Frank Postberg

List of Publications by Year
in descending order

83	4,137	159585 30	118850 62
papers	citations	h-index	g-index

83	83	83	2521
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Exploration of Enceladus and Titan: investigating ocean worldsâ€™ evolution and habitability in the Saturn system. Experimental Astronomy, 2022, 54, 877-910.	3.7	3
2	Enceladus as a potential oasis for life: Science goals and investigations for future explorations. Experimental Astronomy, 2022, 54, 809-847.	3.7	5
3	Oxidation processes diversify the metabolic menu on Enceladus. Icarus, 2021, 364, 114248.	2.5	29
4	The Enceladus Orbilander Mission Concept: Balancing Return and Resources in the Search for Life. Planetary Science Journal, 2021, 2, 77.	3.6	74
5	A cosmic dust detection suite for the deep space Gateway. Advances in Space Research, 2021, 68, 85-104.	2.6	5
6	The Science Case for a Return to Enceladus. Planetary Science Journal, 2021, 2, 132.	3.6	40
7	Analog Experiments for the Identification of Trace Biosignatures in Ice Grains from Extraterrestrial Ocean Worlds. Astrobiology, 2020, 20, 179-189.	3.0	37
8	Key Technologies and Instrumentation for Subsurface Exploration of Ocean Worlds. Space Science Reviews, 2020, 216, 1.	8.1	18
9	Discriminating Abiotic and Biotic Fingerprints of Amino Acids and Fatty Acids in Ice Grains Relevant to Ocean Worlds. Astrobiology, 2020, 20, 1168-1184.	3.0	38
10	Ice-Ocean Exchange Processes in the Jovian and Saturnian Satellites. Space Science Reviews, 2020, 216, 1.	8.1	43
11	Experimental and Simulation Efforts in the Astrobiological Exploration of Exooceans. Space Science Reviews, 2020, 216, 9.	8.1	25
12	Organic matter in interstellar dust lost at the approach to the heliosphere. Astronomy and Astrophysics, 2020, 643, A50.	5.1	1
13	Analogue spectra for impact ionization mass spectra of water ice grains obtained at different impact speeds in space. Rapid Communications in Mass Spectrometry, 2019, 33, 1751-1760.	1.5	21
14	Interstellar Dust in the Solar System. Space Science Reviews, 2019, 215, 1.	8.1	20
15	Low-mass nitrogen-, oxygen-bearing, and aromatic compounds in Enceladean ice grains. Monthly Notices of the Royal Astronomical Society, 2019, 489, 5231-5243.	4.4	98
16	Close Cassini flybys of Saturnâ€™s ring moons Pan, Daphnis, Atlas, Pandora, and Epimetheus. Science, 2019, 364, .	12.6	24
17	Impact ionisation mass spectrometry of platinum-coated olivine and magnesite-dominated cosmic dust analogues. Planetary and Space Science, 2018, 156, 96-110.	1.7	16
18	Explorer of Enceladus and Titan (E2T): Investigating ocean worlds' evolution and habitability in the solar system. Planetary and Space Science, 2018, 155, 73-90.	1.7	26

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19	Dust Emission by Active Moons. Space Science Reviews, 2018, 214, 1.	8.1	3
20	In situ collection of dust grains falling from Saturnâ€™s rings into its atmosphere. Science, 2018, 362, .	12.6	44
21	Macromolecular organic compounds from the depths of Enceladus. Nature, 2018, 558, 564-568.	27.8	282
22	The Geochemistry of Enceladus: Composition and Controls. , 2018, , .		35
23	Plume and Surface Composition of Enceladus. , 2018, , .		17
24	Powering prolonged hydrothermal activity inside Enceladus. Nature Astronomy, 2017, 1, 841-847.	10.1	158
25	Flux and composition of interstellar dust at Saturn from Cassiniâ€™s Cosmic Dust Analyzer. Science, 2016, 352, 312-318.	12.6	97
26	Enceladus Life Finder: The search for life in a habitable Moon. , 2016, , .		39
27	Under the Sea of Enceladus. Scientific American, 2016, 315, 38-45.	1.0	10
28	Interplanetary magnetic field structure at Saturn inferred from nanodust measurements during the 2013 aurora campaign. Icarus, 2016, 263, 10-16.	2.5	5
29	Charge separation and isolation in strong water droplet impacts. Physical Chemistry Chemical Physics, 2015, 17, 6858-6864.	2.8	32
30	Hyperdust: An advanced in-situ detection and chemical analysis of microparticles in space. , 2015, , .		3
31	Ongoing hydrothermal activities within Enceladus. Nature, 2015, 519, 207-210.	27.8	382
32	High-temperature waterâ€“rock interactions and hydrothermal environments in the chondrite-like core of Enceladus. Nature Communications, 2015, 6, 8604.	12.8	152
33	Calibration of relative sensitivity factors for impact ionization detectors with high-velocity silicate microparticles. Icarus, 2014, 241, 336-345.	2.5	22
34	Stardust Interstellar Preliminary Examination X: Impact speeds and directions of interstellar grains on the Stardust dust collector. Meteoritics and Planetary Science, 2014, 49, 1680-1697.	1.6	24
35	Science goals and mission concept for the future exploration of Titan and Enceladus. Planetary and Space Science, 2014, 104, 59-77.	1.7	15
36	Morphology of craters generated by hypervelocity impacts of micronâ€sized polypyrroleâ€coated olivine particles. Meteoritics and Planetary Science, 2014, 49, 1375-1387.	1.6	6

