A E Bourassa

List of Publications by Year
in descending order

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105 papers	4,710 citations	126907 33 h-index	123424 61 g-index
123 all docs	123 docs citations	123 times ranked	3794 citing authors

#	Article	IF	Citations
1	The OSIRIS instrument on the Odin spacecraft. Canadian Journal of Physics, 2004, 82, 411-422.	1.1	349
2	Major influence of tropical volcanic eruptions on the stratospheric aerosol layer during the last decade. Geophysical Research Letters, 2011, 38, n/a-n/a.	4.0	303
3	Stratospheric aerosol-Observations, processes, and impact on climate. Reviews of Geophysics, 2016, 54, 278-335.	23.0	265
4	Evidence for a continuous decline in lower stratospheric ozone offsetting ozone layer recovery. Atmospheric Chemistry and Physics, 2018, 18, 1379-1394.	4.9	214
5	Highâ€Resolution Mapping of Nitrogen Dioxide With TROPOMI: First Results and Validation Over the Canadian Oil Sands. Geophysical Research Letters, 2019, 46, 1049-1060.	4.0	209
6	Large Volcanic Aerosol Load in the Stratosphere Linked to Asian Monsoon Transport. Science, 2012, 337, 78-81.	12.6	208
7	A global space-based stratospheric aerosol climatology: 1979â€“2016. Earth System Science Data, 2018, 10, 469-492.	9.9	141
8	The 2019/20 Australian wildfires generated a persistent smoke-charged vortex rising up to 35â€‰km altitude. Communications Earth & Environment, 2020, 1, .	6.8	140
9	Validation of ozone measurements from the Atmospheric Chemistry Experiment (ACE). Atmospheric Chemistry and Physics, 2009, 9, 287-343.	4.9	134
10	Observations of the eruption of the Sarychev volcano and simulations using the HadGEM2 climate model. Journal of Geophysical Research, 2010, 115, .	3.3	128
11	Past changes in the vertical distribution of ozone â€“ Part 3: Analysis and interpretation of trends. Atmospheric Chemistry and Physics, 2015, 15, 9965-9982.	4.9	115
12	Evolution of stratospheric ozone and water vapour time series studied with satellite measurements. Atmospheric Chemistry and Physics, 2009, 9, 6055-6075.	4.9	98
13	Limb scatter ozone retrieval from 10 to 60 km using a multiplicative algebraic reconstruction technique. Atmospheric Chemistry and Physics, 2009, 9, 6521-6529.	4.9	93
14	An update on ozone profile trends for the period 2000 to 2016. Atmospheric Chemistry and Physics, 2017, 17, 10675-10690.	4.9	93
15	Stratospheric aerosol retrieval with optical spectrograph and infrared imaging system limb scatter measurements. Journal of Geophysical Research, 2007, 112, .	3.3	92
16	Ground-based assessment of the bias and long-term stability of 14 limb and occultation ozone profile data records. Atmospheric Measurement Techniques, 2016, 9, 2497-2534.	3.1	92
17	SASKTRAN: A spherical geometry radiative transfer code for efficient estimation of limb scattered sunlight. Journal of Quantitative Spectroscopy and Radiative Transfer, 2008, 109, 52-73.	2.3	91
18	Trends in stratospheric ozone derived from merged SAGE II and Odin-OSIRIS satellite observations. Atmospheric Chemistry and Physics, 2014, 14, 6983-6994.	4.9	69

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19	SPARC Data Initiative: A comparison of ozone climatologies from international satellite limb sounders. Journal of Geophysical Research D: Atmospheres, 2013, 118, 12,229.	3.3	63
20	Intercomparison of vertically resolved merged satellite ozone data sets: interannual variability and long-term trends. Atmospheric Chemistry and Physics, 2015, 15, 3021-3043.	4.9	62
