

David T Blewett

List of Publications by Year in descending order

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93
papers

5,697
citations

66343

42
h-index

74163

75
g-index

96
all docs

96
docs citations

96
times ranked

2037
citing authors

#	ARTICLE	IF	CITATIONS
1	Temperatures of the Lacus Mortis Region of the Moon. <i>Earth and Space Science</i> , 2022, 9, .	2.6	2
2	Science Goals and Mission Concept for a Landed Investigation of Mercury. <i>Planetary Science Journal</i> , 2022, 3, 68.	3.6	2
3	One the Case For Landed Mercury Science. , 2021, 53, .		0
4	Optical constants and diffuse reflectance of opaque minerals: A modeling study using magnetite. <i>Icarus</i> , 2021, 361, 114331.	2.5	4
5	Near-UV and near-IR reflectance studies of lunar swirls: Implications for nanosize iron content and the nature of anomalous space weathering. <i>Icarus</i> , 2021, 364, 114472.	2.5	13
6	Volcanic Processes in the Gassendi Region of the Moon. <i>Journal of Geophysical Research E: Planets</i> , 2020, 125, e2019JE006034.	3.6	4
7	Optical constants of iron and nickel metal and an assessment of their relative influences on silicate mixture spectra from the FUV to the NIR. <i>Icarus</i> , 2019, 317, 229-241.	2.5	7
8	A New Method for Simulation of Lunar Microwave Brightness Temperatures and Evaluation of Chang'E-2 MRM Data Using Thermal Constraints From Diviner. <i>Journal of Geophysical Research E: Planets</i> , 2019, 124, 1433-1450.	3.6	7
9	Analysis of Chang'E-2 brightness temperature data and production of high spatial resolution microwave maps of the Moon. <i>Icarus</i> , 2019, 319, 627-644.	2.5	33
10	Spectral Reflectance Constraints on the Composition and Evolution of Mercury's Surface. , 2018, , 191-216.		9
11	Mercury's Hollows. , 2018, , 324-345.		12
12	Calibration, Projection, and Final Image Products of MESSENGER's Mercury Dual Imaging System. <i>Space Science Reviews</i> , 2018, 214, 1.	8.1	53
13	The ungrouped achondrite Northwest Africa (NWA) 7325: Spectral reflectance properties and implications for parent body identification. <i>Icarus</i> , 2018, 311, 384-393.	2.5	3
14	Submicroscopic metallic iron in lunar soils estimated from the in situ spectra of the Chang'E-3 mission. <i>Geophysical Research Letters</i> , 2017, 44, 3485-3492.	4.0	27
15	The distribution and extent of lunar swirls. <i>Icarus</i> , 2016, 273, 53-67.	2.5	54
16	Global variations in regolith properties on asteroid Vesta from Dawn's low-altitude mapping orbit. <i>Meteoritics and Planetary Science</i> , 2016, 51, 2366-2386.	1.6	11
17	Analysis of MESSENGER high-resolution images of Mercury's hollows and implications for hollow formation. <i>Journal of Geophysical Research E: Planets</i> , 2016, 121, 1798-1813.	3.6	30
18	Imaging Mercury's polar deposits during MESSENGER's low-altitude campaign. <i>Geophysical Research Letters</i> , 2016, 43, 9461-9468.	4.0	31

