

Tim McCoy

List of Publications by Year in descending order

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184
papers

12,738
citations

18482

62
h-index

29157

104
g-index

195
all docs

195
docs citations

195
times ranked

5492
citing authors

#	ARTICLE	IF	CITATIONS
1	Mineral evolution. <i>American Mineralogist</i> , 2008, 93, 1693-1720.	1.9	569
2	OSIRIS-REx: Sample Return from Asteroid (101955) Bennu. <i>Space Science Reviews</i> , 2017, 212, 925-984.	8.1	426
3	Dawn at Vesta: Testing the Protoplanetary Paradigm. <i>Science</i> , 2012, 336, 684-686.	12.6	422
4	Detection of Silica-Rich Deposits on Mars. <i>Science</i> , 2008, 320, 1063-1067.	12.6	399
5	The Major-Element Composition of Mercury's Surface from MESSENGER X-ray Spectrometry. <i>Science</i> , 2011, 333, 1847-1850.	12.6	386
6	Systematics and Evaluation of Meteorite Classification. , 2006, , 19-52.		385
7	Evidence for widespread hydrated minerals on asteroid (101955) Bennu. <i>Nature Astronomy</i> , 2019, 3, 332-340.	10.1	251
8	Chapter 4. NON-CHONDRITIC METEORITES FROM ASTEROIDAL BODIES. , 1998, , 523-718.		242
9	Radioactive Elements on Mercury's Surface from MESSENGER: Implications for the Planet's Formation and Evolution. <i>Science</i> , 2011, 333, 1850-1852.	12.6	233
10	The curious case of Mercury's internal structure. <i>Journal of Geophysical Research E: Planets</i> , 2013, 118, 1204-1220.	3.6	210
11	Elemental Mapping by Dawn Reveals Exogenic H in Vesta's Regolith. <i>Science</i> , 2012, 338, 242-246.	12.6	201
12	The Evolution of Mercury's Crust: A Global Perspective from MESSENGER. <i>Science</i> , 2009, 324, 613-618.	12.6	194
13	HED Meteorites and Their Relationship to the Geology of Vesta and the Dawn Mission. <i>Space Science Reviews</i> , 2011, 163, 141-174.	8.1	192
14	A petrologic, chemical, and isotopic study of Monument Draw and comparison with other acapulcoites: Evidence for formation by incipient partial melting. <i>Geochimica Et Cosmochimica Acta</i> , 1996, 60, 2681-2708.	3.9	178
15	Vesta, Vestoids, and the howardite, eucrite, diogenite group: Relationships and the origin of spectral differences. <i>Meteoritics and Planetary Science</i> , 2001, 36, 761-781.	1.6	173
16	A petrologic and isotopic study of lodranites: Evidence for early formation as partial melt residues from heterogeneous precursors. <i>Geochimica Et Cosmochimica Acta</i> , 1997, 61, 623-637.	3.9	169
17	Reflectance and Color Variations on Mercury: Regolith Processes and Compositional Heterogeneity. <i>Science</i> , 2008, 321, 66-69.	12.6	167
18	Color and Albedo Heterogeneity of Vesta from Dawn. <i>Science</i> , 2012, 336, 700-704.	12.6	166