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37	Stardust Interstellar Preliminary Examination <scp>IX</scp>: Highâ€speed interstellar dust analog capture in Stardust flightâ€spare aerogel. Meteoritics and Planetary Science, 2014, 49, 1666-1679.	1.6	19
38	Stardust Interstellar Preliminary Examination <scp>XI</scp>: Identification and elemental analysis of impact craters on Al foils from the Stardust Interstellar Dust Collector. Meteoritics and Planetary Science, 2014, 49, 1698-1719.	1.6	16
39	Stardust Interstellar Preliminary Examination VIII: Identification of crystalline material in two interstellar candidates. Meteoritics and Planetary Science, 2014, 49, 1645-1665.	1.6	12
40	The science case for an orbital mission to Uranus: Exploring the origins and evolution of ice giant planets. Planetary and Space Science, 2014, 104, 122-140.	1.7	56
41	Stardust Interstellar Preliminary Examination <scp>VII</scp>: Synchrotron Xâ€ray fluorescence analysis of six Stardust interstellar candidates measured with the Advanced Photon Source 2â€<scp>ID</scp>â€D microprobe. Meteoritics and Planetary Science, 2014, 49, 1626-1644.	1.6	13
42	Stardust Interstellar Preliminary Examination <scp>VI</scp>: Quantitative elemental analysis by synchrotron Xâ€ray fluorescence nanoimaging of eight impact features in aerogel. Meteoritics and Planetary Science, 2014, 49, 1612-1625.	1.6	12
43	Stardust Interstellar Preliminary Examination V: <scp>XRF</scp> analyses of interstellar dust candidates at <scp>ESRF ID</scp>13. Meteoritics and Planetary Science, 2014, 49, 1594-1611.	1.6	12
44	Final reports of the Stardust Interstellar Preliminary Examination. Meteoritics and Planetary Science, 2014, 49, 1720-1733.	1.6	29
45	Stardust Interstellar Preliminary Examination <scp>II</scp>: Curating the interstellar dust collector, picokeystones, and sources of impact tracks. Meteoritics and Planetary Science, 2014, 49, 1522-1547.	1.6	18
46	Stardust Interstellar Preliminary Examination <scp>III</scp>: Infrared spectroscopic analysis of interstellar dust candidates. Meteoritics and Planetary Science, 2014, 49, 1548-1561.	1.6	12
47	Stardust Interstellar Preliminary Examination I: Identification of tracks in aerogel. Meteoritics and Planetary Science, 2014, 49, 1509-1521.	1.6	16
48	Stardust Interstellar Preliminary Examination <scp>IV</scp>: Scanning transmission Xâ€ray microscopy analyses of impact features in the Stardust Interstellar Dust Collector. Meteoritics and Planetary Science, 2014, 49, 1562-1593.	1.6	18
49	Evidence for interstellar origin of seven dust particles collected by the Stardust spacecraft. Science, 2014, 345, 786-791.	12.6	152
50	Impact ionisation mass spectrometry of polypyrrole-coated pyrrhotite microparticles. Planetary and Space Science, 2014, 97, 9-22.	1.7	21
51	Probing IMF using nanodust measurements from inside Saturn's magnetosphere. Geophysical Research Letters, 2013, 40, 2902-2906.	4.0	6
52	An optimum opportunity for interstellar dust measurements by the JUICE mission. Planetary and Space Science, 2012, 71, 142-146.	1.7	4
53	OSS (Outer Solar System): a fundamental and planetary physics mission to Neptune, Triton and the Kuiper Belt. Experimental Astronomy, 2012, 34, 203-242.	3.7	37
54	Impact ionization mass spectra of anorthite cosmic dust analogue particles. Journal of Geophysical Research, 2012, 117, .	3.3	15

