Mark Burchell

List of Publications by Year
in descending order

201 papers	6,553 citations	87888 38 h-index	76900 74 g-index
204 all docs	204 docs citations	204 times ranked	3646 citing authors

#	Article	IF	Citations
1	Comet 81P/Wild 2 Under a Microscope. Science, 2006, 314, 1711-1716.	12.6	848
2	Organics Captured from Comet 81P/Wild 2 by the Stardust Spacecraft. Science, 2006, 314, 1720-1724.	12.6	519
3	Impact Features on Stardust: Implications for Comet 81P/Wild 2 Dust. Science, 2006, 314, 1716-1719.	12.6	286
4	Hypervelocity impact studies using the 2 MV Van de Graaff accelerator and two-stage light gas gun of the University of Kent at Canterbury. Measurement Science and Technology, 1999, 10, 41-50.	2.6	234
5	Comparison of Comet 81P/Wild 2 Dust with Interplanetary Dust from Comets. Science, 2008, 319, 447-450.	12.6	199
6	Infrared Spectroscopy of Comet 81P/Wild 2 Samples Returned by Stardust. Science, 2006, 314, 1728-1731.	12.6	163
7	Evidence for interstellar origin of seven dust particles collected by the Stardust spacecraft. Science, 2014, 345, 786-791.	12.6	152
8	Characteristics of cometary dust tracks in Stardust aerogel and laboratory calibrations. Meteoritics and Planetary Science, 2008, 43, 23-40.	1.6	134
9	Shock synthesis of amino acids from impacting cometary and icy planet surface analogues. Nature Geoscience, 2013, 6, 1045-1049.	12.9	129
10	COSMIC DUST COLLECTION IN AEROGEL. Annual Review of Earth and Planetary Sciences, 2006, 34, 385-418.	11.0	113
11	Measurement of the branching fractions forD0â†'Ï€â^'e+Î½eandD0â†'Kâ^'e+Î½eand determination of â€–Vcd/Vcsâ€–2. Physical Review Letters, 1989, 62, 1821-1824.	7.8	108
12	Partial-wave analysis ofJ/Ïˆâ†'Î³KS0KÂ±Ï€â^“. Physical Review Letters, 1990, 65, 2507-2510.	7.8	89
13	Survival of bacteria and spores under extreme shock pressures. Monthly Notices of the Royal Astronomical Society, 2004, 352, 1273-1278.	4.4	82
14	Measurements ofJ/Ïˆdecays into a vector and a pseudoscalar meson. Physical Review D, 1988, 38, 2695-2705.	4.7	79
15	Comet 81P/Wild 2: The size distribution of finer (subâ€10â€ƒÎ¼m) dust collected by the Stardust spacecraft. Meteoritics and Planetary Science, 2010, 45, 1409-1428.	1.6	76
16	Bulbous tracks arising from hypervelocity capture in aerogel. Meteoritics and Planetary Science, 2008, 43, 75-86.	1.6	69
17	Time of flight mass spectra of ions in plasmas produced by hypervelocity impacts of organic and mineralogical microparticles on a cosmic dust analyser. Astronomy and Astrophysics, 2003, 409, 1151-1167.	5.1	61
18	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

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19	Measurement of the hadronic structure of semileptonicD0andD+decays. Physical Review Letters, 1991, 66, 1011-1014.	7.8	59
20	Survivability of Bacteria in Hypervelocity Impact. Icarus, 2001, 154, 545-547.	2.5	59
21	Space science applications for conducting polymer particles: synthetic mimics for cosmic dust and micrometeorites. Chemical Communications, 2015, 51, 16886-16899.	4.1	58
22	Laboratory simulation of impacts on aluminum foils of the Stardust spacecraft: Calibration of dust particle size from comet Wildâ€2. Meteoritics and Planetary Science, 2006, 41, 167-180.	1.6	56
23	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
24	Thermal alteration of hydrated minerals during hypervelocity capture to silica aerogel at the flyby speed of Stardust. Meteoritics and Planetary Science, 2007, 42, 357-372.	1.6	56
25	Experimental measurements of hypervelocity impact plasma yield and energetics. International Journal of Impact Engineering, 1997, 20, 663-674.	5.0	55
26	Crater ellipticity in hypervelocity impacts on metals. Journal of Geophysical Research, 1998, 103, 22761-22774.	3.3	51
