

# M Hilchenbach

## List of Publications by Year in descending order

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79  
papers

2,326  
citations

218381

26  
h-index

214527

47  
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81  
all docs

81  
docs citations

81  
times ranked

1956  
citing authors

#	ARTICLE	IF	CITATIONS
1	CELIAS - Charge, Element and Isotope Analysis System for SOHO. <i>Solar Physics</i> , 1995, 162, 441-481.	1.0	272
2	Typology of dust particles collected by the COSIMA mass spectrometer in the inner coma of 67P/Churyumov Gerasimenko. <i>Icarus</i> , 2016, 271, 76-97.	1.1	141
3	Cosima â€“ High Resolution Time-of-Flight Secondary Ion Mass Spectrometer for the Analysis of Cometary Dust Particles onboard Rosetta. <i>Space Science Reviews</i> , 2007, 128, 823-867.	3.7	139
4	DENSITY AND CHARGE OF PRISTINE FLUFFY PARTICLES FROM COMET 67P/CHURYUMOVâ€™GERASIMENKO. <i>Astrophysical Journal Letters</i> , 2015, 802, L12.	3.0	130
5	The mercury imaging X-ray spectrometer (MIXS) on bepicolombo. <i>Planetary and Space Science</i> , 2010, 58, 79-95.	0.9	127
6	Synthesis of the morphological description of cometary dust at comet 67P/Churyumov-Gerasimenko. <i>Astronomy and Astrophysics</i> , 2019, 630, A24.	2.1	100
7	Detection of 55â€™80 keV Hydrogen Atoms of Heliospheric Origin by CELIAS/HSTOF onSOHO. <i>Astrophysical Journal</i> , 1998, 503, 916-922.	1.6	86
8	COMET 67P/CHURYUMOVâ€™GERASIMENKO: CLOSE-UP ON DUST PARTICLE FRAGMENTS. <i>Astrophysical Journal Letters</i> , 2016, 816, L32.	3.0	84
9	The Solar Origin of Corotating Interaction Regions and Their Formation in the Inner Heliosphere. <i>Space Science Reviews</i> , 1999, 89, 141-178.	3.7	78
10	Kinetic properties of solar wind minor ions and protons measured with SOHO/CELIAS. <i>Journal of Geophysical Research</i> , 1998, 103, 29697-29704.	3.3	61
11	Isotopic composition of solar wind neon measured by CELIAS/MTOF on board SOHO. <i>Journal of Geophysical Research</i> , 1997, 102, 26895-26904.	3.3	60
12	Solar wind measurements with SOHO: The CELIAS/MTOF proton monitor. <i>Journal of Geophysical Research</i> , 1998, 103, 17205-17213.	3.3	58
13	Isotopic Composition of Solar Wind Nitrogen: First In Situ Determination with the CELIAS/MTOF Spectrometer on board [ITAL]SOHO/[ITAL]. <i>Astrophysical Journal</i> , 1998, 507, L185-L188.	1.6	56
14	Hydromagnetic Wave Excitation Upstream of an Interplanetary Traveling Shock. <i>Astrophysical Journal</i> , 2004, 601, L99-L102.	1.6	52
15	The nonmagnetic nucleus of comet 67P/Churyumov-Gerasimenko. <i>Science</i> , 2015, 349, aaa5102.	6.0	52
16	Evidence of sub-surface energy storage in comet 67P from the outburst of 2016 July 03. <i>Monthly Notices of the Royal Astronomical Society</i> , 2017, 469, s606-s625.	1.6	45
17	On the source and acceleration of energetic He+: A long-term observation with ACE/SEPICA. <i>Journal of Geophysical Research</i> , 2003, 108, .	3.3	43
18	Fractionation of Si, NE, and MG Isotopes in the Solar Wind as Measured by Soho/Celias/MTOF. <i>Space Science Reviews</i> , 1998, 85, 357-370.	3.7	39

