrument for trace gas measurements on airborne platforms. Atmospheric Measurement Techniques, 2021, 14, 6795-6819.	3.1	9
31	Large hemispheric difference in nucleation mode aerosol concentrations in the lowermost stratosphere at mid- and high latitudes. Atmospheric Chemistry and Physics, 2021, 21, 9065-9088.	4.9	8
32	Machine Learning Uncovers Aerosol Size Information From Chemistry and Meteorology to Quantify Potential Cloudâ€Forming Particles. Geophysical Research Letters, 2021, 48, .	4.0	7
33	Impact of stratospheric air and surface emissions on tropospheric nitrous oxide during ATom. Atmospheric Chemistry and Physics, 2021, 21, 11113-11132.	4.9	5
34	Heterogeneity and chemical reactivity of the remote troposphere defined by aircraft measurements. Atmospheric Chemistry and Physics, 2021, 21, 13729-13746.	4.9	4
35	Variability analyses, site characterization, and regional [OH] estimates using trace gas measurements from the NOAA Global Greenhouse Gas Reference Network. Elementa, 2016, 4, .	3.2	2