John C Foster

List of Publications by Year in descending order

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96 papers	6,961 citations	43973 48 h-index	58464 82 g-index
103 all docs	103 docs citations	103 times ranked	2645 citing authors

#	Article	IF	Citations
1	Van Allen Probes Observations of Oxygen Ions at the Geospace Plume. Frontiers in Astronomy and Space Sciences, 2021, 8, .	1.1	2
2	The Relativistic Electron-Proton Telescope (REPT) Investigation: Design, Operational Properties, and Science Highlights. Space Science Reviews, 2021, 217, 1.	3.7	23
3	Subpacket structure in strong VLF chorus rising tones: characteristics and consequences for relativistic electron acceleration. Earth, Planets and Space, 2021, 73, 140.	0.9	10
4	The Impenetrable Barrier: Suppression of Chorus Wave Growth by VLF Transmitters. Journal of Geophysical Research: Space Physics, 2020, 125, e2020JA027913.	0.8	3
5	A Statistical Study of the Subauroral Polarization Stream Over North American Sector Using the Millstone Hill Incoherent Scatter Radar 1979â€“2019 Measurements. Journal of Geophysical Research: Space Physics, 2020, 125, e2020JA028584.	0.8	12
6	Episodic Occurrence of Fieldâ€Aligned Energetic Ions on the Dayside. Geophysical Research Letters, 2020, 47, e2019GL086384.	1.5	9
7	Cyclotron Acceleration of Relativistic Electrons Through Landau Resonance With Obliquely Propagating Whistlerâ€Mode Chorus Emissions. Journal of Geophysical Research: Space Physics, 2019, 124, 2795-2810.	0.8	33
8	Space Weather Effects in the Earthâ€™s Radiation Belts. Space Science Reviews, 2018, 214, 1.	3.7	121
9	Observations of the step-like accelerating processes of cold ions in the reconnection layer at the dayside magnetopause. Science Bulletin, 2018, 63, 31-37.	4.3	8
10	Observations of ionâ€neutral coupling associated with strong electrodynamic disturbances during the 2015 St. Patrick's Day storm. Journal of Geophysical Research: Space Physics, 2017, 122, 1314-1337.	0.8	57
11	Van Allen Probes observations of prompt MeV radiation belt electron acceleration in nonlinear interactions with VLF chorus. Journal of Geophysical Research: Space Physics, 2017, 122, 324-339.	0.8	85
12	SAPS/SAID revisited: A causal relation to the substorm current wedge. Journal of Geophysical Research: Space Physics, 2017, 122, 8516-8535.	0.8	59
13	Polar cap hot patches: Enhanced density structures different from the classical patches in the ionosphere. Geophysical Research Letters, 2017, 44, 8159-8167.	1.5	31
14	Space Weather Effects in the Earthâ€™s Radiation Belts. Space Sciences Series of ISSI, 2017, , 371-430.	0.0	0
15	Structure and evolution of electron â€œzebra stripesâ€•in the inner radiation belt. Journal of Geophysical Research: Space Physics, 2016, 121, 4145-4157.	0.8	19
16	Highly relativistic radiation belt electron acceleration, transport, and loss: Large solar storm events of March and June 2015. Journal of Geophysical Research: Space Physics, 2016, 121, 6647-6660.	0.8	93
17	Multipoint MMS observations of fineâ€scale SAPS structure in the inner magnetosphere. Geophysical Research Letters, 2016, 43, 7294-7300.	1.5	10
18	Dipolarization in the inner magnetosphere during a geomagnetic storm on 7 October 2015. Geophysical Research Letters, 2016, 43, 9397-9405.	1.5	7

