Akiko M Nakamura

List of Publications by Year
in descending order

101 papers	3,248 citations	201674 27 h-index	155660 55 g-index
107 all docs	107 docs citations	107 times ranked	1870 citing authors

#	Article	IF	Citations
1	The Rubble-Pile Asteroid Itokawa as Observed by Hayabusa. Science, 2006, 312, 1330-1334.	12.6	761
2	Regolith Migration and Sorting on Asteroid Itokawa. Science, 2007, 316, 1011-1014.	12.6	271
3	Detailed Images of Asteroid 25143 Itokawa from Hayabusa. Science, 2006, 312, 1341-1344.	12.6	234
4	Velocity distribution of fragments formed in a simulated collisional disruption. Icarus, 1991, 92, 132-146.	2.5	171
5	Size-frequency statistics of boulders on global surface of asteroid 25143 Itokawa. Earth, Planets and Space, 2008, 60, 13-20.	2.5	121
6	The ESA Hera Mission: Detailed Characterization of the DART Impact Outcome and of the Binary Asteroid (65803) Didymos. Planetary Science Journal, 2022, 3, 160.	3.6	82
7	A survey of possible impact structures on 25143 Itokawa. Icarus, 2009, 200, 486-502.	2.5	75
8	Numerical simulations of impacts involving porous bodies. Icarus, 2009, 201, 802-813.	2.5	71
9	Radar Observations and Physical Model of Asteroid 6489 Golevka. Icarus, 2000, 148, 37-51.	2.5	65
10	The shape distribution of boulders on Asteroid 25143 Itokawa: Comparison with fragments from impact experiments. Icarus, 2010, 207, 277-284.	2.5	52
11	Velocity and spin of fragments from impact disruptions. Icarus, 1992, 100, 127-135.	2.5	47
12	OBSERVATIONAL EVIDENCE FOR AN IMPACT ON THE MAIN-BELT ASTEROID (596) SCHEILA. Astrophysical Journal Letters, 2011, 740, L11.	8.3	45
13	Catastrophic disruption experiments: recent results. Planetary and Space Science, 1994, 42, 1013-1026.	1.7	43
14	Global mapping of the degree of space weathering on asteroid 25143 Itokawa by Hayabusa/AMICA observations. Meteoritics and Planetary Science, 2007, 42, 1791-1800.	1.6	43
15	INTERPRETATION OF (596) SCHEILA'S TRIPLE DUST TAILS. Astrophysical Journal Letters, 2011, 741, L24.	8.3	43
16	Velocity of finer fragments from impact. Planetary and Space Science, 1994, 42, 1043-1052.	1.7	40
17	Weibull parameters ofYakunobasalt targets used in documented high-velocity impact experiments. Journal of Geophysical Research, 2007, 112, .	3.3	40
18	Asteroid Ryugu before the Hayabusa2 encounter. Progress in Earth and Planetary Science, 2018, 5, .	3.0	39

