

Wendy M Calvin

List of Publications by Year in descending order

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64
papers

4,362
citations

147566

31
h-index

143772

57
g-index

70
all docs

70
docs citations

70
times ranked

3411
citing authors

#	ARTICLE	IF	CITATIONS
1	Context Camera Investigation on board the Mars Reconnaissance Orbiter. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	953
2	Orbital Identification of Carbonate-Bearing Rocks on Mars. <i>Science</i> , 2008, 322, 1828-1832.	6.0	560
3	Charge-coupled device spectra of the Galilean satellites: Molecular oxygen on Ganymede. <i>Journal of Geophysical Research</i> , 1995, 100, 19049.	3.3	170
4	Mineralogy of Juventae Chasma: Sulfates in the light-toned mounds, mafic minerals in the bedrock, and hydrated silica and hydroxylated ferric sulfate on the plateau. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	156
5	Characteristics, distribution, origin, and significance of opaline silica observed by the Spirit rover in Gusev crater, Mars. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	155
6	SEBASS hyperspectral thermal infrared data: surface emissivity measurement and mineral mapping. <i>Remote Sensing of Environment</i> , 2003, 85, 48-63.	4.6	145
7	Surface mineral mapping at Steamboat Springs, Nevada, USA, with multi-wavelength thermal infrared images. <i>Remote Sensing of Environment</i> , 2005, 99, 140-158.	4.6	131
8	Spectra of the icy Galilean satellites from 0.2 to 5.1 μ m: A compilation, new observations, and a recent summary. <i>Journal of Geophysical Research</i> , 1995, 100, 19041.	3.3	111
9	Mineral mapping in the Pyramid Lake basin: Hydrothermal alteration, chemical precipitates and geothermal energy potential. <i>Remote Sensing of Environment</i> , 2010, 114, 2297-2304.	4.6	99
10	Condensed O ₂ on Europa and Callisto. <i>Astronomical Journal</i> , 2002, 124, 3400-3403.	1.9	95
11	O ₂ on Ganymede: Spectral characteristics and plasma formation mechanisms. <i>Geophysical Research Letters</i> , 1996, 23, 673-676.	1.5	87
12	New Composite Spectra of Mars, 0.4–5.7 μ m. <i>Icarus</i> , 1997, 130, 449-460.	1.1	78
13	Hydrous carbonates on Mars?: Evidence from Mariner 6/7 infrared spectrometer and ground-based telescopic spectra. <i>Journal of Geophysical Research</i> , 1994, 99, 14659.	3.3	77
14	Mapping alteration minerals at prospect, outcrop and drill core scales using imaging spectrometry. <i>International Journal of Remote Sensing</i> , 2012, 33, 1780-1798.	1.3	75
15	Modeling the reflectance spectrum of Callisto 0.25 to 4.1 μ m. <i>Icarus</i> , 1991, 89, 305-317.	1.1	61
16	Spectral characteristics of iron-bearing phyllosilicates: Comparison to Orgueil (Cl1), Murchison and Murray (CM2). <i>Meteoritics and Planetary Science</i> , 1997, 32, 693-701.	0.7	60
17	Climate, weather, and north polar observations from the Mars Reconnaissance Orbiter Mars Color Imager. <i>Icarus</i> , 2008, 194, 501-512.	1.1	58
18	Compact Reconnaissance Imaging Spectrometer for Mars (CRISM) south polar mapping: First Mars year of observations. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	58

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19	MARCI and MOC observations of the atmosphere and surface cap in the north polar region of Mars. Icarus, 2010, 208, 61-81.	1.1	57
20	Four-fold increase in solar forcing on snow in western U.S. burned forests since 1999. Nature Communications, 2019, 10, 2026.	5.8	57
21	Residual south polar cap of Mars: Stratigraphy, history, and implications of recent changes. Icarus, 2009, 203, 352-375.	1.1	56
22	High concentrations of manganese and sulfur in deposits on Murray Ridge, Endeavour Crater, Mars. American Mineralogist, 2016, 101, 1389-1405.	0.9	55
23	Discovery of alunite in Cross crater, Terra Sirenum, Mars: Evidence for acidic, sulfurous waters. American Mineralogist, 2016, 101, 1527-1542.	0.9	51
24	Remote sensing of geothermal-related minerals for resource exploration in Nevada. Geothermics, 2015, 53, 517-526.	1.5	47
25	Latitudinal Distribution of O ₂ on Ganymede: Observations with the Hubble Space Telescope. Icarus, 1997, 130, 505-516.	1.1	41
26	Compact Reconnaissance Imaging Spectrometer for Mars (CRISM) north polar springtime recession mapping: First 3 Mars years of observations. Journal of Geophysical Research, 2012, 117, .	3.3	39
27	Ices on the Satellites of Jupiter, Saturn, and Uranus. Astrophysics and Space Science Library, 1998, , 579-606.	1.0	37
28	Spatial variability in the seasonal south polar cap of Mars. Journal of Geophysical Research, 1994, 99, 21143.	3.3	36
29	Mapping alteration in geothermal drill core using a field portable spectroradiometer. Geothermics, 2016, 61, 12-23.	1.5	35
30	Spectral Distinctions between the Leading and Trailing Hemispheres of Callisto: New Observations. Icarus, 1993, 104, 69-78.	1.1	33
31	Detection and monitoring of H ₂ O and CO ₂ ice clouds on Mars. Journal of Geophysical Research, 1996, 101, 9227-9237.	3.3	33
32	Variation of the 3-1/4µm absorption feature on Mars: Observations over eastern Valles Marineris by the Mariner 6 infrared spectrometer. Journal of Geophysical Research, 1997, 102, 9097-9107.	3.3	31
33	The Holy Grail: A road map for unlocking the climate record stored within Mars's polar layered deposits. Planetary and Space Science, 2020, 184, 104841.	0.9	30
34	Effect of Reduced Spatial Resolution on Mineral Mapping Using Imaging Spectrometry—Examples Using Hyperspectral Infrared Imager (HyspIRI)-Simulated Data. Remote Sensing, 2011, 3, 1584-1602.	1.8	29
35	Geothermal exploration using imaging spectrometer data over Fish Lake Valley, Nevada. Remote Sensing of Environment, 2014, 140, 509-518.	4.6	29
36	Martian north polar cap summer water cycle. Icarus, 2016, 277, 401-415.	1.1	29

