J-E Wahlund

List of Publications by Year
in descending order

137 papers	6,192 citations	71102 41 h-index	76900 74 g-index
155 all docs	155 docs citations	155 times ranked	2834 citing authors

#	Article	IF	Citations
1	The Cassini Radio and Plasma Wave Investigation. Space Science Reviews, 2004, 114, 395-463.	8.1	455
2	Small Scale AlfvÃ©nic Structure in the Aurora. Space Science Reviews, 2000, 92, 423-533.	8.1	431
3	Negative ion chemistry in Titan's upper atmosphere. Planetary and Space Science, 2009, 57, 1558-1572.	1.7	240
4	Radio and Plasma Wave Observations at Saturn from Cassini's Approach and First Orbit. Science, 2005, 307, 1255-1259.	12.6	236
5	Composition of Titan's ionosphere. Geophysical Research Letters, 2006, 33, .	4.0	191
6	Thermal ion imagers and Langmuir probes in the Swarm electric field instruments. Journal of Geophysical Research: Space Physics, 2017, 122, 2655-2673.	2.4	183
7	Cassini Measurements of Cold Plasma in the Ionosphere of Titan. Science, 2005, 308, 986-989.	12.6	178
8	Aerosol growth in Titanâ€™s ionosphere. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 2729-2734.	7.1	126
9	The Magnetic Memory of Titan's Ionized Atmosphere. Science, 2008, 321, 1475-1478.	12.6	119
10	On the ionospheric structure of Titan. Planetary and Space Science, 2009, 57, 1821-1827.	1.7	119
11	RPC-LAP: The Rosetta Langmuir Probe Instrument. Space Science Reviews, 2007, 128, 729-744.	8.1	116
12	Model-data comparisons for Titan's nightside ionosphere. Icarus, 2009, 199, 174-188.	2.5	108
13	Detection of dusty plasma near the E-ring of Saturn. Planetary and Space Science, 2009, 57, 1795-1806.	1.7	104
14	On the amount of heavy molecular ions in Titan's ionosphere. Planetary and Space Science, 2009, 57, 1857-1865.	1.7	96
15	Comparisons between MHD model calculations and observations of Cassini flybys of Titan. Journal of Geophysical Research, 2006, 111, .	3.3	95
16	Cluster observations of lower hybrid turbulence within thin layers at the magnetopause. Geophysical Research Letters, 2004, 31, .	4.0	92
17	Dusty plasma in the vicinity of Enceladus. Journal of Geophysical Research, 2011, 116, .	3.3	89
18	A diffusive equilibrium model for the plasma density in Saturn's magnetosphere. Journal of Geophysical Research, 2009, 114, .	3.3	85

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19	Titan's ionosphere: Model comparisons with Cassini Ta data. Geophysical Research Letters, 2005, 32, n/a-n/a.	4.0	81
20	On magnetospheric electron impact ionisation and dynamics in Titan's ram-side and polar ionosphere â€“ a Cassini case study. Annales Geophysicae, 2007, 25, 2359-2369.	1.6	78
21	Spatial distribution of lowâ€energy plasma around comet 67P/CG from Rosetta measurements. Geophysical Research Letters, 2015, 42, 4263-4269.	4.0	74
22	The electron density of Saturn's magnetosphere. Annales Geophysicae, 2009, 27, 2971-2991.	1.6	73
23	Negative ion densities in the ionosphere of Titanâ€"Cassini RPWS/LP results. Planetary and Space Science, 2013, 84, 153-162.	1.7	73
24	Chemical interactions between Saturnâ€™s atmosphere and its rings. Science, 2018, 362, .	12.6	73
25	The thermal structure of Titanâ€™s upper atmosphere, I: Temperature profiles from Cassini INMS observations. Icarus, 2013, 226, 552-582.	2.5	72
26	Charged nanograins in the Enceladus plume. Journal of Geophysical Research, 2012, 117, .	3.3	71
27	Diurnal variations of Titan's ionosphere. Journal of Geophysical Research, 2009, 114, .	3.3	69
28	The inner magnetosphere of Saturn: Cassini RPWS cold plasma results from the first encounter. Geophysical Research Letters, 2005, 32, .	4.0	67
29	Ion densities and composition of Titan's upper atmosphere derived from the Cassini Ion Neutral Mass Spectrometer: Analysis methods and comparison of measured ion densities to photochemical model simulations. Journal of Geophysical Research, 2012, 117, .	3.3	67
30	SWARM observations of equatorial electron densities and topside GPS track losses. Geophysical Research Letters, 2015, 42, 2088-2092.	4.0	66
31	Electron temperature of Titan's sunlit ionosphere. Geophysical Research Letters, 2006, 33, .	4.0	61
32	Titan's ionospheric composition and structure: Photochemical modeling of Cassini INMS data. Journal of Geophysical Research, 2012, 117, .	3.3	60
33	3D global multiâ€species Hallâ€MHD simulation of the Cassini T9 flyby. Geophysical Research Letters, 2007, 34, .	4.0	58
34	Scattering of electromagnetic waves from a plasma: Enhanced ion acoustic fluctuations due to ionâ€ion twoâ€stream instabilities. Geophysical Research Letters, 1992, 19, 1919-1922.	4.0	56
35	Characteristics of charged dust inferred from the Cassini RPWS measurements in the vicinity of Enceladus. Planetary and Space Science, 2009, 57, 1807-1812.	1.7	49
36	Detection of negative ions in the deep ionosphere of Titan during the Cassini T70 flyby. Geophysical Research Letters, 2012, 39, .	4.0	48

