James Clemmons

List of Publications by Year
in descending order

100 papers	4,298 citations	147566 31 h-index	110170 64 g-index
103 all docs	103 docs citations	103 times ranked	2579 citing authors

#	Article	IF	Citations
1	Resonant AlfvÃ©n Waves in the Lower Auroral Ionosphere: Evidence for the Nonlinear Evolution of the Ionospheric Feedback Instability. Journal of Geophysical Research: Space Physics, 2022, 127, .	0.8	3
2	Imaging Low-Energy Ion Outflow in the Auroral Zone. Frontiers in Astronomy and Space Sciences, 2022, 9, .	1.1	1
3	The Magnetic Electron Ion Spectrometer: A Review of On-Orbit Sensor Performance, Data, Operations, and Science. Space Science Reviews, 2021, 217, 80.	3.7	18
4	Overview of the Rocket Experiment for Neutral Upwelling Sounding Rocket 2 (RENU2). Geophysical Research Letters, 2020, 47, e2018GL081885.	1.5	7
5	RENU2 UV PMT Observations of the Cusp. Geophysical Research Letters, 2020, 47, e2019GL082314.	1.5	2
6	A New Technique for Estimating the Lifetime of Bursts of Electron Precipitation From Sounding Rocket Measurements. Geophysical Research Letters, 2020, 47, e2019GL082894.	1.5	2
7	Daytime Dynamo Electrodynamics With Spiral Currents Driven by Strong Winds Revealed by Vapor Trails and Sounding Rocket Probes. Geophysical Research Letters, 2020, 47, e2020GL088803.	1.5	12
8	A Revised Look at Relativistic Electrons in the Earth's Inner Radiation Zone and Slot Region. Journal of Geophysical Research: Space Physics, 2019, 124, 934-951.	0.8	32
9	Scientific Objectives of Electron Losses and Fields INvestigation Onboard Lomonosov Satellite. Space Science Reviews, 2018, 214, 1.	3.7	7
10	Observations of Spatial Variations in O/N₂ During an Auroral Substorm Using the Multichannel Downlooking Camera on the VISIONS Rocket. Journal of Geophysical Research: Space Physics, 2018, 123, 7089-7105.	0.8	0
11	Autogenous and efficient acceleration of energetic ions upstream of Earthâ€™s bow shock. Nature, 2018, 561, 206-210.	13.7	47
12	The hidden dynamics of relativistic electrons (0.7â€“1.5ÂMeV) in the inner zone and slot region. Journal of Geophysical Research: Space Physics, 2017, 122, 3127-3144.	0.8	38
13	Multipoint Observations of Energetic Particle Injections and Substorm Activity During a Conjunction Between Magnetospheric Multiscale (MMS) and Van Allen Probes. Journal of Geophysical Research: Space Physics, 2017, 122, 11,481.	0.8	42
14	The Flyâ€™s Eye Energetic Particle Spectrometer (FEEPS) Sensors for the Magnetospheric Multiscale (MMS) Mission. , 2017, , 307-327.		0
15	Current energetic particle sensors. Journal of Geophysical Research: Space Physics, 2016, 121, 8840-8858.	0.8	9
16	Electron-scale measurements of magnetic reconnection in space. Science, 2016, 352, aaf2939.	6.0	545
17	Observations of energetic particle escape at the magnetopause: Early results from the MMS Energetic Ion Spectrometer (EIS). Geophysical Research Letters, 2016, 43, 5960-5968.	1.5	23
18	Energy limits of electron acceleration in the plasma sheet during substorms: A case study with the Magnetospheric Multiscale (MMS) mission. Geophysical Research Letters, 2016, 43, 7785-7794.	1.5	51

