

An unexpected and persistent increase in global emissions

Nature

557, 413-417

DOI: [10.1038/s41586-018-0106-2](https://doi.org/10.1038/s41586-018-0106-2)

Citation Report

#	ARTICLE	IF	CITATIONS
2	Establishing long-term measurements of halocarbons at Taunus Observatory. <i>Atmospheric Chemistry and Physics</i> , 2018, 18, 16553-16569.	1.9	15
3	The way forward for Montreal Protocol science. <i>Comptes Rendus - Geoscience</i> , 2018, 350, 442-447.	0.4	8
4	Exploring the link between ultraviolet B radiation and immune function in amphibians: implications for emerging infectious diseases. , 2018, 6, coy035.		27
5	Variability in Atmospheric Methane From Fossil Fuel and Microbial Sources Over the Last Three Decades. <i>Geophysical Research Letters</i> , 2018, 45, 11,499.	1.5	46
6	Continued Emissions of the Ozone-Depleting Substance Carbon Tetrachloride From Eastern Asia. <i>Geophysical Research Letters</i> , 2018, 45, 11423-11430.	1.5	37
7	Observing the atmospheric evolution of ozone-depleting substances. <i>Comptes Rendus - Geoscience</i> , 2018, 350, 384-392.	0.4	10
9	Evidence of illegal emissions of ozone-depleting chemicals. <i>Nature</i> , 2018, 557, 317-318.	13.7	1
10	Photochemistry of CF ₃ Cl: Quenching of Charged Fragments Is Caused by Nonadiabatic Effects. <i>Journal of Chemical Theory and Computation</i> , 2018, 14, 4844-4855.	2.3	10
11	Activation mechanisms for a universal signalling protein. <i>Nature</i> , 2018, 557, 318-319.	13.7	1
12	Relativistic Theory and Ab Initio Simulations of Electroweak Decay Spectra in Medium-Heavy Nuclei and of Atomic and Molecular Electronic Structure. <i>Advanced Theory and Simulations</i> , 2018, 1, 1800086.	1.3	2
14	Methyl-Substituted β -Cyclodextrin as Affinity Material for Storage, Separation, and Detection of Trichlorofluoromethane. <i>Global Challenges</i> , 2018, 2, 1800057.	1.8	4
15	Changes in Emissions of Ozone-Depleting Substances from China Due to Implementation of the Montreal Protocol. <i>Environmental Science & Technology</i> , 2018, 52, 11359-11366.	4.6	54
16	National environmental limits and footprints based on the Planetary Boundaries framework: The case of Switzerland. <i>Global Environmental Change</i> , 2018, 52, 49-57.	3.6	79
17	Why Do Antarctic Ozone Recovery Trends Vary?. <i>Journal of Geophysical Research D: Atmospheres</i> , 2019, 124, 8837-8850.	1.2	12
18	Challenges for the recovery of the ozone layer. <i>Nature Geoscience</i> , 2019, 12, 592-596.	5.4	50
19	China feels the heat over rogue CFC emissions. <i>Nature</i> , 2019, 571, 309-310.	13.7	4
20	The discovery of the Antarctic ozone hole. <i>Nature</i> , 2019, 575, 46-47.	13.7	18
22	Chlorine partitioning in the lowermost Arctic vortex during the cold winter 2015/2016. <i>Atmospheric Chemistry and Physics</i> , 2019, 19, 10757-10772.	1.9	8

#	ARTICLE	IF	CITATIONS
23	Sustained Antarctic Research: A 21st Century Imperative. <i>One Earth</i> , 2019, 1, 95-113.	3.6	54
24	The State and Future of Antarctic Environments in a Global Context. <i>Annual Review of Environment and Resources</i> , 2019, 44, 1-30.	5.6	54
25	Stratospheric ozone trends for 1985–2018: sensitivity to recent large variability. <i>Atmospheric Chemistry and Physics</i> , 2019, 19, 12731-12748.	1.9	57
27	Trends in halogen-containing molecules measured by the Atmospheric Chemistry Experiment (ACE) satellite. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2019, 238, 106619.	1.1	12
28	100 Years of Progress in Understanding the Stratosphere and Mesosphere. <i>Meteorological Monographs</i> , 2019, 59, 27.1-27.62.	5.0	37
29	Photoreduction of CCl ₃ F in aqueous solutions containing sulfonated poly(ether etherketone) and formate buffers. <i>Research on Chemical Intermediates</i> , 2019, 45, 4015-4028.	1.3	1
30	Success of Montreal Protocol Demonstrated by Comparing High-Quality UV Measurements with “World Avoided” Calculations from Two Chemistry-Climate Models. <i>Scientific Reports</i> , 2019, 9, 12332.	1.6	44
31	Emissions of halocarbons from India inferred through atmospheric measurements. <i>Atmospheric Chemistry and Physics</i> , 2019, 19, 9865-9885.	1.9	25
34	Ozone Measurements Using the Refurbished Eureka Stratospheric Differential Absorption Lidar. <i>Canadian Journal of Remote Sensing</i> , 2019, 45, 509-529.	1.1	2
35	Why is high persistence alone a major cause of concern?. <i>Environmental Sciences: Processes and Impacts</i> , 2019, 21, 781-792.	1.7	106
37	Recent Trends in Stratospheric Chlorine From Very Short-Lived Substances. <i>Journal of Geophysical Research D: Atmospheres</i> , 2019, 124, 2318-2335.	1.2	34
38	Enhanced ambient UVB radiation affects post-mating, but not pre-mating sexual traits in a fish. <i>Oecologia</i> , 2019, 190, 355-366.	0.9	3
39	Ozone depletion, ultraviolet radiation, climate change and prospects for a sustainable future. <i>Nature Sustainability</i> , 2019, 2, 569-579.	11.5	156
40	Inhalation exposure to volatile organic compounds in the printing industry. <i>Journal of the Air and Waste Management Association</i> , 2019, 69, 1142-1169.	0.9	17
41	Increase in CFC-11 emissions from eastern China based on atmospheric observations. <i>Nature</i> , 2019, 569, 546-550.	13.7	148
42	Latitudinal Gradient of UV Attenuation Along the Highly Transparent Red Sea Basin. <i>Photochemistry and Photobiology</i> , 2019, 95, 1267-1279.	1.3	31
44	Impact of solar UV radiation on amphibians: focus on genotoxic stress. <i>Mutation Research - Genetic Toxicology and Environmental Mutagenesis</i> , 2019, 842, 14-21.	0.9	28
45	Structural changes in the shallow and transition branch of the Brewer–Dobson circulation induced by El Niño. <i>Atmospheric Chemistry and Physics</i> , 2019, 19, 425-446.	1.9	27