27	Capture of hypervelocity particles in aerogel: in ground laboratory and low earth orbit. Planetary and Space Science, 1998, 47, 189-204.	1.7	50
28	Capture of particles in hypervelocity impacts in aerogel. Meteoritics and Planetary Science, 2001, 36, 209-221.	1.6	50
29	Panspermia today. International Journal of Astrobiology, 2004, 3, 73-80.	1.6	49
30	Synthesis and characterization of polypyrrole-coated poly(methyl methacrylate) latex particles. Journal of Materials Chemistry, 2009, 19, 1433.	6.7	49
31	Analytical scanning and transmission electron microscopy of laboratory impacts on Stardust aluminum foils: Interpreting impact crater morphology and the composition of impact residues. Meteoritics and Planetary Science, 2007, 42, 191-210.	1.6	48
32	The present-day flux of large meteoroids on the lunar surfaceâ€"A synthesis of models and observational techniques. Planetary and Space Science, 2012, 74, 179-193.	1.7	46
33	Impact ionization experiments with low density conducting polymer-based micro-projectiles as analogues of solar system dusts. Planetary and Space Science, 2002, 50, 1025-1035.	1.7	44
34	W(h)ither the Drake equation?. International Journal of Astrobiology, 2006, 5, 243-250.	1.6	44
35	Magnetite in Comet Wild 2: Evidence for parent body aqueous alteration. Meteoritics and Planetary Science, 2017, 52, 2075-2096.	1.6	42
36	Acceleration of conducting polymer-coated latex particles as projectiles in hypervelocity impact experiments. Journal Physics D: Applied Physics, 1999, 32, 1719-1728.	2.8	41

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37	THE ABUNDANCE OF PRESOLAR GRAINS IN COMET 81P/WILD 2. Astrophysical Journal, 2013, 763, 140.	4.5	41
38	Dust Flux Monitor Instrument for the Stardust mission to comet Wild 2. Journal of Geophysical Research, 2003, 108, .	3.3	40
39	Oblique incidence hypervelocity impacts on rock. Monthly Notices of the Royal Astronomical Society, 2003, 341, 192-198.	4.4	37
40	Use of combined light flash and plasma measurements to study hypervelocity impact processes. Advances in Space Research, 1996, 17, 141-145.	2.6	36
41	Velocity Scaling of Impact Craters in Water Ice over the Range 1 to 7.3 km sâˆ'1. Icarus, 2002, 155, 475-485.	2.5	36
42	Light Flash and Ionization from Hypervelocity Impacts on Ice. Icarus, 1996, 122, 359-365.	2.5	34
43	Hypervelocity Impact Experiments on Solid CO2Targets. Icarus, 1998, 131, 210-222.	2.5	34
44	Laboratory calibration of the cassini cosmic dust analyser (CDA) using new, low density projectiles. Advances in Space Research, 2002, 29, 1139-1144.	2.6	34
45	Partial-wave analysis ofJ/Ïˆâ†'Î³Î·Ï€+Ï€âˆ'. Physical Review Letters, 1992, 69, 1328-1331.	7.8	33
46	Survivability of bacteria ejected from icy surfaces after hypervelocity impact. Origins of Life and Evolution of Biospheres, 2003, 33, 53-74.	1.9	33
47	Identification of minerals and meteoritic materials via Raman techniques after capture in hypervelocity impacts on aerogel. Meteoritics and Planetary Science, 2006, 41, 217-232.	1.6	33
48	Laboratory impacts into dry and wet sandstone with and without an overlying water layer: Implications for scaling laws and projectile survivability. Meteoritics and Planetary Science, 2007, 42, 1905-1914.	1.6	33
49	Hydrocode modelling of hypervelocity impact on brittle materials: depth of penetration and conchoidal diameter. International Journal of Impact Engineering, 1999, 23, 895-904.	5.0	32
50	Short-period Jupiter family comets after Stardust. Planetary and Space Science, 2009, 57, 1146-1161.	1.7	32
51	Hypervelocity capture of particles in aerogel: Dependence on aerogel properties. Planetary and Space Science, 2009, 57, 58-70.	1.7	32