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19	Cold plasma redistribution throughout geospace. Science China Technological Sciences, 2016, 59, 1340-1345.	2.0	3
20	Observations of the impenetrable barrier, the plasmapause, and the VLF bubble during the 17 March 2015 storm. Journal of Geophysical Research: Space Physics, 2016, 121, 5537-5548.	0.8	59
21	The Earth: Plasma Sources, Losses, and Transport Processes. Space Sciences Series of ISSI, 2016, , 145-208.	0.0	3
22	Thermospheric poleward wind surge at midlatitudes during great storm intervals. Geophysical Research Letters, 2015, 42, 5132-5140.	1.5	59
23	Direct observations of the full Dungey convection cycle in the polar ionosphere for southward interplanetary magnetic field conditions. Journal of Geophysical Research: Space Physics, 2015, 120, 4519-4530.	0.8	61
24	Modeling CMEâ€shockâ€driven storms in 2012â€“2013: MHD test particle simulations. Journal of Geophysical Research: Space Physics, 2015, 120, 1168-1181.	0.8	50
25	Shockâ€induced prompt relativistic electron acceleration in the inner magnetosphere. Journal of Geophysical Research: Space Physics, 2015, 120, 1661-1674.	0.8	104
26	The Earth: Plasma Sources, Losses, and Transport Processes. Space Science Reviews, 2015, 192, 145-208.	3.7	54
27	An examination of the source of decameter-scale irregularities in the geomagnetically disturbed mid-latitude ionosphere. , 2014, , .		0
28	Imaging the plasmasphere with ground based GPS TEC observations and comparisons with in situ plasmaspheric observations with Van Allen Probes. , 2014, , .		0
29	An examination of the source of decameter-scale irregularities in the geomagnetically disturbed mid-latitude ionosphere. , 2014, , .		1
30	An impenetrable barrier to ultrarelativistic electrons in the Van Allen radiation belts. Nature, 2014, 515, 531-534.	13.7	159
31	Simultaneous Ground- and Space-Based Observations of the Plasmaspheric Plume and Reconnection. Science, 2014, 343, 1122-1125.	6.0	97
32	Storm time observations of plasmasphere erosion flux in the magnetosphere and ionosphere. Geophysical Research Letters, 2014, 41, 762-768.	1.5	65
33	Prompt energization of relativistic and highly relativistic electrons during a substorm interval: Van Allen Probes observations. Geophysical Research Letters, 2014, 41, 20-25.	1.5	88
34	Observations of E-region irregularities at mid-latitudes. , 2014, , .		0
35	Prompt energization of relativistic and highly relativistic electrons during a substorm interval. , 2014, , .		0
36	Gradual diffusion and punctuated phase space density enhancements of highly relativistic electrons: Van Allen Probes observations. Geophysical Research Letters, 2014, 41, 1351-1358.	1.5	127

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37	Initial observations of plasma waves in the sub-auroral polarization stream with the Van Allen Probes. , 2014, , .		0
38	Intercepted signals for ionospheric science. Radio Science, 2013, 48, 248-264.	0.8	2
39	Direct observations of the role of convection electric field in the formation of a polar tongue of ionization from storm enhanced density. Journal of Geophysical Research: Space Physics, 2013, 118, 1180-1189.	0.8	93
40	The Electric Field and Waves Instruments on the Radiation Belt Storm Probes Mission. Space Science Reviews, 2013, 179, 183-220.	3.7	421
41	Ionospheric symmetry caused by geomagnetic declination over North America. Geophysical Research Letters, 2013, 40, 5350-5354.	1.5	22
42	Magnetic declination and zonal wind effects on longitudinal differences of ionospheric electron density at midlatitudes. Journal of Geophysical Research, 2012, 117, .	3.3	68
43	Ground and Space-Based Measurement of Rocket Engine Burns in the Ionosphere. IEEE Transactions on Plasma Science, 2012, 40, 1267-1286.	0.6	58
44	Ionospheric longitudinal variations at midlatitudes: Incoherent scatter radar observation at Millstone Hill. Science China Technological Sciences, 2012, 55, 1153-1160.	2.0	20
45	East-West Coast differences in total electron content over the continental US. Geophysical Research Letters, 2011, 38, n/a-n/a.	1.5	67
46	Intercepted Signals for Ionospheric Science. , 2011, , .		3
47	Coordinated arrays of distributed instruments: A new window on geospace science and space weather effects. , 2011, , .		0
48	Startâ€toâ€end global imaging of a sunward propagating, SAPSâ€associated giant undulation event. Journal of Geophysical Research, 2010, 115, .	3.3	27
49	Plasmaspheric Density Structures and Dynamics: Properties Observed by the CLUSTER and IMAGE Missions. Space Science Reviews, 2009, 145, 55-106.	3.7	109
50	Electric Fields and Magnetic Fields in the Plasmasphere: AÂPerspective FromÂCLUSTER andÂIMAGE. Space Science Reviews, 2009, 145, 107-135.	3.7	6
51	Plasmaspheric Density Structures and Dynamics: Properties Observed by the CLUSTER and IMAGE Missions. , 2009, , 55-106.		20
52	Fast Ion Beams and Plasma Instabilities Excited by the Space Shuttle Orbital Maneuvering Subsystem (OMS) Engines. , 2007, , .		0
53	Magnetospheric Convection near a Drainage Plume. Journal of Geophysical Research, 2007, 112, n/a-n/a.	3.3	4
54	Formation, dynamics, and impact of plasmaspheric plumes. Eos, 2007, 88, 247-247.	0.1	1