#	ARTICLE	IF	CITATIONS
46	Characteristics and sources of halogenated hydrocarbons in the Yellow River Delta region, northern China. <i>Atmospheric Research</i> , 2019, 225, 70-80.	1.8	25
47	Infrared absorption cross-sections in HITRAN2016 and beyond: Expansion for climate, environment, and atmospheric applications. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2019, 230, 172-221.	1.1	41
48	Constraints and biases in a tropospheric two-box model of OH. <i>Atmospheric Chemistry and Physics</i> , 2019, 19, 407-424.	1.9	40
49	Very Strong Atmospheric Methane Growth in the 4 Years 2014–2017: Implications for the Paris Agreement. <i>Global Biogeochemical Cycles</i> , 2019, 33, 318-342.	1.9	353
50	Observations of High Levels of Ozone-Depleting CFC-11 at a Remote Mountain-Top Site in Southern China. <i>Environmental Science and Technology Letters</i> , 2019, 6, 114-118.	3.9	18
51	Optical Sensor for Real-Time Detection of Trichlorofluoromethane. <i>Sensors</i> , 2019, 19, 632.	2.1	10
52	Ozone–climate interactions and effects on solar ultraviolet radiation. <i>Photochemical and Photobiological Sciences</i> , 2019, 18, 602-640.	1.6	126
53	Linkages between stratospheric ozone, UV radiation and climate change and their implications for terrestrial ecosystems. <i>Photochemical and Photobiological Sciences</i> , 2019, 18, 681-716.	1.6	125
54	On the accuracy of the SGP4 to predict stellar occultation events using ENVISAT/GOMOS data and recommendations for the ALTIUS mission. <i>CEAS Space Journal</i> , 2019, 11, 147-159.	1.1	2
56	Environmental Assessment of Energy Scenarios for a Low-Carbon Electrical Network in Chile. <i>Sustainability</i> , 2019, 11, 5066.	1.6	11
57	Possible implications of enhanced chlorofluorocarbon-11 concentrations on ozone. <i>Atmospheric Chemistry and Physics</i> , 2019, 19, 13759-13771.	1.9	10
58	Ethical control of innovation in a globalized and liberal world: Is good science still science?. <i>Endeavour</i> , 2019, 43, 100709.	0.1	7
59	Monitoring the Genotoxic Potential of Sunlight and DNA Photoprotection of Sunscreen. , 2019, , 129-143.		2
61	Delay in recovery of the Antarctic ozone hole from unexpected CFC-11 emissions. <i>Nature Communications</i> , 2019, 10, 5781.	5.8	58
62	Cost, supply chain and manufacturing of insulation. , 2019, , 131-145.		0
63	Antarctic environmental change and biological responses. <i>Science Advances</i> , 2019, 5, eaaz0888.	4.7	215
65	REPRINT OF: Infrared absorption cross-sections in HITRAN2016 and beyond: Expansion for climate, environment, and atmospheric applications. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2019, 238, 106708.	1.1	3
66	e-WASTE: Everything an ICT Scientist and Developer Should Know. <i>IEEE Access</i> , 2019, 7, 169614-169635.	2.6	15

