Bradley L Jolliff

List of Publications by Year
in descending order

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81 papers	6,098 citations	70961 41 h-index	69108 77 g-index
81 all docs	81 docs citations	81 times ranked	3512 citing authors

#	Article	IF	Citations
1	Major lunar crustal terranes: Surface expressions and crust-mantle origins. Journal of Geophysical Research, 2000, 105, 4197-4216.	3.3	719
2	Lunar iron and titanium abundance algorithms based on final processing of Clementine ultraviolet-visible images. Journal of Geophysical Research, 2000, 105, 20297-20305.	3.3	503
3	Water alteration of rocks and soils on Mars at the Spirit rover site in Gusev crater. Nature, 2005, 436, 66-69.	13.7	240
4	Extracting olivine (Foâ€"Fa) compositions from Raman spectral peak positions. Geochimica Et Cosmochimica Acta, 2006, 70, 6201-6222.	1.6	215
5	Feldspathic lunar meteorites and their implications for compositional remote sensing of the lunar surface and the composition of the lunar crust. Geochimica Et Cosmochimica Acta, 2003, 67, 4895-4923.	1.6	208
6	Clementine images of the lunar sample-return stations: Refinement of FeO and TiO2mapping techniques. Journal of Geophysical Research, 1997, 102, 16319-16325.	3.3	194
7	Raman spectroscopy of Fe-Ti-Cr-oxides, case study: Martian meteorite EETA79001. American Mineralogist, 2004, 89, 665-680.	0.9	180
8	Sulfates on Mars: A systematic Raman spectroscopic study of hydration states of magnesium sulfates. Geochimica Et Cosmochimica Acta, 2006, 70, 6118-6135.	1.6	175
9	Lunar surface geochemistry: Global concentrations of Th, K, and FeO as derived from lunar prospector and Clementine data. Geochimica Et Cosmochimica Acta, 2004, 68, 3791-3805.	1.6	158
10	Fluorine and chlorine abundances in lunar apatite: Implications for heterogeneous distributions of magmatic volatiles in the lunar interior. Geochimica Et Cosmochimica Acta, 2011, 75, 5073-5093.	1.6	140
11	Understanding the Raman spectral features of phyllosilicates. Journal of Raman Spectroscopy, 2015, 46, 829-845.	1.2	135
12	Raman spectroscopy for mineral identification and quantification for in situ planetary surface analysis: A point count method. Journal of Geophysical Research, 1997, 102, 19293-19306.	3.3	129
13	Lunar mare TiO 2 abundances estimated from UV/Vis reflectance. Icarus, 2017, 296, 216-238.	1.1	127
14	A revised algorithm for calculating TiO2from Clementine UVVIS data: A synthesis of rock, soil, and remotely sensed TiO2concentrations. Journal of Geophysical Research, 2003, 108, n/a-n/a.	3.3	122
15	Partitioning in REE-saturating minerals: Theory, experiment, and modelling of whitlockite, apatite, and evolution of lunar residual magmas. Geochimica Et Cosmochimica Acta, 1993, 57, 4069-4094.	1.6	119
16	The case for an Imbrium origin of the Apollo thoriumâ€rich impactâ€melt breccias. Meteoritics and Planetary Science, 1998, 33, 959-975.	0.7	118
17	Detection of structurally bound hydroxyl in fluorapatite from Apollo Mare basalt 15058,128 using TOF-SIMS. American Mineralogist, 2010, 95, 1141-1150.	0.9	116
18	Non-mare silicic volcanism on the lunar farside at Comptonâ€"Belkovich. Nature Geoscience, 2011, 4, 566-571.	5.4	114