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19	A petrologic study of the IAB iron meteorites: Constraints on the formation of the IAB-Winonaite parent body. <i>Meteoritics and Planetary Science</i> , 2000, 35, 1127-1141.	1.6	165
20	Partial melting of the Indarch (EH4) meteorite: A textural, chemical, and phase relations view of melting and melt migration. <i>Meteoritics and Planetary Science</i> , 1999, 34, 735-746.	1.6	164
21	Geochemical properties of rocks and soils in Gusev Crater, Mars: Results of the Alpha Particle X-Ray Spectrometer from Cumberland Ridge to Home Plate. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	162
22	Iron mineralogy and aqueous alteration from Husband Hill through Home Plate at Gusev Crater, Mars: Results from the Mössbauer instrument on the Spirit Mars Exploration Rover. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	162
23	Craters, boulders and regolith of (101955) Bennu indicative of an old and dynamic surface. <i>Nature Geoscience</i> , 2019, 12, 242-246.	12.9	161
24	Alkaline volcanic rocks from the Columbia Hills, Gusev crater, Mars. <i>Journal of Geophysical Research</i> , 2006, 111, .	3.3	148
25	Major element abundances on the surface of Mercury: Results from the MESSENGER Gamma-Ray Spectrometer. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	146
26	Chemical heterogeneity on Mercury's surface revealed by the MESSENGER X-Ray Spectrometer. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	144
27	Partial melting and melt migration in the acapulcoite-lodranite parent body. <i>Geochimica Et Cosmochimica Acta</i> , 1997, 61, 639-650.	3.9	142
28	Exploration of Victoria Crater by the Mars Rover Opportunity. <i>Science</i> , 2009, 324, 1058-1061.	12.6	141
29	Modeling fractional crystallization of group IVB iron meteorites. <i>Geochimica Et Cosmochimica Acta</i> , 2008, 72, 2198-2216.	3.9	136
30	Hollows on Mercury: MESSENGER Evidence for Geologically Recent Volatile-Related Activity. <i>Science</i> , 2011, 333, 1856-1859.	12.6	136
31	Petrology of the unbrecciated eucrites. <i>Geochimica Et Cosmochimica Acta</i> , 2009, 73, 794-819.	3.9	129
32	Meteoritic Parent Bodies: , 2002, , 653-668.		124
33	The Elemental Composition of Asteroid 433 Eros: Results of the NEAR-Shoemaker X-ray Spectrometer. <i>Science</i> , 2000, 289, 2101-2105.	12.6	123
34	Zagami: Product of a two-stage magmatic history. <i>Geochimica Et Cosmochimica Acta</i> , 1992, 56, 3571-3582.	3.9	120
35	Signatures of the martian atmosphere in glass of the Zagami meteorite. <i>Science</i> , 1995, 267, 1981-1984.	12.6	115
36	A petrologic and isotopic study of winonaites: evidence for early partial melting, brecciation, and metamorphism. <i>Geochimica Et Cosmochimica Acta</i> , 1998, 62, 2535-2553.	3.9	112

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37	X-ray fluorescence measurements of the surface elemental composition of asteroid 433 Eros. <i>Meteoritics and Planetary Science</i> , 2001, 36, 1673-1695.	1.6	110
38	Spectra of extremely reduced assemblages: Implications for Mercury. <i>Meteoritics and Planetary Science</i> , 2002, 37, 1233-1244.	1.6	108
39	Spirit Mars Rover Mission to the Columbia Hills, Gusev Crater: Mission overview and selected results from the Cumberland Ridge to Home Plate. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	99
40	High-calcium pyroxene as an indicator of igneous differentiation in asteroids and meteorites. <i>Meteoritics and Planetary Science</i> , 2004, 39, 1343-1357.	1.6	96
41	Mineralogy of volcanic rocks in Gusev Crater, Mars: Reconciling Mössbauer, Alpha Particle X-ray Spectrometer, and Miniature Thermal Emission Spectrometer spectra. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	96
42	Spectroscopic Observations of Mercury's Surface Reflectance During MESSENGER's First Mercury Flyby. <i>Science</i> , 2008, 321, 62-65.	12.6	94
43	The composition of 433 Eros: A mineralogical-chemical synthesis. <i>Meteoritics and Planetary Science</i> , 2001, 36, 1661-1672.	1.6	93
44	Variations in the abundance of iron on Mercury's surface from MESSENGER X-Ray Spectrometer observations. <i>Icarus</i> , 2014, 235, 170-186.	2.5	93
45	A coordinated spectral, mineralogical, and compositional study of ordinary chondrites. <i>Icarus</i> , 2010, 208, 789-797.	2.5	91
46	Pitted Terrain on Vesta and Implications for the Presence of Volatiles. <i>Science</i> , 2012, 338, 246-249.	12.6	91
47	The Meteoritical Bulletin, No. 87, 2003 July. <i>Meteoritics and Planetary Science</i> , 2003, 38, A189.	1.6	88
48	Composition of chondrule silicates in LL3-5 chondrites and implications for their nebular history and parent body metamorphism. <i>Geochimica Et Cosmochimica Acta</i> , 1991, 55, 601-619.	3.9	86
49	Variations in the abundances of potassium and thorium on the surface of Mercury: Results from the MESSENGER Gamma-Ray Spectrometer. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	85
50	Enhanced sodium abundance in Mercury's north polar region revealed by the MESSENGER Gamma-Ray Spectrometer. <i>Icarus</i> , 2014, 228, 86-95.	2.5	85
51	Composition of the Rheasilvia basin, a window into Vesta's interior. <i>Journal of Geophysical Research E: Planets</i> , 2013, 118, 335-346.	3.6	84
52	Magnesium-rich crustal compositions on Mercury: Implications for magmatism from petrologic modeling. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	83
53	Geochemistry, mineralogy, and petrology of boninitic and komatiitic rocks on the mercurian surface: Insights into the mercurian mantle. <i>Icarus</i> , 2017, 285, 155-168.	2.5	79
54	Origin and history of impact-melt rocks of enstatite chondrite parentage. <i>Geochimica Et Cosmochimica Acta</i> , 1995, 59, 161-175.	3.9	76