52	Interpretation of Wild 2 dust fine structure: Comparison of Stardust aluminum foil craters to the threeâ€dimensional shape of experimental impacts by artificial aggregate particles and meteorite powders. Meteoritics and Planetary Science, 2009, 44, 1489-1509.	1.6	32
53	Microstructure of calcite in the CM2 carbonaceous chondrite LON 94101: Implications for deformation history during and/or after aqueous alteration. Earth and Planetary Science Letters, 2011, 306, 289-298.	4.4	32
54	Extent of thermal ablation suffered by model organic microparticles during aerogel capture at hypervelocities. Meteoritics and Planetary Science, 2009, 44, 1407-1419.	1.6	30

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55	Cratering of icy targets by different impactors: Laboratory experiments and implications for cratering in the Solar System. Icarus, 2005, 179, 274-288.	2.5	29
56	Survival of Organic Materials in Hypervelocity Impacts of Ice on Sand, Ice, and Water in the Laboratory. Astrobiology, 2014, 14, 473-485.	3.0	29
57	Final reports of the Stardust Interstellar Preliminary Examination. Meteoritics and Planetary Science, 2014, 49, 1720-1733.	1.6	29
58	Impact craters on small icy bodies such as icy satellites and comet nuclei. Monthly Notices of the Royal Astronomical Society, 2005, 360, 769-781.	4.4	28
59	Iron oxides in comet 81P/Wild 2. Meteoritics and Planetary Science, 2010, 45, 55.	1.6	28
60	The preservation of fossil biomarkers during meteorite impact events: Experimental evidence from biomarkerâ€rich projectiles and target rocks. Meteoritics and Planetary Science, 2010, 45, 1340-1358.	1.6	28
61	The origin of crystalline residues in Stardust Al foils: Surviving cometary dust or crystallized impact melts?. Meteoritics and Planetary Science, 2012, 47, 660-670.	1.6	27
62	Projectile density, impact angle and energy effects on hypervelocity impact damage to carbon fibre/peek composites. International Journal of Impact Engineering, 2001, 26, 381-398.	5.0	26
63	Impact cratering and break up of the small bodies of the Solar System. Icarus, 2008, 195, 817-826.	2.5	26
64	Survival of organic compounds in ejecta from hypervelocity impacts on ice. International Journal of Astrobiology, 2009, 8, 19-25.	1.6	26
65	The SMART-1 lunar impact. Icarus, 2010, 207, 28-38.	2.5	26
66	Survival of yeast spores in hypervelocity impact events up to velocities of 7.4 km sâˆ'1. Icarus, 2013, 222, 263-272.	2.5	26
67	Hypervelocity Impacts on Honeycomb Core Sandwich Panels Filled with Shear Thickening Fluid. International Journal of Impact Engineering, 2021, 150, 103803.	5.0	26
68	Study of the doubly radiative decayJÏˆâ†'Î³Î³Ï0. Physical Review D, 1990, 41, 1410-1413.	4.7	25
69	Hypervelocity impact cratering on water ice targets at temperatures ranging from 100 K to 253 K. Journal of Geophysical Research, 2003, 108, .	3.3	25
70	Scaling of hypervelocity impact craters in ice with impact angle. Journal of Geophysical Research, 2002, 107, 6-1.	3.3	24
71	Residual temperature measurements of light flash under hypervelocity impact. International Journal of Impact Engineering, 2008, 35, 1368-1373.	5.0	24
72	In situ analysis of residues resulting from laboratory impacts into aluminum 1100 foil: Implications for Stardust crater analyses. Meteoritics and Planetary Science, 2009, 44, 1541-1559.	1.6	24

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73	Stardust impact analogs: Resolving preâ€•and postimpact mineralogy in Stardust Al foils. Meteoritics and Planetary Science, 2012, 47, 708-728.	1.6	24
74	Validation of the Prestonâ€“Tonksâ€“Wallace strength model at strain rates approaching âˆ¼1011Âsâˆ’1 for Al-1100, tantalum and copper using hypervelocity impact crater morphologies. International Journal of Impact Engineering, 2013, 52, 1-10.	5.0	24