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55	Longitude sector comparisons of storm enhanced density. Geophysical Research Letters, 2007, 34, .	1.5	52
56	Significant depletions of the ionospheric plasma density at middle latitudes: A possible signature of equatorial spreadFbubbles near the plasmapause. Journal of Geophysical Research, 2007, 112, n/a-n/a.	3.3	53
57	Correlation of the subauroral polarization streams (SAPS) with the Dst index during severe magnetic storms. Journal of Geophysical Research, 2007, 112, .	3.3	39
58	Storm enhanced density: magnetic conjugacy effects. Annales Geophysicae, 2007, 25, 1791-1799.	0.6	51
59	On the relationship of SAPS to storm-enhanced density. Journal of Atmospheric and Solar-Terrestrial Physics, 2007, 69, 303-313.	0.6	99
60	Conjugate localized enhancement of total electron content at low latitudes in the American sector. Journal of Atmospheric and Solar-Terrestrial Physics, 2007, 69, 1241-1252.	0.6	48
61	Auroral post-secondary ions from the nightside ionosphere in the inner magnetosphere. Journal of Atmospheric and Solar-Terrestrial Physics, 2007, 69, 1213-1232.	0.6	5
62	Redistribution of the stormtime ionosphere and the formation of a plasmaspheric bulge. Geophysical Monograph Series, 2005, , 277-289.	0.1	25
63	Global storm time plasma redistribution imaged from the ground and space. Geophysical Research Letters, 2005, 32, .	1.5	15
64	Midlatitude TEC enhancements during the October 2003 superstorm. Geophysical Research Letters, 2005, 32, n/a-n/a.	1.5	101
65	Density enhancement in plasmasphere-ionosphere plasma during the 2003 Halloween Superstorm: Observations along the 330th magnetic meridian in North America. Geophysical Research Letters, 2005, 32, .	1.5	52
66	Multiradar observations of the polar tongue of ionization. Journal of Geophysical Research, 2005, 110, .	3.3	255
67	Long-duration penetration of the interplanetary electric field to the low-latitude ionosphere during the main phase of magnetic storms. Journal of Geophysical Research, 2005, 110, .	3.3	284
68	Ionospheric electron concentration imaging using GPS over the USA during the storm of July 2000. Geophysical Research Letters, 2004, 31, n/a-n/a.	1.5	67
69	Stormtime observations of the flux of plasmaspheric ions to the dayside cusp/magnetopause. Geophysical Research Letters, 2004, 31, .	1.5	99
70	A quantitative explanation for the phenomenon known as storm-enhanced density. Geophysical Research Letters, 2004, 31, .	1.5	122
71	Millstone Hill coherent-scatter radar observations of electric field variability in the sub-auroral polarization stream. Geophysical Research Letters, 2004, 31, n/a-n/a.	1.5	49
72	Global dayside ionospheric uplift and enhancement associated with interplanetary electric fields. Journal of Geophysical Research, 2004, 109, .	3.3	401