21	Odin-OSIRIS stratospheric aerosol data product and SAGE III intercomparison. Atmospheric Chemistry and Physics, 2012, 12, 605-614.	4.9	56
22	Variability and evolution of the midlatitude stratospheric aerosol budget from 22 years of ground-based lidar and satellite observations. Atmospheric Chemistry and Physics, 2017, 17, 1829-1845.	4.9	55
23	Evolution of the stratospheric aerosol enhancement following the eruptions of Okmok and Kasatochi: Odinâ€OSIRIS measurements. Journal of Geophysical Research, 2010, 115, .	3.3	54
24	Harmonized dataset of ozone profiles from satellite limb and occultation measurements. Earth System Science Data, 2013, 5, 349-363.	9.9	52
25	Temperatures in the upper mesosphere and lower thermosphere from OSIRIS observations of O₂ A-band emission spectra. Canadian Journal of Physics, 2010, 88, 919-925.	1.1	45
26	Simulation and observations of stratospheric aerosols from the 2009 Sarychev volcanic eruption. Journal of Geophysical Research, 2011, 116, .	3.3	45
27	On the stratospheric chemistry of midlatitude wildfire smoke. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2117325119.	7.1	45
28	Merged SAGEÂII, Ozone_cci and OMPS ozone profile dataset and evaluation of ozone trends in the stratosphere. Atmospheric Chemistry and Physics, 2017, 17, 12533-12552.	4.9	44
29	OMPS LP Version 2.0 multi-wavelength aerosol extinction coefficient retrieval algorithm. Atmospheric Measurement Techniques, 2021, 14, 1015-1036.	3.1	41
30	Trend and variability in ozone in the tropical lower stratosphere over 2.5 solar cycles observed by SAGE II and OSIRIS. Atmospheric Chemistry and Physics, 2014, 14, 3479-3496.	4.9	40
31	Negligible climatic effects from the 2008 Okmok and Kasatochi volcanic eruptions. Journal of Geophysical Research, 2010, 115, .	3.3	39
32	Observations of mesospheric ozone depletion during the October 28, 2003 solar proton event by OSIRIS. Geophysical Research Letters, 2005, 32, .	4.0	37
33	Properties of Sarychev sulphate aerosols over the Arctic. Journal of Geophysical Research, 2012, 117, .	3.3	36
34	Merging the OSIRIS and SAGE II stratospheric aerosol records. Journal of Geophysical Research D: Atmospheres, 2015, 120, 8890-8904.	3.3	36
35	SCIAMACHY stratospheric aerosol extinction profile retrieval using the OMPS/LP algorithm. Atmospheric Measurement Techniques, 2011, 4, 547-556.	3.1	35
36	The retrieval of vertical profiles of the ozone number density using Chappuis band absorption information and a multiplicative algebraic reconstruction technique. Canadian Journal of Physics, 2007, 85, 1225-1243.	1.1	34

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37	Fast NO₂ retrievals from Odin-OSIRIS limb scatter measurements. Atmospheric Measurement Techniques, 2011, 4, 965-972.	3.1	34
38	Tomographic retrievals of ozone with the OMPS Limb Profiler: algorithm description and preliminary results. Atmospheric Measurement Techniques, 2018, 11, 2375-2393.	3.1	33
39	Drift-corrected Odin-OSIRIS ozone product: algorithm and updated stratospheric ozone trends. Atmospheric Measurement Techniques, 2018, 11, 489-498.	3.1	33
40	Retrieval of stratospheric aerosol size information from OSIRIS limb scattered sunlight spectra. Atmospheric Chemistry and Physics, 2008, 8, 6375-6380.	4.9	32
41	Assessment of Odin-OSIRIS ozone measurements from 2001 to the present using MLS, GOMOS, and ozonesondes. Atmospheric Measurement Techniques, 2014, 7, 49-64.	3.1	32
42	High-resolution and Monte Carlo additions to the SASKTRAN radiative transfer model. Atmospheric Measurement Techniques, 2015, 8, 2609-2623.	3.1	32
