A Deanne Rogers

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/4631858/publications.pdf

Version: 2024-02-01

72 papers	2,916 citations	172457 29 h-index	168389 53 g-index
75 all docs	75 docs citations	75 times ranked	2191 citing authors

#	Article	IF	Citations
1	Mineralogy at Meridiani Planum from the Mini-TES Experiment on the Opportunity Rover. Science, 2004, 306, 1733-1739.	12.6	370
2	Groundwater activity on Mars and implications for a deep biosphere. Nature Geoscience, 2013, 6, 133-138.	12.9	189
3	Surface mineralogy of Martian low-albedo regions from MGS-TES data: Implications for upper crustal evolution and surface alteration. Journal of Geophysical Research, 2007, 112, .	3.3	185
4	Evidence for magmatic evolution and diversity on Mars from infrared observations. Nature, 2005, 436, 504-509.	27.8	177
5	Initial Results from the Mini-TES Experiment in Gusev Crater from the Spirit Rover. Science, 2004, 305, 837-842.	12.6	168
6	Mineralogy of the light-toned outcrop at Meridiani Planum as seen by the Miniature Thermal Emission Spectrometer and implications for its formation. Journal of Geophysical Research, 2006, 111, n/a-n/a.	3.3	107
7	Mineralogy of volcanic rocks in Gusev Crater, Mars: Reconciling MÃ¶ssbauer, Alpha Particle Xâ€Ray Spectrometer, and Miniature Thermal Emission Spectrometer spectra. Journal of Geophysical Research, 2008, 113, .	3.3	96
8	Atmospheric correction and surface spectral unit mapping using Thermal Emission Imaging System data. Journal of Geophysical Research, 2004, 109, .	3.3	91
9	Mineralogical composition of sands in Meridiani Planum determined from Mars Exploration Rover data and comparison to orbital measurements. Journal of Geophysical Research, 2008, 113, .	3.3	87
10	Compositional heterogeneity of the ancient Martian crust: Analysis of Ares Vallis bedrock with THEMIS and TES data. Journal of Geophysical Research, 2005, 110, .	3.3	80
11	Evidence for aqueous deposition of hematite- and sulfate-rich light-toned layered deposits in Aureum and Iani Chaos, Mars. Journal of Geophysical Research, 2007, 112, .	3.3	73
12	Mars Exploration Rover candidate landing sites as viewed by THEMIS. Icarus, 2005, 176, 12-43.	2.5	70
13	Areally Extensive Surface Bedrock Exposures on Mars: Many Are Clastic Rocks, Not Lavas. Geophysical Research Letters, 2018, 45, 1767-1777.	4.0	68
14	Mineralogical characterization of Mars Science Laboratory candidate landing sites from THEMIS and TES data. Icarus, 2009, 203, 437-453.	2.5	67
15	Identification and quantification of diffuse fresh submarine groundwater discharge via airborne thermal infrared remote sensing. Remote Sensing of Environment, 2015, 171, 202-217.	11.0	67
16	Global spectral classification of Martian low-albedo regions with Mars Global Surveyor Thermal Emission Spectrometer (MGS-TES) data. Journal of Geophysical Research, 2007, 112, .	3.3	66
17	Feldspathic rocks on Mars: Compositional constraints from infrared spectroscopy and possible formation mechanisms. Geophysical Research Letters, 2015, 42, 2619-2626.	4.0	62
18	Age relationship of basaltic and andesitic surface compositions on Mars: Analysis of high-resolution TES observations of the northern hemisphere. Journal of Geophysical Research, 2003, 108, .	3.3	44

