Goro Komatsu

List of Publications by Year
in descending order

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141	5,844	101543	79698
papers	citations	36 h-index	73 g-index

148	148	148	4337
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	The volcanology of Idunn Mons, Venus: The complex evolution of a possible active volcano. Journal of Volcanology and Geothermal Research, 2022, 421, 107428.	2.1	7
2	Recent boulder falls within the Finsen crater on the lunar far side: An assessment of the possible triggering rationale. Icarus, 2022, 377, 114904.	2.5	5
3	Utilization of the VoronoÃ¯ tessellation for improved planetary age determination: A case study of a large rampart crater in Thaumasia Planum (Mars). Planetary and Space Science, 2022, 217, 105503.	1.7	1
4	Large-Scale and Deep-Seated Gravitational Slope Deformations on Mars: A Review. Geosciences (Switzerland), 2021, 11, 174.	2.2	5
5	The Geologically Supervised Spectral Investigation as a Key Methodology for Identifying Volcanically Active Areas on Venus. Journal of Geophysical Research E: Planets, 2021, 126, e2021JE006909.	3.6	7
6	Ryuguâ€™s observed volatile loss did not arise from impact heating alone. Communications Earth & Environment, 2021, 2, .	6.8	5
7	The Young Volcanic Rises on Venus: a Key Scientific Target for Future Orbital and in-situ Measurements on Venus. Solar System Research, 2021, 55, 315-323.	0.7	9
8	Evidence of regionally distributed tectonoâ€volcanism in a floor fractured crater of Northâ€Central Arabia Terra, Mars. Journal of Geophysical Research E: Planets, 2021, 126, e2020JE006748.	3.6	0
9	Idunn Mons: Evidence for Ongoing Volcano-tectonic Activity and Atmospheric Implications on Venus. Planetary Science Journal, 2021, 2, 215.	3.6	10
10	Thermodynamics of Shock Vaporization/Devolatilization of Volatile-Bearing Rocks and its Experimental Investigation. Review of High Pressure Science and Technology/Koatsuryoku No Kagaku To Gijutsu, 2021, 31, 140-148.	0.0	0
11	Middle and Late Quaternary glacial lake-outburst floods, drainage diversions and reorganization of fluvial systems in northwestern Eurasia. Earth-Science Reviews, 2020, 201, 103069.	9.1	34
12	Sample collection from asteroid (162173) Ryugu by Hayabusa2: Implications for surface evolution. Science, 2020, 368, 654-659.	12.6	158
13	Local stratigraphic relations at Sandel crater, Venus: Possible evidence for recent volcano-tectonic activity in Imdr Regio. Earth and Planetary Science Letters, 2020, 546, 116410.	4.4	10
14	Nature park establishment and environmental conflicts in coastal areas: The case of the Costa Teatina National Park in central Italy. Ocean and Coastal Management, 2019, 182, 104947.	4.4	8
15	Shock Vaporization/Devolatilization of Evaporitic Minerals, Halite and Gypsum, in an Open System Investigated by a Twoâ€Stage Light Gas Gun. Geophysical Research Letters, 2019, 46, 7258-7267.	4.0	4
16	Hayabusa2 arrives at the carbonaceous asteroid 162173 Ryuguâ€”A spinning topâ€“shaped rubble pile. Science, 2019, 364, 268-272.	12.6	410
17	The geomorphology, color, and thermal properties of Ryugu: Implications for parent-body processes. Science, 2019, 364, 252.	12.6	313
18	The 1997 Mars Pathfinder Spacecraft Landing Site: Spillover Deposits from an Early Mars Inland Sea. Scientific Reports, 2019, 9, 4045.	3.3	9

