Thomas Stephan

List of Publications by Year
in descending order

90 papers	5,285 citations	147801 31 h-index	82547 72 g-index
92 all docs	92 docs citations	92 times ranked	3683 citing authors

#	Article	IF	Citations
1	On the provenance of GEMS, a quarter century post discovery. Geochimica Et Cosmochimica Acta, 2022, 335, 323-338.	3.9	7
2	Cluster Analysis of Presolar Silicon Carbide Grains: Evaluation of Their Classification and Astrophysical Implications. Astrophysical Journal Letters, 2021, 907, L39.	8.3	18
3	Molybdenum Isotope Dichotomy in Meteorites Caused by s-Process Variability. Astrophysical Journal, 2021, 909, 8.	4.5	9
4	Search for meteoritic GEMS II: Comparison of inclusions in amorphous silicates from the Paris chondrite and from anhydrous chondritic interplanetary dust particles. Geochimica Et Cosmochimica Acta, 2021, 310, 346-362.	3.9	13
5	Search for meteoritic GEMS I: Comparison of amorphous silicates in Paris and Acfer 094 chondrite matrices and in anhydrous chondritic interplanetary dust particles. Geochimica Et Cosmochimica Acta, 2021, 310, 320-345.	3.9	16
6	Presolar Silicon Carbide Grains of Types Y and Z: Their Molybdenum Isotopic Compositions and Stellar Origins. Astrophysical Journal, 2019, 881, 28.	4.5	23
7	Isotopes of Barium as a Chronometer for Supernova Dust Formation. Astrophysical Journal, 2019, 885, 128.	4.5	7
8	Molybdenum Isotopes in Presolar Silicon Carbide Grains: Details of s-process Nucleosynthesis in Parent Stars and Implications for r- and p-processes. Astrophysical Journal, 2019, 877, 101.	4.5	27
9	Elmar K. Jessberger (1943â€“2017). Meteoritics and Planetary Science, 2018, 53, 1537-1540.	1.6	0
10	New Constraints on the Abundance of ⁶⁰Fe in the Early Solar System. Astrophysical Journal Letters, 2018, 857, L15.	8.3	40
11	Strontium and barium isotopes in presolar silicon carbide grains measured with CHILIâ€"two types of X grains. Geochimica Et Cosmochimica Acta, 2018, 221, 109-126.	3.9	31
12	Simultaneous iron and nickel isotopic analyses of presolar silicon carbide grains. Geochimica Et Cosmochimica Acta, 2018, 221, 87-108.	3.9	27
13	Common Occurrence of Explosive Hydrogen Burning in Type II Supernovae. Astrophysical Journal, 2018, 855, 144.	4.5	15
14	Potassic, high-silica Hadean crust. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 6353-6356.	7.1	33
15	Iron and nickel isotope compositions of presolar silicon carbide grains from supernovae. Geochimica Et Cosmochimica Acta, 2018, 221, 127-144.	3.9	11
16	Atomâ€probe tomography and transmission electron microscopy of the kamaciteâ€“taenite interface in the fastâ€cooled Bristol IVA iron meteorite. Meteoritics and Planetary Science, 2017, 52, 2707-2729.	1.6	11
17	J-type Carbon Stars: A Dominant Source of ¹⁴N-rich Presolar SiC Grains of Type AB. Astrophysical Journal Letters, 2017, 844, L12.	8.3	25
18	The future of Stardust science. Meteoritics and Planetary Science, 2017, 52, 1859-1898.	1.6	16

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19	High-molecular-weight organic matter in the particles of comet 67P/Churyumovâ€“Gerasimenko. Nature, 2016, 538, 72-74.	27.8	124
20	CHILI â€“ the Chicago Instrument for Laser Ionization â€“ a new tool for isotope measurements in cosmochemistry. International Journal of Mass Spectrometry, 2016, 407, 1-15.	1.5	68
21	COMET 67P/CHURYUMOVâ€“GERASIMENKO: CLOSE-UP ON DUST PARTICLE FRAGMENTS. Astrophysical Journal Letters, 2016, 816, L32.	8.3	84
22	CHILI, a Nanobeam Secondary Neutral Mass Spectrometer with Extraordinary Spatial Resolution, Sensitivity, and Selectivity: First Results. Microscopy and Microanalysis, 2015, 21, 1143-1144.	0.4	0
23	Correlative Transmission Electron Microscopy and Atom-Probe Tomography of an Iron Meteorite. Microscopy and Microanalysis, 2015, 21, 1313-1314.	0.4	3
24	Correction of dead time effects in laser-induced desorption time-of-flight mass spectrometry: Applications in atom probe tomography. International Journal of Mass Spectrometry, 2015, 379, 46-51.	1.5	17
25	COSIMA-Rosetta calibration for in situ characterization of 67P/Churyumovâ€“Gerasimenko cometary inorganic compounds. Planetary and Space Science, 2015, 117, 35-44.	1.7	15
26	Cometary dust in Antarctic ice and snow: Past and present chondritic porous micrometeorites preserved on the Earth's surface. Earth and Planetary Science Letters, 2015, 410, 1-11.	4.4	77
27	Atomâ€probe analyses of nanodiamonds from Allende. Meteoritics and Planetary Science, 2014, 49, 453-467.	1.6	62
28	Coordinated Microanalyses of Seven Particles of Probable Interstellar Origin from the Stardust Mission.. Microscopy and Microanalysis, 2014, 20, 1692-1693.	0.4	9
29	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
30	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
31	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
32	Stardust Interstellar Preliminary Examination VIII: Identification of crystalline material in two interstellar candidates. Meteoritics and Planetary Science, 2014, 49, 1645-1665.	1.6	12
33	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
34	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
35	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
36	Final reports of the Stardust Interstellar Preliminary Examination. Meteoritics and Planetary Science, 2014, 49, 1720-1733.	1.6	29