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19	Mineralogical indicators of Mercury's hollows composition in MESSENGER color observations. <i>Geophysical Research Letters</i> , 2016, 43, 1450-1456.	4.0	42
20	Lithologic variation within bright material on Vesta revealed by linear spectral unmixing. <i>Icarus</i> , 2016, 272, 16-31.	2.5	9
21	Optical space weathering on Vesta: Radiative-transfer models and Dawn observations. <i>Icarus</i> , 2016, 265, 161-174.	2.5	9
22	Spectral analysis of the quadrangles Av-13 and Av-14 on Vesta. <i>Icarus</i> , 2015, 259, 181-193.	2.5	9
23	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
24	Orbital multispectral mapping of Mercury with the MESSENGER Mercury Dual Imaging System: Evidence for the origins of plains units and low-reflectance material. <i>Icarus</i> , 2015, 254, 287-305.	2.5	95
25	Hollows (Mercury). , 2015, , 935-937.		1
26	Antipodal Terrain. , 2015, , 81-83.		0
27	Spectra of the Wells lunar glass simulants: New old data for reflectance modeling. <i>Journal of Geophysical Research E: Planets</i> , 2014, 119, 925-940.	3.6	8
28	Antipodal Terrain. , 2014, , 1-3.		0
29	Phase-ratio images of the surface of Mercury: Evidence for differences in sub-resolution texture. <i>Icarus</i> , 2014, 242, 142-148.	2.5	27
30	Thermal measurements of dark and bright surface features on Vesta as derived from Dawn/VIR. <i>Icarus</i> , 2014, 240, 36-57.	2.5	52
31	The geological nature of dark material on Vesta and implications for the subsurface structure. <i>Icarus</i> , 2014, 240, 3-19.	2.5	28
32	The low-iron, reduced surface of Mercury as seen in spectral reflectance by MESSENGER. <i>Icarus</i> , 2014, 228, 364-374.	2.5	82
33	Images of surface volatiles in Mercury's polar craters acquired by the MESSENGER spacecraft. <i>Geology</i> , 2014, 42, 1051-1054.	4.4	67
34	Surveying the South Pole-Aitken basin magnetic anomaly for remnant impactor metallic iron. <i>Icarus</i> , 2014, 243, 27-30.	2.5	3
35	Mercury's Weather-Beaten Surface: Understanding Mercury in the Context of Lunar and Asteroidal Space Weathering Studies. <i>Space Science Reviews</i> , 2014, 181, 121-214.	8.1	108
36	MESSENGER at Mercury: Early orbital operations. <i>Acta Astronautica</i> , 2014, 93, 509-515.	3.2	4

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37	Geologic map of the northern hemisphere of Vesta based on Dawn Framing Camera (FC) images. <i>Icarus</i> , 2014, 244, 41-59.	2.5	29
38	Spectral analysis of the bright materials on the asteroid Vesta. <i>Icarus</i> , 2014, 240, 73-85.	2.5	26
39	Vesta's north pole quadrangle Av-1 (Albana): Geologic map and the nature of the south polar basin antipodes. <i>Icarus</i> , 2014, 244, 13-22.	2.5	14
40	Global inventory and characterization of pyroclastic deposits on Mercury: New insights into pyroclastic activity from MESSENGER orbital data. <i>Journal of Geophysical Research E: Planets</i> , 2014, 119, 635-658.	3.6	79
41	Hollows (Mercury). , 2014, , 1-4.		0
42	Craters hosting radar-bright deposits in Mercury's north polar region: Areas of persistent shadow determined from MESSENGER images. <i>Journal of Geophysical Research E: Planets</i> , 2013, 118, 26-36.	3.6	36
43	Mercury's hollows: Constraints on formation and composition from analysis of geological setting and spectral reflectance. <i>Journal of Geophysical Research E: Planets</i> , 2013, 118, 1013-1032.	3.6	97
44	Dark spots on Mercury: A distinctive low-reflectance material and its relation to hollows. <i>Journal of Geophysical Research E: Planets</i> , 2013, 118, 1752-1765.	3.6	23
45	A comparison of rayed craters on the Moon and Mercury. <i>Journal of Geophysical Research E: Planets</i> , 2013, 118, 2247-2261.	3.6	47
46	Areas of permanent shadow in Mercury's south polar region ascertained by MESSENGER orbital imaging. <i>Geophysical Research Letters</i> , 2012, 39, .	4.0	43
47	Determination of iron metal optical constants: Implications for ultraviolet, visible, and near-infrared remote sensing of airless bodies. <i>Geophysical Research Letters</i> , 2012, 39, .	4.0	22
48	Color and Albedo Heterogeneity of Vesta from Dawn. <i>Science</i> , 2012, 336, 700-704.	12.6	166
49	Hollows on Mercury: MESSENGER Evidence for Geologically Recent Volatile-Related Activity. <i>Science</i> , 2011, 333, 1856-1859.	12.6	136
50	Lunar swirls: Examining crustal magnetic anomalies and space weathering trends. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	62
51	Characterization of lunar swirls at Mare Ingenii: A model for space weathering at magnetic anomalies. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	36
52	Correction to "Lunar swirls: Examining crustal magnetic anomalies and space weathering trends". <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	4
53	Flood Volcanism in the Northern High Latitudes of Mercury Revealed by MESSENGER. <i>Science</i> , 2011, 333, 1853-1856.	12.6	225
54	Photometric correction of Mercury's global color mosaic. <i>Planetary and Space Science</i> , 2011, 59, 1873-1887.	1.7	22

