

Masahiko Hayakawa

List of Publications by Year in descending order

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Version: 2024-02-01

40
papers

2,356
citations

331670

21
h-index

289244

40
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all docs

40
docs citations

40
times ranked

1196
citing authors

#	ARTICLE	IF	CITATIONS
1	Hayabusa2 arrives at the carbonaceous asteroid 162173 Ryugu—A spinning top—shaped rubble pile. Science, 2019, 364, 268-272.	12.6	410
2	The geomorphology, color, and thermal properties of Ryugu: Implications for parent-body processes. Science, 2019, 364, 252.	12.6	313
3	The surface composition of asteroid 162173 Ryugu from Hayabusa2 near-infrared spectroscopy. Science, 2019, 364, 272-275.	12.6	262
4	An artificial impact on the asteroid (162173) Ryugu formed a crater in the gravity-dominated regime. Science, 2020, 368, 67-71.	12.6	183
5	Sample collection from asteroid (162173) Ryugu by Hayabusa2: Implications for surface evolution. Science, 2020, 368, 654-659.	12.6	158
6	Boulder size and shape distributions on asteroid Ryugu. Icarus, 2019, 331, 179-191.	2.5	107
7	Highly porous nature of a primitive asteroid revealed by thermal imaging. Nature, 2020, 579, 518-522.	27.8	100
8	Samples returned from the asteroid Ryugu are similar to Ivuna-type carbonaceous meteorites. Science, 2023, 379, .	12.6	97
9	Pebbles and sand on asteroid (162173) Ryugu: In situ observation and particles returned to Earth. Science, 2022, 375, 1011-1016.	12.6	78
10	The Small Carry-on Impactor (SCI) and the Hayabusa2 Impact Experiment. Space Science Reviews, 2017, 208, 165-186.	8.1	58
11	Initial inflight calibration for Hayabusa2 optical navigation camera (ONC) for science observations of asteroid Ryugu. Icarus, 2018, 300, 341-359.	2.5	56
12	Updated inflight calibration of Hayabusa2's optical navigation camera (ONC) for scientific observations during the cruise phase. Icarus, 2019, 325, 153-195.	2.5	48
13	Thermally altered subsurface material of asteroid (162173) Ryugu. Nature Astronomy, 2021, 5, 246-250.	10.1	47
14	Scientific Objectives of Small Carry-on Impactor (SCI) and Deployable Camera 3 Digital (DCAM3-D): Observation of an Ejecta Curtain and a Crater Formed on the Surface of Ryugu by an Artificial High-Velocity Impact. Space Science Reviews, 2017, 208, 187-212.	8.1	44
15	Collisional history of Ryugu's parent body from bright surface boulders. Nature Astronomy, 2021, 5, 39-45.	10.1	42
16	Global photometric properties of (162173) Ryugu. Astronomy and Astrophysics, 2020, 639, A83.	5.1	37
17	The Western Bulge of 162173 Ryugu Formed as a Result of a Rotationally Driven Deformation Process. Astrophysical Journal Letters, 2019, 874, L10.	8.3	30
18	Anomalously porous boulders on (162173) Ryugu as primordial materials from its parent body. Nature Astronomy, 2021, 5, 766-774.	10.1	30

#	ARTICLE	IF	CITATIONS
19	The spatial distribution of impact craters on Ryugu. <i>Icarus</i> , 2020, 338, 113527.	2.5	25
20	Resurfacing processes on asteroid (162173) Ryugu caused by an artificial impact of Hayabusa2's Small Carry-on Impactor. <i>Icarus</i> , 2021, 366, 114530.	2.5	24
21	Spectrally blue hydrated parent body of asteroid (162173) Ryugu. <i>Nature Communications</i> , 2021, 12, 5837.	12.8	23
22	Hayabusa2's station-keeping operation in the proximity of the asteroid Ryugu. <i>Astrodynamics</i> , 2020, 4, 349-375.	2.4	19
23	The descent and bouncing path of the Hayabusa2 lander MASCOT at asteroid (162173) Ryugu. <i>Astronomy and Astrophysics</i> , 2019, 632, L3.	5.1	18
24	Hayabusa2 Landing Site Selection: Surface Topography of Ryugu and Touchdown Safety. <i>Space Science Reviews</i> , 2020, 216, 1.	8.1	17
25	Multivariable statistical analysis of spectrophotometry and spectra of (162173) Ryugu as observed by JAXA Hayabusa2 mission. <i>Astronomy and Astrophysics</i> , 2019, 629, A13.	5.1	15
26	Crater depth-to-diameter ratios on asteroid 162173 Ryugu. <i>Icarus</i> , 2021, 354, 114016.	2.5	12
27	Size of particles ejected from an artificial impact crater on asteroid 162173 Ryugu. <i>Astronomy and Astrophysics</i> , 2021, 647, A43.	5.1	12
28	Opposition Observations of 162173 Ryugu: Normal Albedo Map Highlights Variations in Regolith Characteristics. <i>Planetary Science Journal</i> , 2021, 2, 177.	3.6	12
29	Surface roughness of asteroid (162173) Ryugu and comet 67P/Churyumov-Gerasimenko inferred from <i>in situ</i> observations. <i>Monthly Notices of the Royal Astronomical Society</i> , 2020, 500, 3178-3193.	4.4	11
30	Post-arrival calibration of Hayabusa2's optical navigation cameras (ONCs): Severe effects from touchdown events. <i>Icarus</i> , 2021, 360, 114353.	2.5	11
31	Geologic History and Crater Morphology of Asteroid (162173) Ryugu. <i>Journal of Geophysical Research E: Planets</i> , 2021, 126, e2020JE006572.	3.6	10
32	The MASCOT landing area on asteroid (162173) Ryugu: Stereo-photogrammetric analysis using images of the ONC onboard the Hayabusa2 spacecraft. <i>Astronomy and Astrophysics</i> , 2019, 632, L4.	5.1	9
33	Improved method of hydrous mineral detection by latitudinal distribution of 0.7- μ m surface reflectance absorption on the asteroid Ryugu. <i>Icarus</i> , 2021, 360, 114348.	2.5	9
34	Simulation of Seismic Wave Propagation on Asteroid Ryugu Induced by The Impact Experiment of The Hayabusa2 Mission: Limited Mass Transport by Low Yield Strength of Porous Regolith. <i>Journal of Geophysical Research E: Planets</i> , 2021, 126, e2020JE006594.	3.6	8
35	Resurfacing processes constrained by crater distribution on Ryugu. <i>Icarus</i> , 2022, 377, 114911.	2.5	6
36	High-resolution observations of bright boulders on asteroid Ryugu: 2. Spectral properties. <i>Icarus</i> , 2021, 369, 114591.	2.5	5

#	ARTICLE	IF	CITATIONS
37	Site selection for the Hayabusa2 artificial cratering and subsurface material sampling on Ryugu. Planetary and Space Science, 2022, 219, 105519.	1.7	4
38	Alignment determination of the Hayabusa2 laser altimeter (LIDAR). Earth, Planets and Space, 2021, 73, .	2.5	3
39	High-resolution observations of bright boulders on asteroid Ryugu: 1. Size frequency distribution and morphology. Icarus, 2021, 369, 114529.	2.5	2
40	Three-axial shape distributions of pebbles, cobbles and boulders smaller than a few meters on asteroid Ryugu. Icarus, 2022, 381, 115007.	2.5	1