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19	Crystal chemistry of lunar merrillite and comparison to other meteoritic and planetary suites of whitlockite and merrillite. American Mineralogist, 2006, 91, 1583-1595.	0.9	104
20	Petrography and composition of Martian regolith breccia meteorite Northwest Africa 7475. Meteoritics and Planetary Science, 2015, 50, 326-352.	0.7	100
21	Raman spectroscopy as a method for mineral identification on lunar robotic exploration missions. Journal of Geophysical Research, 1995, 100, 21189.	3.3	94
22	Compositional and lithological diversity among brecciated lunar meteorites of intermediate iron concentration. Meteoritics and Planetary Science, 2009, 44, 1287-1322.	0.7	90
23	Correlated compositional and mineralogical investigations at the Changâ€²e-3 landing site. Nature Communications, 2015, 6, 8880.	5.8	88
24	The materials of the lunar Procellarum KREEP Terrane: A synthesis of data from geomorphological mapping, remote sensing, and sample analyses. Journal of Geophysical Research, 2000, 105, 20403-20415.	3.3	85
25	Comparative zircon Uâ€“Pb geochronology of impact melt breccias from Apollo 12 and lunar meteorite SaU 169, and implications for the age of the Imbrium impact. Earth and Planetary Science Letters, 2012, 319-320, 277-286.	1.8	77
26	Trace element zoning and incipient metamictization in a lunar zircon; application of three microprobe techniques. American Mineralogist, 1996, 81, 902-912.	0.9	71
27	The Mairan domes: Silicic volcanic constructs on the Moon. Geophysical Research Letters, 2011, 38, n/a-n/a.	1.5	70
28	Petrography and geochemistry of the LaPaz Icefield basaltic lunar meteorite and source crater pairing with Northwest Africa 032. Meteoritics and Planetary Science, 2005, 40, 1073-1101.	0.7	65
29	The crystal chemistry of whitlockite and merrillite and the dehydrogenation of whitlockite to merrillite. American Mineralogist, 2008, 93, 1300-1305.	0.9	65
30	Raman spectroscopic characterization of a Martian SNC meteorite: Zagami. Journal of Geophysical Research, 1999, 104, 8509-8519.	3.3	62
31	Northwest Africa 773: lunar mare breccia with a shallow-formed olivine-cumulate component, inferred very-low-Ti (VLT) heritage, and a KREEP connection. Geochimica Et Cosmochimica Acta, 2003, 67, 4857-4879.	1.6	59
32	Large-Scale Separation of K-frac and REEP-frac in the Source Regions of Apollo Impact-Melt Breccias, and a Revised Estimate of the KREEP Composition. International Geology Review, 1998, 40, 916-935.	1.1	57
33	LRO observations of morphology and surface roughness of volcanic cones and lobate lava flows in the Marius Hills. Journal of Geophysical Research E: Planets, 2013, 118, 615-634.	1.5	57
34	3. The Constitution and Structure of the Lunar Interior. , 2006, , 221-364.		51
35	Lithologic distribution and geologic history of the Apollo 17 site: The record in soils and small rock particles from the highland massifs. Meteoritics and Planetary Science, 1996, 31, 116-145.	0.7	49
36	Clementine UVVIS multispectral data and the Apollo 17 landing site: What can we tell and how well?. Journal of Geophysical Research, 1999, 104, 14123-14148.	3.3	48