#	ARTICLE	IF	CITATIONS
67	Improved FTIR retrieval strategy for HCFC-22 (CHClF ₂), comparisons with in situ and satellite datasets with the support of models, and determination of its long-term trend above Jungfraujoch. <i>Atmospheric Chemistry and Physics</i> , 2019, 19, 12309-12324.	1.9	13
68	Anthropogenic chlorine under watch. <i>Nature Geoscience</i> , 2019, 12, 84-86.	5.4	2
69	Rapid increase in ozone-depleting chloroform emissions from China. <i>Nature Geoscience</i> , 2019, 12, 89-93.	5.4	92
70	Chemical profiling of mycosporine-like amino acids in twenty-three red algal species. <i>Journal of Phycology</i> , 2019, 55, 393-403.	1.0	46
71	A Horizon Scan of Emerging Issues for Global Conservation in 2019. <i>Trends in Ecology and Evolution</i> , 2019, 34, 83-94.	4.2	43
72	Atmospheric CH ₃ CCl ₃ observations in China: Historical trends and implications. <i>Atmospheric Research</i> , 2020, 231, 104658.	1.8	4
73	Comparative study on the pyrolysis kinetics of polyurethane foam from waste refrigerators. <i>Waste Management and Research</i> , 2020, 38, 271-278.	2.2	29
74	Human factors and ergonomics systems-based tools for understanding and addressing global problems of the twenty-first century. <i>Ergonomics</i> , 2020, 63, 367-387.	1.1	40
75	The influence of the stratospheric Quasi-Biennial Oscillation on trace gas levels at the Earth's surface. <i>Nature Geoscience</i> , 2020, 13, 22-27.	5.4	23
76	Transformation of Chlorofluorocarbons Investigated via Stable Carbon Compound-Specific Isotope Analysis. <i>Environmental Science & Technology</i> , 2020, 54, 870-878.	4.6	11
77	Global Biogeochemical Cycle of Fluorine. <i>Global Biogeochemical Cycles</i> , 2020, 34, e2020GB006722.	1.9	25
78	Observations of volatile organic and sulfur compounds in ambient air and health risk assessment near a paper mill in rural Idaho, U. S. A.. <i>Atmospheric Pollution Research</i> , 2020, 11, 1870-1881.	1.8	15
79	Global Methyl Halide Emissions From Rapeseed (<i>Brassica napus</i>) Using Life Cycle Measurements. <i>Geophysical Research Letters</i> , 2020, 47, e2020GL089373.	1.5	5
80	Hydrodechlorination of CHClF ₂ (HCFC-22) over Pd-Pt Catalysts Supported on Thermally Modified Activated Carbon. <i>Catalysts</i> , 2020, 10, 1291.	1.6	7
81	Variations in Ozone Concentration over the Mid-Latitude Region Revealed by Ozone-sonde Observations in Pohang, South Korea. <i>Atmosphere</i> , 2020, 11, 746.	1.0	11
82	1981-2019 Vegetation Health Trends Assessing Malaria Conditions During Intensive Global Warming. <i>Springer Remote Sensing/photogrammetry</i> , 2020, , 219-263.	0.4	1
83	Remote Sensing for Malaria. <i>Springer Remote Sensing/photogrammetry</i> , 2020, , .	0.4	9
84	Observed Hemispheric Asymmetry in Stratospheric Transport Trends From 1994 to 2018. <i>Geophysical Research Letters</i> , 2020, 47, e2020GL088567.	1.5	13

#	ARTICLE	IF	CITATIONS
85	Co-benefits of Energy-Efficient Air Conditioners in the Residential Building Sector of China. <i>Environmental Science & Technology</i> , 2020, 54, 13217-13227.	4.6	14
86	Unfinished business after five decades of ozone-layer science and policy. <i>Nature Communications</i> , 2020, 11, 4272.	5.8	22
87	Progress and remaining challenges with the phase-out of methyl bromide under the Montreal Protocol. <i>Acta Horticulturae</i> , 2020, , 249-262.	0.1	2
88	Monitoring Chlorofluorocarbons in Potential Source Regions in Eastern China. <i>Atmosphere</i> , 2020, 11, 1299.	1.0	2
89	Near-Global CFC-11 Trends as Observed by Atmospheric Infrared Sounder From 2003 to 2018. <i>Journal of Geophysical Research D: Atmospheres</i> , 2020, 125, e2020JD033051.	1.2	9
90	The Atmosphere. , 2020, , 51-97.		8
91	Renewed and emerging concerns over the production and emission of ozone-depleting substances. <i>Nature Reviews Earth & Environment</i> , 2020, 1, 251-263.	12.2	32
92	Environmental effects of stratospheric ozone depletion, UV radiation and interactions with climate change: UNEP Environmental Effects Assessment Panel, update 2019. <i>Photochemical and Photobiological Sciences</i> , 2020, 19, 542-584.	1.6	59
94	Bromine from short-lived source gases in the extratropical northern hemispheric upper troposphere and lower stratosphere (UTLS). <i>Atmospheric Chemistry and Physics</i> , 2020, 20, 4105-4132.	1.9	19
95	Quantifying contributions of chlorofluorocarbon banks to emissions and impacts on the ozone layer and climate. <i>Nature Communications</i> , 2020, 11, 1380.	5.8	72
96	Contributions of Internal Variability and External Forcing to the Recent Trends in the Southeastern Pacific and Peru-Chile Upwelling System. <i>Journal of Climate</i> , 2020, 33, 10555-10578.	1.2	8
97	Decreasing underwater ultraviolet radiation exposure strongly driven by increasing ultraviolet attenuation in lakes in eastern and southwest China. <i>Science of the Total Environment</i> , 2020, 720, 137694.	3.9	15
98	Investigation of East Asian Emissions of CFC-11 Using Atmospheric Observations in Taiwan. <i>Environmental Science & Technology</i> , 2020, 54, 3814-3822.	4.6	12
99	Near 40-year drought trend during 1981-2019 earth warming and food security. <i>Geomatics, Natural Hazards and Risk</i> , 2020, 11, 469-490.	2.0	21
100	Solar UV radiation measurements in Marambio, Antarctica, during years 2017-2019. <i>Atmospheric Chemistry and Physics</i> , 2020, 20, 6037-6054.	1.9	9
101	Sixteen-year trends in atmospheric trace gases from orbit. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2020, 253, 107178.	1.1	22
102	Subsurface hydrological processes and groundwater residence time in a coastal alluvium aquifer: Evidence from environmental tracers ($\delta^{18}O$, δ^2H , CFCs, 3H) combined with hydrochemistry. <i>Science of the Total Environment</i> , 2020, 743, 140684.	3.9	25
103	Long-term temporal variations and source changes of halocarbons in the Greater Pearl River Delta region, China. <i>Atmospheric Environment</i> , 2020, 234, 117550.	1.9	12