75	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
76	Identification of organic particles via Raman techniques after capture in hypervelocity impacts on aerogel. Journal of Raman Spectroscopy, 2004, 35, 249-253.	2.5	23
77	The thermal alteration by pyrolysis of the organic component of small projectiles of mudrock during capture at hypervelocity. Journal of Analytical and Applied Pyrolysis, 2008, 82, 312-314.	5.5	23
78	Identification of mineral impactors in hypervelocity impact craters in aluminum by Raman spectroscopy of residues. Meteoritics and Planetary Science, 2008, 43, 135-142.	1.6	23
79	Identification by Raman spectroscopy of Mgâ€“Fe content of olivine samples after impact at 6 km sâˆ’1 onto aluminium foil and aerogel: In the laboratory and in Wild-2 cometary samples. Geochimica Et Cosmochimica Acta, 2013, 121, 1-14.	3.9	23
80	The chemical composition of micrometeoroids impacting upon the solar arrays of the Hubble Space Telescope. Advances in Space Research, 2007, 39, 590-604.	2.6	22
81	Investigation of iron sulfide impact crater residues: A combined analysis by scanning and transmission electron microscopy. Meteoritics and Planetary Science, 2011, 46, 1007-1024.	1.6	22
82	Experimental impact features in Stardust aerogel: How track morphology reflects particle structure, composition, and density. Meteoritics and Planetary Science, 2012, 47, 737-762.	1.6	22
83	Laboratory investigations of hypervelocity impact cratering in ice. Advances in Space Research, 2001, 28, 1521-1526.	2.6	21
84	Experimental investigation of impacts by solar cell secondary ejecta on silica aerogel and aluminum foil: Implications for the Stardust Interstellar Dust Collector. Meteoritics and Planetary Science, 2012, 47, 671-683.	1.6	21
85	The Hypervelocity Impact Facility at the University of Kent: Recent Upgrades and Specialized Capabilities.. Procedia Engineering, 2017, 204, 208-214.	1.2	20
86	Oblique hypervelocity impacts on thick glass targets. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2001, 303, 134-141.	5.6	19
87	Capture effects in carbonaceous material: A Stardust analogue study. Meteoritics and Planetary Science, 2009, 44, 1465-1474.	1.6	19
88	Impact ionisation spectra from hypervelocity impacts using aliphatic poly(methyl methacrylate) microparticle projectiles. Rapid Communications in Mass Spectrometry, 2011, 25, 543-550.	1.5	19
89	Stardust interstellar dust calibration: Hydrocode modeling of impacts on Alâ€•1100 foil at velocities up to 300â€ƒkmâ€ƒs^{âˆ’1} and validation with experimental data. Meteoritics and Planetary Science, 2012, 47, 684-695.	1.6	19
90	Characterizing organic particle impacts on inert metal surfaces: Foundations for capturing organic molecules during hypervelocity transits of Enceladus plumes. Meteoritics and Planetary Science, 2020, 55, 465-479.	1.6	19

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91	Synthesis and Characterization of Polypyrrole-Coated Anthracene Microparticles: A New Synthetic Mimic for Polyaromatic Hydrocarbon-Based Cosmic Dust. ACS Applied Materials & Interfaces, 2021, 13, 3175-3185.	8.0	19
92	Survival of seeds in hypervelocity impacts. International Journal of Astrobiology, 2008, 7, 217-222.	1.6	18
93	The large crater on the small Asteroid (2867) Steins. Icarus, 2010, 210, 707-712.	2.5	18
94	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
95	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
96	Micro-craters in aluminum foils: Implications for dust particles from comet Wild 2 on NASA's Stardust spacecraft. International Journal of Impact Engineering, 2008, 35, 1616-1624.	5.0	17