43	Remote sensing of aerosols in the Arctic for an evaluation of global climate model simulations. Journal of Geophysical Research D: Atmospheres, 2014, 119, 8169-8188.	3.3	31
44	Response to Comments on "Large Volcanic Aerosol Load in the Stratosphere Linked to Asian Monsoon Transport". Science, 2013, 339, 647-647.	12.6	29
45	OSIRIS: A Decade of Scattered Light. Bulletin of the American Meteorological Society, 2012, 93, 1845-1863.	3.3	28
46	Validation of stratospheric and mesospheric ozone observed by SMILES from International Space Station. Atmospheric Measurement Techniques, 2013, 6, 2311-2338.	3.1	28
47	The Global Space-based Stratospheric Aerosol Climatology (version 2.0): 1979â€“2018. Earth System Science Data, 2020, 12, 2607-2634.	9.9	28
48	Validation of ozone profile retrievals derived from the OMPS LP versionÂ2.5 algorithm against correlative satellite measurements. Atmospheric Measurement Techniques, 2018, 11, 2837-2861.	3.1	27
49	Biomass burning nitrogen dioxide emissions derived from space with TROPOMI: methodology and validation. Atmospheric Measurement Techniques, 2021, 14, 7929-7957.	3.1	27
50	A comparison of atmospheric dispersion model predictions with observations of SO₂ and sulphate aerosol from volcanic eruptions. Journal of Geophysical Research, 2012, 117, .	3.3	26
51	Characterization of Odin-OSIRIS ozone profiles with the SAGE II dataset. Atmospheric Measurement Techniques, 2013, 6, 1447-1459.	3.1	25
52	Stratospheric aerosol particle size information in Odin-OSIRIS limb scatter spectra. Atmospheric Measurement Techniques, 2014, 7, 507-522.	3.1	25
53	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
54	Validation of ACE-FTS version 3.5 NO_{<i>y</i>} species profiles using correlative satellite measurements. Atmospheric Measurement Techniques, 2016, 9, 5781-5810.	3.1	25

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55	Validation of SAGE III/ISS Solar Occultation Ozone Products With Correlative Satellite and Groundâ€Based Measurements. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2020JD032430.	3.3	24
56	Precision estimate for Odinâ€OSIRIS limb scatter retrievals. Journal of Geophysical Research, 2012, 117, .	3.3	23
57	A Multiwavelength Retrieval Approach for Improved OSIRIS Aerosol Extinction Retrievals. Journal of Geophysical Research D: Atmospheres, 2019, 124, 7286-7307.	3.3	22
58	First simultaneous retrievals of horizontal and vertical structures of Polar Mesospheric Clouds from Odin/OSIRIS tomography. Journal of Atmospheric and Solar-Terrestrial Physics, 2013, 104, 213-223.	1.6	21
59	Stratospheric Temperature and Ozone Anomalies Associated With the 2020 Australian New Year Fires. Geophysical Research Letters, 2021, 48, e2021GL095898.	4.0	21
60	Satellite Limb Observations of Unprecedented Forest Fire Aerosol in the Stratosphere. Journal of Geophysical Research D: Atmospheres, 2019, 124, 9510-9519.	3.3	20
61	Sensitivity analysis of the potential impact of discrepancies in stratosphereâ€“troposphere exchange on inferred sources and sinks of CO₂. Atmospheric Chemistry and Physics, 2015, 15, 11773-11788.	4.9	19
62	Observation of the 557.7Ânm to 297.2Ânm brightness ratio in the auroral spectrum with OSIRIS on Odin. Canadian Journal of Physics, 2009, 87, 1133-1137.	1.1	18
63	Mesopause temperatures during the polar mesospheric cloud season. Geophysical Research Letters, 2011, 38, n/a-n/a.	4.0	18
64	Aerosol extinction profiles at 525 nm and 1020 nm derived from ACE imager data: comparisons with GOMOS, SAGE II, SAGE III, POAM III, and OSIRIS. Atmospheric Chemistry and Physics, 2008, 8, 2027-2037.	4.9	17