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37	EISCAT observations of strong ion outflows from the Fâ€region ionosphere during auroral activity: Preliminary results. Geophysical Research Letters, 1989, 16, 727-730.	4.0	47
38	Carbon Chain Anions and the Growth of Complex Organic Molecules in Titanâ€™s Ionosphere. Astrophysical Journal Letters, 2017, 844, L18.	8.3	45
39	Ionization sources in Titan's deep ionosphere. Journal of Geophysical Research, 2010, 115, .	3.3	44
40	Uranus Pathfinder: exploring the origins and evolution of Ice Giant planets. Experimental Astronomy, 2012, 33, 753-791.	3.7	44
41	Characteristics of the dustâ€“plasma interaction near Enceladusâ€™ South Pole. Planetary and Space Science, 2011, 59, 17-25.	1.7	43
42	Electron density dropout near Enceladus in the context of waterâ€vapor and waterâ€ice. Geophysical Research Letters, 2009, 36, .	4.0	42
43	Electron signatures and AlfvÃ©n waves. Journal of Geophysical Research, 2002, 107, SMP 15-1.	3.3	41
44	Timeâ€dependent global MHD simulations of Cassini T32 flyby: From magnetosphere to magnetosheath. Journal of Geophysical Research, 2009, 114, .	3.3	41
45	In situ measurements of Saturnâ€™s ionosphere show that it is dynamic and interacts with the rings. Science, 2018, 359, 66-68.	12.6	40
46	Plasma environment in the wake of Titan from hybrid simulation: A case study. Geophysical Research Letters, 2007, 34, .	4.0	39
47	Ion transport in Titan's upper atmosphere. Journal of Geophysical Research, 2010, 115, .	3.3	38
48	A plasmapauseâ€like density boundary at high latitudes in Saturn's magnetosphere. Geophysical Research Letters, 2010, 37, .	4.0	38
49	Electron density and temperature measurements in the cold plasma environment of Titan: Implications for atmospheric escape. Geophysical Research Letters, 2010, 37, .	4.0	38
50	Solar cycle modulation of Titan's ionosphere. Journal of Geophysical Research: Space Physics, 2013, 118, 5255-5264.	2.4	38
51	Dust grains fall from Saturnâ€™s D-ring into its equatorial upper atmosphere. Science, 2018, 362, .	12.6	37
52	Ion densities and velocities in the inner plasma torus of Saturn. Planetary and Space Science, 2012, 73, 151-160.	1.7	36
53	On the thermal electron balance in Titanâ€™s sunlit upper atmosphere. Icarus, 2013, 223, 234-251.	2.5	35
54	Structure of Titan's midâ€range magnetic tail: Cassini magnetometer observations during the T9 flyby. Geophysical Research Letters, 2007, 34, .	4.0	34