97	GRAIN SORTING IN COMETARY DUST FROM THE OUTER SOLAR NEBULA. Astrophysical Journal Letters, 2012, 760, L23.	8.3	17
98	Decreased values of cosmic dust number density estimates in the Solar System. Icarus, 2005, 176, 440-452.	2.5	16
99	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
100	Stardust Interstellar Preliminary Examination I: Identification of tracks in aerogel. Meteoritics and Planetary Science, 2014, 49, 1509-1521.	1.6	16
101	Laboratory investigations of the survivability of bacteria in hypervelocity impacts. Advances in Space Research, 2001, 28, 707-712.	2.6	15
102	Discovery of nonâ€random spatial distribution of impacts in the Stardust cometary collector. Meteoritics and Planetary Science, 2008, 43, 415-429.	1.6	15
103	Role of particle charge in impact ionization by charged microparticles. Nuclear Instruments & Methods in Physics Research B, 1998, 143, 311-318.	1.4	14
104	Observations on hypervelocity impact damage sustained by multi-layered insulation foils exposed in low Earth orbit and simulated in the laboratory. International Journal of Impact Engineering, 2003, 29, 307-316.	5.0	13
105	Smelting of Feâ€bearing glass during hypervelocity capture in aerogel. Meteoritics and Planetary Science, 2008, 43, 87-96.	1.6	13
106	Sample return of interstellar matter (SARIM). Experimental Astronomy, 2009, 23, 303-328.	3.7	13
107	Hypervelocity Impact Experiments in the Laboratory Relating to Lunar Astrobiology. Earth, Moon and Planets, 2010, 107, 55-64.	0.6	13
108	Constraining the pressure threshold of impact induced calcite twinning: Implications for the deformation history of aqueously altered carbonaceous chondrite parent bodies. Earth and Planetary Science Letters, 2013, 384, 71-80.	4.4	13

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109	Survival of fossils under extreme shocks induced by hypervelocity impacts. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2014, 372, 20130190.	3.4	13
110	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€Ð microprobe. Meteoritics and Planetary Science, 2014, 49, 1626-1644.	1.6	13
111	The survivability of phyllosilicates and carbonates impacting Stardust Al foils: Facilitating the search for cometary water. Meteoritics and Planetary Science, 2015, 50, 2003-2023.	1.6	13
112	Upper limit on the absolute branching fraction forDs+â†’Ï†Ï€+. Physical Review Letters, 1990, 64, 169-171.	7.8	12
113	Laboratory investigations of the temperature dependence of hypervelocity impact cratering in ice. Advances in Space Research, 2001, 28, 1527-1532.	2.6	12
114	Hypervelocity impact craters in ammonia rich ice. Icarus, 2004, 168, 467-474.	2.5	12
115	Laboratory investigations of marine impact events: Factors influencing crater formation and projectile survivability. Meteoritics and Planetary Science, 2008, 43, 2015-2026.	1.6	12
116	Stardust Interstellar Preliminary Examination VIII: Identification of crystalline material in two interstellar candidates. Meteoritics and Planetary Science, 2014, 49, 1645-1665.	1.6	12
117	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
118	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
119	Micronâ€scale hypervelocity impact craters: Dependence of crater ellipticity and rim morphology on impact trajectory, projectile size, velocity, and shape. Meteoritics and Planetary Science, 2014, 49, 1929-1947.	1.6	12
120	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
121	Extraction and microanalysis of cosmic dust captured during sample return missions: laboratory simulations. Advances in Space Research, 2004, 34, 2292-2298.	2.6	11
122	Influence of impact ionisation detection methods on determination of dust particle flux in space. Planetary and Space Science, 2004, 52, 711-725.	1.7	11
