Robert E Grimm

List of Publications by Year
in descending order

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Version: 2024-02-01

72 papers	3,529 citations	109321 35 h-index	133252 59 g-index
72 all docs	72 docs citations	72 times ranked	2785 citing authors

#	Article	IF	Citations
1	Feasibility of characterizing subsurface brines on Ceres by electromagnetic sounding. Icarus, 2021, 362, 114424.	2.5	7
2	Evaluation of grainflow mechanisms for martian recurring slope lineae (RSL). Icarus, 2021, 369, 114648.	2.5	3
3	Evaluation of wet and dry recurring slope lineae (RSL) formation mechanisms based on quantitative mapping of RSL in Garni Crater, Valles Marineris, Mars. Icarus, 2020, 335, 113420.	2.5	26
4	On the electrical properties of meridianiite and implications for radar sounding of icy satellites. Earth and Planetary Science Letters, 2019, 520, 34-39.	4.4	1
5	Timing and Distribution of Single-Layered Ejecta Craters Imply Sporadic Preservation of Tropical Subsurface Ice on Mars. Journal of Geophysical Research E: Planets, 2018, 123, 131-144.	3.6	4
6	Direct thermal effects of the Hadean bombardment did not limit early subsurface habitability. Earth and Planetary Science Letters, 2018, 485, 1-8.	4.4	13
7	Two pulses of seasonal activity in martian southern mid-latitude recurring slope lineae (RSL). Icarus, 2018, 302, 126-133.	2.5	32
8	New analysis of the Apollo 17 surface electrical properties experiment. Icarus, 2018, 314, 389-399.	2.5	15
9	On conductive ground: Analysis of â€œBistatic sounding of the deep subsurface with ground penetrating radar â˜' experimental validationâ€•by V. Ciarletti et al.. Planetary and Space Science, 2017, 139, 51-56.	1.7	2
10	Characteristics of the numerous and widespread recurring slope lineae (RSL) in Valles Marineris, Mars. Icarus, 2017, 285, 195-210.	2.5	51
11	On the secular retention of ground water and ice on Mars. Journal of Geophysical Research E: Planets, 2017, 122, 94-109.	3.6	41
12	Observations and modeling of northern mid-latitude recurring slope lineae (RSL) suggest recharge by a present-day martian briny aquifer. Icarus, 2016, 265, 125-138.	2.5	62
13	Radar attenuation and temperature within the Greenland Ice Sheet. Journal of Geophysical Research F: Earth Surface, 2015, 120, 983-1008.	2.8	72
14	Dielectric signatures and evolution of glacier ice. Journal of Glaciology, 2015, 61, 1159-1170.	2.2	11
15	Field Test of Detection and Characterisation of Subsurface Ice using Broadband Spectral-Induced Polarisation. Permafrost and Periglacial Processes, 2015, 26, 28-38.	3.4	20
16	Radio reflection imaging of asteroid and comet interiors II: Results and recommendations. Advances in Space Research, 2015, 55, 2166-2176.	2.6	5
17	Radio reflection imaging of asteroid and comet interiors I: Acquisition and imaging theory. Advances in Space Research, 2015, 55, 2149-2165.	2.6	7
18	New observations of martian southern mid-latitude recurring slope lineae (RSL) imply formation by freshwater subsurface flows. Icarus, 2014, 233, 328-341.	2.5	117

