Masatoshi Yamauchi

List of Publications by Year
in descending order

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109	3,405	159585 30	161849 54
papers	citations	h-index	g-index

131	131	131	2360
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	What makes a planet habitable?. Astronomy and Astrophysics Review, 2009, 17, 181-249.	25.5	281
2	The Analyzer of Space Plasmas and Energetic Atoms (ASPERA-3) for the Mars Express Mission. Space Science Reviews, 2007, 126, 113-164.	8.1	241
3	Solar Wind-Induced Atmospheric Erosion at Mars: First Results from ASPERA-3 on Mars Express. Science, 2004, 305, 1933-1936.	12.6	204
4	Birth of a comet magnetosphere: A spring of water ions. Science, 2015, 347, aaa0571.	12.6	107
5	Carbon dioxide photoelectron energy peaks at Mars. Icarus, 2006, 182, 371-382.	2.5	105
6	Mars Express and Venus Express multi-point observations of geoeffective solar flare events in December 2006. Planetary and Space Science, 2008, 56, 873-880.	1.7	102
7	A cometâ€like escape of ionospheric plasma from Mars. Geophysical Research Letters, 2008, 35, .	4.0	94
8	Structure of the martian wake. Icarus, 2006, 182, 329-336.	2.5	81
9	Locations of Atmospheric Photoelectron Energy Peaks Within the Mars Environment. Space Science Reviews, 2007, 126, 389-402.	8.1	81
10	Solar forcing and planetary ion escape from Mars. Geophysical Research Letters, 2008, 35, .	4.0	77
11	Evolution of the ion environment of comet 67P/Churyumov-Gerasimenko. Astronomy and Astrophysics, 2015, 583, A20.	5.1	76
12	Plasma transfer processes at the magnetopause. Space Science Reviews, 1999, 88, 207-283.	8.1	69
13	Simultaneous prenoon and postnoon observations of three field-aligned current systems from Viking and DMSP-F7. Journal of Geophysical Research, 1995, 100, 119.	3.3	63
14	Solar cycle effects on the ion escape from Mars. Geophysical Research Letters, 2013, 40, 6028-6032.	4.0	58
15	Seasonal variation of Martian pick-up ions: Evidence of breathing exosphere. Planetary and Space Science, 2015, 119, 54-61.	1.7	56
16	Evolution of the ion environment of comet 67P during the Rosetta mission as seen by RPC-ICA. Monthly Notices of the Royal Astronomical Society, 2017, 469, S252-S261.	4.4	55
17	Characteristics of high altitude oxygen ion energization and outflow as observed by Cluster: a statistical study. Annales Geophysicae, 2006, 24, 1099-1112.	1.6	55
18	Electron oscillations in the induced martian magnetosphere. Icarus, 2006, 182, 360-370.	2.5	54

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19	Atmospheric origin of cold ion escape from Mars. Geophysical Research Letters, 2009, 36, .	4.0	49
20	On the relation between plasma escape and the Martian crustal magnetic field. Geophysical Research Letters, 2011, 38, n/a-n/a.	4.0	49
21	Ionospheric plasma acceleration at Mars: ASPERA-3 results. Icarus, 2006, 182, 308-319.	2.5	48
22	The interplanetary magnetic field B_y effects on largeâ€scale fieldâ€aligned currents near local noon: Contributions from cusp part and noncusp part. Journal of Geophysical Research, 1993, 98, 5761-5767.	3.3	44
23	Hydrogen exosphere at Mars: Pickup protons and their acceleration at the bow shock. Geophysical Research Letters, 2006, 33, .	4.0	43
24	Classification of Large-Scale and Meso-Scale Ion Dispersion Patterns Observed by Viking over the Cusp-Mantle Region. , 1994, , 99-109.		42
25	Wedge-like dispersion of sub-keV ions in the dayside magnetosphere: Particle simulation and Viking observation. Journal of Geophysical Research, 2001, 106, 29571-29584.	3.3	40
26	Ionospheric signature of the cusp as seen by incoherent scatter radar. Journal of Geophysical Research, 1996, 101, 10947-10963.	3.3	39
27	An assessment of the role of the centrifugal acceleration mechanism in high altitude polar cap oxygen ion outflow. Annales Geophysicae, 2008, 26, 145-157.	1.6	38
28	Ionospheric Response Observed by EISCAT During the 6â€“8 September 2017 Space Weather Event: Overview. Space Weather, 2018, 16, 1437-1450.	3.7	38
29	The lowâ€latitude boundary layer at midâ€altitudes: Relation to largeâ€scale Birkeland currents. Geophysical Research Letters, 1993, 20, 2251-2254.	4.0	37
30	Boundary layer polarization and voltage in the 14 MLT region. Journal of Geophysical Research, 1995, 100, 7587.	3.3	32
31	Low-altitude acceleration of ionospheric ions at Mars. Geophysical Research Letters, 2011, 38, n/a-n/a.	4.0	30
32	Heavy-ion flux enhancement in the vicinity of the Martian ionosphere during CIR passage: Mars Express ASPERA-3 observations. Journal of Geophysical Research, 2011, 116, n/a-n/a.	3.3	29
33	Auroral Plasma Acceleration Above Martian Magnetic Anomalies. Space Science Reviews, 2007, 126, 333-354.	8.1	28
34	Atmospheric loss from the dayside open polar region and its dependence on geomagnetic activity: implications for atmospheric escape on evolutionary timescales. Annales Geophysicae, 2017, 35, 721-731.	1.6	28
35	Freja observations of multiple injection events in cusp. Geophysical Research Letters, 1994, 21, 1919-1922.	4.0	27
36	On the origin of the energetic ion events measured upstream of the Earth's bow shock by STEREO, Cluster, and Geotail. Journal of Geophysical Research, 2011, 116, n/a-n/a.	3.3	26