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55	Olivine-dominated asteroids and meteorites: Distinguishing nebular and igneous histories. <i>Meteoritics and Planetary Science</i> , 2007, 42, 155-170.	1.6	76
56	Group IVA irons: New constraints on the crystallization and cooling history of an asteroidal core with a complex history. <i>Geochimica Et Cosmochimica Acta</i> , 2011, 75, 6821-6843.	3.9	76
57	Meteorites on Mars observed with the Mars Exploration Rovers. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	75
58	Hydrothermal origin of halogens at Home Plate, Gusev Crater. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	71
59	Ancient Asteroids Enriched in Refractory Inclusions. <i>Science</i> , 2008, 320, 514-517.	12.6	71
60	Bright carbonate veins on asteroid (101955) Bennu: Implications for aqueous alteration history. <i>Science</i> , 2020, 370, .	12.6	71
61	Analysis of ordinary chondrites using powder X-ray diffraction: 1. Modal mineral abundances. <i>Meteoritics and Planetary Science</i> , 2010, 45, 123.	1.6	69
62	Chronology and petrology of silicates from IIE iron meteorites: evidence of a complex parent body evolution. <i>Geochimica Et Cosmochimica Acta</i> , 2000, 64, 2133-2154.	3.9	68
63	Chondritic models of 4 Vesta: Implications for geochemical and geophysical properties. <i>Meteoritics and Planetary Science</i> , 2013, 48, 2300-2315.	1.6	66
64	Chlorine on the surface of Mercury: MESSENGER gamma-ray measurements and implications for the planet's formation and evolution. <i>Icarus</i> , 2015, 257, 417-427.	2.5	66
65	Nickel on Mars: Constraints on meteoritic material at the surface. <i>Journal of Geophysical Research</i> , 2006, 111, n/a-n/a.	3.3	65
66	Thermodynamic constraints on the formation conditions of winonaites and silicate-bearing IAB irons. <i>Geochimica Et Cosmochimica Acta</i> , 2005, 69, 5123-5131.	3.9	61
67	Observations, Meteorites, and Models: A Preflight Assessment of the Composition and Formation of (16) Psyche. <i>Journal of Geophysical Research E: Planets</i> , 2020, 125, e2019JE006296.	3.6	61
68	Global Patterns of Recent Mass Movement on Asteroid (101955) Bennu. <i>Journal of Geophysical Research E: Planets</i> , 2020, 125, e2020JE006475.	3.6	60
69	Elemental composition from gamma-ray spectroscopy of the NEAR-Shoemaker landing site on 433 Eros. <i>Meteoritics and Planetary Science</i> , 2001, 36, 1639-1660.	1.6	58
70	Core crystallization and silicate-metal mixing in the parent body of the IVA iron and stony-iron meteorites. <i>Geochimica Et Cosmochimica Acta</i> , 1996, 60, 1615-1631.	3.9	57
71	Constraints on the abundance of carbon in near-surface materials on Mercury: Results from the MESSENGER Gamma-Ray Spectrometer. <i>Planetary and Space Science</i> , 2015, 108, 98-107.	1.7	57
72	Evidence from MESSENGER for sulfur- and carbon-driven explosive volcanism on Mercury. <i>Geophysical Research Letters</i> , 2016, 43, 3653-3661.	4.0	57