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37	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
38	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
39	Stardust Interstellar Preliminary Examination I: Identification of tracks in aerogel. Meteoritics and Planetary Science, 2014, 49, 1509-1521.	1.6	16
40	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
41	Evidence for interstellar origin of seven dust particles collected by the Stardust spacecraft. Science, 2014, 345, 786-791.	12.6	152
42	Atom-Probe Tomography of Meteoritic Nanodiamonds.. Microscopy and Microanalysis, 2014, 20, 1676-1677.	0.4	1
43	Samples of the Solar System: Recent Developments. , 2014, , .		2
44	Combining Atom-Probe Tomography and Focused-Ion Beam Microscopy to Study Individual Presolar Meteoritic Nanodiamond Particles. Microscopy and Microanalysis, 2013, 19, 974-975.	0.4	13
45	SARIM PLUSâ€"sample return of comet 67P/CG and of interstellar matter. Experimental Astronomy, 2012, 33, 723-751.	3.7	3
46	Ion Microscopy with Resonant Ionization Mass Spectrometry: Time-of-Flight Depth Profiling with Improved Isotopic Precision. European Journal of Mass Spectrometry, 2010, 16, 373-377.	1.0	2
47	Non-destructive search for interstellar dust using synchrotron microprobes. , 2010, , .		8
48	Krieselite, Al2GeO4(F,OH)2: A new mineral from the Tsumeb mine, Namibia, representing the Ge analogue of topaz. Neues Jahrbuch Fur Mineralogie, Abhandlungen, 2010, 187, 33-40.	0.3	7
49	Aqueous corrosion of borosilicate glass under acidic conditions: A new corrosion mechanism. Journal of Non-Crystalline Solids, 2010, 356, 1458-1465.	3.1	190
50	Assessment and control of organic and other contaminants associated with the Stardust sample return from comet 81P/Wild 2. Meteoritics and Planetary Science, 2010, 45, 406-433.	1.6	55
51	Sample return of interstellar matter (SARIM). Experimental Astronomy, 2009, 23, 303-328.	3.7	13
52	Resonance ionization mass spectrometry for precise measurements of isotope ratios. International Journal of Mass Spectrometry, 2009, 288, 36-43.	1.5	47
53	Discriminating contamination from particle components in spectra of Cassini's dust detector CDA. Planetary and Space Science, 2009, 57, 1359-1374.	1.7	35
54	A combined ToFâ€SIMS and EMP/SEM study of a threeâ€phase symplectite in the Los Angeles basaltic shergottite. Meteoritics and Planetary Science, 2009, 44, 1225-1237.	1.6	14