#	Article	IF	Citations
19	Evidence for Noachian flood volcanism in Noachis Terra, Mars, and the possible role of Hellas impact basin tectonics. Journal of Geophysical Research E: Planets, 2013, 118, 1094-1113.	3.6	39
20	Hematite spherules at Meridiani: Results from MI, Miniâ€TES, and Pancam. Journal of Geophysical Research, 2008, 113, .	3.3	38
21	Sulfates hydrating bulk soil in the Martian low and middle latitudes. Geophysical Research Letters, 2014, 41, 7987-7996.	4.0	35
22	Evidence for magmaâ€carbonate interaction beneath Syrtis Major, Mars. Journal of Geophysical Research E: Planets, 2013, 118, 126-137.	3.6	33
23	The role of aqueous alteration in the formation of martian soils. Icarus, 2011, 211, 157-171.	2.5	32
24	The formation of infilled craters on Mars: Evidence for widespread impact induced decompression of the early martian mantle?. Icarus, 2014, 228, 149-166.	2.5	32
25	Compositional provinces of Mars from statistical analyses of TES, GRS, OMEGA and CRISM data. Journal of Geophysical Research E: Planets, 2015, 120, 62-91.	3.6	32
26	Mid-infrared emission spectroscopy and visible/near-infrared reflectance spectroscopy of Fe-sulfate minerals. American Mineralogist, 2015, 100, 66-82.	1.9	32
27	Regional-scale stratigraphy of surface units in Tyrrhena and Iapygia Terrae, Mars: Insights into highland crustal evolution and alteration history. Journal of Geophysical Research, 2011, 116, .	3.3	31
28	Evidence for episodic alluvial fan formation in far western Terra Tyrrhena, Mars. Icarus, 2011, 211, 222-237.	2.5	31
29	Evidence for limited compositional and particle size variation on asteroid (101955) Bennu from thermal infrared spectroscopy. Astronomy and Astrophysics, 2021, 650, A120.	5.1	30
30	Coordinated analyses of orbital and Spirit Rover data to characterize surface materials on the cratered plains of Gusev Crater, Mars. Journal of Geophysical Research, 2007, 112, .	3.3	29
31	Morphological, structural, and spectral characteristics of amorphous iron sulfates. Journal of Geophysical Research E: Planets, 2015, 120, 809-830.	3.6	28
32	Geologic context of in situ rocky exposures in Mare Serpentis, Mars: Implications for crust and regolith evolution in the cratered highlands. Icarus, 2009, 200, 446-462.	2.5	25
33	Olivine dissolution by acidic fluids in Argyre Planitia, Mars: Evidence for a widespread process. Geology, 2008, 36, 579.	4.4	21
34	The dominance of cold and dry alteration processes on recent Mars, as revealed through pan-spectral orbital analyses. Earth and Planetary Science Letters, 2014, 404, 261-272.	4.4	18
35	Amorphous salts formed from rapid dehydration of multicomponent chloride and ferric sulfate brines: Implications for Mars. Icarus, 2018, 302, 285-295.	2.5	17
36	The Geology and Astrobiology of McLaughlin Crater, Mars: An Ancient Lacustrine Basin Containing Turbidites, Mudstones, and Serpentinites. Journal of Geophysical Research E: Planets, 2019, 124, 910-940.	3.6	17

#	Article	IF	Citations
37	Basaltic glass formed from hydrovolcanism and impact processes: Characterization and clues for detection of mode of origin from VNIR through MWIR reflectance and emission spectroscopy. Icarus, 2016, 275, 16-28.	2.5	16
38	Thermal and nearâ€infrared analyses of central peaks of Martian impact craters: Evidence for a heterogeneous Martian crust. Journal of Geophysical Research E: Planets, 2015, 120, 662-688.	3.6	14
39	Thermal emission spectroscopy of microcrystalline sedimentary phases: Effects of natural surface roughness on spectral feature shape. Journal of Geophysical Research E: Planets, 2016, 121, 542-555.	3.6	14
40	Vaporâ€deposited minerals contributed to the martian surface during magmatic degassing. Journal of Geophysical Research E: Planets, 2019, 124, 1592.	3.6	13
41	Thermophysical Properties and Surface Heterogeneity of Landing Sites on Mars From Overlapping Thermal Emission Imaging System (THEMIS) Observations. Journal of Geophysical Research E: Planets, 2021, 126, e2020JE006713.	3.6	13
42	Quantitative compositional analysis of sedimentary materials using thermal emission spectroscopy: 1. Application to sedimentary rocks. Journal of Geophysical Research E: Planets, 2015, 120, 1956-1983.	3.6	12
43	Occurrence and scale of compositional heterogeneity in Martian dune fields: Toward understanding the effects of aeolian sorting on Martian sediment compositions. Icarus, 2017, 282, 56-69.	2.5	12
44	Crustal compositions exposed by impact craters in the Tyrrhena Terra region of Mars: Considerations for Noachian environments. Earth and Planetary Science Letters, 2011, 301, 353-364.	4.4	11
45	Crater Morphometry on the Mafic Floor Unit at Jezero Crater, Mars: Comparisons to a Known Basaltic Lava Plain at the InSight Landing Site. Geophysical Research Letters, 2020, 47, e2020GL089607.	4.0	11
46	Machine Learning Midâ€Infrared Spectral Models for Predicting Modal Mineralogy of CI/CM Chondritic Asteroids and Bennu. Journal of Geophysical Research E: Planets, 2021, 126, e2021JE007035.	3.6	11
47	Geologic and Thermal Characterization of Oxia Planum Using Mars Odyssey THEMIS Data. Journal of Geophysical Research E: Planets, 2021, 126, e2020JE006678.	3.6	10
48	Assessing the geologic evolution of Greater Thaumasia, Mars. Journal of Geophysical Research E: Planets, 2016, 121, 1753-1769.	3.6	9
49	Spectral characterization of acid weathering products on Martian basaltic glass. Journal of Geophysical Research E: Planets, 2016, 121, 516-541.	3.6	9
50	The association of hydrogen with sulfur on Mars across latitudes, longitudes, and compositional extremes. Journal of Geophysical Research E: Planets, 2016, 121, 1321-1341.	3.6	9
51	Mapping and Characterization of Martian Intercrater Bedrock Plains: Insights Into Resurfacing Processes in the Martian Cratered Highlands. Journal of Geophysical Research E: Planets, 2019, 124, 3181-3204.	3.6	9
52	Thermal infrared and Raman microspectroscopy of moganite-bearing rocks. American Mineralogist, 2013, 98, 78-84.	1.9	8
53	Enhanced Formation of Solvent-Shared Ion Pairs in Aqueous Calcium Perchlorate Solution toward Saturated Concentration or Deep Supercooling Temperature and Its Effects on the Water Structure. Journal of Physical Chemistry B, 2019, 123, 9654-9667.	2.6	8
54	Spectral evidence for alkaline rocks and compositional diversity among feldspathic light-toned terrains on Mars. Icarus, 2022, 376, 114883.	2.5	8

