

Matthew Izawa

List of Publications by Year in descending order

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Version: 2024-02-01

57
papers

1,736
citations

361413

20
h-index

289244

40
g-index

57
all docs

57
docs citations

57
times ranked

2451
citing authors

#	ARTICLE	IF	CITATIONS
1	Illuminating the dark side of the asteroid population: Visible near-infrared (0.7–2.45 μm) surface mineralogy modeling of D-type asteroids using Shkuratov theory. <i>Icarus</i> , 2021, 354, 114043.	2.5	5
2	Constraining the Regolith Composition of Asteroid (16) Psyche via Laboratory Visible Near-infrared Spectroscopy. <i>Planetary Science Journal</i> , 2021, 2, 95.	3.6	9
3	Round up the unusual suspects: Near-Earth Asteroid 17274 (2000 LC16) a plausible D-type parent body of the Tagish Lake meteorite. <i>Icarus</i> , 2021, 361, 114349.	2.5	2
4	Same family, different neighborhoods: Visible near-infrared (0.7–2.45 μm) spectral distinctions of D-type asteroids at different heliocentric distances. <i>Icarus</i> , 2021, 363, 114295.	2.5	5
5	Reflectance spectroscopy of ilmenites and related Ti and Ti Fe oxides (200 to 2500 \AA): Spectral “compositional” structural relationships. <i>Icarus</i> , 2021, 362, 114423.	2.5	11
6	Complex Water-ice Mixtures on NII Nereid: Constraints from NIR Reflectance. <i>Planetary Science Journal</i> , 2021, 2, 143.	3.6	2
7	Mineralogical Criteria for the Parent Asteroid of the “Carbonaceous” Achondrite NWA 6704. <i>Astronomical Journal</i> , 2020, 159, 107.	4.7	1
8	Compositional Constraints for Lucy Mission Trojan Asteroids via Near-infrared Spectroscopy. <i>Astronomical Journal</i> , 2019, 158, 204.	4.7	16
9	The unexpected surface of asteroid (101955) Bennu. <i>Nature</i> , 2019, 568, 55-60.	27.8	364
10	Spectral reflectance properties of magnetites: Implications for remote sensing. <i>Icarus</i> , 2019, 319, 525-539.	2.5	40
11	Chemical alteration and preservation of sedimentary/organic nitrogen isotope signatures in a 2.7 Ga seafloor volcanic sequence. <i>International Journal of Astrobiology</i> , 2019, 18, 235-250.	1.6	4
12	Ultraviolet spectral reflectance of carbonaceous materials. <i>Icarus</i> , 2018, 307, 40-82.	2.5	31
13	Spectral reflectance “deconstruction” of the Murchison CM2 carbonaceous chondrite and implications for spectroscopic investigations of dark asteroids. <i>Icarus</i> , 2018, 305, 203-224.	2.5	52
14	Spectral properties and geology of bright and dark material on dwarf planet Ceres. <i>Meteoritics and Planetary Science</i> , 2018, 53, 1961-1982.	1.6	13
15	Spectral reflectance (0.35–2.5 μm) properties of garnets: Implications for remote sensing detection and characterization. <i>Icarus</i> , 2018, 300, 392-410.	2.5	17
16	Nitrogen Concentrations and Isotopic Compositions of Seafloor-Altered Terrestrial Basaltic Glass: Implications for Astrobiology. <i>Astrobiology</i> , 2018, 18, 330-342.	3.0	15
17	A mineralogical archive of the biogeochemical sulfur cycle preserved in the subsurface of the Río Tinto system. <i>American Mineralogist</i> , 2018, 103, 394-411.	1.9	10
18	Ceres’s spectral link to carbonaceous chondrites” Analysis of the dark background materials. <i>Meteoritics and Planetary Science</i> , 2018, 53, 1925-1945.	1.6	6

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19	Reflectance Spectroscopy of Chondrites. , 2018, , 273-343.		12
20	Characterization of Microbial Communities Hosted in Quartzofeldspathic and Serpentine Lithologies in Jeffrey Mine, Canada. <i>Astrobiology</i> , 2018, 18, 1008-1022.	3.0	2
21	Fitting the curve in Excel®: Systematic curve fitting of laboratory and remotely sensed planetary spectra. <i>Computers and Geosciences</i> , 2017, 100, 103-114.	4.2	12
22	Zinc and germanium in the sedimentary rocks of Gale Crater on Mars indicate hydrothermal enrichment followed by diagenetic fractionation. <i>Journal of Geophysical Research E: Planets</i> , 2017, 122, 1747-1772.	3.6	42
23	Biogeochemical Cycling of Silver in Acidic, Weathering Environments. <i>Minerals (Basel, Switzerland)</i> , 2017, 7, 218.	2.0	22
24	SURFACE ALBEDO AND SPECTRAL VARIABILITY OF CERES. <i>Astrophysical Journal Letters</i> , 2016, 817, L22.	8.3	42
25	Oxalate formation under the hyperarid conditions of the Atacama desert as a mineral marker to provide clues to the source of organic carbon on Mars. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2016, 121, 1593-1604.	3.0	16
26	Reflectance spectroscopy of oxalate minerals and relevance to Solar System carbon inventories. <i>Icarus</i> , 2016, 278, 7-30.	2.5	9
27	Spectral parameters for Dawn FC color data: Carbonaceous chondrites and aqueous alteration products as potential cerean analog materials. <i>Icarus</i> , 2016, 265, 149-160.	2.5	5
28	Effects of viewing geometry, aggregation state, and particle size on reflectance spectra of the Murchison CM2 chondrite deconvolved to Dawn FC band passes. <i>Icarus</i> , 2016, 266, 235-248.	2.5	11
29	Sublimation in bright spots on (1) Ceres. <i>Nature</i> , 2015, 528, 237-240.	27.8	116
30	Spectral calibration for deriving surface mineralogy of Asteroid (25143) Itokawa from Hayabusa Near-Infrared Spectrometer (NIRS) data. <i>Icarus</i> , 2015, 262, 124-130.	2.5	1
31	Formation of iron-rich shelled structures by microbial communities. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2015, 120, 147-168.	3.0	4
32	Link between the potentially hazardous Asteroid (86039) 1999 NC43 and the Chelyabinsk meteoroid tenuous. <i>Icarus</i> , 2015, 252, 129-143.	2.5	11
33	Evidence for methane in Martian meteorites. <i>Nature Communications</i> , 2015, 6, 7399.	12.8	47
34	Exploring exogenic sources for the olivine on Asteroid (4) Vesta. <i>Icarus</i> , 2015, 258, 483-499.	2.5	33
35	Variability, absorption features, and parent body searches in "spectrally featureless" meteorite reflectance spectra: Case study " Tagish Lake. <i>Icarus</i> , 2015, 254, 324-332.	2.5	14
36	The Canadian space agency planetary analogue materials suite. <i>Planetary and Space Science</i> , 2015, 119, 155-172.	1.7	16