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55	The global distribution of pyroclastic deposits on Mercury: The view from MESSENGER flybys 1â€“3. <i>Planetary and Space Science</i> , 2011, 59, 1895-1909.	1.7	105
56	Mapping iron abundances on the surface of Mercury: Predicted spatial resolution of the MESSENGER Gamma-Ray Spectrometer. <i>Planetary and Space Science</i> , 2011, 59, 1654-1658.	1.7	10
57	The surficial nature of lunar swirls as revealed by the Mini-RF instrument. <i>Icarus</i> , 2011, 215, 186-196.	2.5	44
58	Whole-disk spectrophotometric properties of Mercury: Synthesis of MESSENGER and ground-based observations. <i>Icarus</i> , 2010, 209, 101-124.	2.5	35
59	The apparent lack of lunar-like swirls on Mercury: Implications for the formation of lunar swirls and for the agent of space weathering. <i>Icarus</i> , 2010, 209, 239-246.	2.5	46
60	Introduction to the special issue of <i>Icarus</i> on “Mercury after Two MESSENGER Flybys”. <i>Icarus</i> , 2010, 209, 1-2.	2.5	0
61	Identification and measurement of neutron-absorbing elements on Mercury’s surface. <i>Icarus</i> , 2010, 209, 195-209.	2.5	52
62	A comparison of the ultraviolet to near-infrared spectral properties of Mercury and the Moon as observed by MESSENGER. <i>Icarus</i> , 2010, 209, 179-194.	2.5	26
63	Exposure of spectrally distinct material by impact craters on Mercury: Implications for global stratigraphy. <i>Icarus</i> , 2010, 209, 210-223.	2.5	82
64	Multispectral images of Mercury from the first MESSENGER flyby: Analysis of global and regional color trends. <i>Earth and Planetary Science Letters</i> , 2009, 285, 272-282.	4.4	88
65	Volcanism on Mercury: Evidence from the first MESSENGER flyby for extrusive and explosive activity and the volcanic origin of plains. <i>Earth and Planetary Science Letters</i> , 2009, 285, 227-242.	4.4	135
66	Evidence for intrusive activity on Mercury from the first MESSENGER flyby. <i>Earth and Planetary Science Letters</i> , 2009, 285, 251-262.	4.4	67
67	Explosive volcanic eruptions on Mercury: Eruption conditions, magma volatile content, and implications for interior volatile abundances. <i>Earth and Planetary Science Letters</i> , 2009, 285, 263-271.	4.4	128
68	Caloris impact basin: Exterior geomorphology, stratigraphy, morphometry, radial sculpture, and smooth plains deposits. <i>Earth and Planetary Science Letters</i> , 2009, 285, 297-308.	4.4	84
69	Pit-floor craters on Mercury: Evidence of near-surface igneous activity. <i>Earth and Planetary Science Letters</i> , 2009, 285, 243-250.	4.4	58
70	The Evolution of Mercury’s Crust: A Global Perspective from MESSENGER. <i>Science</i> , 2009, 324, 613-618.	12.6	194
71	Geology of the Caloris Basin, Mercury: A View from MESSENGER. <i>Science</i> , 2008, 321, 73-76.	12.6	140
72	Reflectance and Color Variations on Mercury: Regolith Processes and Compositional Heterogeneity. <i>Science</i> , 2008, 321, 66-69.	12.6	167