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37	The interplanetary magnetic field B_yâ€dependent fieldâ€aligned current in the dayside polar cap under quiet conditions. Journal of Geophysical Research, 1989, 94, 2684-2690.	3.3	25
38	Fast tailward flows in the plasma sheet boundary layer during a substorm on 9 March 2008: THEMIS observations. Journal of Geophysical Research, 2011, 116, .	3.3	25
39	Lower-thermosphereâ€“ionosphere (LTI) quantities: current status of measuring techniques and models. Annales Geophysicae, 2021, 39, 189-237.	1.6	25
40	Statistics of high-altitude and high-latitude O⁺ ion outflows observed by Cluster/CIS. Annales Geophysicae, 2005, 23, 1909-1916.	1.6	25
41	The wave-assisted cusp model: Comparison to low-altitude observations. Physics and Chemistry of the Earth, 1997, 22, 729-734.	0.3	24
42	Growth Mechanism of Metal Clusters on a Graphene/Ru(0001) Template. Advanced Materials Interfaces, 2014, 1, 1300104.	3.7	24
43	Global Response of Martian Plasma Environment to an Interplanetary Structure: From Ena and Plasma Observations at Mars. Space Science Reviews, 2007, 126, 315-332.	8.1	23
44	Initial effect of the Fukushima accident on atmospheric electricity. Geophysical Research Letters, 2011, 38, .	4.0	23
45	Energetic Neutral Atoms (ENA) at Mars: Properties of the hydrogen atoms produced upstream of the martian bow shock and implications for ENA sounding technique around non-magnetized planets. Icarus, 2006, 182, 448-463.	2.5	22
46	Predicting interplanetary shock arrivals at Earth, Mars, and Venus: A realâ€time modeling experiment following the solar flares of 5â€“14 December 2006. Journal of Geophysical Research, 2008, 113, .	3.3	22
47	O⁺outflow channels around Venus controlled by directions of the interplanetary magnetic field: Observations of high energy O⁺ions around the terminator. Journal of Geophysical Research, 2011, 116, n/a-n/a.	3.3	22
48	Comparison of accelerated ion populations observed upstream of the bow shocks at Venus and Mars. Annales Geophysicae, 2011, 29, 511-528.	1.6	22
49	A new type of ion injection event observed by Viking. Geophysical Research Letters, 1993, 20, 795-798.	4.0	21
50	IMF Direction Derived from Cycloid-Like Ion Distributions Observed by Mars Express. Space Science Reviews, 2007, 126, 239-266.	8.1	21
51	Mars Under Primordial Solar Wind Conditions: Mars Express Observations of the Strongest CME Detected at Mars Under Solar Cycle #24 and its Impact on Atmospheric Ion Escape. Geophysical Research Letters, 2017, 44, 10,805.	4.0	21
52	Earth atmospheric loss through the plasma mantle and its dependence on solar wind parameters. Earth, Planets and Space, 2019, 71, .	2.5	21
53	Meso-scale structures of radiation belt/ring current detected by low-energy ions. Advances in Space Research, 1996, 17, 171-174.	2.6	20
54	Source location of the wedge-like dispersed ring current in the morning sector during a substorm. Journal of Geophysical Research, 2006, 111, .	3.3	20