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37	Feldspathic lunar meteorites Pecora Escarpment 02007 and Dhofar 489: Contamination of the surface of the lunar highlands by post-basin impacts. Geochimica Et Cosmochimica Acta, 2006, 70, 5935-5956.	1.6	47
38	A ferroan region of the lunar highlands as recorded in meteorites MAC88104 and MAC88105. Geochimica Et Cosmochimica Acta, 1991, 55, 3051-3071.	1.6	46
39	Lunar meteorite Queen Alexandra Range 93069 and the iron concentration of the lunar highlands surface. Meteoritics and Planetary Science, 1996, 31, 909-924.	0.7	45
40	The atomic arrangement of merrillite from the Fra Mauro Formation, Apollo 14 lunar mission: The first structure of merrillite from the Moon. American Mineralogist, 2006, 91, 1547-1552.	0.9	45
41	Phase transition pathways of the hydrates of magnesium sulfate in the temperature range 50Â°C to 5Â°C: Implication for sulfates on Mars. Journal of Geophysical Research, 2009, 114, .	3.3	44
42	Mineralogy and geochemistry of four lunar soils by laser-Raman study. Icarus, 2011, 211, 101-113.	1.1	44
43	Presolar silicates in the matrix and fine-grained rims around chondrules in primitive CO3.0 chondrites: Evidence for pre-accretionary aqueous alteration of the rims in the solar nebula. Geochimica Et Cosmochimica Acta, 2018, 221, 379-405.	1.6	44
44	Raman imaging of extraterrestrial materials. Planetary and Space Science, 2015, 112, 23-34.	0.9	43
45	The geochemistry and provenance of Apollo 16 mafic glasses. Geochimica Et Cosmochimica Acta, 2006, 70, 6050-6067.	1.6	41
46	Distinguishing highâ€alumina mare basalts using Clementine UVVIS and Lunar Prospector GRS data: Mare Moscoviense and Mare Nectaris. Journal of Geophysical Research, 2008, 113, .	3.3	41
47	Evidence of phyllosilicates in Wooly Patch, an altered rock encountered at West Spur, Columbia Hills, by the Spirit rover in Gusev crater, Mars. Journal of Geophysical Research, 2006, 111, n/a-n/a.	3.3	40
48	Apollo 12 revisited. Geochimica Et Cosmochimica Acta, 2011, 75, 1540-1573.	1.6	40
49	Petrology and geochemistry of lunar granite 12032,366-19 and implications for lunar granite petrogenesis. American Mineralogist, 2013, 98, 1697-1713.	0.9	40
50	Setting constraints on the nature and origin of the two major hydrous sulfates on Mars: Monohydrated and polyhydrated sulfates. Journal of Geophysical Research E: Planets, 2016, 121, 678-694.	1.5	40
51	Potassium isotopic composition of the Moon. Geochimica Et Cosmochimica Acta, 2020, 280, 263-280.	1.6	40
52	Raman spectroscopic characterization of a highly weathered basalt: Igneous mineralogy, alteration products, and a microorganism. Journal of Geophysical Research, 1999, 104, 27067-27077.	3.3	38
53	Apollo 17 landing site: Topography, photometric corrections, and heterogeneity of the surrounding highland massifs. Journal of Geophysical Research, 2002, 107, 20-1-20-30.	3.3	35
54	40Ar/39Ar dating of Apollo 12 regolith: Implications for the age of Copernicus and the source of nonmare materials. Geochimica Et Cosmochimica Acta, 2006, 70, 6016-6031.	1.6	32