#	ARTICLE	IF	CITATIONS
104	Modelling the potential impacts of the recent, unexpected increase in CFC-11 emissions on total column ozone recovery. <i>Atmospheric Chemistry and Physics</i> , 2020, 20, 7153-7166.	1.9	10
105	Solar UV radiation exacerbates photoinhibition of a diatom by antifouling agents Irgarol 1051 and diuron. <i>Journal of Applied Phycology</i> , 2020, 32, 1243-1251.	1.5	6
106	A new duplex Stirling engine concept for solar-powered cooling. <i>International Journal of Energy Research</i> , 2020, 44, 6002-6014.	2.2	6
107	Coordination cages as permanently porous ionic liquids. <i>Nature Chemistry</i> , 2020, 12, 270-275.	6.6	151
108	Degradation of a series of fluorinated acrylates and methacrylates initiated by OH radicals at different temperatures. <i>RSC Advances</i> , 2020, 10, 4264-4273.	1.7	0
109	Application of environmental life cycle assessment (LCA) within the space sector: A state of the art. <i>Acta Astronautica</i> , 2020, 170, 122-135.	1.7	20
110	The chemists policing Earth's atmosphere for rogue pollution. <i>Nature</i> , 2020, 577, 464-466.	13.7	2
111	The Impact of Continuing CFC-11 Emissions on Stratospheric Ozone. <i>Journal of Geophysical Research D: Atmospheres</i> , 2020, 125, e2019JD031849.	1.2	20
112	Groundwater connectivity of a sheared gneiss aquifer in the Cauvery River basin, India. <i>Hydrogeology Journal</i> , 2020, 28, 1371-1388.	0.9	20
113	Transparency Spectra Inversion Technique for Evaluating the Atmospheric Content of CCl ₃ F Freon. <i>Journal of Applied Spectroscopy</i> , 2020, 87, 92-98.	0.3	2
114	Confinement of AlF ₃ in MOF derived structures for the formation of 4-fold coordinated Al and significantly improved dehydrofluorination activity. <i>Chemical Engineering Journal</i> , 2020, 394, 124946.	6.6	15
115	A Synthesis Inversion to Constrain Global Emissions of Two Very Short Lived Chlorocarbons: Dichloromethane, and Perchloroethylene. <i>Journal of Geophysical Research D: Atmospheres</i> , 2020, 125, e2019JD031818.	1.2	18
116	Variability of the Antarctic Ozone Anomaly in 2011–2018. <i>Russian Meteorology and Hydrology</i> , 2020, 45, 63-73.	0.2	9
117	Toward a Reanalysis of Stratospheric Ozone for Trend Studies: Assimilation of the Aura Microwave Limb Sounder and Ozone Mapping and Profiler Suite Limb Profiler Data. <i>Journal of Geophysical Research D: Atmospheres</i> , 2020, 125, e2019JD031892.	1.2	10
118	CFCs measurements at high altitudes in northern China during 2017–2018: Concentrations and potential emission source regions. <i>Science of the Total Environment</i> , 2021, 754, 142290.	3.9	8
119	The influence of climate change on skin cancer incidence – A review of the evidence. <i>International Journal of Women's Dermatology</i> , 2021, 7, 17-27.	1.1	74
120	Risks to the stratospheric ozone shield in the Anthropocene. <i>Ambio</i> , 2021, 50, 44-48.	2.8	9
121	Evolving the narrative for protecting a rapidly changing ocean, post-COVID-19. <i>Aquatic Conservation: Marine and Freshwater Ecosystems</i> , 2021, 31, 1512-1534.	0.9	24