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55	Dynamical and magnetic field time constants for Titan's ionosphere: Empirical estimates and comparisons with Venus. Journal of Geophysical Research, 2010, 115, .	3.3	34
56	Structured ionospheric outflow during the Cassini T55â€"T59 Titan flybys. Planetary and Space Science, 2011, 59, 788-797.	1.7	34
57	Electron temperatures in Saturnâ€™s plasma disc. Planetary and Space Science, 2010, 58, 1018-1025.	1.7	32
58	Statistical analysis of the energetic ion and ENA data for the Titan environment. Planetary and Space Science, 2010, 58, 1811-1822.	1.7	32
59	Cassini multiâ€instrument assessment of Saturn's polar cap boundary. Journal of Geophysical Research: Space Physics, 2014, 119, 8161-8177.	2.4	31
60	Titan ionospheric conductivities from Cassini measurements. Planetary and Space Science, 2009, 57, 1828-1833.	1.7	30
61	Charging of the Freja Satellite in the Auroral Zone. IEEE Transactions on Plasma Science, 2006, 34, 2038-2045.	1.3	28
62	Mioâ€"First Comprehensive Exploration of Mercuryâ€™s Space Environment: Mission Overview. Space Science Reviews, 2020, 216, 1.	8.1	28
63	What high altitude observations tell us about the auroral acceleration: A Cluster/DMSP conjunction. Geophysical Research Letters, 2003, 30, .	4.0	27
64	Energetics of Titan's ionosphere: Model comparisons with Cassini data. Journal of Geophysical Research, 2011, 116, n/a-n/a.	3.3	27
65	Extreme densities in Titan's ionosphere during the T85 magnetosheath encounter. Geophysical Research Letters, 2013, 40, 2879-2883.	4.0	27
66	Saturn's Dusty Ionosphere. Journal of Geophysical Research: Space Physics, 2019, 124, 1679-1697.	2.4	27
67	Electron Density Distributions in Saturn's Ionosphere. Geophysical Research Letters, 2019, 46, 3061-3068.	4.0	27
68	Modification of the plasma in the nearâ€vicinity of Enceladus by the enveloping dust. Geophysical Research Letters, 2010, 37, .	4.0	26
69	Models of Saturn's Equatorial Ionosphere Based on In Situ Data From Cassini's Grand Finale. Geophysical Research Letters, 2018, 45, 9398-9407.	4.0	26
70	Cold ionospheric plasma in Titan's magnetotail. Geophysical Research Letters, 2007, 34, .	4.0	25
71	Titan's ionosphere in the magnetosheath: Cassini RPWS results during the T32 flyby. Annales Geophysicae, 2009, 27, 4257-4272.	1.6	25
72	Detection of currents and associated electric fields in Titan's ionosphere from Cassini data. Journal of Geophysical Research, 2011, 116, n/a-n/a.	3.3	23

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73	EnVision: taking the pulse of our twin planet. Experimental Astronomy, 2012, 33, 337-363.	3.7	23
74	Ion and aerosol precursor densities in Titan's ionosphere: A multiâ€instrument case study. Journal of Geophysical Research: Space Physics, 2016, 121, 10075-10090.	2.4	23
75	Observations of auroral broadband emissions by CLUSTER. Geophysical Research Letters, 2003, 30, .	4.0	22
76	Far plasma wake of Titan from the RPWS observations: A case study. Geophysical Research Letters, 2007, 34, .	4.0	22
77	Electron density inside Enceladus plume inferred from plasma oscillations excited by dust impacts. Journal of Geophysical Research: Space Physics, 2014, 119, 3373-3380.	2.4	22
78	Ionization balance in Titanâ€™s nightside ionosphere. Icarus, 2015, 248, 539-546.	2.5	22
79	The low-frequency source of Saturnâ€™s kilometric radiation. Science, 2018, 362, .	12.6	22
80	The Ion Composition of Saturn's Equatorial Ionosphere as Observed by Cassini. Geophysical Research Letters, 2019, 46, 6315-6321.	4.0	22
81	Cassini Langmuir probe measurements in the inner magnetosphere of Saturn. Planetary and Space Science, 2009, 57, 48-52.	1.7	21
82	Saturn's Ionosphere: Electron Density Altitude Profiles and Dâ€Ring Interaction From The Cassini Grand Finale. Geophysical Research Letters, 2019, 46, 9362-9369.	4.0	20
83	Plasma Wave Investigation (PWI) Aboard BepiColombo Mio on the Trip to the First Measurement of Electric Fields, Electromagnetic Waves, and Radio Waves Around Mercury. Space Science Reviews, 2020, 216, 1.	8.1	20
84	On the interpretation of Langmuir probe data inside a spacecraft sheath. Review of Scientific Instruments, 2010, 81, 105106.	1.3	19
85	The lower exosphere of Titan: Energetic neutral atoms absorption and imaging. Journal of Geophysical Research, 2008, 113, .	3.3	18
86	Titan's ionosphere: A survey of solar EUV influences. Journal of Geophysical Research: Space Physics, 2017, 122, 7491-7503.	2.4	17
87	Ring Shadowing Effects on Saturn's Ionosphere: Implications for Ring Opacity and Plasma Transport. Geophysical Research Letters, 2018, 45, 10,084.	4.0	17
88	Mass unloading along the inner edge of the Enceladus plasma torus. Geophysical Research Letters, 2008, 35, .	4.0	16
89	The rotation of the plasmapause-like boundary at high latitudes in Saturn's magnetosphere and its relation to the eccentric rotation of the northern and southern auroral ovals. Geophysical Research Letters, 2011, 38, n/a-n/a.	4.0	16
90	Titan's ionosphere. , 2014, , 376-418.		16