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19	MIXS on BepiColombo and its DEPFET based focal plane instrumentation. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2010, 624, 540-547.	0.7	37
20	First Solar EUV Irradiances Obtained from SOHO by the CELIAS/SEM. , 1998, , 161-173.		37
21	Origin, Injection, and Acceleration of CIR Particles: Observations Report of Working Group 6. Space Science Reviews, 1999, 89, 327-367.	3.7	33
22	Venus tail ray observation near Earth. Geophysical Research Letters, 1997, 24, 1163-1166.	1.5	31
23	Iron freeze-in temperatures measured by SOHO/CELIAS/CTOF. Journal of Geophysical Research, 1998, 103, 17215-17222.	3.3	30
24	Direct evidence of the interstellar gas flow velocity in the pickup ion cut-off as observed with SOHO CELIAS CTOF. Geophysical Research Letters, 1999, 26, 3181-3184.	1.5	28
25	Observation of energy-dependent ionic charge states in impulsive solar energetic particle events. Advances in Space Research, 2006, 38, 493-497.	1.2	28
26	Elemental composition of the January 6, 1997, CME. Geophysical Research Letters, 1998, 25, 2557-2560.	1.5	27
27	The Castalia mission to Main Belt Comet 133P/Elst-Pizarro. Advances in Space Research, 2018, 62, 1947-1976.	1.2	27
28	Anomalous cosmic rays and the generation of energetic neutrals in the region beyond the termination shock. Astronomy and Astrophysics, 2001, 368, 622-634.	2.1	24
29	On the "injection problem" at the solar wind termination shock. Astronomy and Astrophysics, 2005, 439, 1-22.	2.1	24
30	H/C elemental ratio of the refractory organic matter in cometary particles of 67P/Churyumov-Gerasimenko. Astronomy and Astrophysics, 2019, 630, A27.	2.1	22
31	The footprint of cometary dust analogues " I. Laboratory experiments of low-velocity impacts and comparison with Rosetta data. Monthly Notices of the Royal Astronomical Society, 2017, 469, S204-S216.	1.6	19
32	THICKNESS OF THE HELIOSHEATH, RETURN OF THE PICK-UP IONS, AND <i>VOYAGER 1</i> 'S CROSSING THE HELIOPAUSE. Astrophysical Journal Letters, 2010, 718, L185-L188.	3.0	18
33	Optical properties of cometary particles collected by the COSIMA mass spectrometer on-board Rosetta during the rendezvous phase around comet 67P/Churyumov-Gerasimenko. Monthly Notices of the Royal Astronomical Society, 2017, 469, S535-S549.	1.6	17
34	Magnesium isotopic composition as observed with the CELIAS/MTOF experiment on the SOHO spacecraft. Journal of Geophysical Research, 1998, 103, 26805-26812.	3.3	16
35	Isotopic Composition of Solar Wind Calcium: First in Situ Measurement by CELIAS/MTOF on board [ITAL]SOHO[ITAL]. Astrophysical Journal, 1998, 498, L75-L78.	1.6	16
36	Viewing corotating interaction regions globally using energetic neutral atoms. Journal of Geophysical Research, 2001, 106, 24907-24914.	3.3	16

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37	Origin of the May 1998 suprathermal particles: Solar and Heliospheric Observatory/Charge, Element, and Isotope Analysis System/(Highly) Suprathermal Time of Flight results. <i>Journal of Geophysical Research</i> , 2002, 107, SSH 6-1.	3.3	16
38	Compressive strength of comet 67P/Churyumov-Gerasimenko derived from Philae surface contacts. <i>Astronomy and Astrophysics</i> , 2019, 630, A2.	2.1	16
39	Energetic Neutral Hydrogen of Heliospheric Origin Observed with SOHO/CELIAS at 1 AU. <i>COSPAR Colloquia Series</i> , 2001, 11, 273-276.	0.2	15
40	Evidence for Irshnikov-Kraichnan-Type Turbulence in the Solar Wind Upstream of Interplanetary Traveling Shocks. <i>Astrophysical Journal</i> , 2008, 675, L45-L48.	1.6	15
41	Calibration measurements on the DEPFET Detectors for the MIXS instrument on BepiColombo. <i>Experimental Astronomy</i> , 2014, 37, 525-538.	1.6	15
42	Imaging the heliosheath using HSTOF energetic neutral atoms and Voyager 1 ion data. <i>Astronomy and Astrophysics</i> , 2008, 487, 329-335.	2.1	11
43	D/H in the refractory organics of comet 67P/Churyumov-Gerasimenko measured by Rosetta/COSIMA. <i>Monthly Notices of the Royal Astronomical Society</i> , 2021, 504, 4940-4951.	1.6	11
44	The oxygen isotopic composition ( $^{18}\text{O}/^{16}\text{O}$ ) in the dust of comet 67P/Churyumov-Gerasimenko measured by COSIMA on-board Rosetta. <i>Monthly Notices of the Royal Astronomical Society</i> , 2018, 477, 3836-3844.	1.6	10
45	Origin, Injection, and Acceleration of CIR Particles: Observations. <i>Space Sciences Series of ISSI</i> , 1999, , 327-367.	0.0	10
46	Estimating the Thickness of the Heliosheath from CELIAS/HSTOF and Voyager 1 Data. <i>Astrophysical Journal</i> , 2006, 647, L69-L72.	1.6	9
47	Suprathermal helium in corotating interaction regions: combined observations from SOHO/CELIAS/STOF and ACE/SWICS. <i>Astronomy and Astrophysics</i> , 2017, 599, A13.	2.1	9
48	Pick-up ions upstream and downstream of the termination shock. <i>Astronomy and Astrophysics</i> , 2001, 379, 601-610.	2.1	9
49	Fractionation of Si, NE, and Mg Isotopes in the Solar Wind as Measured by SOHO/CELIAS/MTOF. <i>Space Sciences Series of ISSI</i> , 1998, , 357-370.	0.0	9
50	Space-borne mass spectrometer instrumentation. <i>International Journal of Mass Spectrometry</i> , 2002, 215, 113-129.	0.7	8
51	Heliospheric Structure as Revealed by the 88 keV H ENA Spectra. <i>Astrophysical Journal</i> , 2020, 888, 1.	1.6	8
52	Space weather observations using the SOHO CELIAS complement of instruments. <i>Journal of Geophysical Research</i> , 2001, 106, 29963-29968.	3.3	7
53	Anomalous helium ions as the source of energetic helium atoms in the outer heliosphere. <i>Advances in Space Research</i> , 2004, 34, 104-108.	1.2	7
54	A collimator design for monitoring heliospheric energetic neutral atoms at 1 AU. <i>Advances in Space Research</i> , 2004, 34, 213-218.	1.2	6