123	Survey on Astrobiology Research and Teaching Activities Within the United Kingdom. Astrobiology, 2009, 9, 717-730.	3.0	11
124	APSIS â€" Aerogel position-sensitive impact sensor: Capabilities for in-situ collection and sample return. Advances in Space Research, 2000, 25, 315-322.	2.6	10
125	Impacts into metals targets at velocities greater than 1ÂkmÂsâˆ’1: A new online resource for the hypervelocity impact community and an illustration of the geometric change of debris cloud impact patterns with impact velocity. International Journal of Impact Engineering, 2013, 56, 47-60.	5.0	10
126	Survival of refractory presolar grain analogs during Stardustâ€like impact into Al foils: Implications for Wild 2 presolar grain abundances and study of the cometary fine fraction. Meteoritics and Planetary Science, 2015, 50, 1378-1391.	1.6	10

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127	A study of the observed shift in the peak position of olivine Raman spectra as a result of shock induced by hypervelocity impacts. Meteoritics and Planetary Science, 2016, 51, 1289-1300.	1.6	10
128	Oceanic hypervelocity impact events: a viable mechanism for successful panspermia?. International Journal of Astrobiology, 2006, 5, 261-267.	1.6	9
129	Acoustic response of aluminium and Duroid plates to hypervelocity impacts. International Journal of Impact Engineering, 2011, 38, 426-433.	5.0	9
130	Coordinated Microanalyses of Seven Particles of Probable Interstellar Origin from the Stardust Mission.. Microscopy and Microanalysis, 2014, 20, 1692-1693.	0.4	9
131	SMARTâ€1 end of life shallow regolith impact simulations. Meteoritics and Planetary Science, 2015, 50, 1436-1448.	1.6	9
132	Survivability of copper projectiles during hypervelocity impacts in porous ice: A laboratory investigation of the survivability of projectiles impacting comets or other bodies. Icarus, 2016, 268, 102-117.	2.5	9
133	The proposed Caroline ESA M3 mission to a Main Belt Comet. Advances in Space Research, 2018, 62, 1921-1946.	2.6	9
134	Azimuthal impact directions from oblique impact crater morphology. Monthly Notices of the Royal Astronomical Society, 2005, 359, 1137-1149.	4.4	8
135	Aerogel tracks made by impacts of glycine: Implications for formation of bulbous tracks in aerogel and the Stardust mission. Meteoritics and Planetary Science, 2012, 47, 623-633.	1.6	8
136	Microstructure modifications of silicates induced by the collection in aerogel: Experimental approach and comparison with Stardust results. Meteoritics and Planetary Science, 2012, 47, 696-707.	1.6	8
137	Hydrocode modelling of hypervelocity impacts on ice. Advances in Space Research, 2013, 52, 705-714.	2.6	8
138	Survival of fossilised diatoms and forams in hypervelocity impacts with peak shock pressures in the 1â€"19 GPa range. Icarus, 2017, 290, 81-88.	2.5	8
139	A New Cosmic Dust Detector with a Novel Method Using a Resistive Grid Sensitive to Hypervelocity Impacts. Procedia Engineering, 2013, 58, 68-76.	1.2	7
140	IS THE LARGE CRATER ON THE ASTEROID (2867) STEINS REALLY AN IMPACT CRATER?. Astrophysical Journal Letters, 2013, 774, L11.	8.3	7
141	Analytical model of impact disruption of satellites and asteroids. Icarus, 2016, 268, 266-280.	2.5	7
142	Laboratory tests of catastrophic disruption of rotating bodies. Icarus, 2017, 296, 91-98.	2.5	7
143	Hypervelocity impact fragmentation of basalt and shale projectiles. Icarus, 2018, 311, 52-68.	2.5	7
144	Space dust and debris near the Earth. Astronomy and Geophysics, 2019, 60, 3.38-3.42.	0.2	7

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145	Impacts into Marine and Icy Environments â€” A Short Review. Impact Studies, 2004, , 1-20.	0.5	7