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19	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
20	Timings of early crustal activity in southern highlands of Mars: Periods of crustal stretching and shortening. Geoscience Frontiers, 2019, 10, 1029-1037.	8.4	7
21	The Goshogake mud volcano field, Tohoku, northern Japan: An acidic, high-temperature system related to magmatic volcanism. Geomorphology, 2019, 329, 32-45.	2.6	3
22	Further evidence for an impact origin of the Tsenkher structure in the Gobi-Altai, Mongolia: geology of a 3.7 km crater with a well-preserved ejecta blanket. Geological Magazine, 2019, 156, 1-24.	1.5	16
23	The Polygonal Surface Structures in the Dalangtan Playa, Qaidam Basin, NW China: Controlling Factors for Their Formation and Implications for Analogous Martian Landforms. Journal of Geophysical Research E: Planets, 2018, 123, 1910-1933.	3.6	17
24	Morphometric analysis of a Hesperian aged Martian lobate scarp using high-resolution data. Journal of Structural Geology, 2018, 113, 1-9.	2.3	9
25	Geological Features and Evolution of Yardangs in the Qaidam Basin, Tibetan Plateau (NW China): A Terrestrial Analogue for Mars. Journal of Geophysical Research E: Planets, 2018, 123, 2336-2364.	3.6	23
26	Dynamique de la sÃ©dimentation Ã l'HolocÃ¨ne moyen et final et ses implications palÃ©oclimatiques dans le bassin du lac Ulaan, sud de la Mongolie. Geomorphologie Relief, Processus, Environnement, 2018, 24, 351-363.	0.4	12
27	Climate-Driven Changes in Lake Areas for the Last Half Century in the Valley of Lakes, Govi Region, Southern Mongolia. Natural Science, 2018, 10, 263-277.	0.4	14
28	Spreading vs. Rifting as modes of extensional tectonics on the globally expanded Ganymede. Icarus, 2017, 288, 148-159.	2.5	10
29	Newly Discovered Ringâ€Moat Dome Structures in the Lunar Maria: Possible Origins and Implications. Geophysical Research Letters, 2017, 44, 9216-9224.	4.0	18
30	A new terrestrial analogue site for Mars research: The Qaidam Basin, Tibetan Plateau (NW China). Earth-Science Reviews, 2017, 164, 84-101.	9.1	76
31	Generic identification and classification of morphostructures in the Noachis-Sabaea region, southern highlands of Mars. Journal of Maps, 2017, 13, 755-766.	2.0	10
32	Pleistocene Lake Bonneville as an Analog for Extraterrestrial Lakes and Oceans. Developments in Earth Surface Processes, 2016, 20, 570-597.	2.8	3
33	Geomorphological View of the Environmental History of Mars and Candidate Habitable Environments. Journal of Geography (Chigaku Zasshi), 2016, 125, 171-184.	0.3	4
34	Small edifice features in Chryse Planitia, Mars: Assessment of a mud volcano hypothesis. Icarus, 2016, 268, 56-75.	2.5	43
35	Tsunami waves extensively resurfaced the shorelines of an early Martian ocean. Scientific Reports, 2016, 6, 25106.	3.3	121
36	Present-day aeolian activity in Herschel Crater, Mars. Icarus, 2016, 265, 139-148.	2.5	26

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37	The Argyre Region as a Prime Target forin situAstrobiological Exploration of Mars. Astrobiology, 2016, 16, 143-158.	3.0	4
38	Catastrophic flooding, palaeolakes, and late Quaternary drainage reorganization in northern Eurasia. International Geology Review, 2016, 58, 1693-1722.	2.1	29
39	Large rock slides in impact craters on the Moon and Mercury. Icarus, 2015, 260, 289-300.	2.5	24
40	Characteristics of Erosional Morphology Formed by Tsunami Waves along the Sanriku Coast, Northeastern Japan. Journal of Geography (Chigaku Zasshi), 2015, 124, 241-258.	0.3	7
41	Sinuous Rille. , 2015, , 1957-1963.		1
42	Fluvial geomorphology on Earth-like planetary surfaces: A review. Geomorphology, 2015, 245, 149-182.	2.6	70
43	Jupiter ICY moon explorer (JUICE): Advances in the design of the radar for Icy Moons (RIME). , 2015, , .		29
44	Geomorphic imprints of repeated tsunami waves in a coastal valley in northeastern Japan. Geomorphology, 2015, 242, 3-10.	2.6	12
45	Geological and hydrological histories of the Argyre province, Mars. Icarus, 2015, 253, 66-98.	2.5	24
46	The evolution of gullies in steppe and forest-steppe landscapes of the Minusinskaya intermountain depression, Siberia: a case study in the central part of the Krasnoyarsk water reservoir. Physical Geography, 2015, 36, 305-321.	1.4	1
47	Outflow Channel (Venus). , 2015, , 1496-1498.		0
48	Valley Network (Venus). , 2015, , 2236-2239.		0
49	Canali (Venus). , 2015, , 212-217.		0
50	Amphitheater-Headed Valley (Venus). , 2015, , 71-73.		0
51	Canali (Venus). , 2014, , 1-8.		0
52	Amphitheater-Headed Valley (Venus). , 2014, , 1-3.		0
53	Models of Formation and Activity of Spring Mounds in the Mechertate-Chrita-Sidi El Hani System, Eastern Tunisia: Implications for the Habitability of Mars. Life, 2014, 4, 386-432.	2.4	10
54	Analysis of a new geomorphological inventory of landslides in Valles Marineris, Mars. Earth and Planetary Science Letters, 2014, 405, 156-168.	4.4	59