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55	Silica polymorphs in lunar granite: Implications for granite petrogenesis on the Moon. American Mineralogist, 2015, 100, 1533-1543.	0.9	32
56	Geochemistry and petrology of lunar meteorite Queen Alexandra Range 94281, a mixed mare and highland regolith breccia, with special emphasis on veryâ€lowâ€titanium mafic components. Meteoritics and Planetary Science, 1998, 33, 581-601.	0.7	28
57	Diverse Lithologies and Alteration Events on the Rim of Noachianâ€Aged Endeavour Crater, Meridiani Planum, Mars: In Situ Compositional Evidence. Journal of Geophysical Research E: Planets, 2018, 123, 1255-1306.	1.5	28
58	Subsurface Cl-bearing salts as potential contributors to recurring slope lineae (RSL) on Mars. Icarus, 2019, 333, 464-480.	1.1	24
59	Searching for high alumina mare basalts using Clementine UVVIS and Lunar Prospector GRS data: Mare Fecunditatis and Mare Imbrium. Icarus, 2008, 198, 7-18.	1.1	20
60	Refining lunar impact chronology through high spatial resolution ⁴⁰ Ar/ ³⁹ Ar dating of impact melts. Science Advances, 2015, 1, e1400050.	4.7	20
61	A simulated geochemical rover mission to the Taurus-Littrow valley of the Moon. Journal of Geophysical Research, 1995, 100, 14403.	3.3	19
62	Esperance: Multiple episodes of aqueous alteration involving fracture fills and coatings at Matijevic Hill, Mars. American Mineralogist, 2016, 101, 1515-1526.	0.9	19
63	Thorite in an Apollo 12 granite fragment and age determination using the electron microprobe. Geochimica Et Cosmochimica Acta, 2014, 135, 307-320.	1.6	18
64	Effects of sterilizing doses of gamma radiation on Mars analog rocks and minerals. Journal of Geophysical Research, 1999, 104, 27043-27066.	3.3	15
65	Chlorine Release From Common Chlorides by Martian Dust Activity. Journal of Geophysical Research E: Planets, 2020, 125, e2019JE006283.	1.5	14
66	Ages of lunar impact breccias: Limits for timing of the Imbrium impact. Chemie Der Erde, 2021, 81, 125683.	0.8	12
67	The petrogenesis of impact basin melt rocks in lunar meteorite ShiÂr 161. American Mineralogist, 2014, 99, 1626-1647.	0.9	11
68	Possible Nonâ€Mare Lithologies in the Regolith at the Changâ€™Eâ€5 Landing Site: Evidence From Remote Sensing Data. Journal of Geophysical Research E: Planets, 2021, 126, e2020JE006797.	1.5	10
69	Mineralogy and chemistry of Ti-bearing lunar soils: Effects on reflectance spectra and remote sensing observations. Icarus, 2018, 306, 243-255.	1.1	9
70	Analysis and experimental investigation of Apollo sample 12032,366â€18, a chemically evolved basalt from the Moon. Meteoritics and Planetary Science, 2022, 57, 794-816.	0.7	9
71	The scientific legacy of the Apollo program. Physics Today, 2019, 72, 44-50.	0.3	8
72	Spinel assemblages in lunar meteorites Graves Nunataks 06157 and Dhofar 1528: Implications for impact melting and equilibration in the Moon's upper mantle. Meteoritics and Planetary Science, 2019, 54, 379-394.	0.7	8

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73	Amorphization of S, Clâ€Salts Induced by Martian Dust Activities. Journal of Geophysical Research E: Planets, 2020, 125, e2020JE006701.	1.5	8
74	High temperature evaporation and isotopic fractionation of K and Cu. Geochimica Et Cosmochimica Acta, 2022, 316, 1-20.	1.6	7
75	Petrogenesis of lunar impact melt rock meteorite Oued Awlitis 001. Meteoritics and Planetary Science, 2019, 54, 2167-2188.	0.7	6
76	A systematic spectroscopic study of four Apollo lunar soils. Journal of Earth Science (Wuhan, China), 2011, 22, 578-585.	1.1	5
77	Mars Exploration Rover Opportunity. , 2019, , 285-328.		5
78	Exploring the variability of argon loss in Apollo 17 impact melt rock 77135 using highâ€spatial resolution40Ar/39Ar geochronology. Meteoritics and Planetary Science, 2019, 54, 721-739.	0.7	4
79	Radiative Transfer Modeling of Changâ€™e-4 Spectroscopic Observations and Interpretation of the South Pole-Aitken Compositional Anomaly. Astrophysical Journal Letters, 2022, 931, L24.	3.0	4
80	Geochemical comparison of four cores from the Manson impact structure. , 1996, , .		3
81	A Systematic Method for Classifying and Grouping Late Noachian and Early Hesperian Rock Targets Analyzed by the Mars Exploration Rover Opportunity at Endeavour Crater, Mars. Journal of Geophysical Research E: Planets, 2018, 123, 2980-3004.	1.5	3