#	ARTICLE	IF	CITATIONS
122	Temperature dependence of source profiles for volatile organic compounds from typical volatile emission sources. <i>Science of the Total Environment</i> , 2021, 751, 141741.	3.9	28
123	Short-term variability of total column ozone from the Dobson spectrophotometer measurements at Belsk, Poland, in the period 23 March 1963–31 December 2019. <i>Tellus, Series B: Chemical and Physical Meteorology</i> , 2021, 73, 1-10.	0.8	1
124	Increasing Temperature Counteracts the Negative Effect of UV Radiation on Growth and Photosynthetic Efficiency of <i>Microcystis aeruginosa</i> and <i>Raphidiopsis raciborskii</i> . <i>Photochemistry and Photobiology</i> , 2021, 97, 753-762.	1.3	4
125	The Antarctic ozone hole during 2018 and 2019. <i>Journal of Southern Hemisphere Earth Systems Science</i> , 2021, 71, 66-91.	0.7	12
126	Unexpected nascent atmospheric emissions of three ozone-depleting hydrochlorofluorocarbons. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	3.3	16
127	Environmental effects of stratospheric ozone depletion, UV radiation, and interactions with climate change: UNEP Environmental Effects Assessment Panel, Update 2020. <i>Photochemical and Photobiological Sciences</i> , 2021, 20, 1-67.	1.6	93
128	Record low ozone values over the Arctic in boreal spring 2020. <i>Atmospheric Chemistry and Physics</i> , 2021, 21, 617-633.	1.9	34
129	Sustainable Measures to Reduce the Cooling Energy Demand. <i>Encyclopedia of the UN Sustainable Development Goals</i> , 2021, , 1256-1273.	0.0	0
131	A decline in global CFC-11 emissions during 2018–2019. <i>Nature</i> , 2021, 590, 428-432.	13.7	55
132	Illegal CFC emissions have stopped since scientists raised alarm. <i>Nature</i> , 2021, 590, 373-373.	13.7	2
133	Study on the pyrolysis characteristics of a series of fluorinated cyclopentenes and implication of their environmental influence. <i>Chemical Physics Letters</i> , 2021, 764, 138213.	1.2	2
134	A decline in emissions of CFC-11 and related chemicals from eastern China. <i>Nature</i> , 2021, 590, 433-437.	13.7	61
135	Evaluating stratospheric ozone and water vapour changes in CMIP6 models from 1850 to 2100. <i>Atmospheric Chemistry and Physics</i> , 2021, 21, 5015-5061.	1.9	54
136	A method for resolving changes in atmospheric He^{2+} as an indicator of fossil fuel extraction and stratospheric circulation. <i>Atmospheric Measurement Techniques</i> , 2021, 14, 2515-2527.	1.2	2
137	On the effects of the ocean on atmospheric CFC-11 lifetimes and emissions. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, e2021528118.	3.3	5
138	Evidence of air quality data misreporting in China: An impulse indicator saturation model comparison of local government-reported and U.S. embassy-reported PM _{2.5} concentrations (2015–2017). <i>PLoS ONE</i> , 2021, 16, e0249063.	1.1	5
139	Stratospheric Impacts of Continuing CFC-11 Emissions Simulated in a Chemistry–Climate Model. <i>Journal of Geophysical Research D: Atmospheres</i> , 2021, 126, e2020JD033656.	1.2	0
141	How Atmospheric Chemistry and Transport Drive Surface Variability of N ₂ O and CFC-11. <i>Journal of Geophysical Research D: Atmospheres</i> , 2021, 126, e2020JD033979.	1.2	11

#	ARTICLE	IF	CITATIONS
143	Chlorodifluoromethane Hydrodechlorination on Carbon-Supported Pd-Pt Catalysts. Beneficial Effect of Catalyst Oxidation. <i>Catalysts</i> , 2021, 11, 525.	1.6	0
144	Stratospheric carbon isotope fractionation and tropospheric histories of CFC-11, CFC-12, and CFC-113 isotopologues. <i>Atmospheric Chemistry and Physics</i> , 2021, 21, 6857-6873.	1.9	0
145	In situ observations of stratospheric HCl using three-mirror integrated cavity output spectroscopy. <i>Atmospheric Measurement Techniques</i> , 2021, 14, 3597-3613.	1.2	6
146	Joint inference of CFC lifetimes and banks suggests previously unidentified emissions. <i>Nature Communications</i> , 2021, 12, 2920.	5.8	15
147	Concepts for future missions to search for technosignatures. <i>Acta Astronautica</i> , 2021, 182, 446-453.	1.7	12
148	Retrieval of Stratospheric HNO ₃ and HCl Based on Ground-Based High-Resolution Fourier Transform Spectroscopy. <i>Remote Sensing</i> , 2021, 13, 2159.	1.8	6
149	Genome-Wide Association Study for Ultraviolet-B Resistance in Soybean (<i>Glycine max</i> L.). <i>Plants</i> , 2021, 10, 1335.	1.6	7
150	Control Models and Spatiotemporal Characteristics of Air Pollution in the Rapidly Developing Urban Agglomerations. <i>International Journal of Environmental Research and Public Health</i> , 2021, 18, 6177.	1.2	6
152	Mountain-wave-induced polar stratospheric clouds and their representation in the global chemistry model ICON-ART. <i>Atmospheric Chemistry and Physics</i> , 2021, 21, 9515-9543.	1.9	10
153	Identification and source attribution of halocarbon emitters with longwave-infrared spectral imaging. <i>Remote Sensing of Environment</i> , 2021, 258, 112398.	4.6	7
154	Huge gaps in detection networks plague emissions monitoring. <i>Nature</i> , 2021, 595, 491-493.	13.7	4
155	Total ozone column intercomparison of Brewers, Dobsons, and BTS-Solar at HohenpeiÅŸenberg and Davos in 2019/2020. <i>Atmospheric Measurement Techniques</i> , 2021, 14, 4915-4928.	1.2	6
156	Quantifying the Imprints of Stratospheric Contributions to Interhemispheric Differences in Tropospheric CFC-11, CFC-12, and N ₂ O Abundances. <i>Geophysical Research Letters</i> , 2021, 48, e2021GL093700.	1.5	1
157	Total Ozone Trends in East Asia from Long-Term Satellite and Ground Observations. <i>Atmosphere</i> , 2021, 12, 982.	1.0	6
158	Measurements of CFC-11, CFC-12, and HCFC-22 total columns in the atmosphere at the St. Petersburg site in 2009–2019. <i>Atmospheric Measurement Techniques</i> , 2021, 14, 5349-5368.	1.2	13
159	Evidence of a recent decline in UK emissions of hydrofluorocarbons determined by the InTEM inverse model and atmospheric measurements. <i>Atmospheric Chemistry and Physics</i> , 2021, 21, 12739-12755.	1.9	17
160	Quasi-static indentation and sound-absorbing properties of 3D printed sandwich core panels. <i>Journal of Sandwich Structures and Materials</i> , 2022, 24, 1206-1225.	2.0	27
161	The atmospheric concentrations and emissions of major halocarbons in China during 2009–2019. <i>Environmental Pollution</i> , 2021, 284, 117190.	3.7	22