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55	Luminescence dating of scoria fall and lahar deposits from Sommaâ€“Vesuvius, Italy. Quaternary Geochronology, 2014, 20, 39-50.	1.4	14
56	Hydrodynamics of impact-induced tsunami over the Martian ocean. Planetary and Space Science, 2014, 95, 33-44.	1.7	16
57	A global inventory of central pit craters on the Moon: Distribution, morphology, and geometry. Icarus, 2014, 227, 195-201.	2.5	16
58	Groundwater influence on the aeolian sequence stratigraphy of the Mechertateâ€“Chritaâ€“Sidi El Hani system, Tunisian Sahel: Analogies to the wetâ€“dry aeolian sequence stratigraphy at Meridiani Planum, Terby crater, and Gale crater, Mars. Planetary and Space Science, 2014, 95, 56-78.	1.7	15
59	Reprint of: Impact craters with ejecta flows and central pits on Mercury. Planetary and Space Science, 2014, 95, 103-119.	1.7	2
60	Drainage systems of Lonar Crater, India: Contributions to Lonar Lake hydrology and crater degradation. Planetary and Space Science, 2014, 95, 45-55.	1.7	36
61	Formation and geomorphologic history of the <scp>L</scp>onar impact crater deduced from in situ cosmogenic ¹⁰<scp>B</scp>e and ²⁶<scp>A</scp>l. Geochemistry, Geophysics, Geosystems, 2014, 15, 3190-3197.	2.5	16
62	Effects of Tsunami Wave Erosion on Natural Landscapes: Examples from the 2011 Tohoku-oki Tsunami. Advances in Natural and Technological Hazards Research, 2014, , 243-253.	1.1	3
63	Fluvioâ€“Lacustrine Sedimentation and Tectonic Influence, Lunae Planum (Mars). Springer Geology, 2014, , 355-359.	0.3	0
64	Sinuous Rille. , 2014, , 1-9.		0
65	Valley Network (Venus). , 2014, , 1-4.		0
66	Impact craters with ejecta flows and central pits on Mercury. Planetary and Space Science, 2013, 82-83, 62-78.	1.7	33
67	RIME: Radar for Icy Moon Exploration. , 2013, , .		57
68	Methane on Mars. Journal of the Geological Society of Japan, 2012, 118, 664-674.	0.6	2
69	Outcrop investigation in Mars geology. Journal of the Geological Society of Japan, 2012, 118, VII-VIII.	0.6	0
70	The status of Mars exploration: the importance of terrestrial analogs and the role of geologists. Journal of the Geological Society of Japan, 2012, 118, 597-605.	0.6	1
71	GIS analyses of Martian satellite imageries and topographic data. Journal of the Geological Society of Japan, 2012, 118, 683-688.	0.6	1
72	A proposal for rover geological exploration on Mars. Journal of the Geological Society of Japan, 2012, 118, 606-617.	0.6	0

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73	Planetary geology and terrestrial analogs in Asia. Eos, 2012, 93, 164-164.	0.1	2
74	The comparative planetary geology of oceans, lakes and outflow channels on Mars. Journal of the Geological Society of Japan, 2012, 118, 618-631.	0.6	0
75	The influence of local topography for wind direction on Mars: two examples of dune fields in crater basins. Earth Surface Processes and Landforms, 2012, 37, 1437-1443.	2.5	25
76	Harmakhis Vallis Source Region, Mars: Insights into the recent geothermal history based on geological mapping. Planetary and Space Science, 2011, 59, 1179-1194.	1.7	9
77	Roles of methane and carbon dioxide in geological processes on Mars. Planetary and Space Science, 2011, 59, 169-181.	1.7	39
78	An inventory of potentially habitable environments on Mars: Geological and biological perspectives. , 2011, , .		11
79	Utah's geologic and geomorphic analogs to Marsâ€"An overview for planetary exploration. , 2011, , .		4
80	Geomorphic knobs of Candor Chasma, Mars: New Mars Reconnaissance Orbiter data and comparisons to terrestrial analogs. Icarus, 2010, 205, 138-153.	2.5	26
81	Geophysical survey of the proposed Tsenkher impact structure, Gobi Altai, Mongolia. Meteoritics and Planetary Science, 2010, 45, 373-382.	1.6	4
82	Deformation band clusters on Mars and implications for subsurface fluid flow. Bulletin of the Geological Society of America, 2009, 121, 474-482.	3.3	47
83	New evidence for a magmatic influence on the origin of Valles Marineris, Mars. Journal of Volcanology and Geothermal Research, 2009, 185, 12-27.	2.1	31
84	Paleolakes, paleofloods, and depressions in Aurorae and Ophir Plana, Mars: Connectivity of surface and subsurface hydrological systems. Icarus, 2009, 201, 474-491.	2.5	30
85	Possible pingo fields in the Utopia basin, Mars: Geological and climatical implications. Icarus, 2009, 199, 49-74.	2.5	74
86	Depth profiles of venusian sinuous rilles and valley networks. Icarus, 2009, 199, 250-263.	2.5	34
87	Geological evolution of Ares Vallis on Mars: Formation by multiple events of catastrophic flooding, glacial and periglacial processes. Icarus, 2009, 202, 60-77.	2.5	55
88	GRS evidence and the possibility of paleooceans on Mars. Planetary and Space Science, 2009, 57, 664-684.	1.7	107
89	Quaternary paleolake formation and cataclysmic flooding along the upper Yenisei River. Geomorphology, 2009, 104, 143-164.	2.6	61
90	The search for life beyond Earth through fuzzy expert systems. Planetary and Space Science, 2008, 56, 448-472.	1.7	23

