Gwenael Berthet

List of Publications by Year
in descending order

49 papers	1,390 citations	361413 20 h-index	395702 33 g-index
79 all docs	79 docs citations	79 times ranked	1582 citing authors

#	Article	IF	Citations
1	LOAC: a small aerosol optical counter/sizer for ground-based and balloon measurements of the size distribution and nature of atmospheric particles â€“ Part 1: Principle of measurements and instrument evaluation. Atmospheric Measurement Techniques, 2016, 9, 1721-1742.	3.1	81
2	A Lagrangian perspective of the tropopause and the ventilation of the lowermost stratosphere. Journal of Geophysical Research, 2007, 112, .	3.3	76
3	BATAL: The Balloon Measurement Campaigns of the Asian Tropopause Aerosol Layer. Bulletin of the American Meteorological Society, 2018, 99, 955-973.	3.3	74
4	Variability of the Lagrangian turbulent diffusion in the lower stratosphere. Atmospheric Chemistry and Physics, 2005, 5, 1605-1622.	4.9	69
5	Validation of NO₂ and NO from the Atmospheric Chemistry Experiment (ACE). Atmospheric Chemistry and Physics, 2008, 8, 5801-5841.	4.9	64
6	Stratospheric aerosol layer perturbation caused by the 2019ÂRaikoke and Ulawun eruptions and their radiative forcing. Atmospheric Chemistry and Physics, 2021, 21, 535-560.	4.9	64
7	LOAC: a small aerosol optical counter/sizer for ground-based and balloon measurements of the size distribution and nature of atmospheric particles â€“ Part 2: First results from balloon and unmanned aerial vehicle flights. Atmospheric Measurement Techniques, 2016, 9, 3673-3686.	3.1	59
8	Vertical distribution of the different types of aerosols in the stratosphere: Detection of solid particles and analysis of their spatial variability. Journal of Geophysical Research, 2008, 113, .	3.3	57
9	Transport of the 2017 Canadian wildfire plume to the tropics via the Asian monsoon circulation. Atmospheric Chemistry and Physics, 2019, 19, 13547-13567.	4.9	48
10	How much of the global aerosol optical depth is found in the boundary layer and free troposphere?. Atmospheric Chemistry and Physics, 2018, 18, 7709-7720.	4.9	40
11	Stratospheric aerosols from the Sarychev volcano eruption in the 2009 Arctic summer. Atmospheric Chemistry and Physics, 2013, 13, 6533-6552.	4.9	37
12	A stratospheric NO₂climatology from Odin/OSIRIS limb-scatter measurements. Canadian Journal of Physics, 2007, 85, 1253-1274.	1.1	34
13	Long-range transport of stratospheric aerosols in the Southern Hemisphere following the 2015 Calbuco eruption. Atmospheric Chemistry and Physics, 2017, 17, 15019-15036.	4.9	32
14	Stratospheric Aerosols, Polar Stratospheric Clouds, and Polar Ozone Depletion After the Mount Calbuco Eruption in 2015. Journal of Geophysical Research D: Atmospheres, 2018, 123, 12,308.	3.3	31
15	SALOMON: a new, light balloonborne UVâ€“visible spectrometer for nighttime observations of stratospheric trace-gas species. Applied Optics, 2000, 39, 386.	2.1	29
16	Retrieving the vertical distribution of stratospheric OClO from Odin/OSIRIS limb-scattered sunlight measurements. Atmospheric Chemistry and Physics, 2006, 6, 1879-1894.	4.9	29
17	The primary volcanic aerosol emission from Mt Etna: Size-resolved particles with SO2 and role in plume reactive halogen chemistry. Geochimica Et Cosmochimica Acta, 2018, 222, 74-93.	3.9	29
18	Significant Contributions of Volcanic Aerosols to Decadal Changes in the Stratospheric Circulation. Geophysical Research Letters, 2017, 44, 10,780.	4.0	28