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55	Improvements in RIMS Isotopic Precision: Application to in situ atom-limited analyses. , 2009, , .		3
56	COSIMA: High Resolution Time-of-Flight Secondary Ion Mass Spectrometer for the Analysis of Cometary Dust Particles Onboard ROSETTA. , 2009, , 1-42.		0
57	Assessing the elemental composition of comet 81P/Wild 2 by analyzing dust collected by Stardust. Space Science Reviews, 2008, 138, 247-258.	8.1	11
58	Dust from comet Wild 2: Interpreting particle size, shape, structure, and composition from impact features on the Stardust aluminum foils. Meteoritics and Planetary Science, 2008, 43, 41-73.	1.6	60
59	TOFâ€SIMS analysis of crater residues from Wild 2 cometary particles on Stardust aluminum foil. Meteoritics and Planetary Science, 2008, 43, 161-185.	1.6	20
60	TOFâ€SIMS analysis of cometary matter in Stardust aerogel tracks. Meteoritics and Planetary Science, 2008, 43, 233-246.	1.6	42
61	Comparing Wild 2 particles to chondrites and IDPs. Meteoritics and Planetary Science, 2008, 43, 261-272.	1.6	136
62	TOFâ€SIMS analysis of cometary particles extracted from Stardust aerogel. Meteoritics and Planetary Science, 2008, 43, 285-298.	1.6	25
63	Stardust in Stardustâ€"The C, N, and O isotopic compositions of Wild 2 cometary matter in Al foil impacts. Meteoritics and Planetary Science, 2008, 43, 299-313.	1.6	54
64	Assessing the elemental composition of comet 81P/Wild 2 by analyzing dust collected by Stardust. Space Sciences Series of ISSI, 2008, , 247-258.	0.0	3
65	Mechanism of hydrothermal alteration of natural self-irradiated and synthetic crystalline titanate-based pyrochlore. Geochimica Et Cosmochimica Acta, 2007, 71, 3311-3322.	3.9	48
66	An experimental study of the replacement of leucite by analcime. American Mineralogist, 2007, 92, 19-26.	1.9	104
67	3â€D elemental and isotopic composition of presolar silicon carbides. Meteoritics and Planetary Science, 2007, 42, 1121-1134.	1.6	11
68	Cosima â€" High Resolution Time-of-Flight Secondary Ion Mass Spectrometer for the Analysis of Cometary Dust Particles onboard Rosetta. Space Science Reviews, 2007, 128, 823-867.	8.1	139
69	Impact Features on Stardust: Implications for Comet 81P/Wild 2 Dust. Science, 2006, 314, 1716-1719.	12.6	286
70	Comet 81P/Wild 2 Under a Microscope. Science, 2006, 314, 1711-1716.	12.6	848
71	Elemental Compositions of Comet 81P/Wild 2 Samples Collected by Stardust. Science, 2006, 314, 1731-1735.	12.6	200
72	Mineralogy and Petrology of Comet 81P/Wild 2 Nucleus Samples. Science, 2006, 314, 1735-1739.	12.6	589

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73	SIMS studies of Allende projectiles fired into Stardustâ€type aluminum foils at 6 km/sec. Meteoritics and Planetary Science, 2006, 41, 197-209.	1.6	14
74	TOF-SIMS analysis of Allende projectiles shot into silica aerogel. Meteoritics and Planetary Science, 2006, 41, 211-216.	1.6	11
75	TEM studies and the shock history of a â€œmysteriteâ€•inclusion from the Krymka LL chondrite. Meteoritics and Planetary Science, 2006, 41, 571-580.	1.6	3
76	Organics Captured from Comet 81P/Wild 2 by the Stardust Spacecraft. Science, 2006, 314, 1720-1724.	12.6	519
77	Brecciation and chemical heterogeneities of CI chondrites. Geochimica Et Cosmochimica Acta, 2006, 70, 5371-5394.	3.9	92
78	Carbonaceous xenoliths in the Krymka LL3.1 chondrite: Mysteries and established facts. Geochimica Et Cosmochimica Acta, 2005, 69, 2165-2182.	3.9	13
79	Experimental observation of an interface-controlled pseudomorphic replacement reaction in a natural crystalline pyrochlore. American Mineralogist, 2005, 90, 1683-1687.	1.9	45
80	TOFâ€SIMS analysis of polycyclic aromatic hydrocarbons in Allan Hills 84001. Meteoritics and Planetary Science, 2003, 38, 109-116.	1.6	54
81	TOF-SIMS in cosmochemistry. Planetary and Space Science, 2001, 49, 859-906.	1.7	157
82	Mineral-specific trace element contents of interplanetary dust particles. Nuclear Instruments & Methods in Physics Research B, 2001, 181, 539-544.	1.4	3
83	Properties of Interplanetary Dust: Information from Collected Samples. Astronomy and Astrophysics Library, 2001, , 253-294.	0.1	67
84	Surface analysis of stratospheric dust particles. Meteoritics and Planetary Science, 1999, 34, 637-646.	1.6	19
85	Correction of dead time effects in timeâ€ofâ€flight mass spectrometry. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1994, 12, 405-410.	2.1	87
86	TOF-SIMS analysis of interplanetary dust. Earth and Planetary Science Letters, 1994, 128, 453-467.	4.4	23
87	⁴⁰Arâ€³⁹Ar dating of the H3 chondrite Sainte Rose. Meteoritics, 1992, 27, 580-584.	1.4	8
88	Isotope systematics and shock-wave metamorphism: III. K-Ar in experimentally and naturally shocked rocks; the Haughton impact structure, Canada. Geochimica Et Cosmochimica Acta, 1992, 56, 1591-1605.	3.9	21
89	40Arî—,39Ar dating of pseudotachylite from the Vredefort dome, South Africa: a progress report. Tectonophysics, 1990, 171, 139-152.	2.2	31
90	40Ar-39Ar Ages of Types 3 and 4, L and H Chondrites from Antarctica. Meteoritics, 1988, 23, 373-377.	1.4	8