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37	Interannual and seasonal changes in the north polar ice deposits of Mars: Observations from MY 29-31 using MARCI. <i>Icarus</i> , 2015, 251, 181-190.	1.1	28
38	Geothermal exploration with Hymap hyperspectral data at Brady Desert Peak, Nevada. <i>Remote Sensing of Environment</i> , 2006, 104, 313-324.	4.6	27
39	Mass balance of Mars' residual south polar cap from CTX images and other data. <i>Icarus</i> , 2016, 268, 118-130.	1.1	27
40	Additions and corrections to the absorption coefficients of CO ₂ Ice: Applications to the Martian south polar cap. <i>Journal of Geophysical Research</i> , 1990, 95, 14743-14750.	3.3	26
41	Interannual and seasonal changes in the south seasonal polar cap of Mars: Observations from MY 28-31 using MARCI. <i>Icarus</i> , 2017, 292, 144-153.	1.1	25
42	Summer season variability of the north residual cap of Mars as observed by the Mars Global Surveyor Thermal Emission Spectrometer (MGS-TES). <i>Planetary and Space Science</i> , 2008, 56, 212-226.	0.9	22
43	Time scales of erosion and deposition recorded in the residual south polar cap of Mars. <i>Icarus</i> , 2013, 225, 923-932.	1.1	19
44	Could Mars be dark and altered?. <i>Geophysical Research Letters</i> , 1998, 25, 1597-1600.	1.5	17
45	Mapping acidic mine waste with seasonal airborne hyperspectral imagery at varying spatial scales. <i>Environmental Earth Sciences</i> , 2017, 76, 1.	1.3	17
46	Hydration state of the Martian coarse-grained hematite exposures: Implications for their origin and evolution. <i>Journal of Geophysical Research</i> , 2004, 109, .	3.3	15
47	Utilizing HypsIRI Prototype Data for Geological Exploration Applications: A Southern California Case Study. <i>Geosciences (Switzerland)</i> , 2016, 6, 11.	1.0	12
48	Quantifying Iron Concentration in Local and Synthetic Acid Mine Drainage: A New Technique Using Handheld Field Spectrometers. <i>Mine Water and the Environment</i> , 2017, 36, 299-309.	0.9	11
49	A model of diffuse radar scattering from Martian surface rocks. <i>Icarus</i> , 1988, 76, 513-524.	1.1	7
50	Visible and near-infrared multispectral analysis of geochemically measured rock fragments at the Opportunity landing site in Meridiani Planum. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	7
51	Spectral Properties of Lake Superior Banded Iron Formation: Application to Martian Hematite Deposits. <i>Astrobiology</i> , 2006, 6, 563-580.	1.5	5
52	Imaging Spectrometry: Spectral Resolution And Analytical Identification Of Spectral Features. , 1987, , .		4
53	Reflectance of Antarctica from 3 to 5 μ m: discrimination of surface snow and cloud properties. <i>Annals of Glaciology</i> , 2002, 34, 121-126.	2.8	3
54	Petrographic and spectral study of hydrothermal mineralization in drill core from Hawaii: A potential analog to alteration in the martian subsurface. <i>American Mineralogist</i> , 2020, 105, 1297-1305.	0.9	3

#	ARTICLE	IF	CITATIONS
55	Remote sensing communities “break the ice” at Flagstaff Workshop. <i>Eos</i> , 1997, 78, 392.	0.1	2
56	HyspIRI for energy and mineral resource exploration, applications, and impacts. , 2015, , .		2
57	Characterizing low-temperature aqueous alteration of Mars-analog basalts from Mauna Kea at multiple scales. <i>American Mineralogist</i> , 2020, 105, 1306-1316.	0.9	2
58	The Mars Orbiter for Resources, Ices, and Environments (MORIE) Science Goals and Instrument Trades in Radar, Imaging, and Spectroscopy. <i>Planetary Science Journal</i> , 2021, 2, 76.	1.5	2
59	Mapping Potentially Acid Generating Material on Abandoned Mine Lands Using Remotely Piloted Aerial Systems. <i>Minerals (Basel, Switzerland)</i> , 2021, 11, 365.	0.8	1
60	Introduction to the special section: Remote Sensing of Planetary Ices. <i>Journal of Geophysical Research</i> , 1998, 103, 25777-25777.	3.3	0
61	Mapping mineralization in the Monitor Pass mining district. , 2008, , .		0
62	MINERALOGY IN DRILL CORE FROM HAWAII: AN ANALOG FOR MARS. , 2017, , .		0
63	ALTERED BASALTS FROM HAWAII AS AN ANALOG FOR ALTERATION ON MARS. , 2017, , .		0
64	Using Long wave Infrared Spectroscopy to Determine Changes in the Mafic Mineralogy of Drill Core Samples from the Humu'ula Groundwater Research Project. , 2020, , .		0