#	Article	IF	Citations
19	Microinjections observed by MMS FEEPS in the dusk to midnight region. Geophysical Research Letters, 2016, 43, 6078-6086.	1.5	13
20	Highâ€resolution modeling of the cusp density anomaly: Response to particle and Joule heating under typical conditions. Journal of Geophysical Research: Space Physics, 2016, 121, 2645-2661.	0.8	11
21	Inner zone and slot electron radial diffusion revisited. Geophysical Research Letters, 2016, 43, 7301-7310.	1.5	16
22	The Energetic Particle Detector (EPD) Investigation and the Energetic Ion Spectrometer (EIS) for the Magnetospheric Multiscale (MMS) Mission. Space Science Reviews, 2016, 199, 471-514.	3.7	111
23	High efficiency fourth-harmonic generation from nanosecond fiber master oscillator power amplifier. Proceedings of SPIE, 2016, , .	0.8	3
24	The Flyâ€™s Eye Energetic Particle Spectrometer (FEEPS) Sensors for the Magnetospheric Multiscale (MMS) Mission. Space Science Reviews, 2016, 199, 309-329.	3.7	89
25	VISIONS remote observations of a spatially-structured filamentary source of energetic neutral atoms near the polar cap boundary during an auroral substorm. Advances in Space Research, 2015, 56, 2097-2105.	1.2	7
26	A background correction algorithm for Van Allen Probes MagEIS electron flux measurements. Journal of Geophysical Research: Space Physics, 2015, 120, 5703-5727.	0.8	78
27	On the use of drift echoes to characterize onâ€orbit sensor discrepancies. Journal of Geophysical Research: Space Physics, 2015, 120, 2076-2087.	0.8	8
28	Van Allen Probes show that the inner radiation zone contains no MeV electrons: ECT/MagEIS data. Geophysical Research Letters, 2015, 42, 1283-1289.	1.5	109
29	Long-Term Galactic Cosmic Ray Environment Response of Plasma Analyzers on High-Altitude Spacecraft. Journal of Spacecraft and Rockets, 2015, 52, 1169-1180.	1.3	1
30	LAICE CubeSat mission for gravity wave studies. Advances in Space Research, 2015, 56, 1413-1427.	1.2	14
31	An empirically observed pitchâ€angle diffusion eigenmode in the Earth's electron belt near L[*]â€‰=â€‰5.0. Geophysical Research Letters, 2014, 41, 251-258.	1.5	10
32	Van Allen Probes observations of direct waveâ€particle interactions. Geophysical Research Letters, 2014, 41, 1869-1875.	1.5	32
33	The Magnetic Electron Ion Spectrometer (MagEIS) Instruments Aboard the Radiation Belt Storm Probes (RBSP) Spacecraft. Space Science Reviews, 2013, 179, 383-421.	3.7	491
34	Van Allen Probes observation of localized drift resonance between poloidal mode ultraâ€low frequency waves and 60 keV electrons. Geophysical Research Letters, 2013, 40, 4491-4497.	1.5	127
35	Science Goals and Overview of the Radiation Belt Storm Probes (RBSP) Energetic Particle, Composition, and Thermal Plasma (ECT) Suite on NASAâ€™s Van Allen Probes Mission. Space Science Reviews, 2013, 179, 311-336.	3.7	463
36	Rapid, highly structured meridional winds and their modulation by non migrating tides: Measurements from the Streak mission. Journal of Geophysical Research: Space Physics, 2013, 118, 866-877.	0.8	2

#	Article	IF	Citations
37	The Data System for the Freja F7 Electron Spectrometer. Geophysical Monograph Series, 2013, , 181-186.	0.1	0
38	Science Goals and Overview of the Radiation Belt Storm Probes (RBSP) Energetic Particle, Composition, and Thermal Plasma (ECT) Suite on NASAâ€™s Van Allen Probes Mission. , 2013, , 311-336.		8
39	A multiyear (2002â€“2006) climatology of O/N₂ in the lower thermosphere from TIMED GUVI and groundâ€based photometer observations. Journal of Geophysical Research, 2012, 117, .	3.3	10
40	Highâ€latitudeEregionionosphereâ€thermosphere coupling: A comparative study using in situ and incoherent scatter radar observations. Journal of Geophysical Research, 2012, 117, .	3.3	11
41	Strong magnetic field fluctuations within filamentary auroral density cavities interpreted as VLF saucer sources. Journal of Geophysical Research, 2012, 117, .	3.3	4
42	Thermal ion upflow in the cusp ionosphere and its dependence on soft electron energy flux. Journal of Geophysical Research, 2010, 115, .	3.3	35
43	The Two Wide-angle Imaging Neutral-atom Spectrometers (TWINS) NASA Mission-of-Opportunity. Space Science Reviews, 2009, 142, 157-231.	3.7	170
44	The Ionization Gauge Investigation for the Streak Mission. Space Science Reviews, 2009, 145, 263-283.	3.7	11
45	Thermospheric density in the Earth's magnetic cusp as observed by the Streak mission. Geophysical Research Letters, 2008, 35, .	1.5	41
46	Computational Analysis of High-Altitude Ionization Gauge Flight Measurements. Journal of Spacecraft and Rockets, 2006, 43, 186-193.	1.3	11
47	Multi-Channel Charge Amplifier-Discriminator-Counter IC for the Space Sciences. , 2006, , .		6
48	The outer radiation belt injection, transport, acceleration and loss satellite (ORBITALS): A canadian small satellite mission for ILWS. Advances in Space Research, 2006, 38, 1838-1860.	1.2	16
49	Solar windâ€”magnetosphereâ€“ionosphere coupling: an event study based on Freja data. Journal of Atmospheric and Solar-Terrestrial Physics, 2004, 66, 375-380.	0.6	3
50	Airglow emissions and oxygen mixing ratios from the photometer experiment on the Turbulent Oxygen Mixing Experiment (TOMEX). Journal of Geophysical Research, 2004, 109, .	3.3	15
51	An overview of observations of unstable layers during the Turbulent Oxygen Mixing Experiment (TOMEX). Journal of Geophysical Research, 2004, 109, .	3.3	30
52	Core ion interactions with BB ELF, lower hybrid, and AlfvÃ©n waves in the high-latitude topside ionosphere. Journal of Geophysical Research, 2004, 109, .	3.3	26
53	Lower-hybrid cavity density depletions as a result of transverse ion acceleration localized on the gyroradius scale. Journal of Geophysical Research, 2004, 109, .	3.3	19
54	Analysis of High-Altitude Ionization Gauge Measurements Using the Direct Simulation Monte Carlo Method. , 2004, , .		0

