Guus J M Velders

List of Publications by Year
in descending order

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52 papers	6,975 citations	186265 28 h-index	189892 50 g-index
67 all docs	67 docs citations	67 times ranked	9755 citing authors

#	Article	IF	Citations
1	The RCP greenhouse gas concentrations and their extensions from 1765 to 2300. Climatic Change, 2011, 109, 213-241.	3.6	2,948
2	The shared socio-economic pathway (SSP) greenhouse gas concentrations and their extensions to 2500. Geoscientific Model Development, 2020, 13, 3571-3605.	3.6	539
3	The importance of the Montreal Protocol in protecting climate. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 4814-4819.	7.1	417
4	Historical greenhouse gas concentrations for climate modelling (CMIP6). Geoscientific Model Development, 2017, 10, 2057-2116.	3.6	350
5	The large contribution of projected HFC emissions to future climate forcing. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 10949-10954.	7.1	319
6	Estimates of ozone depletion and skin cancer incidence to examine the Vienna Convention achievements. Nature, 1996, 384, 256-258.	27.8	260
7	The LOTOS EUROS model: description, validation and latest developments. International Journal of Environment and Pollution, 2008, 32, 270.	0.2	216
8	Health risks. Journal of Photochemistry and Photobiology B: Biology, 1998, 46, 20-39.	3.8	176
9	Preserving Montreal Protocol Climate Benefits by Limiting HFCs. Science, 2012, 335, 922-923.	12.6	139
10	A global observational analysis to understand changes in air quality during exceptionally low anthropogenic emission conditions. Environment International, 2021, 157, 106818.	10.0	126
11	Sources, fates, toxicity, and risks of trifluoroacetic acid and its salts: Relevance to substances regulated under the Montreal and Kyoto Protocols. Journal of Toxicology and Environmental Health - Part B: Critical Reviews, 2016, 19, 289-304.	6.5	116
12	Disentangling the effects of CO ₂ and short-lived climate forcer mitigation. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 16325-16330.	7.1	114
13	Future atmospheric abundances and climate forcings from scenarios of global and regional hydrofluorocarbon (HFC) emissions. Atmospheric Environment, 2015, 123, 200-209.	4.1	105
14	The role of HFCs in mitigating 21st century climate change. Atmospheric Chemistry and Physics, 2013, 13, 6083-6089.	4.9	94
15	Quantifying contributions of chlorofluorocarbon banks to emissions and impacts on the ozone layer and climate. Nature Communications, 2020, 11, 1380.	12.8	72
16	Higher than expected NOx emission from trucks may affect attainability of NO2 limit values in the Netherlands. Atmospheric Environment, 2011, 45, 3025-3033.	4.1	66
17	Data assimilation of ground-level ozone in Europe with a Kalman filter and chemistry transport model. Journal of Geophysical Research, 2004, 109, .	3.3	63
18	Advances in air quality research â€“ current and emerging challenges. Atmospheric Chemistry and Physics, 2022, 22, 4615-4703.	4.9	63