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37	Revisiting the Rochechouart impact structure, France. <i>Meteoritics and Planetary Science</i> , 2014, 49, 2152-2168.	1.6	9
38	Laboratory spectroscopic detection of hydration in pristine lunar regolith. <i>Earth and Planetary Science Letters</i> , 2014, 390, 157-164.	4.4	9
39	Chelyabinsk meteorite explains unusual spectral properties of Baptistina Asteroid Family. <i>Icarus</i> , 2014, 237, 116-130.	2.5	54
40	Molecular preservation in halite and perchlorate rich hypersaline subsurface deposits in the Salar Grande basin (Atacama Desert, Chile): Implications for the search for molecular biomarkers on Mars. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2013, 118, 922-939.	3.0	30
41	Impact-generated hydrothermal systems on Earth and Mars. <i>Icarus</i> , 2013, 224, 347-363.	2.5	219
42	Characterization of the acidic cold seep emplaced jarositic Golden Deposit, NWT, Canada, as an analogue for jarosite deposition on Mars. <i>Icarus</i> , 2013, 224, 382-398.	2.5	16
43	Reflectance spectroscopy (200–2500nm) of highly-reduced phases under oxygen- and water-free conditions. <i>Icarus</i> , 2013, 226, 1612-1617.	2.5	7
44	Evidence for life in the isotopic analysis of surface sulphates in the Haughton impact structure, and potential application on Mars. <i>International Journal of Astrobiology</i> , 2012, 11, 93-101.	1.6	6
45	Characterization of green clay concretions from the Tonggao Formation, South China: Mineralogy, petrogenesis and paleoenvironmental implications National Natural Science Foundation of China 40825006. <i>Canadian Journal of Earth Sciences</i> , 2012, 49, 1018-1026.	1.3	3
46	Carbonate precipitation under bulk acidic conditions as a potential biosignature for searching life on Mars. <i>Earth and Planetary Science Letters</i> , 2012, 351-352, 13-26.	4.4	23
47	Weathering of Post-Impact Hydrothermal Deposits from the Haughton Impact Structure: Implications for Microbial Colonization and Biosignature Preservation. <i>Astrobiology</i> , 2011, 11, 537-550.	3.0	12
48	Micro-X-ray diffraction assessment of shock stage in enstatite chondrites. <i>Meteoritics and Planetary Science</i> , 2011, 46, 638-651.	1.6	51
49	QUE 94204: A primitive enstatite achondrite produced by the partial melting of an E chondrite-like protolith. <i>Meteoritics and Planetary Science</i> , 2011, 46, 1742-1753.	1.6	8
50	Infrared Spectroscopic Characterization of Organic Matter Associated with Microbial Bioalteration Textures in Basaltic Glass. <i>Astrobiology</i> , 2011, 11, 585-599.	3.0	43
51	Multi-technique investigation reveals new mineral, chemical, and textural heterogeneity in the Tagish Lake C2 chondrite. <i>Planetary and Space Science</i> , 2010, 58, 1347-1364.	1.7	15
52	Basaltic glass as a habitat for microbial life: Implications for astrobiology and planetary exploration. <i>Planetary and Space Science</i> , 2010, 58, 583-591.	1.7	34
53	Mineralogical and spectroscopic investigation of the Tagish Lake carbonaceous chondrite by X-ray diffraction and infrared reflectance spectroscopy. <i>Meteoritics and Planetary Science</i> , 2010, 45, 675-698.	1.6	38
54	Mineralogical and spectroscopic investigation of enstatite chondrites by X-ray diffraction and infrared reflectance spectroscopy. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	20

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55	PRESERVATION OF MICROBIAL ICHNOFOSSILS IN BASALTIC GLASS BY TITANITE MINERALIZATION. Canadian Mineralogist, 2010, 48, 1255-1265.	1.0	7
56	Composition and evolution of the early oceans: Evidence from the Tagish Lake meteorite. Earth and Planetary Science Letters, 2010, 298, 443-449.	4.4	46
57	Validation of the Atmospheric Chemistry Experiment (ACE) version 2.2 temperature using ground-based and space-borne measurements. Atmospheric Chemistry and Physics, 2008, 8, 35-62.	4.9	68