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91	Dayside/nightside asymmetry of ion densities and velocities in Saturn's inner magnetosphere. Geophysical Research Letters, 2014, 41, 3717-3723.	4.0	16
92	Plasma regions, charged dust and field-aligned currents near Enceladus. Planetary and Space Science, 2015, 117, 453-469.	1.7	16
93	Dust Observations by the Radio and Plasma Wave Science Instrument During Cassini's Grand Finale. Geophysical Research Letters, 2018, 45, 10,101.	4.0	16
94	Investigating magnetospheric interaction effects on Titanâ€™s ionosphere with the Cassini orbiter Ion Neutral Mass Spectrometer, Langmuir Probe and magnetometer observations during targeted flybys. Icarus, 2012, 219, 534-555.	2.5	15
95	Cassini Plasma Spectrometer and hybrid model study on Titan's interaction: Effect of oxygen ions. Journal of Geophysical Research, 2011, 116, n/a-n/a.	3.3	14
96	Recent Results from Titanâ€™s Ionosphere. Space Science Reviews, 2011, 162, 85-111.	8.1	14
97	The Cassini Radio and Plasma Wave Investigation. , 2004, , 395-463.		14
98	The observed composition of ions outflowing from Titan. Geophysical Research Letters, 2012, 39, .	4.0	12
99	The electromagnetic pickup of submicron-sized dust above Enceladusâ€™s northern hemisphere. Icarus, 2012, 219, 498-501.	2.5	12
100	Survey of Saturn <i>Z</i>â€mode emission. Journal of Geophysical Research: Space Physics, 2015, 120, 6176-6187.	2.4	12
101	The importance of thermal electron heating in Titan's ionosphere: Comparison with Cassini T34 flyby. Journal of Geophysical Research, 2011, 116, n/a-n/a.	3.3	11
102	The influence of the secondary electrons induced by energetic electrons impacting the Cassini Langmuir probe at Saturn. Journal of Geophysical Research: Space Physics, 2013, 118, 7054-7073.	2.4	11
103	Effects of Saturn's magnetospheric dynamics on Titan's ionosphere. Journal of Geophysical Research: Space Physics, 2015, 120, 8884-8898.	2.4	11
104	Solar cycle variations in ion composition in the dayside ionosphere of Titan. Journal of Geophysical Research: Space Physics, 2016, 121, 8013-8037.	2.4	10
105	Saturnâ€™s near-equatorial ionospheric conductivities from in situ measurements. Scientific Reports, 2020, 10, 7932.	3.3	10
106	INCREASING POSITIVE ION NUMBER DENSITIES BELOW THE PEAK OF ION-ELECTRON PAIR PRODUCTION IN TITAN'S IONOSPHERE. Astrophysical Journal, 2014, 786, 69.	4.5	9
107	Cassini RPWS Dust Observation Near the Janus/Epimetheus Orbit. Journal of Geophysical Research: Space Physics, 2018, 123, 4952-4960.	2.4	9
108	The Structure of Planetary Period Oscillations in Saturn's Equatorial Magnetosphere: Results From the CassiniÂMission. Journal of Geophysical Research: Space Physics, 2019, 124, 8361-8395.	2.4	9