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91	Late Pleistocene glaciers in Darhad Basin, northern Mongolia. Quaternary Research, 2008, 69, 169-187.	1.7	73
92	Application of GIS to Geomorphological Research on Mars. Journal of Geography (Chigaku Zasshi), 2008, 117, 401-411.	0.3	3
93	Combinations of processes responsible for Martian impact crater â€œlayered ejecta structuresâ€• emplacement. Journal of Geophysical Research, 2007, 112, .	3.3	67
94	Geomorphology of subglacial volcanoes in the Azas Plateau, the Tuva Republic, Russia. Geomorphology, 2007, 88, 312-328.	2.6	30
95	Origin of glacialâ€“fluvial landforms in the Azas Plateau volcanic field, the Tuva Republic, Russia: Role of iceâ€“magma interaction. Geomorphology, 2007, 88, 352-366.	2.6	12
96	Magnetometer survey of the proposed Sirente meteorite crater field, central Italy: Evidence for uplifted crater rims and buried meteorites. Meteoritics and Planetary Science, 2007, 42, 211-222.	1.6	7
97	Tier-Scalable Reconnaissance Missions For The Autonomous Exploration Of Planetary Bodies. , 2007, , .		32
98	Formation and disruption of aquifers in southwestern Chryse Planitia, Mars. Icarus, 2007, 191, 545-567.	2.5	38
99	Cataclysmic Scabland flooding: Insights from a simple depth-averaged numerical model. Environmental Modelling and Software, 2007, 22, 1400-1408.	4.5	23
100	Models of iron oxide concretion formation: field, numerical, and laboratory comparisons. Geofluids, 2007, 7, 356-368.	0.7	74
101	Rivers in the Solar System: Water Is Not the Only Fluid Flow on Planetary Bodies. Geography Compass, 2007, 1, 480-502.	2.7	28
102	Geological and geochemical data from the proposed Sirente crater field: New age dating and evidence for heating of target. Meteoritics and Planetary Science, 2006, 41, 1331-1345.	1.6	13
103	Headward growth of chasmata by volatile outbursts, collapse, and drainage: Evidence from Ganges chaos, Mars. Geophysical Research Letters, 2006, 33, n/a-n/a.	4.0	27
104	The Tsenkher structure in the Gobi-Altai, Mongolia: Geomorphological hints of an impact origin. Geomorphology, 2006, 74, 164-180.	2.6	10
105	Numerical simulations of large-scale cataclysmic floodwater: A simple depth-averaged model and an illustrative application. Geomorphology, 2006, 76, 179-192.	2.6	34
106	Ultrastructural Study of Iron Oxide Precipitates: Implications for the Search for Biosignatures in the Meridiani Hematite Concretions, Mars. Astrobiology, 2006, 6, 527-545.	3.0	20
107	Outflow channel sources, reactivation, and chaos formation, Xanthe Terra, Mars. Icarus, 2005, 175, 36-57.	2.5	93
108	Four climate regimes on a land planet with wet surface: Effects of obliquity change and implications for ancient Mars. Icarus, 2005, 178, 27-39.	2.5	23

