Tomokatsu Morota

List of Publications by Year
in descending order

72	4,182	136950	110387
papers	citations	32 h-index	64 g-index

75	75	75	1994
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Hayabusa2 arrives at the carbonaceous asteroid 162173 Ryuguâ€”A spinning topâ€“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 global distribution of pure anorthosite on the Moon. Nature, 2009, 461, 236-240.	27.8	265
4	The surface composition of asteroid 162173 Ryugu from Hayabusa2 near-infrared spectroscopy. Science, 2019, 364, 272-275.	12.6	262
5	Global lunar-surface mapping experiment using the Lunar Imager/Spectrometer on SELENE. Earth, Planets and Space, 2008, 60, 243-255.	2.5	184
6	An artificial impact on the asteroid (162173) Ryugu formed a crater in the gravity-dominated regime. Science, 2020, 368, 67-71.	12.6	183
7	Sample collection from asteroid (162173) Ryugu by Hayabusa2: Implications for surface evolution. Science, 2020, 368, 654-659.	12.6	158
8	Preliminary analysis of the Hayabusa2 samples returned from C-type asteroid Ryugu. Nature Astronomy, 2022, 6, 214-220.	10.1	136
9	Long-Lived Volcanism on the Lunar Farside Revealed by SELENE Terrain Camera. Science, 2009, 323, 905-908.	12.6	133
10	Timing and characteristics of the latest mare eruption on the Moon. Earth and Planetary Science Letters, 2011, 302, 255-266.	4.4	133
11	Performance and scientific objectives of the SELENE (KAGUYA) Multiband Imager. Earth, Planets and Space, 2008, 60, 257-264.	2.5	116
12	Boulder size and shape distributions on asteroid Ryugu. Icarus, 2019, 331, 179-191.	2.5	107
13	Massive layer of pure anorthosite on the Moon. Geophysical Research Letters, 2012, 39, .	4.0	102
14	Highly porous nature of a primitive asteroid revealed by thermal imaging. Nature, 2020, 579, 518-522.	27.8	100
15	Images from the surface of asteroid Ryugu show rocks similar to carbonaceous chondrite meteorites. Science, 2019, 365, 817-820.	12.6	99
16	Samples returned from the asteroid Ryugu are similar to Ivuna-type carbonaceous meteorites. Science, 2023, 379, .	12.6	97
17	Lunar photometric properties at wavelengths 0.5â€“1.6 Î¼m acquired by SELENE Spectral Profiler and their dependency on local albedo and latitudinal zones. Icarus, 2011, 215, 639-660.	2.5	86
18	Preflight Calibration Test Results for Optical Navigation Camera Telescope (ONC-T) Onboard the Hayabusa2 Spacecraft. Space Science Reviews, 2017, 208, 17-31.	8.1	81