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109	Mission Data Processor Aboard the BepiColombo Mio Spacecraft: Design and Scientific Operation Concept. Space Science Reviews, 2020, 216, 1.	8.1	9
110	Distribution in Saturn's Inner Magnetosphere From 2.4 to 10 R_S: A Diffusive Equilibrium Model. Journal of Geophysical Research: Space Physics, 2020, 125, e2019JA027545.	2.4	9
111	The detection of energetic electrons with the Cassini Langmuir probe at Saturn. Journal of Geophysical Research, 2012, 117, .	3.3	8
112	An estimate of the dust pickup current at Enceladus. Icarus, 2014, 239, 217-221.	2.5	8
113	SUPRATHERMAL ELECTRONS IN TITANâ€™S SUNLIT IONOSPHERE: MODELâ€“OBSERVATION COMPARISONS. Astrophysical Journal, 2016, 826, 131.	4.5	8
114	Density Structures, Dynamics, and Seasonal and Solar Cycle Modulations of Saturn's Inner Plasma Disk. Journal of Geophysical Research: Space Physics, 2017, 122, 12,258.	2.4	8
115	The Dusty Plasma Disk Around the Janus/Epimetheus Ring. Journal of Geophysical Research: Space Physics, 2018, 123, 4668-4678.	2.4	8
116	Analysis of Intense <i>Z</i>â€Mode Emission Observed During the Cassini Proximal Orbits. Geophysical Research Letters, 2018, 45, 6766-6772.	4.0	8
117	The MEFISTO and WPT Electric Field Sensors of the Plasma Wave Investigation on the BepiColombo Mio Spacecraft. Space Science Reviews, 2020, 216, 1.	8.1	7
118	Saturn's Plasma Density Depletions Along Magnetic Field Lines Connected to the Main Rings. Geophysical Research Letters, 2018, 45, 8104-8110.	4.0	6
119	Ion trapping by dust grains: Simulation applications to the Enceladus plume. Journal of Geophysical Research E: Planets, 2017, 122, 729-743.	3.6	5
120	Outflow and plasma acceleration in Titan's induced magnetotail: Evidence of magnetic tension forces. Journal of Geophysical Research: Space Physics, 2014, 119, 9992.	2.4	4
121	Constraining the Positive Ion Composition in Saturnâ€™s Lower Ionosphere with the Effective Recombination Coefficient. Planetary Science Journal, 2021, 2, 39.	3.6	4
122	Reâ€Analysis of the Cassini RPWS/LP Data in Titan's Ionosphere: 1. Detection of Several Electron Populations. Journal of Geophysical Research: Space Physics, 2021, 126, e2020JA028412.	2.4	4
123	Transport and chemical loss rates in Saturn's inner plasma disk. Journal of Geophysical Research: Space Physics, 2016, 121, 2321-2334.	2.4	3
124	Photoionization Modeling of Titanâ€™s Dayside Ionosphere. Astrophysical Journal Letters, 2017, 850, L26.	8.3	3
125	Development of a Double Hemispherical Probe for Improved Space Plasma Measurements. Journal of Geophysical Research: Space Physics, 2018, 123, 2916-2925.	2.4	3
126	Plasma Transport in Saturn's Lowâ€Latitude Ionosphere: Cassini Data. Journal of Geophysical Research: Space Physics, 2019, 124, 4881-4888.	2.4	3

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127	Empirical Photochemical Modeling of Saturnâ€™s Ionization Balance Including Grain Charging. Planetary Science Journal, 2022, 3, 49.	3.6	3
128	Ambipolar electrostatic field in negatively charged dusty plasma. Journal of Plasma Physics, 2022, 88, .	2.1	3
129	Titan's magnetospheric and plasma environment. , 2014, , 419-458.		2
130	Titan's Variable Ionosphere During the T118 and T119 Cassini Flybys. Geophysical Research Letters, 2018, 45, 8721-8728.	4.0	2
131	Reâ€Analysis of the Cassini RPWS/LP Data in Titan's Ionosphere: 2. Statistics on 57 Flybys. Journal of Geophysical Research: Space Physics, 2021, 126, e2020JA028413.	2.4	2
132	Deriving the characteristics of warm electrons (100â€“500 eV) in the magnetosphere of Saturn with the Cassini Langmuir probe. Planetary and Space Science, 2014, 104, 173-184.	1.7	1
133	First results from the Langmuir Probes on the Swarm satellites. , 2014, , .		1
134	Enhanced Airglow Signature Observed at Titan in Response to its Fluctuating Magnetospheric Environment. Geophysical Research Letters, 2018, 45, 8864-8870.	4.0	1
135	Calibration of the JUICE RWI antennas by numerical simulation. Radio Science, 2021, 56, e2021RS007309.	1.6	1
136	Enceladus and Titan: emerging worlds of the Solar System. Experimental Astronomy, 0, , 1.	3.7	1
137	The Cassini RPWS/LP Observations of Dusty Plasma in the Kronian System. Proceedings of the International Astronomical Union, 2018, 14, 415-416.	0.0	0