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19	Changes in Emissions of Ozone-Depleting Substances from China Due to Implementation of the Montreal Protocol. Environmental Science & Technology, 2018, 52, 11359-11366.	10.0	54
20	Can further mitigation of ammonia emissions reduce exceedances of particulate matter air quality standards?. Environmental Science and Policy, 2014, 44, 149-163.	4.9	50
21	Uncertainty analysis of projections of ozone-depleting substances: mixing ratios, EESC, ODPs, and GWPs. Atmospheric Chemistry and Physics, 2014, 14, 2757-2776.	4.9	44
22	Hydrofluorocarbon (HFC) Emissions in China: An Inventory for 2005â€“2013 and Projections to 2050. Environmental Science & Technology, 2016, 50, 2027-2034.	10.0	42
23	Ammonia concentrations in the Netherlands: spatially detailed measurements and model calculations. Atmospheric Environment, 2004, 38, 4045-4055.	4.1	35
24	Oceanic bromoform emissions weighted by their ozone depletion potential. Atmospheric Chemistry and Physics, 2015, 15, 13647-13663.	4.9	34
25	External drift kriging of NOx concentrations with dispersion model output in a reduced air quality monitoring network. Environmental and Ecological Statistics, 2009, 16, 321-339.	3.5	32
26	Spatial- and Time-Explicit Human Damage Modeling of Ozone Depleting Substances in Life Cycle Impact Assessment. Environmental Science & Technology, 2010, 44, 204-209.	10.0	32
27	A review of bottom-up and top-down emission estimates of hydrofluorocarbons (HFCs) in different parts of the world. Chemosphere, 2021, 283, 131208.	8.2	32
28	Ozone depletion and skin cancer incidence: a source risk approach. Journal of Hazardous Materials, 1998, 61, 77-84.	12.4	30
29	Projections of hydrofluorocarbon (HFC) emissions and the resulting global warming based on recent trends in observed abundances and current policies. Atmospheric Chemistry and Physics, 2022, 22, 6087-6101.	4.9	29
30	Options to accelerate ozone recovery: ozone and climate benefits. Atmospheric Chemistry and Physics, 2010, 10, 7697-7707.	4.9	27
31	Deriving Global OH Abundance and Atmospheric Lifetimes for Longâ€Lived Gases: A Search for CH₃CCl₃ Alternatives. Journal of Geophysical Research D: Atmospheres, 2017, 122, 11,914.	3.3	26
32	Uncertainty assessment of local NO2 concentrations derived from error-in-variable external drift kriging and its relationship to the 2010 air quality standard. Atmospheric Environment, 2006, 40, 2583-2595.	4.1	25
33	Electron density analysis of nonlinear optical materials: an ab initio study of different conformations of benzene derivatives. The Journal of Physical Chemistry, 1991, 95, 8601-8608.	2.9	24
34	Assessing interim objectives for acidification, eutrophication and ground-level ozone of the EU National Emission Ceilings Directive with 2001 and 2012 knowledge. Atmospheric Environment, 2013, 75, 129-140.	4.1	24
35	Effect of electron correlation on the electron density distribution and (hyper)polarizability of molecules. The Journal of Physical Chemistry, 1992, 96, 10725-10735.	2.9	23
36	Growth of climate change commitments from HFC banks and emissions. Atmospheric Chemistry and Physics, 2014, 14, 4563-4572.	4.9	22

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37	The simulation of the transport of aircraft emissions by a three-dimensional global model. Annales Geophysicae, 1994, 12, 385-393.	1.6	21
38	Likelihood of meeting the EU limit values for NO2 and PM10 concentrations in the Netherlands. Atmospheric Environment, 2009, 43, 3060-3069.	4.1	21
39	Improvements in air quality in the Netherlands during the corona lockdown based on observations and model simulations. Atmospheric Environment, 2021, 247, 118158.	4.1	20
40	Effects of European emission reductions on air quality in the Netherlands and the associated health effects. Atmospheric Environment, 2020, 221, 117109.	4.1	19
41	Meteorological variability in NO2 and PM10 concentrations in the Netherlands and its relation with EU limit values. Atmospheric Environment, 2009, 43, 3858-3866.	4.1	16
42	A Hybrid Kalman Filter Algorithm for Large-Scale Atmospheric Chemistry Data Assimilation. Monthly Weather Review, 2007, 135, 140-151.	1.4	15
43	Recent decreases in observed atmospheric concentrations of SO2 in the Netherlands in line with emission reductions. Atmospheric Environment, 2011, 45, 5647-5651.	4.1	13
44	Structure and electron density distribution of the nitrate ion and urea molecule upon protonation. Theoretica Chimica Acta, 1992, 84, 195-215.	0.8	12
45	Trifluoroacetic acid deposition from emissions of HFO-1234yf in India, China, and the Middle East. Atmospheric Chemistry and Physics, 2021, 21, 14833-14849.	4.9	12
46	Comparison of the Hartree-Fock, Mï¿½ller-Plesset, and Hartree-Fock-Slater method with respect to electrostatic properties of small molecules. Theoretica Chimica Acta, 1993, 86, 391-416.	0.8	10
47	High-resolution modelling of air pollution and deposition over the Netherlands with plume, grid and hybrid modelling. Atmospheric Environment, 2017, 155, 140-153.	4.1	7
48	Calculation of the electron density distribution in silicon by the density-functional method. Comparison with X-ray results. Acta Crystallographica Section B: Structural Science, 1989, 45, 359-364.	1.8	5
49	The Precautionary Principle and the Environment: A Case Study of an Immediate Global Response to the Molina and Rowland Warning. ACS Earth and Space Chemistry, 2021, 5, 3036-3044.	2.7	3
50	Model-based geostatistical interpolation of the annual number of ozone exceedance days in the Netherlands. Stochastic Environmental Research and Risk Assessment, 2005, 19, 173-183.	4.0	1
51	Greenhouse gases: Interrelationship with stratospheric ozone depletion. Studies in Environmental Science, 1998, , 223-239.	0.0	0
52	Modelling Air Quality and Deposition at High Resolution in the Netherlands with Plume and Grid Models. Springer Proceedings in Complexity, 2018, , 245-248.	0.3	0