#	Article	IF	Citations
55	Electron signatures and AlfvÃ©n waves. Journal of Geophysical Research, 2002, 107, SMP 15-1.	3.3	41
56	Electromagnetic waves and bursty electron acceleration: implications from Freja. Annales Geophysicae, 2002, 20, 139-150.	0.6	14
57	Inhomogeneous transverse electric fields and wave generation in the auroral region: A statistical study. Journal of Geophysical Research, 2001, 106, 10803-10816.	3.3	24
58	Acceleration signatures in the dayside boundary layer and the cusp. Physics and Chemistry of the Earth, Part C: Solar, Terrestrial and Planetary Science, 2001, 26, 195-200.	0.2	3
59	The collision meter: An experimental technique to measure charged-neutral interactions and gas composition in the upper atmosphere. Physics and Chemistry of the Earth, Part C: Solar, Terrestrial and Planetary Science, 2001, 26, 247-252.	0.2	0
60	Observations of traveling Pc5 waves and their relation to the magnetic cloud event of January 1997. Journal of Geophysical Research, 2000, 105, 5441-5452.	3.3	18
61	Driving dayside convection with northward IMF: Observations by a sounding rocket launched from Svalbard. Journal of Geophysical Research, 2000, 105, 5245-5263.	3.3	19
62	Energy transport during O+energization by ELF waves observed by the Freja satellite. Journal of Geophysical Research, 1999, 104, 2563-2572.	3.3	5
63	Evolution of mesoscale auroral cavities before substorm onset. Journal of Geophysical Research, 1999, 104, 17201-17215.	3.3	3
64	Correlation between core ion energization, suprathermal electron bursts, and broadband ELF plasma waves. Journal of Geophysical Research, 1998, 103, 4171-4186.	3.3	94
65	Broadband ELF plasma emission during auroral energization: 1. Slow ion acoustic waves. Journal of Geophysical Research, 1998, 103, 4343-4375.	3.3	119
66	Freja and ground-based analysis of inverted-V events. Journal of Geophysical Research, 1998, 103, 4303-4314.	3.3	17
67	Identification of auroral oval boundaries from in situ magnetic field measurements. Journal of Geophysical Research, 1998, 103, 4187-4197.	3.3	18
68	Simultaneous observations of solar wind plasma entry from FAST and POLAR. Geophysical Research Letters, 1998, 25, 2081-2084.	1.5	9
69	Initial FAST observations of acceleration processes in the cusp. Geophysical Research Letters, 1998, 25, 2037-2040.	1.5	33
70	Field-line resonances triggered by a northward IMF turning. Geophysical Research Letters, 1998, 25, 2991-2994.	1.5	10
71	Freja studies of the current-voltage relation in substorm-related events. Journal of Geophysical Research, 1998, 103, 4285-4301.	3.3	40
72	Mass spectroscopy using a rotating electric field. Review of Scientific Instruments, 1998, 69, 2285-2291.	0.6	17