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73	Spectroscopic Observations of Mercury's Surface Reflectance During MESSENGER's First Mercury Flyby. <i>Science</i> , 2008, 321, 62-65.	12.6	94
74	Volcanism on Mercury: Evidence from the First MESSENGER Flyby. <i>Science</i> , 2008, 321, 69-72.	12.6	169
75	A Mariner 10 color study of Mercurian craters. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	23
76	A magnetic anomaly associated with an albedo feature near Airy crater in the lunar nearside highlands. <i>Geophysical Research Letters</i> , 2007, 34, .	4.0	16
77	Remote sensing studies of the Dionysius region of the Moon. <i>Journal of Geophysical Research</i> , 2006, 111, .	3.3	14
78	Lunar optical maturity investigations: A possible recent impact crater and a magnetic anomaly. <i>Journal of Geophysical Research</i> , 2005, 110, .	3.3	19
79	Properties of the Hermean regolith: V. New optical reflectance spectra, comparison with lunar anorthosites, and mineralogical modelling. <i>Icarus</i> , 2004, 168, 257-276.	2.5	79
80	The origin of lunar crater rays. <i>Icarus</i> , 2004, 170, 1-16.	2.5	141
81	Igneous activity in the southern highlands of the Moon. <i>Journal of Geophysical Research</i> , 2002, 107, 5-1-5-7.	3.3	24
82	Lunar pure anorthosite as a spectral analog for Mercury. <i>Meteoritics and Planetary Science</i> , 2002, 37, 1245-1254.	1.6	72
83	Remote sensing and geological studies of the Hadley-Æpennine region of the Moon. <i>Meteoritics and Planetary Science</i> , 2001, 36, 701-730.	1.6	30
84	Imaging of lunar surface maturity. <i>Journal of Geophysical Research</i> , 2000, 105, 20377-20386.	3.3	286
85	Lunar iron and titanium abundance algorithms based on final processing of Clementine ultraviolet-visible images. <i>Journal of Geophysical Research</i> , 2000, 105, 20297-20305.	3.3	503
86	Mapping the FeO and TiO ₂ content of the lunar surface with multispectral imagery. <i>Journal of Geophysical Research</i> , 1998, 103, 3679-3699.	3.3	344
87	Clementine images of the lunar sample-return stations: Refinement of FeO and TiO ₂ mapping techniques. <i>Journal of Geophysical Research</i> , 1997, 102, 16319-16325.	3.3	194
88	A Comparison of Mercurian Reflectance and Spectral Quantities with Those of the Moon. <i>Icarus</i> , 1997, 129, 217-231.	2.5	113
89	A spectral survey of the Crisium Basin Region of the Moon. <i>Geophysical Research Letters</i> , 1995, 22, 3059-3062.	4.0	7
90	Remote sensing and geologic studies of the Schiller-Schickard region of the Moon. <i>Journal of Geophysical Research</i> , 1995, 100, 16959.	3.3	58

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91	Remote sensing studies of the terrain northwest of Humorum Basin. Geophysical Research Letters, 1993, 20, 419-422.	4.0	35
92	Remote sensing studies of the Orientale Region of the Moon: A pre-Galileo view. Geophysical Research Letters, 1991, 18, 2141-2144.	4.0	42
93	The case for landed Mercury science. Experimental Astronomy, 0, , 1.	3.7	0