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	Samples returned from the asteroid Ryugu are similar to Ivuna-type carbonaceous meteorites. Science, 2023, 379, .	12.6	97
2	Martian moons exploration MMX: sample return mission to Phobos elucidating formation processes of habitable planets. Earth, Planets and Space, 2022, 74, .	2.5	51
3	Resurfacing processes constrained by crater distribution on Ryugu. Icarus, 2022, 377, 114911.	2.5	6
4	Pebbles and sand on asteroid (162173) Ryugu: In situ observation and particles returned to Earth. Science, 2022, 375, 1011-1016.	12.6	78
5	Three-axial shape distributions of pebbles, cobbles and boulders smaller than a few meters on asteroid Ryugu. Icarus, 2022, 381, 115007.	2.5	1
6	Preliminary analysis of the Hayabusa2 samples returned from C-type asteroid Ryugu. Nature Astronomy, 2022, 6, 214-220.	10.1	136
7	Sensitivity degradation of optical navigation camera and attempts for dust removal. , 2022, , 415-431.		1
8	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
9	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
10	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
11	Site selection for the Hayabusa2 artificial cratering and subsurface material sampling on Ryugu. Planetary and Space Science, 2022, 219, 105519.	1.7	4
12	Spacecraft sample collection and subsurface excavation of asteroid (101955) Bennu. Science, 2022, 377, 285-291.	12.6	39
13	Crater depth-to-diameter ratios on asteroid 162173 Ryugu. Icarus, 2021, 354, 114016.	2.5	12
14	Collisional history of Ryuguâ€™s parent body from bright surface boulders. Nature Astronomy, 2021, 5, 39-45.	10.1	42
15	Thermally altered subsurface material of asteroid (162173) Ryugu. Nature Astronomy, 2021, 5, 246-250.	10.1	47
16	Alignment determination of the Hayabusa2 laser altimeter (LIDAR). Earth, Planets and Space, 2021, 73, .	2.5	3
17	Post-arrival calibration of Hayabusa2's optical navigation cameras (ONCs): Severe effects from touchdown events. Icarus, 2021, 360, 114353.	2.5	11
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	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
20	Geologic History and Crater Morphology of Asteroid (162173) Ryugu. Journal of Geophysical Research E: Planets, 2021, 126, e2020JE006572.	3.6	10
21	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
22	Opposition Observations of 162173 Ryugu: Normal Albedo Map Highlights Variations in Regolith Characteristics. Planetary Science Journal, 2021, 2, 177.	3.6	12
23	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
24	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
25	High-resolution observations of bright boulders on asteroid Ryugu: 1. Size frequency distribution and morphology. Icarus, 2021, 369, 114529.	2.5	2
26	High-resolution observations of bright boulders on asteroid Ryugu: 2. Spectral properties. Icarus, 2021, 369, 114591.	2.5	5
27	Spectrally blue hydrated parent body of asteroid (162173) Ryugu. Nature Communications, 2021, 12, 5837.	12.8	23
28	YORP Effect on Asteroid 162173 Ryugu: Implications for the Dynamical History. Journal of Geophysical Research E: Planets, 2021, 126, e2021JE006863.	3.6	4
29	The spatial distribution of impact craters on Ryugu. Icarus, 2020, 338, 113527.	2.5	25
30	Hayabusa2 Landing Site Selection: Surface Topography of Ryugu and Touchdown Safety. Space Science Reviews, 2020, 216, 1.	8.1	17
31	Asteroid shower on the Earth-Moon system immediately before the Cryogenian period revealed by KAGUYA. Nature Communications, 2020, 11, 3453.	12.8	15
32	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
33	Global photometric properties of (162173) Ryugu. Astronomy and Astrophysics, 2020, 639, A83.	5.1	37
34	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
35	Sample collection from asteroid (162173) Ryugu by Hayabusa2: Implications for surface evolution. Science, 2020, 368, 654-659.	12.6	158
36	Highly porous nature of a primitive asteroid revealed by thermal imaging. Nature, 2020, 579, 518-522.	27.8	100

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37	An artificial impact on the asteroid (162173) Ryugu formed a crater in the gravity-dominated regime. Science, 2020, 368, 67-71.	12.6	183
38	Images from the surface of asteroid Ryugu show rocks similar to carbonaceous chondrite meteorites. Science, 2019, 365, 817-820.	12.6	99
39	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
40	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
41	Boulder size and shape distributions on asteroid Ryugu. Icarus, 2019, 331, 179-191.	2.5	107
42	The surface composition of asteroid 162173 Ryugu from Hayabusa2 near-infrared spectroscopy. Science, 2019, 364, 272-275.	12.6	262
43	Hayabusa2 arrives at the carbonaceous asteroid 162173 Ryuguâ€”A spinning topâ€“shaped rubble pile. Science, 2019, 364, 268-272.	12.6	410
44	The geomorphology, color, and thermal properties of Ryugu: Implications for parent-body processes. Science, 2019, 364, 252.	12.6	313
45	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
46	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
47	The descent and bouncing path of the Hayabusa2 lander MASCOT at asteroid (162173) Ryugu. Astronomy and Astrophysics, 2019, 632, L3.	5.1	18
48	Initial inflight calibration for Hayabusa2 optical navigation camera (ONC) for science observations of asteroid Ryugu. Icarus, 2018, 300, 341-359.	2.5	56
49	Magma source transition of lunar mare volcanism at 2.3ÂGa. Meteoritics and Planetary Science, 2017, 52, 1899-1915.	1.6	14
50	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
51	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
52	Timescale of asteroid resurfacing by regolith convection resulting from the impact-induced global seismic shaking. Icarus, 2016, 272, 165-177.	2.5	19
53	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
54	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

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55	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
56	Lunar mare volcanism: lateral heterogeneities in volcanic activity and relationship with crustal structure. Geological Society Special Publication, 2015, 401, 127-138.	1.3	2
57	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
58	Quantitative measurement method for impact basin characteristics based on localized spherical harmonics. Icarus, 2014, 228, 315-323.	2.5	2
59	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
60	A new type of pyroclastic deposit on the Moon containing Feâ€spinel and chromite. Geophysical Research Letters, 2013, 40, 4549-4554.	4.0	38
61	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
62	Asymmetric crustal growth on the Moon indicated by primitive farside highland materials. Nature Geoscience, 2012, 5, 384-388.	12.9	79
63	Compositional evidence for an impact origin of the Moonâ€™s Procellarum basin. Nature Geoscience, 2012, 5, 775-778.	12.9	45
64	Massive layer of pure anorthosite on the Moon. Geophysical Research Letters, 2012, 39, .	4.0	102
65	Timing and characteristics of the latest mare eruption on the Moon. Earth and Planetary Science Letters, 2011, 302, 255-266.	4.4	133
66	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
67	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
68	The global distribution of pure anorthosite on the Moon. Nature, 2009, 461, 236-240.	27.8	265
69	Long-Lived Volcanism on the Lunar Farside Revealed by SELENE Terrain Camera. Science, 2009, 323, 905-908.	12.6	133
70	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
71	Global lunar-surface mapping experiment using the Lunar Imager/Spectrometer on SELENE. Earth, Planets and Space, 2008, 60, 243-255.	2.5	184
72	Performance and scientific objectives of the SELENE (KAGUYA) Multiband Imager. Earth, Planets and Space, 2008, 60, 257-264.	2.5	116