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19	Asymmetric crustal growth on the Moon indicated by primitive farside highland materials. Nature Geoscience, 2012, 5, 384-388.	12.9	79
20	Pebbles and sand on asteroid (162173) Ryugu: In situ observation and particles returned to Earth. Science, 2022, 375, 1011-1016.	12.6	78
21	On the origin and evolution of the asteroid Ryugu: A comprehensive geochemical perspective. Proceedings of the Japan Academy Series B: Physical and Biological Sciences, 2022, 98, 227-282.	3.8	77
22	Initial inflight calibration for Hayabusa2 optical navigation camera (ONC) for science observations of asteroid Ryugu. Icarus, 2018, 300, 341-359.	2.5	56
23	Mare volcanism in the lunar farside Moscoviense region: Implication for lateral variation in magma production of the Moon. Geophysical Research Letters, 2009, 36, .	4.0	51
24	Martian moons exploration MMX: sample return mission to Phobos elucidating formation processes of habitable planets. Earth, Planets and Space, 2022, 74, .	2.5	51
25	Geologic structure generated by largeâ€impact basin formation observed at the South Poleâ€Aitken basin on the Moon. Geophysical Research Letters, 2014, 41, 2738-2745.	4.0	49
26	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
27	Thermally altered subsurface material of asteroid (162173) Ryugu. Nature Astronomy, 2021, 5, 246-250.	10.1	47
28	Compositional evidence for an impact origin of the Moonâ€™s Procellarum basin. Nature Geoscience, 2012, 5, 775-778.	12.9	45
29	Collisional history of Ryuguâ€™s parent body from bright surface boulders. Nature Astronomy, 2021, 5, 39-45.	10.1	42
30	Spacecraft sample collection and subsurface excavation of asteroid (101955) Bennu. Science, 2022, 377, 285-291.	12.6	39
31	A new type of pyroclastic deposit on the Moon containing Feâ€spinel and chromite. Geophysical Research Letters, 2013, 40, 4549-4554.	4.0	38
32	Global photometric properties of (162173) Ryugu. Astronomy and Astrophysics, 2020, 639, A83.	5.1	37
33	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
34	Anomalously porous boulders on (162173) Ryugu as primordial materials from its parent body. Nature Astronomy, 2021, 5, 766-774.	10.1	30
35	Spin-driven evolution of asteroids' top-shapes at fast and slow spins seen from (101955) Bennu and (162173) Ryugu. Icarus, 2020, 352, 113946.	2.5	28
36	Timing and duration of mare volcanism in the central region of the northern farside of the Moon. Earth, Planets and Space, 2011, 63, 5-13.	2.5	25

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37	The spatial distribution of impact craters on Ryugu. Icarus, 2020, 338, 113527.	2.5	25
38	Resurfacing processes on asteroid (162173) Ryugu caused by an artificial impact of Hayabusa2's Small Carry-on Impactor. Icarus, 2021, 366, 114530.	2.5	24
39	Spectrally blue hydrated parent body of asteroid (162173) Ryugu. Nature Communications, 2021, 12, 5837.	12.8	23
40	Young mare volcanism in the Orientale region contemporary with the Procellarum KREEP Terrane (PKT) volcanism peak period â^¼2 billion years ago. Geophysical Research Letters, 2012, 39, .	4.0	22
41	Timescale of asteroid resurfacing by regolith convection resulting from the impact-induced global seismic shaking. Icarus, 2016, 272, 165-177.	2.5	19
42	The descent and bouncing path of the Hayabusa2 lander MASCOT at asteroid (162173) Ryugu. Astronomy and Astrophysics, 2019, 632, L3.	5.1	18
43	Hayabusa2 Landing Site Selection: Surface Topography of Ryugu and Touchdown Safety. Space Science Reviews, 2020, 216, 1.	8.1	17
44	Multivariable statistical analysis of spectrophotometry and spectra of (162173) Ryugu as observed by JAXA Hayabusa2 mission. Astronomy and Astrophysics, 2019, 629, A13.	5.1	15
45	Asteroid shower on the Earth-Moon system immediately before the Cryogenian period revealed by KAGUYA. Nature Communications, 2020, 11, 3453.	12.8	15
46	Magma source transition of lunar mare volcanism at 2.3ÂGa. Meteoritics and Planetary Science, 2017, 52, 1899-1915.	1.6	14
47	Global occurrence trend of high-Ca pyroxene on lunar highlands and its implications. Journal of Geophysical Research E: Planets, 2015, 120, 831-848.	3.6	13
48	Featureless spectra on the Moon as evidence of residual lunar primordial crust. Journal of Geophysical Research E: Planets, 2015, 120, 2190-2205.	3.6	13
49	Crater depth-to-diameter ratios on asteroid 162173 Ryugu. Icarus, 2021, 354, 114016.	2.5	12
50	Opposition Observations of 162173 Ryugu: Normal Albedo Map Highlights Variations in Regolith Characteristics. Planetary Science Journal, 2021, 2, 177.	3.6	12
51	Variation of the lunar highland surface roughness at baseline 0.15â€“100â€‰km and the relationship to relative age. Geophysical Research Letters, 2014, 41, 1444-1451.	4.0	11
52	Surface roughness of asteroid (162173) Ryugu and comet 67P/Churyumovâ€“Gerasimenko inferred fromin situobservations. Monthly Notices of the Royal Astronomical Society, 2020, 500, 3178-3193.	4.4	11
53	Post-arrival calibration of Hayabusa2's optical navigation cameras (ONCs): Severe effects from touchdown events. Icarus, 2021, 360, 114353.	2.5	11
54	Geologic History and Crater Morphology of Asteroid (162173) Ryugu. Journal of Geophysical Research E: Planets, 2021, 126, e2020JE006572.	3.6	10