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109	Control of impact crater fracture systems on subsurface hydrology, ground subsidence, and collapse, Mars. Journal of Geophysical Research, 2005, 110, .	3.3	44
110	Red rock and red planet diagenesis: Comparisons of Earth and Mars concretions. GSA Today, 2005, 15, 4.	2.0	59
111	Red rock and red planet diagenesis: Comparisons of Earth and Mars concretions. GSA Today, 2005, 15, 4.	2.0	641
112	A possible terrestrial analogue for haematite concretions on Mars. Nature, 2004, 429, 731-734.	27.8	177
113	Ancient wet aeolian environments on Earth: clues to presence of fossil/live microorganisms on Mars. Icarus, 2004, 171, 39-53.	2.5	28
114	Geological features indicative of processes related to the hematite formation in Meridiani Planum and Aram Chaos, Mars: a comparison with diagenetic hematite deposits in southern Utah, USA. Icarus, 2004, 171, 295-316.	2.5	62
115	Interior layered deposits of Valles Marineris, Mars: analogous subice volcanism related to Baikal Rifting, Southern Siberia. Planetary and Space Science, 2004, 52, 167-187.	1.7	73
116	Diagenetic analogs to hematite regions on Mars: examples from Jurassic sandstones of southern Utah, USA. , 2004, , .		3
117	Hydrogeologic processes of large-scale tectonomagmatic complexes in Mongoliaâ€“southern Siberia and on Mars. Geology, 2004, 32, 325.	4.4	31
118	Displacement and delormalion of the sliding materials No.4. Journal of the Japan Landslide Society, 2004, 41, 430-433.	0.1	1
119	Mars Orbiter Camera observation of linear and curvilinear features in the Hellas basin: Indications for multiple processes of formation. Journal of Geophysical Research, 2003, 108, .	3.3	14
120	A catastrophe remembered: a meteorite impact of the fifth century AD in the Abruzzo, central Italy. Antiquity, 2003, 77, 313-320.	1.0	16
121	The Sirente crater field, Italy. Meteoritics and Planetary Science, 2002, 37, 1507-1521.	1.6	20
122	Valley networks on Venus. Geomorphology, 2001, 37, 225-240.	2.6	26
123	Paleoshoreline geomorphology of BÃ¶Ã¶n Tsagaan Nuur, Tsagaan Nuur and Orog Nuur: the Valley of Lakes, Mongolia. Geomorphology, 2001, 39, 83-98.	2.6	79
124	The Channeled Scabland: Back to Bretz?: Comment and Reply. Geology, 2000, 28, 573.	4.4	19
125	Martian paleolacustrine environments and their geological constrains on drilling operations for exobiological research. Planetary and Space Science, 2000, 48, 1027-1034.	1.7	27
126	Exobiological implications of potential sedimentary deposits on Mars. Planetary and Space Science, 2000, 48, 1043-1052.	1.7	37

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127	The Channeled Scabland: Back to Bretz?: Comment and Reply. Geology, 2000, 28, 573-576.	4.4	0
128	Paleohydrology and flood geomorphology of Ares Vallis. Journal of Geophysical Research, 1997, 102, 4151-4160.	3.3	99
129	Channels in the Solar System. Planetary and Space Science, 1996, 44, 801-815.	1.7	34
130	Planetary Research as a Practical Way to Learn Geology and the Process of Science. Journal of Geoscience Education, 1996, 44, 262-265.	1.4	1
131	Plains Tectonism on Venus: Inferences from Canali Longitudinal Profiles. Icarus, 1994, 110, 275-286.	2.5	20
132	Meander properties of Venusian channels. Geology, 1994, 22, 67.	4.4	50
133	Venusian Channels and Valleys: Distribution and Volcanological Implications. Icarus, 1993, 102, 1-25.	2.5	100
134	The Volcanology of Venera and VEGA Landing Sites and the Geochemistry of Venus. Icarus, 1993, 103, 253-275.	2.5	80
135	An Unusual Spectral Unit in West Candor Chasma: Evidence for Aqueous or Hydrothermal Alteration in the Martian Canyons. Icarus, 1993, 106, 380-391.	2.5	44
136	Stratigraphy and erosional landforms of layered deposits in Valles Marineris, Mars. Journal of Geophysical Research, 1993, 98, 11105-11121.	3.3	65
137	Canaliâ€type channels on Venus: Some genetic constraints. Geophysical Research Letters, 1992, 19, 1415-1418.	4.0	44
138	Channels and valleys on Venus: Preliminary analysis of Magellan data. Journal of Geophysical Research, 1992, 97, 13421-13444.	3.3	158
139	Ancient oceans, ice sheets and the hydrological cycle on Mars. Nature, 1991, 352, 589-594.	27.8	645
140	Formation of valleys and cataclysmic flood channels on Earth and Mars. , 0, , 297-321.		7
141	Playa environments on Earth: possible analogs for Mars. , 0, , 322-348.		10