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19	Water budgets of martian recurring slope lineae. Icarus, 2014, 233, 316-327.	2.5	103
20	Low-frequency electromagnetic methods for planetary subsurface exploration. , 2013, , .		0
21	The role of acids in electrical conduction through ice. Journal of Geophysical Research F: Earth Surface, 2013, 118, 1-16.	2.8	45
22	Geophysical constraints on the lunar Procellarum KREEP Terrane. Journal of Geophysical Research E: Planets, 2013, 118, 768-778.	3.6	47
23	Electrical response of ammonium-rich water ice. Annals of Glaciology, 2013, 54, 21-26.	1.4	8
24	Next-generation electromagnetic sounding of the Moon. Advances in Space Research, 2012, 50, 1687-1701.	2.6	25
25	Farside explorer: unique science from a mission to the farside of the moon. Experimental Astronomy, 2012, 33, 529-585.	3.7	52
26	The 2010 European Venus Explorer (EVE) mission proposal. Experimental Astronomy, 2012, 33, 305-335.	3.7	20
27	Aerial electromagnetic sounding of the lithosphere of Venus. Icarus, 2012, 217, 462-473.	2.5	7
28	Radar penetrates only the youngest geological units on Mars. Journal of Geophysical Research, 2011, 116, .	3.3	41
29	Dielectric signatures of adsorbed and salty liquid water at the Phoenix landing site, Mars. Journal of Geophysical Research, 2011, 116, .	3.3	41
30	Dual-mode, Fluxgate-Induction Sensor for UXO Detection and Discrimination. Journal of Environmental and Engineering Geophysics, 2010, 15, 51-64.	0.5	13
31	Thermal constraints on the early history of the H-chondrite parent body reconsidered. Geochimica Et Cosmochimica Acta, 2010, 74, 5410-5423.	3.9	65
32	Low-Frequency Electrical Properties of Iceâ^'Silicate Mixtures. Journal of Physical Chemistry B, 2010, 114, 6065-6073.	2.6	62
33	A timeâ€“domain electromagnetic sounder for detection and characterization of groundwater on Mars. Planetary and Space Science, 2009, 57, 1268-1281.	1.7	11
34	Comment on â€œSubsurface water detection on Mars by astronauts using a seismic refraction method: Tests during a manned Mars simulation,â€•by V. Pletser et al.. Acta Astronautica, 2009, 64, 654-655.	3.2	2
35	On the secular evolution of groundwater on Mars. Geophysical Research Letters, 2009, 36, .	4.0	43
36	Regionally compartmented groundwater flow on Mars. Journal of Geophysical Research, 2009, 114, .	3.3	38

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37	Multiple flooding events in Martian outflow channels. Journal of Geophysical Research, 2008, 113, .	3.3	53
38	Low-Frequency Electrical Properties of Polycrystalline Saline Ice and Salt Hydrates. Journal of Physical Chemistry B, 2008, 112, 15382-15390.	2.6	49
39	The Potential for Lithoautotrophic Life on Mars: Application to Shallow Interfacial Water Environments. Astrobiology, 2007, 7, 342-354.	3.0	24
40	Low-frequency radar sounding investigations of the North Amargosa Desert, Nevada: A potential analog of conductive subsurface environments on Mars. Journal of Geophysical Research, 2006, 111, .	3.3	16
41	Ground-penetrating radar sounding in mafic lava flows: Assessing attenuation and scattering losses in Mars-analog volcanic terrains. Journal of Geophysical Research, 2006, 111, .	3.3	48
42	Absorption and scattering in ground-penetrating radar: Analysis of the Bishop Tuff. Journal of Geophysical Research, 2006, 111, .	3.3	67
43	Radar investigations of planetary and terrestrial environments. Journal of Geophysical Research, 2006, 111, .	3.3	7
44	Iron meteorites as remnants of planetesimals formed in the terrestrial planet region. Nature, 2006, 439, 821-824.	27.8	249
45	Correction to â€œGround-penetrating radar sounding in mafic lava flows: Assessing attenuation and scattering losses in Mars-analog volcanic terrainsâ€• Journal of Geophysical Research, 2006, 111, .	3.3	0
46	Groundwater-controlled valley networks and the decline of surface runoff on early Mars. Journal of Geophysical Research, 2005, 110, .	3.3	77
47	Rheological constraints on martian landslides. Icarus, 2003, 163, 347-362.	2.5	79
48	A comparison of time domain electromagnetic and surface nuclear magnetic resonance sounding for subsurface water on Mars. Journal of Geophysical Research, 2003, 108, .	3.3	7
49	Triaxial Modeling and Target Classification of Multichannel, Multicomponent EM Data for UXO Discrimination. Journal of Environmental and Engineering Geophysics, 2003, 8, 239-250.	0.5	14
50	Low-frequency electromagnetic exploration for groundwater on Mars. Journal of Geophysical Research, 2002, 107, 1-1.	3.3	37
51	Controls on Martian hydrothermal systems: Application to valley network and magnetic anomaly formation. Journal of Geophysical Research, 2002, 107, 1-1.	3.3	42
52	Recent Tectonic and Lithospheric Thermal Evolution of Venus. Icarus, 1999, 139, 40-48.	2.5	37
53	Detection and analysis of naturally fractured gas reservoirs: Multiazimuth seismic surveys in the Wind River basin, Wyoming. Geophysics, 1999, 64, 1277-1292.	2.6	26
54	Tessera deformation and the contemporaneous thermal state of the plateau highlands, Venus. Earth and Planetary Science Letters, 1997, 147, 1-10.	4.4	73