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19	The Hayabusa Spacecraft Asteroid Multi-band Imaging Camera (AMICA). Icarus, 2010, 207, 714-731.	2.5	38
20	Cratering experiments on the self armoring of coarse-grained granular targets. Icarus, 2012, 220, 1040-1049.	2.5	38
21	Laboratory Study of the Bidirectional Reflectance of Powdered Surfaces: On the Asymmetry Parameter of Asteroid Photometric Data. Icarus, 2002, 156, 551-561.	2.5	36
22	Impact process of boulders on the surface of asteroid 25143 Itokawaâ€”fragments from collisional disruption. Earth, Planets and Space, 2008, 60, 7-12.	2.5	36
23	Cratering Experiments into Curved Surfaces and Their Implication for Craters on Small Satellites. Icarus, 1993, 105, 345-350.	2.5	31
24	SILICATE DUST SIZE DISTRIBUTION FROM HYPERVELOCITY COLLISIONS: IMPLICATIONS FOR DUST PRODUCTION IN DEBRIS DISKS. Astrophysical Journal Letters, 2011, 733, L39.	8.3	31
25	Experiments on the consolidation of chondrites and the formation of dense rims around chondrules. Icarus, 2013, 225, 558-569.	2.5	31
26	A polarimetric study of Asteroid 25143 Itokawa. Icarus, 2005, 179, 297-303.	2.5	29
27	Relationship between regolith particle size and porosity on small bodies. Icarus, 2014, 239, 291-293.	2.5	28
28	Collisional disruption experiments of porous targets. Planetary and Space Science, 2009, 57, 111-118.	1.7	26
29	The dynamical evolution of dwarf planet (136108) Haumeaâ€™s collisional family: general properties and implications for the trans-Neptunian belt. Monthly Notices of the Royal Astronomical Society, 2012, 421, 1331-1350.	4.4	26
30	In situ observation of penetration process in silica aerogel: Deceleration mechanism of hard spherical projectiles. Icarus, 2011, 211, 986-992.	2.5	25
31	Quantification of porosity and surface roughness in laboratory measurements of the bidirectional reflectance of asteroid surface analogues. Earth, Planets and Space, 2005, 57, 71-76.	2.5	24
32	Secondary craters of Tycho: Size-frequency distributions and estimated fragment sizeâ€“velocity relationships. Journal of Geophysical Research, 2006, 111, .	3.3	23
33	Velocity Measurements of Impact Ejecta from Regolith Targets. Icarus, 1997, 128, 160-170.	2.5	22
34	Hypervelocity impacts as a source of deceiving surface signatures on iron-rich asteroids. Science Advances, 2019, 5, eaav3971.	10.3	21
35	High- and low-velocity impact experiments on porous sintered glass bead targets of different compressive strengths: Outcome sensitivity and scaling. Icarus, 2010, 205, 702-711.	2.5	20
36	Anisotropic Ejection from Active Asteroid P/2010 A2: An Implication of Impact Shattering on an Asteroid[*]. Astronomical Journal, 2017, 153, 228.	4.7	20

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37	Impact and intrusion experiments on the deceleration of low-velocity impactors by small-body regolith. Icarus, 2013, 223, 222-233.	2.5	19
38	Physical Processes on Interplanetary Dust. Astronomy and Astrophysics Library, 2001, , 445-507.	0.1	19
39	SIZE AND DENSITY ESTIMATION FROM IMPACT TRACK MORPHOLOGY IN SILICA AEROGEL: APPLICATION TO DUST FROM COMET 81P/WILD 2. Astrophysical Journal, 2012, 744, 18.	4.5	18
40	Crater-ray formation by impact-induced ejecta particles. Icarus, 2015, 250, 215-221.	2.5	18
41	Experimental study on compression property of regolith analogues. Planetary and Space Science, 2017, 149, 14-22.	1.7	17
42	Degree of impactor fragmentation under collision with a regolith surfaceâ€"Laboratory impact experiments of rock projectiles. Meteoritics and Planetary Science, 2014, 49, 69-79.	1.6	16
43	Cohesion of regolith: Measurements of meteorite powders. Icarus, 2021, 360, 114357.	2.5	16
44	Detection of mass, shape and surface roughness of target asteroid of MUSES-C by LIDAR. Advances in Space Research, 2002, 29, 1231-1235.	2.6	15
45	Surface environment of Phobos and Phobos simulant UTPS. Earth, Planets and Space, 2021, 73, .	2.5	15
46	Experimental study on static and impact strength of sintered agglomerates. Icarus, 2011, 211, 885-893.	2.5	14
47	Laboratory experiments on crater scalingâ€law for sedimentary rocks in the strength regime. Journal of Geophysical Research, 2012, 117, .	3.3	14
48	Multi-band imaging camera and its sciences for the Japanese near-earth asteroid mission MUSES-C. Earth, Planets and Space, 2001, 53, 1047-1063.	2.5	13
49	Ejecta size-velocity relation derived from the distribution of the secondary craters of kilometer-sized craters on Mars. Planetary and Space Science, 2004, 52, 1103-1108.	1.7	13
50	Measurements of target compressive and tensile strength for application to impact cratering on iceâ€silicate mixtures. Journal of Geophysical Research, 2008, 113, .	3.3	13
51	Size dependence of the disruption threshold: laboratory examination of millimeterâ€"centimeter porous targets. Planetary and Space Science, 2015, 107, 45-52.	1.7	13
52	Asteroidal surface studies by laboratory light scattering and LIDAR on HAYABUSA. Advances in Space Research, 2006, 37, 138-141.	2.6	12
53	Light scattering by particulate media of irregularly shaped particles: laboratory measurements and numerical simulations. Journal of Quantitative Spectroscopy and Radiative Transfer, 2006, 100, 295-304.	2.3	12
54	Compaction and fragmentation of porous gypsum targets from low-velocity impacts. Icarus, 2009, 201, 795-801.	2.5	12