146	MULPEX: A compact multi-layered polymer foil collector for micrometeoroids and orbital debris. Advances in Space Research, 2005, 35, 1270-1281.	2.6	6
147	Human spaceflight and an asteroid redirect mission: Why?. Space Policy, 2014, 30, 163-169.	1.5	6
148	Characterization of space dust using acoustic impact detection. Journal of the Acoustical Society of America, 2016, 140, 1429-1438.	1.1	6
149	Hypervelocity impacts into iceâ€topped layered targets: Investigating the effects of ice crust thickness and subsurface density on crater morphology. Meteoritics and Planetary Science, 2017, 52, 1505-1522.	1.6	6
150	Tardigrade Survival Limits in High-Speed Impactsâ€"Implications for Panspermia and Collection of Samples from Plumes Emitted by Ice Worlds. Astrobiology, 2021, 21, 845-852.	3.0	6
151	Euromir '95: First results from the Dustwatch-P detectors of the European space exposure facility. Advances in Space Research, 1997, 20, 1481-1484.	2.6	5
152	Exobiology: Laboratory tests of the impact related aspects of Panspermia. , 2000, , 1-26.		5
153	A cosmic dust detection suite for the deep space Gateway. Advances in Space Research, 2021, 68, 85-104.	2.6	5
154	New Signatures of Bio-Molecular Complexity in the Hypervelocity Impact Ejecta of Icy Moon Analogues. Life, 2022, 12, 508.	2.4	5
155	Astrobiology in the UK. Astronomy and Geophysics, 2009, 50, 4.27-4.30.	0.2	4
156	Organic Molecules: Is It Possible to Distinguish Aromatics from Aliphatics Collected by Space Missions in High Speed Impacts?. Sci, 2019, 1, 53.	3.0	4
157	Salt grains in hypervelocity impacts in the laboratory: Methods to sample plumes from the ice worlds Enceladus and Europa. Meteoritics and Planetary Science, 2021, 56, 1652-1668.	1.6	4
158	The special issue devoted to papers from the Astrobiology Society of Britain Conference 2008. International Journal of Astrobiology, 2009, 8, 1-2.	1.6	3
159	The special issue devoted to papers from the fourth Astrobiology Society of Britain Conference, Royal Holloway, 2010. International Journal of Astrobiology, 2010, 9, 191-192.	1.6	3
160	Sample return missions to minor bodies. Astronomy and Geophysics, 2013, 54, 3.28-3.32.	0.2	3
161	Aerogel dust collection for in situ mass spectrometry analysis. Icarus, 2015, 247, 71-76.	2.5	3
162	Organic Molecules: Is It Possible to Distinguish Aromatics from Aliphatics Collected by Space Missions in High-Speed Impacts?. Sci, 2020, 2, 56.	3.0	3

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163	The Special Issue on Astrobiology in the UK. International Journal of Astrobiology, 2004, 3, 71-72.	1.6	2
164	Prototyping and testing a Debris Resistive Acoustic Grid Orbital Navy Sensor. , 2012, , .		2
165	A New Online Resource for the Hypervelocity Impact Community and the Change of Debris Cloud Impact Patterns With Impact Velocity. Procedia Engineering, 2013, 58, 508-516.	1.2	2
166	Limits on methane release and generation via hypervelocity impact of Martian analogue materials. International Journal of Astrobiology, 2014, 13, 132-140.	1.6	2
167	Hypervelocity impacts in the laboratory on hot rock targets. Procedia Engineering, 2017, 204, 300-307.	1.2	2
168	Preparation of large Stardust aluminum foil craters for analysis. Meteoritics and Planetary Science, 2018, 53, 1066-1080.	1.6	2
169	Catastrophic disruption of icy bodies with sub-surface oceans. Icarus, 2020, 336, 113457.	2.5	2
170	Cratering on Icy Bodies. Astrophysics and Space Science Library, 2013, , 253-278.	2.7	2
171	Survivability of Bacteria in Hypervelocity Impacts on Ice. Impact Studies, 2004, , 211-221.	0.5	2
172	Catastrophic Disruption of Hollow Ice Spheres. Planetary Science Journal, 2020, 1, 19.	3.6	2
173	Raman analysis of a shocked planetary surface analogue: Implications for habitability on Mars. Journal of Raman Spectroscopy, 2021, 52, 2166.	2.5	2