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73	SAPS: A new categorization for sub-auroral electric fields. Eos, 2002, 83, 393.	0.1	350
74	Ionospheric signatures of plasmaspheric tails. Geophysical Research Letters, 2002, 29, 1-1.	1.5	270
75	Global ULF disturbances during a stormtime substorm on 25 September 1998. Journal of Geophysical Research, 2002, 107, SMP 40-1-SMP 40-11.	3.3	41
76	Average characteristics and activity dependence of the subauroral polarization stream. Journal of Geophysical Research, 2002, 107, SIA 16-1-SIA 16-10.	3.3	321
77	Inferred electric field variability in the polarization jet from Millstone HillEregion coherent scatter observations. Radio Science, 2002, 37, 11-1-11-14.	0.8	34
78	A linkage between polar patches and plasmaspheric drainage plumes. Geophysical Research Letters, 2001, 28, 111-113.	1.5	45
79	A quantitative study of ionospheric density gradients at midlatitudes. Journal of Geophysical Research, 2001, 106, 21555-21563.	3.3	67
80	Simultaneous observations of E-region coherent backscatter and electric field amplitude at F-region heights with the Millstone Hill UHF Radar. Geophysical Research Letters, 2000, 27, 3177-3180.	1.5	71
81	Prompt midlatitude electric field effects during severe geomagnetic storms. Journal of Geophysical Research, 1998, 103, 26367-26372.	3.3	111
82	Predicting plasmaspheric radial density profiles. Journal of Geophysical Research, 1997, 102, 2079-2091.	3.3	22
83	Storm time plasma transport at middle and high latitudes. Journal of Geophysical Research, 1993, 98, 1675-1689.	3.3	333
84	Effects of magnetospheric electric fields and neutral winds on the lowâ€middle latitude ionosphere during the March 20â€21, 1990, storm. Journal of Geophysical Research, 1993, 98, 19133-19140.	3.3	44
85	Observations from Millstone Hill during the geomagnetic disturbances of March and April 1990. Journal of Geophysical Research, 1992, 97, 1225-1243.	3.3	82
86	Storm time electric field penetration observed at midâ€latitude. Journal of Geophysical Research, 1991, 96, 5707-5721.	3.3	173
87	Storm time heavy ion outflow at midâ€latitude. Journal of Geophysical Research, 1990, 95, 7881-7891.	3.3	79
88	Plasma Transport through the Dayside Cleft: A Source of Ionization Patches in the Polar Cap. , 1989, , 343-354.		24
89	Ionospheric convection associated with discrete levels of particle precipitation. Geophysical Research Letters, 1986, 13, 656-659.	1.5	265
90	High-Resolution Observations of Electric Fields and F-Region Plasma Parameters in the Cleft Ionosphere. , 1985, , 349-364.		16

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91	Ionospheric signatures of magnetospheric convection. Journal of Geophysical Research, 1984, 89, 855-865.	3.3	89
92	Plasma convection in the vicinity of the dayside cleft. Journal of Geophysical Research, 1984, 89, 9107-9113.	3.3	82
93	Multistation measurements of highâ€latitude ionospheric convection. Journal of Geophysical Research, 1983, 88, 10111-10121.	3.3	49
94	Magnetospheric conditions at the time of enhanced wave-particle interactions near the plasmapause. Journal of Geophysical Research, 1976, 81, 2175-2182.	3.3	24
95	Electron precipitation and VLF emissions associated with cyclotron resonance interactions near the plasmapause. Journal of Geophysical Research, 1976, 81, 2183-2192.	3.3	77
96	Ionospheric-Magnetospheric-Heliospheric Coupling: Storm-Time Thermal Plasma Redistribution. Geophysical Monograph Series, 0, , 121-134.	0.1	20