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55	Numerical Simulations of Laboratoryâ€Scale, Hypervelocityâ€Impact Experiments for Asteroidâ€Deflection Code Validation. Earth and Space Science, 2020, 7, e2018EA000474.	2.6	12
56	Collisional disruption of weakly sintered porous targets at low-impact velocities. Earth, Planets and Space, 2007, 59, 319-324.	2.5	11
57	Incident angle dependence of backscattered light by regolith layers. Advances in Space Research, 1999, 23, 1205-1208.	2.6	10
58	Laboratory experiments on the impact disruption of iron meteorites at temperature of near-Earth space. Icarus, 2014, 241, 1-12.	2.5	10
59	Impact cratering on porous targets in the strength regime. Planetary and Space Science, 2017, 149, 5-13.	1.7	10
60	Impact experiments of exotic dust grain capture by highly porous primitive bodies. Icarus, 2013, 224, 209-217.	2.5	9
61	Scaling of impact-generated cavity-size for highly porous targets and its application to cometary surfaces. Icarus, 2017, 292, 234-244.	2.5	9
62	Intercontinental bistatic radar observations of 6489 Golevka (1991 JX). Planetary and Space Science, 1997, 45, 771-778.	1.7	8
63	Crater shape as a possible record of the impact environment of metallic bodies: Effects of temperature, impact velocity and impactor density. Icarus, 2021, 362, 114410.	2.5	8
64	Laboratory measurements of laser-scattered light by rough surfaces. Advances in Space Research, 1999, 23, 1201-1204.	2.6	7
65	Reconsideration of crater size-frequency distribution on the moon: effect of projectile population and secondary craters. Advances in Space Research, 2001, 28, 1181-1186.	2.6	7
66	Collision of a chondrule with matrix: Relation between static strength of matrix and impact pressure. Icarus, 2013, 226, 111-118.	2.5	7
67	Impact experiments on highly porous targets: Cavity morphology and disruption thresholds in the strength regime. Planetary and Space Science, 2015, 107, 36-44.	1.7	7
68	Laboratory experiments on agglomeration of particles in a granular stream. Progress in Earth and Planetary Science, 2018, 5, .	3.0	7
69	Aperture synthesis CS(2-1) observations of a young stellar object GL 490 - Accretion flow in gas disk. Astrophysical Journal, 1991, 383, L81.	4.5	7
70	The Appearance of a â€œFreshâ€• Surface on 596 Scheila as a Consequence of the 2010 Impact Event. Astrophysical Journal Letters, 2022, 924, L9.	8.3	7
71	Laboratory experiments of crater formation on iceâ€"silicate mixture targets. Advances in Space Research, 2007, 39, 392-399.	2.6	6
72	Collisional disruption of porous sintered glass beads at low impact velocities. Advances in Space Research, 2007, 40, 252-257.	2.6	6