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73	Exogenic basalt on asteroid (101955) Bennu. <i>Nature Astronomy</i> , 2021, 5, 31-38.	10.1	57
74	Acapulcoite-lodranite meteorites: Ultramafic asteroidal partial melt residues. <i>Chemie Der Erde</i> , 2018, 78, 153-203.	2.0	54
75	Compositional variability on the surface of 4 Vesta revealed through γ measurements of high-energy gamma rays. <i>Meteoritics and Planetary Science</i> , 2013, 48, 2252-2270.	1.6	53
76	New lithologies in the Zagami meteorite: evidence for fractional crystallization of a single magma unit on Mars. <i>Geochimica Et Cosmochimica Acta</i> , 1999, 63, 1249-1262.	3.9	52
77	Identification and measurement of neutron-absorbing elements on Mercury's surface. <i>Icarus</i> , 2010, 209, 195-209.	2.5	52
78	Asteroid Differentiation. , 2006, , 733-746.		51
79	Advanced Curation of Astromaterials for Planetary Science. <i>Space Science Reviews</i> , 2019, 215, 1.	8.1	50
80	Thermal histories of IVA stony-iron and iron meteorites: Evidence for asteroid fragmentation and reaccrction. <i>Geochimica Et Cosmochimica Acta</i> , 1996, 60, 3103-3113.	3.9	48
81	Spectral, mineralogical, and geochemical variations across Home Plate, Gusev Crater, Mars indicate high and low temperature alteration. <i>Earth and Planetary Science Letters</i> , 2009, 281, 258-266.	4.4	48
82	Mineralogy, petrology, chronology, and exposure history of the Chelyabinsk meteorite and parent body. <i>Meteoritics and Planetary Science</i> , 2015, 50, 1790-1819.	1.6	48
83	Neutron absorption constraints on the composition of 4 Vesta. <i>Meteoritics and Planetary Science</i> , 2013, 48, 2211-2236.	1.6	47
84	Minor element evidence that Asteroid 433 Eros is a space-weathered ordinary chondrite parent body. <i>Icarus</i> , 2006, 184, 338-343.	2.5	44
85	Structure, stratigraphy, and origin of Husband Hill, Columbia Hills, Gusev Crater, Mars. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	44
86	Graves Nunataks 95209: A snapshot of metal segregation and core formation. <i>Geochimica Et Cosmochimica Acta</i> , 2006, 70, 516-531.	3.9	43
87	A petrologic, thermodynamic and experimental study of brachinites: Partial melt residues of an R chondrite-like precursor. <i>Geochimica Et Cosmochimica Acta</i> , 2013, 122, 36-57.	3.9	43
88	Geochronology of the Martian meteorite Zagami revealed by ^{206}Pb ion probe dating of accessory minerals. <i>Earth and Planetary Science Letters</i> , 2013, 374, 156-163.	4.4	43
89	Challenges in detecting olivine on the surface of 4 Vesta. <i>Meteoritics and Planetary Science</i> , 2013, 48, 2155-2165.	1.6	43
90	The Tafassasset primitive achondrite: Insights into initial stages of planetary differentiation. <i>Geochimica Et Cosmochimica Acta</i> , 2012, 85, 142-159.	3.9	42