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55	O⁺ Escape During the Extreme Space Weather Event of 4â€“10 September 2017. Space Weather, 2018, 16, 1363-1376.	3.7	20
56	Terrestrial ion escape and relevant circulation in space. Annales Geophysicae, 2019, 37, 1197-1222.	1.6	20
57	Transients in oxygen outflow above the polar cap as observed by the Cluster spacecraft. Annales Geophysicae, 2008, 26, 3365-3373.	1.6	19
58	Secondary wind transport of radioactive materials after the Fukushima accident. Earth, Planets and Space, 2012, 64, e1-e4.	2.5	19
59	Role of the Ionosphere for the Atmospheric Evolution of Planets. Astrobiology, 2007, 7, 783-800.	3.0	17
60	Acceleration of solar wind ions to 1 MeV by electromagnetic structures upstream of the Earth's bow shock. Europhysics Letters, 2013, 102, 49001.	2.0	17
61	Characteristics of magnetospheric energetics during geomagnetic storms. Journal of Geophysical Research, 2012, 117, .	3.3	15
62	Critical Issues on Magnetic Reconnection in Space Plasmas. Space Science Reviews, 2005, 116, 497-521.	8.1	14
63	Statistical properties of planetary heavyâ€ion precipitations toward the Martian ionosphere obtained from Mars Express. Journal of Geophysical Research: Space Physics, 2013, 118, 5348-5357.	2.4	14
64	THEMIS multipoint observations of Pi2 pulsations inside and outside the plasmasphere. Journal of Geophysical Research, 2011, 116, n/a-n/a.	3.3	13
65	A narrow region of electron beams at the poleward edge of the cusp. Journal of Geophysical Research, 1993, 98, 7585-7591.	3.3	12
66	Comparison of various cusp models with high- and low-resolution observations. Space Science Reviews, 2001, 95, 457-468.	8.1	12
67	Energyâ€“angle dispersion of accelerated heavy ions at 67P/Churyumovâ€“Gerasimenko: implication in the mass-loading mechanism. Monthly Notices of the Royal Astronomical Society, 2017, 469, S339-S345.	4.4	12
68	Energetic ion outflow from the dayside ionosphere and its relationship to the interplanetary magnetic field and substorm activity. Journal of Atmospheric and Solar-Terrestrial Physics, 2000, 62, 485-493.	1.6	11
69	Energisation of O+ and O+ 2 Ions at Mars: An Analysis of a 3-D Quasi-Neutral Hybrid Model Simulation. Space Science Reviews, 2007, 126, 39-62.	8.1	11
70	Vorticity equation for MHD fast waves in geospace environment. Journal of Geophysical Research, 1993, 98, 13523-13528.	3.3	10
71	Unusually quick development of a 4000 nT substorm during the initial 10 min of the 29 October 2003 magnetic storm. Journal of Geophysical Research, 2006, 111, .	3.3	10
72	Advanced method to derive the IMF direction near Mars from cycloidal proton distributions. Planetary and Space Science, 2008, 56, 1145-1154.	1.7	10