#	Article	IF	Citations
55	Olivine and carbonate-rich bedrock in Gusev crater and the Nili Fossae region of Mars may be altered ignimbrite deposits. Icarus, 2022, 380, 114974.	2.5	8
56	Global mineralogy mapped from the Mars Global Surveyor Thermal Emission Spectrometer. , 2008, , 193-220.		7
57	Quantitative compositional analysis of sedimentary materials using thermal emission spectroscopy: 2. Application to compacted fine-grained mineral mixtures and assessment of applicability of partial least squares methods. Journal of Geophysical Research E: Planets, 2015, 120, 1984-2001.	3.6	7
58	Investigation of submarine groundwater discharge to tidal rivers: Evidence for regional and local scale seepage. Hydrological Processes, 2017, 31, 716-730.	2.6	7
59	Visible, near-infrared, and mid-infrared spectral characterization of Hawaiian fumarolic alteration near Kilauea's December 1974 flow: Implications for spectral discrimination of alteration environments on Mars. American Mineralogist, 2018, 103, 11-25.	1.9	7
60	The compositional diversity and physical properties mapped from the Mars Odyssey Thermal Emission Imaging System. , 2008, , 221-241.		6
61	The Incorporation of Field Portable Instrumentation Into Human Planetary Surface Exploration. Earth and Space Science, 2018, 5, 697-720.	2.6	6
62	Incorporation of Portable Infrared Spectral Imaging Into Planetary Geological Field Work: Analog Studies at KÄ«lauea Volcano, Hawaii, and Potrillo Volcanic Field, New Mexico. Earth and Space Science, 2018, 5, 676-696.	2.6	5
63	Spectral and geological analyses of domes in western Arcadia Planitia, Mars: Evidence for intrusive alkali-rich volcanism and ice-associated surface features. Icarus, 2021, 357, 114111.	2.5	5
64	Investigating Sources of Spectral Olivine Enrichments in Martian Bedrock Plains Using Diurnal Emissivity Changes in THEMIS Multispectral Images. Journal of Geophysical Research E: Planets, 0, , .	3.6	4
65	Hematite-bearing materials surrounding Candor Mensa in Candor Chasma, Mars: Implications for hematite origin and post-emplacement modification. Icarus, 2014, 237, 350-365.	2.5	2
66	Evaluating Flatâ€Crater Floor Fill Compositions and Morphologies: Insight into Formation Processes. Journal of Geophysical Research E: Planets, 2021, 126, e2021JE006919.	3.6	2
67	Thermal Infrared Spectral Modeling. , 2019, , 324-336.		1
68	Thermal Infrared Spectral Analyses of Mars from Orbit Using the Thermal Emission Spectrometer and Thermal Emission Imaging System. , 2019, , 484-498.		1
69	Thermal Infrared Remote Sensing of Mars from Rovers Using the Miniature Thermal Emission Spectrometer. , 2019, , 499-512.		1
70	In Appreciation of Our 2019 Peer Reviewers. Journal of Geophysical Research E: Planets, 2020, 125, e2020JE006420.	3.6	0
71	Thank You to Our 2020 Peer Reviewers. Journal of Geophysical Research E: Planets, 2021, 126, e2021JE006865.	3.6	0
72	In Recognition of Our 2021 Peer Reviewers. Journal of Geophysical Research E: Planets, 2022, 127, .	3.6	0