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91	Formation of vesicles in asteroidal basaltic meteorites. <i>Earth and Planetary Science Letters</i> , 2006, 246, 102-108.	4.4	41
92	Widespread evidence for high-temperature formation of pentlandite in chondrites. <i>Geochimica Et Cosmochimica Acta</i> , 2016, 189, 359-376.	3.9	41
93	The formation and chronology of the PAT 91501 impact-melt L chondrite with vesicle-“metal”-sulfide assemblages. <i>Geochimica Et Cosmochimica Acta</i> , 2008, 72, 2417-2428.	3.9	38
94	Spectral characterization of analog samples in anticipation of OSIRIS-REx's arrival at Bennu: A blind test study. <i>Icarus</i> , 2019, 319, 701-723.	2.5	38
95	Martian parent craters for the SNC meteorites. <i>Journal of Geophysical Research</i> , 1992, 97, 10213-10225.	3.3	36
96	A Low O/Si Ratio on the Surface of Mercury: Evidence for Silicon Smelting?. <i>Journal of Geophysical Research E: Planets</i> , 2017, 122, 2053-2076.	3.6	36
97	The iron-“nickel”-phosphorus system: Effects on the distribution of trace elements during the evolution of iron meteorites. <i>Geochimica Et Cosmochimica Acta</i> , 2009, 73, 2674-2691.	3.9	35
98	Distribution of iron on Vesta. <i>Meteoritics and Planetary Science</i> , 2013, 48, 2237-2251.	1.6	35
99	Interpreting the Cratering Histories of Bennu, Ryugu, and Other Spacecraft-explored Asteroids. <i>Astronomical Journal</i> , 2020, 160, 14.	4.7	34
100	Relict chondrules in primitive achondrites: Remnants from their precursor parent bodies. <i>Geochimica Et Cosmochimica Acta</i> , 2017, 205, 295-312.	3.9	33
101	Particle Size-Frequency Distributions of the OSIRIS-REx Candidate Sample Sites on Asteroid (101955) Bennu. <i>Remote Sensing</i> , 2021, 13, 1315.	4.0	33
102	Bounce Rock-“A shergottite”-like basalt encountered at Meridiani Planum, Mars. <i>Meteoritics and Planetary Science</i> , 2011, 46, 1-20.	1.6	32
103	The retention of dust in protoplanetary disks: Evidence from agglomeratic olivine chondrules from the outer Solar System. <i>Geochimica Et Cosmochimica Acta</i> , 2018, 223, 405-421.	3.9	32
104	Petrologic insights from the spectra of the unbrecciated eucrites: Implications for Vesta and basaltic asteroids. <i>Meteoritics and Planetary Science</i> , 2010, 45, 1074-1092.	1.6	31
105	Thermal and impact histories of reheated group IVA, IVB, and ungrouped iron meteorites and their parent asteroids. <i>Meteoritics and Planetary Science</i> , 2011, 46, 1227-1252.	1.6	31
106	Iron and Stony-Iron Meteorites. , 2014, , 267-285.		30
107	Compositional terranes on Mercury: Information from fast neutrons. <i>Icarus</i> , 2017, 281, 32-45.	2.5	30
108	The Milton pallasite and South Byron Trio irons: Evidence for oxidation and core crystallization. <i>Geochimica Et Cosmochimica Acta</i> , 2019, 259, 358-370.	3.9	30