65	Variability of Stratospheric Reactive Nitrogen and Ozone Related to the QBO. Journal of Geophysical Research D: Atmospheres, 2017, 122, 10,103.	3.3	17
66	AÂstudy of the approaches used to retrieve aerosol extinction, as applied to limb observations made by OSIRIS and SCIAMACHY. Atmospheric Measurement Techniques, 2018, 11, 3433-3445.	3.1	17
67	The Atmospheric Imaging Mission for Northern Regions: AIM-North. Canadian Journal of Remote Sensing, 2019, 45, 423-442.	2.4	14
68	Overview and update of the SPARC Data Initiative: comparison of stratospheric composition measurements from satellite limb sounders. Earth System Science Data, 2021, 13, 1855-1903.	9.9	14
69	An evaluation of Odin/OSIRIS limb pointing and stratospheric ozone through comparisons with ozonesondes. Canadian Journal of Physics, 2007, 85, 1125-1141.	1.1	13
70	The spring 2011 final stratospheric warming above Eureka: anomalous dynamics and chemistry. Atmospheric Chemistry and Physics, 2013, 13, 611-624.	4.9	13
71	The SPARC Data Initiative: Comparison of upper troposphere/lower stratosphere ozone climatologies from limbâ€viewing instruments and the nadirâ€viewing Tropospheric Emission Spectrometer. Journal of Geophysical Research D: Atmospheres, 2014, 119, 6971-6990.	3.3	13
72	Measurement of water vapor using an imaging field-widened spatial heterodyne spectrometer. Applied Optics, 2017, 56, 4297.	2.1	12

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73	Effect of volcanic aerosol on stratospheric NO₂ and N₂O₅ from 2002â€“2014 as measured by Odin-OSIRIS and Envisat-MIPAS. Atmospheric Chemistry and Physics, 2017, 17, 8063-8080.	4.9	11
74	Stratospheric aerosol characteristics from space-borne observations: extinction coefficient and Ã…ngstrÃ¶m exponent. Atmospheric Measurement Techniques, 2019, 12, 3485-3502.	3.1	11
75	A multi-spectral polarimetric imager for atmospheric profiling of aerosol and thin cloud: Prototype design and sub-orbital performance. Review of Scientific Instruments, 2020, 91, 103106.	1.3	11
76	Improved OSIRIS NO₂ retrieval algorithm: description and validation. Atmospheric Measurement Techniques, 2017, 10, 1155-1168.	3.1	10
77	Systematic comparison of vectorial spherical radiative transfer models in limb scattering geometry. Atmospheric Measurement Techniques, 2021, 14, 3953-3972.	3.1	10
78	Limbâ€“nadir matching using non-coincident NO₂ observations: proof of concept and the OMI-minus-OSIRIS prototype product. Atmospheric Measurement Techniques, 2016, 9, 4103-4122.	3.1	9
79	An efficient algorithm for polarization in the SASKTRAN radiative transfer framework. Journal of Quantitative Spectroscopy and Radiative Transfer, 2017, 199, 1-11.	2.3	9
80	Spatial Heterodyne Observations of Water (SHOW) vapour in the upper troposphere and lower stratosphere from a high altitude aircraft: Modelling and sensitivity analysis. Journal of Quantitative Spectroscopy and Radiative Transfer, 2018, 209, 137-149.	2.3	9
81	Quantifying Emissions of CO and NO_x Using Observations From MOPITT, OMI, TES, and OSIRIS. Journal of Geophysical Research D: Atmospheres, 2019, 124, 1170-1193.	3.3	9
82	AerGOM, an improved algorithm for stratospheric aerosol extinction retrieval from GOMOS observations â€“ Part 2: Intercomparisons. Atmospheric Measurement Techniques, 2016, 9, 4701-4718.	3.1	9
83	Assessment of the quality of ACE-FTS stratospheric ozone data. Atmospheric Measurement Techniques, 2022, 15, 1233-1249.	3.1	9
