Raymond L Langenfelds

List of Publications by Year
in descending order

46 papers	7,491 citations	218592 26 h-index	214721 47 g-index
53 all docs	53 docs citations	53 times ranked	8542 citing authors

#	Article	IF	Citations
1	Aircraftâ€Based Observations of Ozoneâ€Depleting Substances in the Upper Troposphere and Lower Stratosphere in and Above the Asian Summer Monsoon. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2020JD033137.	1.2	17
2	Unexpected nascent atmospheric emissions of three ozone-depleting hydrochlorofluorocarbons. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	16
3	H ₂ in Antarctic firn air: Atmospheric reconstructions and implications for anthropogenic emissions. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	9
4	Country-Scale Analysis of Methane Emissions with a High-Resolution Inverse Model Using GOSAT and Surface Observations. Remote Sensing, 2020, 12, 375.	1.8	28
5	Trends and emissions of six perfluorocarbons in the Northern Hemisphere and Southern Hemisphere. Atmospheric Chemistry and Physics, 2020, 20, 4787-4807.	1.9	5
6	Influences of hydroxyl radicals (OH) on top-down estimates of the global and regional methane budgets. Atmospheric Chemistry and Physics, 2020, 20, 9525-9546.	1.9	19
7	The Global Methane Budget 2000â€“2017. Earth System Science Data, 2020, 12, 1561-1623.	3.7	1,199
8	Abundances, emissions, and loss processes of the long-lived and potent greenhouse gas octafluorooxolane (octafluorotetrahydrofuran,) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 462 Td (<i>c</i>-C₄F₈O) in the atmosphere. Atmospheric Chemistry and Physics, 2019, 19, 3481-3492.	1.9	4
9	Continued increase of CFC-113a (CCl₃CF₃) mixing ratios in the global atmosphere: emissions, occurrence and potential sources. Atmospheric Chemistry and Physics, 2018, 18, 4737-4751.	1.9	18
10	Atmospheric histories and emissions of chlorofluorocarbons CFC-13 (CClF₃), Î±CFC-114 (C₂Cl₂F₄), and CFC-115 (C₂ClF₅). Atmospheric Chemistry and Physics, 2018, 18, 979-1002.	1.9	18
11	C₂Cl₆, C₃F₈, CHF₃, HFC-125, HFC-227ea and SF₆; implications for the calculations of halocarbon lifetimes, fractional release factors and ozone depletion potentials. Atmospheric Chemistry and Physics, 2018, 18	1.9	22
12	Variability and quasi-decadal changes in the methane budget over the period 2000â€“2012. Atmospheric Chemistry and Physics, 2017, 17, 11135-11161.	1.9	85
13	Global methane emission estimates for 2000â€“2012 from CarbonTracker Europe-CH₄ v1.0. Geoscientific Model Development, 2017, 10, 1261-1289.	1.3	40
14	Isotopic ordering in atmospheric O₂ as a tracer of ozone photochemistry and the tropical atmosphere. Journal of Geophysical Research D: Atmospheres, 2016, 121, 12,541.	1.2	15
15	Atmospheric histories and global emissions of halons Hâ€1211 (CBrClF₂), Hâ€1301 (CBrF₃), and Hâ€2402 (CBrF₂CBrF₂). Journal of Geophysical Research D: Atmospheres, 2016, 121, 3663-3686.	1.2	24
16	Tropospheric observations of CFC-114 and CFC-114a with a focus on long-term trends and emissions. Atmospheric Chemistry and Physics, 2016, 16, 15347-15358.	1.9	14
17	The global methane budget 2000â€“2012. Earth System Science Data, 2016, 8, 697-751.	3.7	824
18	First observations, trends, and emissions of <scp>HCFCâ€31 (CH₂ClF)</scp> in the global atmosphere. Geophysical Research Letters, 2015, 42, 7817-7824.	1.5	12