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55	Lateral heterogeneity of lunar volcanic activity according to volumes of mare basalts in the farside basins. Journal of Geophysical Research E: Planets, 2017, 122, 1505-1521.	3.6	9
56	The MASCOT landing area on asteroid (162173) Ryugu: Stereo-photogrammetric analysis using images of the ONC onboard the Hayabusa2 spacecraft. Astronomy and Astrophysics, 2019, 632, L4.	5.1	9
57	Improved method of hydrous mineral detection by latitudinal distribution of 0.7-Î¼m surface reflectance absorption on the asteroid Ryugu. Icarus, 2021, 360, 114348.	2.5	9
58	Hayabusa2 pinpoint touchdown near the artificial crater on Ryugu: Trajectory design and guidance performance. Advances in Space Research, 2021, 68, 3093-3140.	2.6	9
59	Constraints on timing and magnitude of early global expansion of the Moon from topographic features in linear gravity anomaly areas. Geophysical Research Letters, 2016, 43, 4865-4870.	4.0	6
60	Development of image texture analysis technique for boulder distribution measurements: Applications to asteroids Ryugu and Itokawa. Planetary and Space Science, 2021, 204, 105249.	1.7	6
61	Resurfacing processes constrained by crater distribution on Ryugu. Icarus, 2022, 377, 114911.	2.5	6
62	High-resolution observations of bright boulders on asteroid Ryugu: 2. Spectral properties. Icarus, 2021, 369, 114591.	2.5	5
63	YORP Effect on Asteroid 162173 Ryugu: Implications for the Dynamical History. Journal of Geophysical Research E: Planets, 2021, 126, e2021JE006863.	3.6	4
64	Site selection for the Hayabusa2 artificial cratering and subsurface material sampling on Ryugu. Planetary and Space Science, 2022, 219, 105519.	1.7	4
65	Alignment determination of the Hayabusa2 laser altimeter (LIDAR). Earth, Planets and Space, 2021, 73, .	2.5	3
66	Quantitative measurement method for impact basin characteristics based on localized spherical harmonics. Icarus, 2014, 228, 315-323.	2.5	2
67	Lunar mare volcanism: lateral heterogeneities in volcanic activity and relationship with crustal structure. Geological Society Special Publication, 2015, 401, 127-138.	1.3	2
68	High-resolution observations of bright boulders on asteroid Ryugu: 1. Size frequency distribution and morphology. Icarus, 2021, 369, 114529.	2.5	2
69	Magma eruption ages and fluxes in the Rembrandt and Caloris interior plains on Mercury: Implications for the north-south smooth plains asymmetry. Icarus, 2022, 382, 115034.	2.5	2
70	Three-axial shape distributions of pebbles, cobbles and boulders smaller than a few meters on asteroid Ryugu. Icarus, 2022, 381, 115007.	2.5	1
71	Sensitivity degradation of optical navigation camera and attempts for dust removal. , 2022, , 415-431.		1
72	Development of Numerical Model of the Thermal State of an Asteroid with Locally Rough Surface and Its Application. International Journal of Thermophysics, 2022, 43, 1.	2.1	1