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109	Evidence for limited compositional and particle size variation on asteroid (101955) Benu from thermal infrared spectroscopy. <i>Astronomy and Astrophysics</i> , 2021, 650, A120.	5.1	30
110	The origin of Vesta's crust: Insights from spectroscopy of the Vestoids. <i>Icarus</i> , 2011, 214, 147-160.	2.5	29
111	Evidence for mechanical and chemical alteration of iron-nickel meteorites on Mars: Process insights for Meridiani Planum. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	28
112	The primary fO ₂ of basalts examined by the Spirit rover in Gusev Crater, Mars: Evidence for multiple redox states in the martian interior. <i>Earth and Planetary Science Letters</i> , 2013, 384, 198-208.	4.4	28
113	Anatomy of a Partially Differentiated Asteroid: A "NEAR"-Sighted View of Acapulcoites and Lodranites. <i>Icarus</i> , 2000, 148, 29-36.	2.5	27
114	Shock melts in QUE 94411, Hammadah al Hamra 237, and Bencubbin: Remains of the missing matrix?. <i>Meteoritics and Planetary Science</i> , 2005, 40, 1377-1391.	1.6	27
115	The evolution of a heterogeneous Martian mantle: Clues from K, P, Ti, Cr, and Ni variations in Gusev basalts and shergottite meteorites. <i>Earth and Planetary Science Letters</i> , 2010, 296, 67-77.	4.4	27
116	Genetics, crystallization sequence, and age of the South Byron Trio iron meteorites: New insights to carbonaceous chondrite (CC) type parent bodies. <i>Geochimica Et Cosmochimica Acta</i> , 2019, 251, 217-228.	3.9	27
117	The Burnwell, Kentucky, low iron oxide chondrite fall: Description, classification and origin. <i>Meteoritics and Planetary Science</i> , 1998, 33, 853-856.	1.6	26
118	Spectral properties of angrites. <i>Meteoritics and Planetary Science</i> , 2006, 41, 1139-1145.	1.6	26
119	The effect of Ni on element partitioning during iron meteorite crystallization. <i>Meteoritics and Planetary Science</i> , 2007, 42, 1735-1750.	1.6	26
120	Analysis of ordinary chondrites using powder X-ray diffraction: 2. Applications to ordinary chondrite parent-body processes. <i>Meteoritics and Planetary Science</i> , 2010, 45, 135.	1.6	26
121	Cosmogenic radionuclides in L5 and LL5 chondrites from Queen Alexandra Range, Antarctica: Identification of a large L/LL5 chondrite shower with a preatmospheric mass of approximately 50,000 kg. <i>Meteoritics and Planetary Science</i> , 2011, 46, 177-196.	1.6	26
122	Overview of Mars surface geochemical diversity through Alpha Particle X-Ray Spectrometer data multidimensional analysis: First attempt at modeling rock alteration. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	25
123	Using ⁵⁶ Fe meteorites to interpret neutron and gamma-ray data from asteroid 4 Vesta. <i>Meteoritics and Planetary Science</i> , 2015, 50, 1311-1337.	1.6	24
124	The Fe/S ratio of pyrrhotite group sulfides in chondrites: An indicator of oxidation and implications for return samples from asteroids Ryugu and Benu. <i>Geochimica Et Cosmochimica Acta</i> , 2021, 303, 66-91.	3.9	24
125	Volatiles in unequilibrated ordinary chondrites: Abundances, sources and implications for explosive volcanism on differentiated asteroids. <i>Meteoritics</i> , 1995, 30, 639-645.	1.4	23
126	Combining meteorites and missions to explore Mars. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, 19159-19164.	7.1	23