#	ARTICLE	IF	CITATIONS
162	Identifying the lifecycle ODP and GWP effects of the refrigerants from household air-conditioners in Macau. <i>Environmental Impact Assessment Review</i> , 2021, 90, 106639.	4.4	2
163	Total column ozone measurements by the Dobson spectrophotometer at Belsk (Poland) for the period 1963–2019: homogenization and adjustment to the Brewer spectrophotometer. <i>Earth System Science Data</i> , 2021, 13, 4425-4436.	3.7	1
164	Pd/Alumina Catalysts for Beneficial Transformation of Harmful Freon R-22. <i>Catalysts</i> , 2021, 11, 1178.	1.6	3
165	Airborne Observations of CFCs Over Hebei Province, China in Spring 2016. <i>Journal of Geophysical Research D: Atmospheres</i> , 2021, 126, e2021JD035152.	1.2	5
166	The HITRAN2020 molecular spectroscopic database. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2022, 277, 107949.	1.1	770
167	Land-atmosphere fluxes and concentrations of CFC-11 and CFC-12 based on in situ observations from a coastal salt marsh in eastern China: Implications for CFC remediation. <i>Marine Pollution Bulletin</i> , 2021, 172, 112848.	2.3	0
168	Atmospheric volatile halogenated hydrocarbons in air pollution episodes in an urban area of Beijing: Characterization, health risk assessment and sources apportionment. <i>Science of the Total Environment</i> , 2022, 806, 150283.	3.9	14
169	Australian chlorofluorocarbon (CFC) emissions: 1960–2017. <i>Environmental Chemistry</i> , 2020, 17, 525.	0.7	6
170	In Pursuit. <i>Annual Review of Earth and Planetary Sciences</i> , 2020, 48, 1-20.	4.6	5
171	Characterization, sources and reactivity of volatile organic compounds (VOCs) in Seoul and surrounding regions during KORUS-AQ. <i>Elementa</i> , 2020, 8, .	1.1	44
172	Is the Antarctic Ozone Hole Recovering Faster than Changing the Stratospheric Halogen Loading?. <i>Journal of the Meteorological Society of Japan</i> , 2020, 98, 1083-1091.	0.7	5
173	Gravitational separation of Ar and age of air in the lowermost stratosphere in airborne observations and a chemical transport model. <i>Atmospheric Chemistry and Physics</i> , 2020, 20, 12391-12408.	1.9	9
174	Investigating stratospheric changes between 2009 and 2018 with halogenated trace gas data from aircraft, AirCores, and a global model focusing on CFC-11. <i>Atmospheric Chemistry and Physics</i> , 2020, 20, 9771-9782.	1.9	10
175	Projecting ozone hole recovery using an ensemble of chemistry–climate models weighted by model performance and independence. <i>Atmospheric Chemistry and Physics</i> , 2020, 20, 9961-9977.	1.9	16
176	Ground-based Fourier transform infrared (FTIR) O ₃ retrievals from the 3040–1100 cm ⁻¹ spectral range at Xianghe, China. <i>Atmospheric Measurement Techniques</i> , 2020, 13, 5379-5394.	1.2	9
177	History of chemically and radiatively important atmospheric gases from the Advanced Global Atmospheric Gases Experiment (AGAGE). <i>Earth System Science Data</i> , 2018, 10, 985-1018.	3.7	179
178	The shared socio-economic pathway (SSP) greenhouse gas concentrations and their extensions to 2500. <i>Geoscientific Model Development</i> , 2020, 13, 3571-3605.	1.3	539
179	Constraining Emission Estimates of CFC-11 in Eastern China Based on Local Observations at Surface Stations and Mount Tai. <i>Environmental Science and Technology Letters</i> , 0, , .	3.9	4