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55	Effects of acquisition geometry, largeâ€scale structure, and regional anisotropy on AVOA: An example from the Wind River basin. , 1997, , .		7
56	Lithospheric rheology and flexure at Artemis Chasma, Venus. Journal of Geophysical Research, 1996, 101, 12697-12708.	3.3	34
57	Floor subsidence and rebound of large Venus craters. Journal of Geophysical Research, 1996, 101, 26057-26067.	3.3	12
58	Tectonics of Artemis Chasma: A Venusian "Plate" Boundary. Icarus, 1995, 117, 219-249.	2.5	45
59	The Deep Structure of Venusian Plateau Highlands. Icarus, 1994, 112, 89-103.	2.5	61
60	The Isostatic State of Mead Crater. Icarus, 1994, 112, 117-129.	2.5	7
61	Recent deformation rates on Venus. Journal of Geophysical Research, 1994, 99, 23163-23171.	3.3	54
62	Heliocentric Zoning of the Asteroid Belt by Aluminum-26 Heating. Science, 1993, 259, 653-655.	12.6	217
63	Shapes of Venusian â€œpancakeâ€•domes imply episodic emplacement and silicic composition. Geophysical Research Letters, 1993, 20, 261-264.	4.0	56
64	Venus tectonics: An overview of Magellan observations. Journal of Geophysical Research, 1992, 97, 13199-13255.	3.3	278
65	Impact craters and Venus resurfacing history. Journal of Geophysical Research, 1992, 97, 15923-15948.	3.3	303
66	Comment on â€œTerrestrial spreading centers under Venus conditions: Evaluation of a crustal spreading model for western Aphrodite Terraâ€•by C. Sotin, D.A. Senske, J.W. Head and E.M. Parmentier. Earth and Planetary Science Letters, 1991, 104, 114-115.	4.4	0
67	Water and the thermal evolution of carbonaceous chondrite parent bodies. Icarus, 1989, 82, 244-280.	2.5	276
68	Tests of crustal divergence models for Aphrodite Terra, Venus. Journal of Geophysical Research, 1989, 94, 12103-12131.	3.3	25
69	Tectonic activity on Venus. Nature, 1988, 331, 305-306.	27.8	5
70	Limits on modes of lithospheric heat transport on Venus from impact crater density. Geophysical Research Letters, 1987, 14, 538-541.	4.0	43
71	Tectonic tests of proposed polar wander paths for Mars and the Moon. Icarus, 1986, 65, 110-121.	2.5	25
72	Penecontemporaneous metamorphism, fragmentation, and reassembly of ordinary chondrite parent bodies. Journal of Geophysical Research, 1985, 90, 2022-2028.	3.3	64