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127	Outward migration of chondrule fragments in the early Solar System: O-isotopic evidence for rocky material crossing the Jupiter Gap?. <i>Geochimica Et Cosmochimica Acta</i> , 2020, 282, 133-155.	3.9	23
128	Insights into the formation of silica-rich achondrites from impact melts in Rumuruti-type chondrites. <i>Meteoritics and Planetary Science</i> , 2020, 55, 130-148.	1.6	22
129	The Geochemical and Mineralogical Diversity of Mercury. , 2018, , 176-190.		21
130	Oxygen isotopic compositions of IVA iron meteorites: implications for the thermal evolution derived from in situ ultraviolet laser microprobe analyses. <i>Geochimica Et Cosmochimica Acta</i> , 2004, 68, 1159-1171.	3.9	20
131	Crater population on asteroid (101955) Bennu indicates impact armouring and a young surface. <i>Nature Geoscience</i> , 2022, 15, 440-446.	12.9	20
132	Experimental rare-earth element partitioning in oldhamite: Implications for the igneous origin of aubritic oldhamite. <i>Meteoritics and Planetary Science</i> , 1997, 32, 395-412.	1.6	19
133	The NEAR-Shoemaker X-ray/gamma-ray spectrometer experiment: Overview and lessons learned. <i>Meteoritics and Planetary Science</i> , 2001, 36, 1605-1616.	1.6	19
134	Analysis of MESSENGER Gamma-Ray Spectrometer data from the Mercury flybys. <i>Planetary and Space Science</i> , 2011, 59, 1829-1841.	1.7	18
135	Asteroid (4) Vesta II: Exploring a geologically and geochemically complex world with the Dawn Mission. <i>Chemie Der Erde</i> , 2015, 75, 273-285.	2.0	18
136	Partial melting of oxidized planetesimals: An experimental study to test the formation of oligoclase-rich achondrites Graves Nunataks 06128 and 06129. <i>Geochimica Et Cosmochimica Acta</i> , 2017, 214, 73-85.	3.9	18
137	The Near Earth Asteroid Rendezvous Mission to Asteroid 433 Eros: A Milestone in the Study of Asteroids and their Relationship to Meteorites. <i>Chemie Der Erde</i> , 2002, 62, 89-121.	2.0	17
138	Pyroclast loss or retention during explosive volcanism on asteroids: Influence of asteroid size and gas content of melt. <i>Meteoritics and Planetary Science</i> , 2010, 45, 1284-1301.	1.6	17
139	A composite Fe,Ni-FeS and enstatite-forsterite-diopside-glass vitrophyre clast in the Larkman Nunatak 04316 aubrite: Origin by pyroclastic volcanism. <i>Meteoritics and Planetary Science</i> , 2011, 46, 1719-1741.	1.6	17
140	Partial melting of H6 ordinary chondrite Kernouvé: Constraints on the effects of reducing conditions on oxidized compositions. <i>Meteoritics and Planetary Science</i> , 2008, 43, 1399-1414.	1.6	15
141	Mineralogical Evolution of Meteorites. <i>Elements</i> , 2010, 6, 19-23.	0.5	15
142	Reclassification of four aubrites as enstatite chondrite impact melts: Potential geochemical analogs for Mercury. <i>Meteoritics and Planetary Science</i> , 2019, 54, 785-810.	1.6	14
143	Global geologic map of asteroid (101955) Bennu indicates heterogeneous resurfacing in the past 500,000 years. <i>Icarus</i> , 2022, 381, 114992.	2.5	13
144	Distinguishing the Origin of Asteroid (16) Psyche. <i>Space Science Reviews</i> , 2022, 218, 17.	8.1	13

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145	Spinel-bearing, Al-rich chondrules in two chondrite finds from Roosevelt County, New Mexico: Indicators of nebular and parent body processes. <i>Meteoritics</i> , 1991, 26, 301-309.	1.4	12
146	Assessing the Sampleability of Bennu's Surface for the OSIRIS-REx Asteroid Sample Return Mission. <i>Space Science Reviews</i> , 2022, 218, 20.	8.1	12
147	Asteroid 3628 Bozhenko: Covered with angrite-like basalts?. <i>Meteoritics and Planetary Science</i> , 2006, 41, 1147-1161.	1.6	11
148	Igneous lithologies on asteroid (4) Vesta mapped using gamma-ray and neutron data. <i>Icarus</i> , 2017, 286, 35-45.	2.5	11
149	X-ray absorption characterization of Cr in forsterite within the MacAlpine Hills 88136 EL3 chondritic meteorite. <i>American Mineralogist</i> , 2014, 99, 190-197.	1.9	10
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