#	ARTICLE	IF	CITATIONS
181	Temporary pause in the growth of atmospheric ethane and propane in 2015â€“2018. Atmospheric Chemistry and Physics, 2021, 21, 15153-15170.	1.9	6
182	Planar Bragg Grating Sensor for the Detection of CFC-11. , 2018, , .		0
183	Rogue chemicals threaten positive prognosis for ozone hole. Nature, 0, , .	13.7	0
184	The â€“Sixth Mass Extinction Crisisâ€™ and Its Impact on Flowering Plants. Sustainable Development and Biodiversity, 2019, , 15-42.	1.4	1
185	Rogue emissions of ozone-depleting chemical pinned to China. Nature, 2019, , .	13.7	0
186	Planar optical sensor for trichlorofluoromethane. , 2019, , .		0
187	Institutions and Governments Can Slow Climate Change by Regulating and Reducing Halocarbon Refrigerant Use. , 0, 1, 39-43.		0
188	Impact of Unmitigated HFC Emissions on Stratospheric Ozone at the End of the 21st Century as Simulated by Chemistryâ€“Climate Models. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2021JD035307.	1.2	0
189	Sustainable Measures to Reduce the Cooling Energy Demand. Encyclopedia of the UN Sustainable Development Goals, 2020, , 1-18.	0.0	0
191	An Arctic ozone hole in 2020 if not for the Montreal Protocol. Atmospheric Chemistry and Physics, 2021, 21, 15771-15781.	1.9	13
192	Narrowing feedstock exemptions under the Montreal Protocol has multiple environmental benefits. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	8
193	On Recent Large Antarctic Ozone Holes and Ozone Recovery Metrics. Geophysical Research Letters, 2021, 48, e2021GL095232.	1.5	28
194	Air Quality Assessment in the Central Mediterranean Sea (Tyrrhenian Sea): Anthropogenic Impact and Miscellaneous Natural Sources, including Volcanic Contribution, on the Budget of Volatile Organic Compounds (VOCs). Atmosphere, 2021, 12, 1609.	1.0	6
195	Rapid increase in dichloromethane emissions from China inferred through atmospheric observations. Nature Communications, 2021, 12, 7279.	5.8	24
196	Trends of Studies on Controlled Halogenated Gases under International Conventions during 1999â€“2018 Using Bibliometric Analysis: A Global Perspective. Sustainability, 2022, 14, 806.	1.6	2
197	Specified dynamics scheme impacts on wave-mean flow dynamics, convection, and tracer transport in CESM2 (WACCM6). Atmospheric Chemistry and Physics, 2022, 22, 197-214.	1.9	13
199	Progress in the development and use of refrigerants and unintended environmental consequences. Science of the Total Environment, 2022, 823, 153670.	3.9	33
200	From the middle stratosphere to the surface, using nitrous oxide to constrain the stratosphereâ€“troposphere exchange of ozone. Atmospheric Chemistry and Physics, 2022, 22, 2079-2093.	1.9	9

#	ARTICLE	IF	CITATIONS
201	Continental-scale contributions to the global CFC-11 emission increase between 2012 and 2017. <i>Atmospheric Chemistry and Physics</i> , 2022, 22, 2891-2907.	1.9	2
202	Is Amundsen-Bellinghshausen Seas-Low affecting trace gas air-sea fluxes in the Antarctic Ocean?. <i>Deep-Sea Research Part I: Oceanographic Research Papers</i> , 2022, 183, 103725.	0.6	0
203	Spatiotemporal distribution and environmental control factors of halocarbons in the Yangtze River Estuary and its adjacent marine area during autumn and spring. <i>Environmental Pollution</i> , 2022, 304, 119244.	3.7	1
204	ML-TOMCAT: machine-learning-based satellite-corrected global stratospheric ozone profile data set from a chemical transport model. <i>Earth System Science Data</i> , 2021, 13, 5711-5729.	3.7	5
205	Upper stratospheric ClO and HOCl trends (2005–2020): Aura Microwave Limb Sounder and model results. <i>Atmospheric Chemistry and Physics</i> , 2022, 22, 4779-4799.	1.9	3
206	CFC-11 measurements in China, Nepal, Pakistan, Saudi Arabia and South Korea (1998–2018): Urban, landfill fire and garbage burning sources. <i>Environmental Chemistry</i> , 2022, 18, 370-392.	0.7	0
207	Hemispheric asymmetries in recent changes in the stratospheric circulation. <i>Atmospheric Chemistry and Physics</i> , 2022, 22, 5559-5576.	1.9	5
208	A renewed rise in global HCFC-141b emissions between 2017–2021. <i>Atmospheric Chemistry and Physics</i> , 2022, 22, 9601-9616.	1.9	9
210	Integrated ozone depletion as a metric for ozone recovery. <i>Nature</i> , 2022, 608, 719-723.	13.7	7
211	Global warming and ozone depletion potentials caused by emissions from HFC and CFC banks due to structural damage. <i>Energy and Buildings</i> , 2022, 273, 112385.	3.1	17
213	Laser-induced periodic surface structured electrodes with 45% energy saving in electrochemical fuel generation through field localization. <i>Opto-Electronic Advances</i> , 2022, 5, 210105-210105.	6.4	4
214	<i>Atmospheric Gases</i> , 2024, , 429-441.		0
215	Hydrodehalogenation of Trichlorofluoromethane over Biogenic Palladium Nanoparticles in Ambient Conditions. <i>Environmental Science & Technology</i> , 2022, 56, 13357-13367.	4.6	5
216	Bayesian assessment of chlorofluorocarbon (CFC), hydrochlorofluorocarbon (HCFC) and halon banks suggest large reservoirs still present in old equipment. <i>Atmospheric Chemistry and Physics</i> , 2022, 22, 11125-11136.	1.9	3
217	Determination and analysis of time series of CFC-11 (CCl ₃ F) from FTIR solar spectra, <i>in situ</i> observations, and model data in the past 20 years above Jungfraujoch (46°N), Lauder (45°S), and Cape Grim (40°S) stations. <i>Environmental Science Atmospheres</i> , 2022, 2, 1487-1501.	0.9	3
218	Temperature causes species-specific responses to UV-induced DNA damage in amphibian larvae. <i>Biology Letters</i> , 2022, 18, .	1.0	7
219	Phase unlocking and the modulation of tropopause-level trace gas advection by the quasibiennial oscillation. <i>Journal of Geophysical Research D: Atmospheres</i> , 0, , .	1.2	1
220	Historical trend of ozone-depleting substances and hydrofluorocarbon concentrations during 2004–2020 derived from satellite observations and estimates for global emissions. <i>Environmental Pollution</i> , 2023, 316, 120570.	3.7	3