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73	Estimating the Porosity Structure of Granular Bodies Using the Laneâ€"Emden Equation Applied to Laboratory Measurements of the Pressureâ€"Density Relation of Fluffy Granular Samples. Astrophysical Journal, 2018, 860, 123.	4.5	6
74	Experimental study concerning the oblique impact of low- and high-density projectiles on sedimentary rocks. Planetary and Space Science, 2021, 195, 105141.	1.7	6
75	Planetary Impact Processes in Porous Materials. Shock Wave and High Pressure Phenomena, 2019, , 103-136.	0.1	6
76	Efficiency of linear and angular momentum transfer in oblique impact. Planetary and Space Science, 1993, 41, 687-692.	1.7	5
77	A formation mechanism for concentric ridges in ejecta surrounding impact craters in a layer of fine glass beads. Icarus, 2013, 225, 298-307.	2.5	5
78	Experimental study of impact-cratering damage on brittle cylindrical column model as a fundamental component of space architecture. Advances in Space Research, 2014, 54, 1479-1486.	2.6	5
79	Asteroids and Their Collisional Disruption. Lecture Notes in Physics, 2008, , 1-27.	0.7	5
80	Measurement of expansion velocity of an impactâ€generated vapor cloud. Geophysical Research Letters, 1993, 20, 1595-1598.	4.0	4
81	Measurements of light scattering by rough surfaces. Advances in Space Research, 1997, 20, 1609-1612.	2.6	4
82	Are hypervelocity impacts able to produce chondrule-like ejecta?. Planetary and Space Science, 2019, 177, 104684.	1.7	4
83	Experimental Study on Gravitational and Atmospheric Effects on Crater Size Formed by Lowâ€Velocity Impacts Into Granular Media. Journal of Geophysical Research E: Planets, 2019, 124, 1379-1392.	3.6	4
84	Cratering of asteroids and small bodies. Advances in Space Research, 2002, 29, 1221-1230.	2.6	3
85	Measurements of bidirectional reflectance of ordinary chondrite for muses-C in-situ detection. Advances in Space Research, 2003, 31, 2495-2499.	2.6	3
86	Centrifugal Experiments with Simulated Regolith: Effects of Gravity, Size Distribution, and Particle Shape on Porosity. Transactions of the Japan Society for Aeronautical and Space Sciences Aerospace Technology Japan, 2016, 14, Pk_17-Pk_21.	0.2	3
87	Impactâ€induced chemical fractionation as inferred from hypervelocity impact experiments with silicate projectiles and metallic targets. Meteoritics and Planetary Science, 2018, 53, 2306-2326.	1.6	3
88	Correction to: Laboratory experiments on agglomeration of particles in a granular stream. Progress in Earth and Planetary Science, 2018, 5, .	3.0	2
89	Collisional disruption of highly porous targets in the strength regime: Effects of mixture. Planetary and Space Science, 2020, 182, 104819.	1.7	2
90	Primordial Porous Structure of Chondrite Parent Bodies Due to Self-gravity. Planetary Science Journal, 2021, 2, 41.	3.6	2

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91	Penetration of Hypervelocity Projectiles into Aluminum and Polyethylene Thin-Sheet Stacks. Japanese Journal of Applied Physics, 1991, 30, 2129-2133.	1.5	1
92	Mars Imaging Camera (MIC) on board PLANET-B. Acta Astronautica, 1999, 45, 597-604.	3.2	1
93	Wavelength dependence of reflectance of Martian surface fogs. Advances in Space Research, 2002, 29, 209-214.	2.6	1
94	Flyer acceleration by high-power laser and impact experiments at velocities higher than 10 km/s. , 2012, , .		1
95	Flyer acceleration experiments using high-power laser. EPJ Web of Conferences, 2013, 59, 19002.	0.3	1
96	Packing fraction of clusters formed in free-falling granular streams based on flash x-ray radiography. Physical Review E, 2021, 103, 032903.	2.1	1
97	IMPACT EXPERIMENTS WITH PROJECTILES AT VELOCITIES HIGHER THAN 10 KMâˆ•S. , 2009, , .		0
98	Boulder Field. , 2014, , 1-9.		0
99	Boulder Field. , 2015, , 154-161.		0
100	Laboratory Study of Compaction of Granular Bodies due to Collisions in Interplanetary Space. Hosokawa Powder Technology Foundation ANNUAL REPORT, 2017, 25, 104-108.	0.0	0
101	Observations of the Agglomeration Process of Granular Streams Using a Flash X-ray Radiography Technique. Hosokawa Powder Technology Foundation ANNUAL REPORT, 2020, 27, 165-167.	0.0	0