174	A study on the capabilities and accuracy of Kapton based TOF space dust and debris detectors. Advances in Space Research, 2023, 72, 2959-2970.	2.6	2
175	Comparison of H[sub 2]O and CO[sub 2] ices under hypervelocity impact. , 1998, , .		1
176	Application of new, low density projectiles to the laboratory calibration of the Cassini Cosmic Dust Analyser (CDA). COSPAR Colloquia Series, 2002, , 300-304.	0.2	1
177	Development of low density dusts for impact ionization experiments. COSPAR Colloquia Series, 2002, , 296-299.	0.2	1
178	Microbial Life and Shock Compression â€" Life or Death?. AIP Conference Proceedings, 2006, , .	0.4	1
179	The special issue devoted to papers from the Astrobiology Society of Britain Conference 2006. International Journal of Astrobiology, 2006, 5, 181-181.	1.6	1
180	A comet in the lab. Astronomy and Geophysics, 2007, 48, 6.27-6.31.	0.2	1

#	Article	IF	Citations
181	Life: what is the chance that we are alone?. Significance, 2009, 6, 142-144.	0.4	1
182	Morphological and Molecular Analysis Calls for a Reappraisal of the Red Rain Cells of Kerala. Current Microbiology, 2014, 68, 192-198.	2.2	1
183	Raman identification of olivine grains in fine grained mineral assemblages fired into aerogel. Procedia Engineering, 2017, 204, 413-420.	1.2	1
184	Hunting for biosignatures on Mars. Astronomy and Geophysics, 2021, 62, 4.24-4.27.	0.2	1
185	Automatic detection of impact craters on Al foils from the Stardust interstellar dust collector using convolutional neural networks. Meteoritics and Planetary Science, 2021, 56, 1890-1904.	1.6	1
186	Impact Cratering of Icy and Rocky Targets in Planetary Sciences and in the Laboratory. Impact Studies, 2004, , 223-249.	0.5	1
187	Estimating Crater Size for Hypervelocity Impacts on Small Icy Bodies (e.g. Comet Nucleus). Impact Studies, 2004, , 197-210.	0.5	1
188	Improving the Near-Earth Micrometeoroid and Orbital Debris Environment Definition with LAD-C. , 2006, , .		1
189	Catastrophic disruption by hypervelocity impact of multi-layered spherical ice targets. International Journal of Impact Engineering, 2022, 168, 104294.	5.0	1
190	Microanalysis of cosmic dustâ€"Prospects and challenges. COSPAR Colloquia Series, 2002, 15, 400-404.	0.2	0
191	HYPERVELOCITY SUB 10-Î¼M IMPACTS INTO ALUMINIUM FOIL: NEW EXPERIMENTAL DATA AND IMPLICATIONS FOR COMET WILD-2â€™S DUST FLUENCE. , 2009, , .		0
192	SHOCK CHEMISTRY OF ORGANIC COMPOUNDS FROZEN IN ICE UNDERGOING IMPACTS AT 5â€‰kmâ€‰s[sup â^'1]. , 2009, , .		0
193	RECONSTRUCTION OF HYPERVELOCITY IMPACT CRATER PROGENITORS UTILISING EXPERIMENTAL DATA AND HYDROCODE MODELLING AT MICRON-SCALES. , 2009, , .		0
194	CAPTURE OF COMETARY DUST GRAINS IN IMPACTS AT 6.1â€‰kmâ€‰s[sup â^'1]. , 2009, , .		0
195	Investigating the ability of Stardust capture media to preserve collected particles intact. EAS Publications Series, 2010, 41, 395-398.	0.3	0
196	Fibre optic sensors for high speed hypervelocity impact studies and low velocity drop tests. Proceedings of SPIE, 2011, , .	0.8	0
197	The Astrobiology Society of Britain. Astronomy and Geophysics, 2011, 52, 1.29-1.29.	0.2	0
198	Does astrobiology inclu de human space flight?. Astronomy and Geophysics, 2011, 52, 1.30-1.33.	0.2	0

#	Article	IF	Citations
199	Towards the role of interfacial shear in shock-induced intermetallic reactions. , 2012, , .		0
200	Organic Molecules: Is It Possible To Distinguish Aromatics From Aliphatics Collected By Space Missions in High-Speed Impacts. Sci, 2020, 2, 12.	3.0	0
201	Organic Molecules: Is It Possible to Distinguish Aromatics from Aliphatics Collected by Space Missions in High-Speed Impacts?. Sci, 2020, 2, 41.	3.0	0