#	ARTICLE	IF	CITATIONS
221	Opinion: Coordinated development of emission inventories for climate forcers and air pollutants. <i>Atmospheric Chemistry and Physics</i> , 2022, 22, 13201-13218.	1.9	8
222	The fingerprint of Indian Ocean rain and river water in salinity and circulation. <i>Deep-Sea Research Part I: Oceanographic Research Papers</i> , 2022, 190, 103912.	0.6	1
223	Analysis of vertical distribution differences of global stratospheric ozone based on weighted multiplication algebraic algorithm. <i>Wuli Xuebao/Acta Physica Sinica</i> , 2023, .	0.2	0
224	States Responsibility and Liability for Transboundary Environmental Harm. , 2023, , 43-84.		1
225	Retrieval of atmospheric CFC-11 and CFC-12 from high-resolution FTIR observations at Hefei and comparisons with other independent datasets. <i>Atmospheric Measurement Techniques</i> , 2022, 15, 6739-6754.	1.2	3
226	Evolution of Ozone above Togo during the 1979â€“2020 Period. <i>Atmosphere</i> , 2022, 13, 2066.	1.0	0
227	Effects of Gaseous Pollutants on Medicinal Plants. , 2023, , 183-198.		0
228	Long-term variability of human health-related solar ultraviolet-B radiation doses from the 1980s to the end of the 21st century. <i>Physiological Reviews</i> , 2023, 103, 1789-1826.	13.1	3
229	An Online Dashboard Platform for Weather Data of Major Sri Lankan Cities, and Global Climate Trends. , 2022, , .		0
230	A Comprehensive Assessment of Two-Phase Flow Boiling Heat Transfer in Micro-Fin Tubes Using Pure and Blended Eco-Friendly Refrigerants. <i>Energies</i> , 2023, 16, 1951.	1.6	1
231	Malaria Performance Trend During 1981â€“2020 Global Warming. , 2022, , 333-371.		0
232	Robust dehydrofluorination catalyst with host-guest structure between VOFx clusters and MgFe-LDF. <i>Applied Catalysis B: Environmental</i> , 2023, 328, 122477.	10.8	1
233	Determination of Total Column of Trichlorofluoromethane in the Atmosphere Considering the Effect of Amorphous Water Ice Precipitation on the Spectrometer Detector. <i>Journal of Applied Spectroscopy</i> , 2023, 90, 66-71.	0.3	0
234	Short-term variability of atmospheric helium revealed through a cryo-enrichment method. <i>Atmospheric Measurement Techniques</i> , 2023, 16, 1551-1561.	1.2	0
235	Photooxidation Chemistry of Hydrofluoroolefins: Assessing the Impact of Substituents on the Greenhouse Gas Replacements. <i>ACS Earth and Space Chemistry</i> , 2023, 7, 876-884.	1.2	0
236	â€“This shouldnâ€™t be happeningâ€™: levels of banned CFCs rising. <i>Nature</i> , 0, , .	13.7	0
237	Global increase of ozone-depleting chlorofluorocarbons from 2010 to 2020. <i>Nature Geoscience</i> , 2023, 16, 309-313.	5.4	11
238	A fly in the ozone and climate ointment. <i>Nature Geoscience</i> , 2023, 16, 278-279.	5.4	1

#	ARTICLE	IF	CITATIONS
239	Analysis of the interaction between surface water and groundwater using gaseous tracers in a dynamic test at a riverbank filtration intake. <i>Hydrological Processes</i> , 2023, 37, .	1.1	3
240	Sustainable Retrofit of Existing Buildings: Impact Assessment of Residual Fluorocarbons through Uncertainty and Sensitivity Analyses. <i>Energies</i> , 2023, 16, 3276.	1.6	3
241	Stratospheric ozone, UV radiation, and climate interactions. <i>Photochemical and Photobiological Sciences</i> , 2023, 22, 937-989.	1.6	22
250	Seeing carbon dioxide emissions through the trees. <i>Nature Climate Change</i> , 0, , .	8.1	0
253	Skin protection from solar ultraviolet radiation using natural compounds: a review. <i>Environmental Chemistry Letters</i> , 2024, 22, 273-295.	8.3	2
260	Genotoxic Risk of Solar Ultraviolet Radiation in Amphibians. , 2023, , 130-142.		0
264	Stratospheric Chemistry Topics Halogen Sources, Anthropogenic. , 2024, , .		0
267	Fluorocarbons in Buildings: A Comparative LCA Study for Alternative Environmental Retrofit Solutions in Italy. <i>Smart Innovation, Systems and Technologies</i> , 2024, , 379-389.	0.5	0