#	Article	IF	Citations
73	Relationship between Large-, Meso-, and Small-Scale Field-Aligned Currents and their Current Carriers. , 1998, , 173-188.		16
74	On low-altitude particle acceleration and intense electric fields and their relationship to black aurora. Journal of Geophysical Research, 1997, 102, 17509-17522.	3.3	122
75	Toward a consistent picture of the generation of electromagnetic ion cyclotron ELF waves on auroral field lines. Journal of Geophysical Research, 1997, 102, 24369-24386.	3.3	17
76	Cavity resonators and AlfvÃ©n resonance cones observed on Freja. Journal of Geophysical Research, 1997, 102, 2565-2575.	3.3	94
77	Ionospheric signature of the cusp as seen by incoherent scatter radar. Journal of Geophysical Research, 1996, 101, 10947-10963.	3.3	39
78	Ion cyclotron heating in the dayside magnetosphere. Journal of Geophysical Research, 1996, 101, 13179-13193.	3.3	75
79	Dynamic response of the cusp morphology to the solar wind: A case study during passage of the solar wind plasma cloud on February 21, 1994. Journal of Geophysical Research, 1996, 101, 24675-24687.	3.3	26
80	Studies of auroral arcs using Freja satellite and ground-based data. Advances in Space Research, 1996, 18, 107-110.	1.2	16
81	Auroral measurements from space brought into the classroom. Physics Teacher, 1995, 33, 34-41.	0.2	2
82	Freja observations of a ten-meter boundary within monoenergetic auroral electron precipitation. Geophysical Research Letters, 1995, 22, 69-72.	1.5	19
83	Observations of an upward-directed electron beam with the perpendicular temperature of the cold ionosphere. Geophysical Research Letters, 1995, 22, 2103-2106.	1.5	47
84	Impulsive ion injections in the morning auroral region. Journal of Geophysical Research, 1995, 100, 12133.	3.3	17
85	The TESP electron spectrometer and correlator (F7) on Freja. Space Science Reviews, 1994, 70, 509-540.	3.7	49
86	Freja observations of narrow inverted-V electron precipitation by the Two-Dimensional Electron Spectrometer. Geophysical Research Letters, 1994, 21, 1895-1898.	1.5	24
87	The ionospheric signature of the cusp: A case study using Freja and the Sondrestrom radar. Geophysical Research Letters, 1994, 21, 1923-1926.	1.5	21
88	Signatures of energy-time dispersed electron fluxes measured by Freja. Geophysical Research Letters, 1994, 21, 1899-1902.	1.5	17
89	Sub-kilometer thermal plasma structure near 1750 km altitude in the polar cusp/cleft. Geophysical Research Letters, 1994, 21, 1907-1910.	1.5	14
90	Inverted-V events simultaneously observed with the Freja satellite and from the ground. Geophysical Research Letters, 1994, 21, 1891-1894.	1.5	23

#	Article	IF	Citations
91	Wave rectification in plasma sheaths surrounding electric field antennas. Journal of Geophysical Research, 1994, 99, 21361.	3.3	29
92	The TESP Electron Spectrometer and Correlator (F7) on Freja. , 1994, , 105-136.		13
93	Langmuir wave growth and electron bunching: Results from a waveâ€particle correlator. Journal of Geophysical Research, 1991, 96, 225-238.	3.3	58
94	Evidence of a transverse Langmuir modulational instability in a space plasma. Geophysical Research Letters, 1991, 18, 1177-1180.	1.5	38
95	Observation of electron bunching during Landau growth and damping. Journal of Geophysical Research, 1991, 96, 11371-11378.	3.3	19
96	Wavelength measurement of auroral hiss. Journal of Geophysical Research, 1991, 96, 21299-21307.	3.3	19
97	Highâ€resolution sounding rocket observations of largeâ€amplitude AlfvÃ©n waves. Journal of Geophysical Research, 1990, 95, 12157-12171.	3.3	128
98	Possible precursors in HCN oligomerization. Molecular Physics, 1983, 48, 631-637.	0.8	29
99	Lower hybrid ion heating cavities in the auroral ionosphere. , 0, , .		0
100	Novel Measurement of the Pitch-Angle Structure of Auroral Electron Beams with a Top Hat Spectrometer. Geophysical Monograph Series, 0, , 169-174.	0.1	0