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55	SARIM PLUSâ€"sample return of comet 67P/CG and of interstellar matter. Experimental Astronomy, 2012, 33, 723-751.	3.7	3
56	Active Cosmic Dust Collector. Planetary and Space Science, 2012, 60, 261-273.	1.7	11
57	Linear high resolution dust mass spectrometer for a mission to the Galilean satellites. Planetary and Space Science, 2012, 65, 10-20.	1.7	20
58	Dynamics, Composition, and Origin of Jovian and Saturnian Dust-Stream Particles. Astrophysics and Space Science Library, 2012, , 77-117.	2.7	9
59	Cassini dust stream particle measurements during the first three orbits at Saturn. Journal of Geophysical Research, 2011, 116, n/a-n/a.	3.3	16
60	Stream particles as the probe of the dust-plasma-magnetosphere interaction at Saturn. Journal of Geophysical Research, 2011, 116, n/a-n/a.	3.3	25
61	Novel instrument for Dust Astronomy: Dust Telescope. , 2011, , .		9
62	Compositional mapping of planetary moons by mass spectrometry of dust ejecta. Planetary and Space Science, 2011, 59, 1815-1825.	1.7	33
63	The cosmic dust analyser onboard cassini: ten years of discoveries. CEAS Space Journal, 2011, 2, 3-16.	2.3	26
64	A 2 MV Van de Graaff accelerator as a tool for planetary and impact physics research. Review of Scientific Instruments, 2011, 82, 095111.	1.3	53
65	A salt-water reservoir as the source of a compositionally stratified plume on Enceladus. Nature, 2011, 474, 620-622.	27.8	394
66	Surface, Subsurface and Atmosphere Exchanges onÂtheÂSatellites ofÂtheÂOuter Solar System. Space Science Reviews, 2010, 153, 375-410.	8.1	19
67	Interaction of the solar wind and stream particles, results from the Cassini dust detector. , 2010, , .		6
68	Non-destructive search for interstellar dust using synchrotron microprobes. , 2010, , .		8
69	Surface, Subsurface and Atmosphere Exchanges onÂtheÂSatellites ofÂtheÂOuter Solar System. Space Sciences Series of ISSI, 2010, , 373-408.	0.0	1
70	The production of platinum-coated silicate nanoparticle aggregates for use in hypervelocity impact experiments. Planetary and Space Science, 2009, 57, 2081-2086.	1.7	30
71	Mass spectrometry of hyperâ€velocity impacts of organic micrograins. Rapid Communications in Mass Spectrometry, 2009, 23, 3895-3906.	1.5	39
72	Sodium salts in E-ring ice grains from an ocean below the surface of Enceladus. Nature, 2009, 459, 1098-1101.	27.8	435

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73	Discriminating contamination from particle components in spectra of Cassini's dust detector CDA. Planetary and Space Science, 2009, 57, 1359-1374.	1.7	35
74	The E ring in the vicinity of Enceladus. Icarus, 2008, 193, 420-437.	2.5	114
75	The E-ring in the vicinity of Enceladus. Icarus, 2008, 193, 438-454.	2.5	126
76	The Dust Halo of Saturn's Largest Icy Moon, Rhea. Science, 2008, 319, 1380-1384.	12.6	53
77	Interplanetary dust detected by the Cassini CDA Chemical Analyser. Icarus, 2007, 190, 643-654.	2.5	34
78	The composition of Saturn's E ring. Monthly Notices of the Royal Astronomical Society, 2007, 377, 1588-1596.	4.4	73
79	Synthesis and Characterization of Polypyrrole-Coated Sulfur-Rich Latex Particles:Â New Synthetic Mimics for Sulfur-Based Micrometeorites. Chemistry of Materials, 2006, 18, 2758-2765.	6.7	56
80	Composition of jovian dust stream particles. Icarus, 2006, 183, 122-134.	2.5	64
81	In situ dust measurements in the inner Saturnian system. Planetary and Space Science, 2006, 54, 967-987.	1.7	50
82	Composition of Saturnian Stream Particles. Science, 2005, 307, 1274-1276.	12.6	72
83	Dusty Rings. , 0, , 308-337.		6