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55	Solar wind He pickup ions as source of tens-of-keV/n neutral He atoms observed by the HSTOF/SOHO detector. <i>Astronomy and Astrophysics</i> , 2014, 563, A134.	2.1	6
56	HSTOF ENA observations and energetic ion distributions in the heliosheath. <i>Astronomy and Astrophysics</i> , 2012, 541, A14.	2.1	6
57	Isotopic Composition of the Solar Wind Inferred from In-Situ Spacecraft Measurements. <i>Space Science Reviews</i> , 2007, 130, 173-182.	3.7	5
58	Structure of the heliosheath from HSTOF energetic neutral atoms measurements. <i>Astronomy and Astrophysics</i> , 2018, 618, A26.	2.1	5
59	Energetic Neutral Helium of Heliospheric Origin at 1AU. <i>COSPAR Colloquia Series</i> , 2001, 11, 219-222.	0.2	4
60	The footprint of cometary dust analogues – II. Morphology as a tracer of tensile strength and application to dust collection by the Rosetta spacecraft. <i>Monthly Notices of the Royal Astronomical Society</i> , 2019, 486, 3755-3765.	1.6	4
61	Optical properties of cometary particles collected by COSIMA: Assessing the differences between microscopic and macroscopic scales. <i>Planetary and Space Science</i> , 2020, 182, 104815.	0.9	4
62	The Solar Origin of Corotating Interaction Regions and their Formation in the Inner Heliosphere. <i>Space Sciences Series of ISSI</i> , 1999, , 141-178.	0.0	4
63	Heliospheric energetic neutral atoms as a means to determine the anomalous cosmic ray spectrum at the termination shock. <i>Astronomy and Astrophysics</i> , 2005, 431, 1061-1068.	2.1	4
64	Charge-to-mass fractionation during injection and acceleration of suprathermal particles associated with the Bastille Day event: SOHO/CELIAS/HSTOF data. <i>AIP Conference Proceedings</i> , 2003, , .	0.3	3
65	On the Origin of Energetic Neutral Atoms Detected by the SOHO/CELIAS/HSTOF Sensor. <i>AIP Conference Proceedings</i> , 2004, , .	0.3	3
66	Solar wind isotopic abundance ratios of ne, mg and si measured by SOHO/CELIAS/MTOF as diagnostic tool for the inner corona. <i>Physics and Chemistry of the Earth, Part C: Solar, Terrestrial and Planetary Science</i> , 1999, 24, 415-419.	0.2	2
67	Doppler Shifted Photon Emission expected due to Reactions of Energetic Protons with the LISM Atoms in the Heliosphere. <i>COSPAR Colloquia Series</i> , 2001, , 281-284.	0.2	2
68	Observations of heavy ion charge spectra in CME driven gradual solar energetic particle events. <i>Advances in Space Research</i> , 2002, 30, 111-117.	1.2	2
69	The iron, silicon and oxygen abundance in the solar wind measured with SOHO/CELIAS/MTOF. <i>Physics and Chemistry of the Earth, Part C: Solar, Terrestrial and Planetary Science</i> , 1999, 24, 421-426.	0.2	1
70	Probing diffusion parameters of suprathermal ions near heliospheric shocks. <i>Advances in Space Research</i> , 2004, 34, 157-160.	1.2	1
71	Suprathermal ions of solar and interstellar origin associated with the April 9 <sup>th</sup> 2001, CMEs. <i>Advances in Space Research</i> , 2004, 34, 161-165.	1.2	1
72	The 34S/32S Isotopic Ratio Measured in the Dust of Comet 67P/Churyumov-Gerasimenko by Rosetta/COSIMA. <i>Monthly Notices of the Royal Astronomical Society</i> , 0, , .	1.6	1

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73	COSIMA data analysis using multivariate techniques. Geoscientific Instrumentation, Methods and Data Systems, 2015, 4, 45-56.	0.6	1
74	Imaging the global distribution of anomalous cosmic rays. AIP Conference Proceedings, 2000, , .	0.3	0
75	Anomalous Cosmic Rays outside of the Termination Shock. COSPAR Colloquia Series, 2001, 11, 199-202.	0.2	0
76	Studying the Heliosphere in Energetic Neutral H and He Atoms above 30 keV/amu. AIP Conference Proceedings, 2004, , .	0.3	0
77	Energetic Ions and the Observations of the Heliosheath by means of ENA. , 2010, , .		0
78	Analysis of COSIMA spectra: Bayesian approach. Geoscientific Instrumentation, Methods and Data Systems, 2015, 4, 139-148.	0.6	0
79	Isotopic Composition of the Solar Wind Inferred from In-Situ Spacecraft Measurements. Space Sciences Series of ISSI, 2007, , 173-182.	0.0	0