84	A Systematic Error in Plane-Parallel Radiative Transfer Calculations. Journals of the Atmospheric Sciences, 2010, 67, 1695-1699.	1.7	8
85	The Aerosol Limb Imager: acousto-optic imaging of limb-scattered sunlight for stratospheric aerosol profiling. Atmospheric Measurement Techniques, 2016, 9, 1261-1277.	3.1	8
86	Trends and Variability in Stratospheric NO x Derived From Merged SAGE II and OSIRIS Satellite Observations. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2019JD031798.	3.3	8
87	Modeled and Observed Volcanic Aerosol Control on Stratospheric NO_y and Cl_y. Journal of Geophysical Research D: Atmospheres, 2019, 124, 10283-10303.	3.3	7
88	Accounting for the photochemical variation in stratospheric NO₂ in the SAGE III/ISS solar occultation retrieval. Atmospheric Measurement Techniques, 2021, 14, 557-566.	3.1	7
89	Retrieval of subvisual cirrus cloud optical thickness from limb-scatter measurements. Atmospheric Measurement Techniques, 2013, 6, 105-119.	3.1	6
90	Using FTIR measurements of stratospheric composition to identify midlatitude polar vortex intrusions over Toronto. Journal of Geophysical Research D: Atmospheres, 2013, 118, 12,766.	3.3	6

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91	Spatial heterodyne observations of water (SHOW) from a high-altitude airplane: characterization, performance, and first results. Atmospheric Measurement Techniques, 2019, 12, 431-455.	3.1	6
92	Photon conservation in scattering by large ice crystals with the SASKTRAN radiative transfer model. Journal of Quantitative Spectroscopy and Radiative Transfer, 2012, 113, 582-593.	2.3	5
93	Remote sensing of aerosols in the Arctic for an evaluation of global climate model simulations. Journal of Geophysical Research D: Atmospheres, 2014, 119, 8169-8188.	3.3	5
94	Cloud discrimination in probability density functions of limb-scattered sunlight measurements. Atmospheric Measurement Techniques, 2013, 6, 3359-3368.	3.1	4
95	Odinâ€“OSIRIS detection of the Chelyabinsk meteor. Atmospheric Measurement Techniques, 2014, 7, 777-780.	3.1	4
96	H Balmer lines in terrestrial aurora: Historical record and new observations by OSIRIS on Odin. Journal of Geophysical Research, 2010, 115, .	3.3	3
97	Retrieval of daytime mesospheric ozone using OSIRIS observations of O₂ (<i>a</i>¹Î”_g) emission. Atmospheric Measurement Techniques, 2020, 13, 6215-6236.	3.1	3
98	A Method for Retrieving Stratospheric Aerosol Extinction and Particle Size from Ground-Based Rayleigh-Mie-Raman Lidar Observations. Atmosphere, 2020, 11, 773.	2.3	2
99	Observational evidence of moistening the lowermost stratosphere via isentropic mixing across the subtropical jet. Atmospheric Chemistry and Physics, 2020, 20, 5477-5486.	4.9	2
100	Adaptation of the polarimetric multi-spectral Aerosol Limb Imager for high altitude aircraft and satellite observations. Applied Optics, 2021, 60, 4325.	1.8	2
101	A balloon-borne imaging Fourier transform spectrometer for atmospheric trace gas profiling. Review of Scientific Instruments, 2021, 92, 094502.	1.3	2
102	Absorbing aerosol radiative effects in the limb-scatter viewing geometry. Atmospheric Measurement Techniques, 2013, 6, 2761-2776.	3.1	1
103	The impact of sea-glint upon limb radiance. Canadian Journal of Physics, 2007, 85, 1159-1176.	1.1	0
104	Sub-orbital demonstration of the Spatial Heterodyne Observations of Water (SHOW) instrument from NASAâ€™s ER-2 remote science airplane. , 2018, , .		0
105	The OH (3-1) nightglow volume emission rate retrieved from OSIRIS measurements: 2001 to 2015. Earth System Science Data, 2021, 13, 5115-5126.	9.9	0