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19	In situ detection of aerosol layers in the middle stratosphere. Geophysical Research Letters, 2010, 37, .	4.0	27
20	Impact of a moderate volcanic eruption on chemistry in the lower stratosphere: balloon-borne observations and model calculations. Atmospheric Chemistry and Physics, 2017, 17, 2229-2253.	4.9	25
21	Vertical distribution of aerosols in dust storms during the Arctic winter. Scientific Reports, 2019, 9, 16122.	3.3	25
22	Carbonyl Sulphide (OCS) Variability with Latitude in the Atmosphere. Atmosphere - Ocean, 2015, 53, 89-101.	1.6	24
23	Optical and physical properties of stratospheric aerosols from balloon measurements in the visible and near-infrared domains I Analysis of aerosol extinction spectra from the AMON and SALOMON balloonborne spectrometers. Applied Optics, 2002, 41, 7522.	2.1	22
24	Optical and physical properties of stratospheric aerosols from balloon measurements in the visible and near-infrared domains III Presence of aerosols in the middle stratosphere. Applied Optics, 2005, 44, 4086.	2.1	22
25	Impact of the 2018 Ambae Eruption on the Global Stratospheric Aerosol Layer and Climate. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2020JD032410.	3.3	22
26	On the ability of chemical transport models to simulate the vertical structure of the N₂O, NO₂ and HNO₃ species in the mid-latitude stratosphere. Atmospheric Chemistry and Physics, 2006, 6, 1599-1609.	4.9	21
27	Optical and physical properties of stratospheric aerosols from balloon measurements in the visible and near-infrared domains II Comparison of extinction, reflectance, polarization, and counting measurements. Applied Optics, 2002, 41, 7540.	2.1	20
28	Nighttime chlorine monoxide observations by the Odin satellite and implications for the ClO/Cl2O2equilibrium. Geophysical Research Letters, 2005, 32, .	4.0	19
29	Measurements and simulation of stratospheric NO3at mid and high latitudes in the northern hemisphere. Journal of Geophysical Research, 2001, 106, 32387-32399.	3.3	18
30	Remoteâ€sensing measurements in the polar vortex: Comparison to in situ observations and implications for the simultaneous retrievals and analysis of the NO₂ and OClO species. Journal of Geophysical Research, 2007, 112, .	3.3	18
31	Global modeling studies of composition and decadal trends of the Asian Tropopause Aerosol Layer. Atmospheric Chemistry and Physics, 2021, 21, 2745-2764.	4.9	18
32	Validation of MIPAS-ENVISAT H₂O operational data collected between July 2002 and March 2004. Atmospheric Chemistry and Physics, 2013, 13, 5791-5811.	4.9	17
33	Model simulations of the chemical and aerosol microphysical evolution of the Sarychev Peak 2009 eruption cloud compared to in situ and satellite observations. Atmospheric Chemistry and Physics, 2018, 18, 3223-3247.	4.9	17
34	More evidence for very short-lived substance contribution to stratospheric chlorine inferred from HCl balloon-borne in situ measurements in the tropics. Atmospheric Chemistry and Physics, 2010, 10, 397-409.	4.9	16
35	Balloon-borne measurement of the aerosol size distribution from an Icelandic flood basalt eruption. Earth and Planetary Science Letters, 2016, 453, 252-259.	4.4	14
36	Australian Fires 2019â€“2020: Tropospheric and Stratospheric Pollution Throughout the Whole Fire Season. Frontiers in Environmental Science, 2021, 9, .	3.3	12

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37	Measurements of aerosols and charged particles on the BEXUS18 stratospheric balloon. Annales Geophysicae, 2019, 37, 389-403.	1.6	11
38	In situ balloonâ€borne measurements of HNO₃ and HCl stratospheric vertical profiles influenced by polar stratospheric cloud formation during the 2005â€“2006 Arctic winter. Journal of Geophysical Research, 2010, 115, .	3.3	10
39	Balloon-borne observations of mid-latitude stratospheric water vapour: comparisons with HALOE and MLS satellite data. Journal of Atmospheric Chemistry, 2013, 70, 197-219.	3.2	10
40	Improved OSIRIS NO₂ retrieval algorithm: description and validation. Atmospheric Measurement Techniques, 2017, 10, 1155-1168.	3.1	10
41	A new climatology of aerosols in the middle and upper stratosphere by alternative analysis of GOMOS observations during 2002â€“2006. International Journal of Remote Sensing, 2013, 34, 4986-5029.	2.9	9
42	In situ detection of electrified aerosols in the upper troposphere and stratosphere. Atmospheric Chemistry and Physics, 2013, 13, 11187-11194.	4.9	9
43	Gravity-wave effects on tracer gases and stratospheric aerosol concentrations during the 2013 ChArMEx campaign. Atmospheric Chemistry and Physics, 2016, 16, 8023-8042.	4.9	9
44	Investigating the Halogen Chemistry From High-Latitude Nighttime Stratospheric Measurements of OClO and NO2. Journal of Atmospheric Chemistry, 2004, 48, 261-282.	3.2	8
45	Origins and Spatial Distribution of Non-Pure Sulfate Particles (NSPs) in the Stratosphere Detected by the Balloon-Borne Light Optical Aerosols Counter (LOAC). Atmosphere, 2020, 11, 1031.	2.3	8
46	Number of independent measurements required to obtain reliable mean scattering properties of irregular particles having a small size parameter, using microwave analogy measurements. Journal of Quantitative Spectroscopy and Radiative Transfer, 2021, 272, 107718.	2.3	8
47	Counting and Phase Function Measurements with the LONSCAPE Instrument to Determine Physical Properties of Aerosols in Ice Giant Planet Atmospheres. Space Science Reviews, 2020, 216, 1.	8.1	6
48	Variability of the Aerosol Content in the Tropical Lower Stratosphere from 2013 to 2019: Evidence of Volcanic Eruption Impacts. Atmosphere, 2022, 13, 250.	2.3	3
49	Transport and Variability of Tropospheric Ozone over Oceania and Southern Pacific during the 2019â€“20 Australian Bushfires. Remote Sensing, 2021, 13, 3092.	4.0	2