

Herbert C Carlson

List of Publications by Year in descending order

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53
papers

2,417
citations

136950

32
h-index

197818

49
g-index

53
all docs

53
docs citations

53
times ranked

853
citing authors

#	ARTICLE	IF	CITATIONS
1	Creating space plasma from the ground. <i>Journal of Geophysical Research: Space Physics</i> , 2017, 122, 978-999.	2.4	18
2	A statistical survey of heat input parameters into the cusp thermosphere. <i>Journal of Geophysical Research: Space Physics</i> , 2017, 122, 9622-9651.	2.4	6
3	Low-latitude 10-eV electrons: Nighttime plasma line as a new research capability. <i>Geophysical Research Letters</i> , 2015, 42, 7255-7263.	4.0	6
4	HF Accelerated Electron Fluxes, Spectra, and Ionization. <i>Earth, Moon and Planets</i> , 2015, 116, 1-18.	0.6	4
5	Which cusp upflow events can possibly turn into outflows?. <i>Journal of Geophysical Research: Space Physics</i> , 2014, 119, 6876-6890.	2.4	16
6	Thermally excited 630.0-nm O(1D) emission in the cusp: A frequent high-altitude transient signature. <i>Journal of Geophysical Research: Space Physics</i> , 2013, 118, 5842-5852.	2.4	10
7	First-principles physics of cusp/polar cap thermospheric disturbances. <i>Geophysical Research Letters</i> , 2012, 39, .	4.0	37
8	Sharpening our thinking about polar cap ionospheric patch morphology, research, and mitigation techniques. <i>Radio Science</i> , 2012, 47, .	1.6	123
9	Convection surrounding mesoscale ionospheric flow channels. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	7
10	On the relationship between flux transfer events, temperature enhancements, and ion upflow events in the cusp ionosphere. <i>Journal of Geophysical Research</i> , 2011, 116, n/a-n/a.	3.3	25
11	Reversed flow events in the cusp ionosphere detected by SuperDARN HF radars. <i>Journal of Geophysical Research</i> , 2011, 116, n/a-n/a.	3.3	28
12	Creation of artificial ionospheric layers using high-power HF waves. <i>Geophysical Research Letters</i> , 2010, 37, .	4.0	83
13	Stratification of east-west plasma flow channels observed in the ionospheric cusp in response to IMF B _y polarity changes. <i>Geophysical Research Letters</i> , 2010, 37, .	4.0	13
14	Phenomena induced by powerful HF pumping towards magnetic zenith with a frequency near the F-region critical frequency and the third electron gyro harmonic frequency. <i>Annales Geophysicae</i> , 2009, 27, 131-145.	1.6	18
15	Optical ring formation and ionization production in high-power HF heating experiments at HAARP. <i>Geophysical Research Letters</i> , 2009, 36, .	4.0	67
16	On the relationship between thin Birkeland current arcs and reversed flow channels in the winter cusp/cleft ionosphere. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	44
17	On a new process for cusp irregularity production. <i>Annales Geophysicae</i> , 2008, 26, 2871-2885.	1.6	20
18	Role of neutral atmospheric dynamics in cusp density and ionospheric patch formation. <i>Geophysical Research Letters</i> , 2007, 34, .	4.0	9