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73	Settlement process of radioactive dust to the ground inferred from the atmospheric electric field measurement. Annales Geophysicae, 2012, 30, 49-56.	1.6	10
74	Quantification of the total ion transport in the near-Earth plasma sheet. Annales Geophysicae, 2017, 35, 869-877.	1.6	10
75	Venusian bow shock as seen by the ASPERAâ€4 ion instrument on Venus Express. Journal of Geophysical Research, 2010, 115, .	3.3	9
76	Oxygen foreshock of Mars. Planetary and Space Science, 2015, 119, 48-53.	1.7	9
77	Relative outflow enhancements during major geomagnetic storms â€“ Cluster observations. Annales Geophysicae, 2017, 35, 1341-1352.	1.6	9
78	Signatures of direct magnetosheath plasma injections onto closed field-line regions based on observations at mid- and low-altitudes. Geophysical Monograph Series, 2003, , 179-188.	0.1	8
79	Dayside proton aurora associated with magnetic impulse events: South Pole observations. Journal of Geophysical Research, 2010, 115, .	3.3	8
80	A sensitive geomagnetic activity index for space weather operation. Space Weather, 2010, 8, n/a-n/a.	3.7	8
81	Cluster observations of hot He⁺ events in the inner magnetosphere. Journal of Geophysical Research: Space Physics, 2014, 119, 2706-2716.	2.4	8
82	Future Missions Related to the Determination of the Elemental and Isotopic Composition of Earth, Moon and the Terrestrial Planets. Space Science Reviews, 2020, 216, 1.	8.1	8
83	Synthesis of studies on significant atmospheric electrical effects of major nuclear accidents in Chernobyl and Fukushima. Science of the Total Environment, 2020, 733, 139271.	8.0	8
84	Dayside Pc5 pulsation detected by Viking ion data at L=4. Geophysical Research Letters, 1996, 23, 2517-2520.	4.0	7
85	Sub-keV ring current ions as the tracer of substorm injection. Annales Geophysicae, 2006, 24, 355-366.	1.6	7
86	Dual source populations of substorm-associated ring current ions. Annales Geophysicae, 2009, 27, 1431-1438.	1.6	7
87	Structures of Sub-Kev Ions Inside the Ring Current Region. Geophysical Monograph Series, 0, , 41-46.	0.1	7
88	Energy conversion through mass loading of escaping ionospheric ions for different Kp values. Annales Geophysicae, 2018, 36, 1-12.	1.6	7
89	Solar Illumination Dependence of the Auroral Electrojet Intensity: Interplay Between the Solar Zenith Angle and Dipole Tilt. Journal of Geophysical Research: Space Physics, 2019, 124, 6636-6653.	2.4	7
90	Numerical simulation of large-scale field-aligned current generation from finite-amplitude magnetosonic waves. Geophysical Research Letters, 1994, 21, 851-854.	4.0	6

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91	Outflowing protons and heavy ions as a source for the sub-keV ring current. Annales Geophysicae, 2009, 27, 839-849.	1.6	6
92	Ion acceleration by multiple reflections at Martian bow shock. Earth, Planets and Space, 2012, 64, 61-71.	2.5	6
93	Cluster observation of few-hour-scale evolution of structured plasma in the inner magnetosphere. Annales Geophysicae, 2013, 31, 1569-1578.	1.6	6
94	Ion drift simulation of sudden appearance of sub-keV structured ions in the inner magnetosphere. Annales Geophysicae, 2014, 32, 83-90.	1.6	6
95	Magnetospheric solitary structure maintained by 3000 km/s ions as a cause of westward moving auroral bulge at 19 MLT. Annales Geophysicae, 2009, 27, 2947-2969.	1.6	6
96	Observations of an enhanced convection flow channel for northward turning IMF. Geophysical Research Letters, 1997, 24, 3137-3140.	4.0	5
97	Equatorially confined warm trapped ions at around 100 eV near the plasmapause. Geophysical Research Letters, 2012, 39, .	4.0	5
98	Independency of the day side field-aligned current system: A restriction to cusp models. Geophysical Monograph Series, 2000, , 245-252.	0.1	4
99	Unusual heavy ion injection events observed by Freja. Annales Geophysicae, 2005, 23, 535-543.	1.6	4
100	Dependence of the IMF sector structure on the solar dipole tilt angle. Journal of Geophysical Research, 2008, 113, .	3.3	3
101	Effect of enhanced ionizing radiation on the cloud electricity after the Fukushima nuclear accident. Earth, Planets and Space, 2018, 70, .	2.5	3
102	Exploring solar-terrestrial interactions via multiple imaging observers. Experimental Astronomy, 0, , 1.	3.7	3
103	High-latitude crochet: solar-flare-induced magnetic disturbance independent from low-latitude crochet. Annales Geophysicae, 2020, 38, 1159-1170.	1.6	3
104	A New Technique to Diagnose the Geomagnetic Field Based on a Single Circular Current Loop Model. Journal of Geophysical Research: Solid Earth, 2021, 126, e2021JB022778.	3.4	3
105	Decreased Sun-Earth energy-coupling efficiency starting from 2006. Earth, Planets and Space, 2015, 67, .	2.5	2
106	The fate of O⁺ ions observed in the plasma mantle: particle tracing modelling and cluster observations. Annales Geophysicae, 2020, 38, 645-656.	1.6	2
107	Foreshock ions observed behind the Martian bow shock. Planetary and Space Science, 2016, 127, 15-32.	1.7	1
108	Plasma-neutral gas interactions in various space environments: Assessment beyond simplified approximations as a Voyage 2050 theme. Experimental Astronomy, 0, , 1.	3.7	1

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109	The first EGS AlfvÃ©n Conference. Eos, 1997, 78, 125.	0.1	0