#	Article	IF	Citations
19	Abrupt reversal in emissions and atmospheric abundance of HCFC-133a (CF₃) Tj ETQq1 1 0.784314 rgBT /Overlock 10 T	1.5	12
20	Variations in global methane sources and sinks during 1910â€“2010. Atmospheric Chemistry and Physics, 2015, 15, 2595-2612.	1.9	108
21	Seasonal changes in the tropospheric carbon monoxide profile over the remote Southern Hemisphere evaluated using multi-model simulations and aircraft observations. Atmospheric Chemistry and Physics, 2015, 15, 3217-3239.	1.9	14
22	Simulation of atmospheric N₂O with GEOS-Chem and its adjoint: evaluation of observational constraints. Geoscientific Model Development, 2015, 8, 3179-3198.	1.3	15
23	No evidence for change of the atmospheric helium isotope composition since 1978 from re-analysis of the Cape Grim Air Archive. Earth and Planetary Science Letters, 2015, 428, 134-138.	1.8	14
24	Estimating regional fluxes of CO₂ and CH₄ using space-borne observations of XCH₄: XCO₂. Atmospheric Chemistry and Physics, 2014, 14, 12883-12895.	1.9	35
25	Nitrous oxide emissions 1999 to 2009 from a global atmospheric inversion. Atmospheric Chemistry and Physics, 2014, 14, 1801-1817.	1.9	59
26	Global and regional emissions estimates for N₂O. Atmospheric Chemistry and Physics, 2014, 14, 4617-4641.	1.9	91
27	On the consistency between global and regional methane emissions inferred from SCIAMACHY, TANSO-FTS, IASI and surface measurements. Atmospheric Chemistry and Physics, 2014, 14, 577-592.	1.9	91
28	Three decades of global methane sources and sinks. Nature Geoscience, 2013, 6, 813-823.	5.4	1,649
29	Concentrations and isotope ratios of helium and other noble gases in the Earth's atmosphere during 1978â€“2011. Earth and Planetary Science Letters, 2013, 366, 27-37.	1.8	15
30	Atmospheric verification of anthropogenic CO2 emission trends. Nature Climate Change, 2013, 3, 520-524.	8.1	84
31	Global CO₂ fluxes estimated from GOSAT retrievals of total column CO₂. Atmospheric Chemistry and Physics, 2013, 13, 8695-8717.	1.9	251
32	Estimating regional methane surface fluxes: the relative importance of surface and GOSAT mole fraction measurements. Atmospheric Chemistry and Physics, 2013, 13, 5697-5713.	1.9	94
33	Interannual variability in tropospheric nitrous oxide. Geophysical Research Letters, 2013, 40, 4426-4431.	1.5	15
34	Reassessing the variability in atmospheric H₂ using the twoâ€way nested TM5 model. Journal of Geophysical Research D: Atmospheres, 2013, 118, 3764-3780.	1.2	26
35	Corrigendum to "Source attribution of the changes in atmospheric methane for 2006â€“2008" published in Atmos. Chem. Phys., 11, 3689â€“3700, 2011. Atmospheric Chemistry and Physics, 2012, 12, 9381-9382.	1.9	0
36	Trends and seasonal cycles in the isotopic composition of nitrous oxide since 1940. Nature Geoscience, 2012, 5, 261-265.	5.4	220

#	Article	IF	Citations
37	Source attribution of the changes in atmospheric methane for 2006â€“2008. Atmospheric Chemistry and Physics, 2011, 11, 3689-3700.	1.9	252
38	Exploring causes of interannual variability in the seasonal cycles of tropospheric nitrous oxide. Atmospheric Chemistry and Physics, 2011, 11, 3713-3730.	1.9	60
39	Global modelling of H₂ mixing ratios and isotopic compositions with the TM5 model. Atmospheric Chemistry and Physics, 2011, 11, 7001-7026.	1.9	35
40	Stratospheric influence on the seasonal cycle of nitrous oxide in the troposphere as deduced from aircraft observations and model simulations. Journal of Geophysical Research, 2010, 115, .	3.3	43
41	Growth Rate, Seasonal, Synoptic, Diurnal Variations and Budget of Methane in the Lower Atmosphere. Journal of the Meteorological Society of Japan, 2009, 87, 635-663.	0.7	74
42	Weak Northern and Strong Tropical Land Carbon Uptake from Vertical Profiles of Atmospheric CO2. Science, 2007, 316, 1732-1735.	6.0	775
43	Saturation of the Southern Ocean CO2 Sink Due to Recent Climate Change. Science, 2007, 316, 1735-1738.	6.0	779
44	A trace-gas climatology above Zotino, central Siberia. Tellus, Series B: Chemical and Physical Meteorology, 2002, 54, 749-767.	0.8	28
45	Space shuttle based global CO measurements during April and October 1994, MAPS instrument, data reduction, and data validation. Journal of Geophysical Research, 1999, 104, 21443-21454.	3.3	56
46	Sulfur hexafluorideâ€”A powerful new atmospheric tracer. Atmospheric Environment, 1996, 30, 1621-1629.	1.9	159