#	ARTICLE	IF	CITATIONS
19	On the MLT distribution of <i>F</i> region polar cap patches at night. <i>Geophysical Research Letters</i> , 2007, 34, .	4.0	75
20	Reversed flow events in the winter cusp ionosphere observed by the European Incoherent Scatter (EISCAT) Svalbard radar. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	48
21	Case for a new process, not mechanism, for cusp irregularity production. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	52
22	Direct observations of injection events of subauroral plasma into the polar cap. <i>Geophysical Research Letters</i> , 2006, 33, .	4.0	69
23	Observations of isolated polar cap patches by the European Incoherent Scatter (EISCAT) Svalbard and Super Dual Auroral Radar Network (SuperDARN) Finland radars. <i>Journal of Geophysical Research</i> , 2006, 111, .	3.3	62
24	Magnetic-Zenith Effect. <i>Radiophysics and Quantum Electronics</i> , 2005, 48, 686-699.	0.5	35
25	Multi-instrument mapping of the small-scale flow dynamics related to a cusp auroral transient. <i>Annales Geophysicae</i> , 2005, 23, 2657-2670.	1.6	54
26	The dynamics and relationships of precipitation, temperature and convection boundaries in the dayside auroral ionosphere. <i>Annales Geophysicae</i> , 2004, 22, 1973-1987.	1.6	34
27	Langmuir turbulence in ionospheric plasma. <i>Plasma Physics Reports</i> , 2004, 30, 995-1005.	0.9	23
28	Ionospheric patch formation: Direct measurements of the origin of a polar cap patch. <i>Geophysical Research Letters</i> , 2004, 31, .	4.0	74
29	High-resolution observations of the small-scale flow pattern associated with a poleward moving auroral form in the cusp. <i>Geophysical Research Letters</i> , 2004, 31, n/a-n/a.	4.0	65
30	On the relationship between ion upflow events and cusp auroral transients. <i>Geophysical Research Letters</i> , 2004, 31, n/a-n/a.	4.0	45
31	Magnetic zenith enhancement of HF radio-induced airglow production at HAARP. <i>Geophysical Research Letters</i> , 2003, 30, .	4.0	61
32	ESR mapping of polar-cap patches in the dark cusp. <i>Geophysical Research Letters</i> , 2002, 29, 24-1-24-4.	4.0	44
33	First observations of HF heater-produced airglow at the High Frequency Active Auroral Research Program facility: Thermal excitation and spatial structuring. <i>Radio Science</i> , 2001, 36, 1013-1026.	1.6	60
34	On the collocation between dayside auroral activity and coherent HF radar backscatter. <i>Annales Geophysicae</i> , 2000, 18, 1531-1549.	1.6	53
35	Suprathermal electrons generated by the interaction of powerful radio wave with the ionosphere. <i>Geophysical Research Letters</i> , 2000, 27, 2461-2464.	4.0	14
36	Continuous observation of cusp auroral dynamics in response to an IMF BYpolarity change. <i>Geophysical Research Letters</i> , 1999, 26, 1243-1246.	4.0	35

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37	Large airglow enhancements produced via wave-plasma interactions in sporadic E. Geophysical Research Letters, 1999, 26, 1557-1560.	4.0	36
38	Response of the Polar Cap Ionosphere to Changes in (Solar Wind) IMF. , 1998, , 255-270.		9
39	Flow-aligned jets in the magnetospheric cusp: Results from the Geospace Environment Modeling Pilot Program. Journal of Geophysical Research, 1995, 100, 7649.	3.3	50
40	High power HF modification: Geophysics, span of EM effects, and energy budget. Advances in Space Research, 1993, 13, 15-24.	2.6	12
41	Implications of the altitude of transient 630 nm dayside auroral emissions. Journal of Geophysical Research, 1993, 98, 15571-15587.	3.3	52
42	Production of polar cap electron density patches by transient magnetopause reconnection. Geophysical Research Letters, 1992, 19, 1731-1734.	4.0	178
43	Reexamination of the O(³⁺ P ₁ D) excitation rate by thermal electron impact. Geophysical Research Letters, 1991, 18, 159-162.	4.0	22
44	A theoretical study of the seasonal and solar cycle variations of stable aurora red arcs. Journal of Geophysical Research, 1990, 95, 12219-12234.	3.3	47
45	Thermal response of the F ₁ region ionosphere in artificial modification experiments by HF radio waves. Journal of Geophysical Research, 1981, 86, 561-574.	3.3	68
46	Photoelectron flux buildup in the plasmasphere. Journal of Geophysical Research, 1978, 83, 1-15.	3.3	41
47	The plasma line revisited as an aeronomical diagnostic: Suprathermal electrons, solar EUV, electron gas thermal balance. Geophysical Research Letters, 1977, 4, 565-567.	4.0	24
48	Photoelectron energy loss and spectral features deduced by the plasma line technique. Journal of Geophysical Research, 1977, 82, 1017-1023.	3.3	9
49	Combined airglow and incoherent scatter observations as a technique for studying neutral atmospheric variations. Radio Science, 1974, 9, 205-210.	1.6	21
50	Arecibo heating experiments. Radio Science, 1974, 9, 1041-1047.	1.6	97
51	High frequency induced enhancements of the incoherent scatter spectrum at Arecibo. Journal of Geophysical Research, 1972, 77, 1242-1250.	3.3	143
52	Ionospheric heating at Arecibo: First tests. Journal of Geophysical Research, 1971, 76, 7808-7813.	3.3	53
53	Ionospheric heating by magnetic conjugate-point photoelectrons. Journal of Geophysical Research, 1966, 71, 195-199.	3.3	118