

Karl Leon Leon Mitchell

List of Publications by Year in descending order

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Version: 2024-02-01

60
papers

4,168
citations

117453

34
h-index

155451

55
g-index

60
all docs

60
docs citations

60
times ranked

2020
citing authors

#	ARTICLE	IF	CITATIONS
1	The lakes of Titan. <i>Nature</i> , 2007, 445, 61-64.	13.7	507
2	The Sand Seas of Titan: Cassini RADAR Observations of Longitudinal Dunes. <i>Science</i> , 2006, 312, 724-727.	6.0	351
3	Hydrocarbon lakes on Titan: Distribution and interaction with a porous regolith. <i>Geophysical Research Letters</i> , 2008, 35, .	1.5	227
4	Evidence from the Mars Express High Resolution Stereo Camera for a frozen sea close to Mars' equator. <i>Nature</i> , 2005, 434, 352-356.	13.7	201
5	Cryovolcanic features on Titan's surface as revealed by the Cassini Titan Radar Mapper. <i>Icarus</i> , 2007, 186, 395-412.	1.1	191
6	Titan's inventory of organic surface materials. <i>Geophysical Research Letters</i> , 2008, 35, .	1.5	184
7	Fluvial channels on Titan: Initial Cassini RADAR observations. <i>Planetary and Space Science</i> , 2008, 56, 1132-1144.	0.9	151
8	Generation of recent massive water floods at Cerberus Fossae, Mars by dike emplacement, cryospheric cracking, and confined aquifer groundwater release. <i>Geophysical Research Letters</i> , 2003, 30, .	1.5	143
9	Cryovolcanism on Titan: New results from Cassini RADAR and VIMS. <i>Journal of Geophysical Research E: Planets</i> , 2013, 118, 416-435.	1.5	128
10	Impact craters on Titan. <i>Icarus</i> , 2010, 206, 334-344.	1.1	126
11	Distribution and interplay of geologic processes on Titan from Cassini radar data. <i>Icarus</i> , 2010, 205, 540-558.	1.1	122
12	Transient surface liquid in Titan's polar regions from Cassini. <i>Icarus</i> , 2011, 211, 655-671.	1.1	113
13	Determining Titan surface topography from Cassini SAR data. <i>Icarus</i> , 2009, 202, 584-598.	1.1	108
14	Mars outflow channels: A reappraisal of the estimation of water flow velocities from water depths, regional slopes, and channel floor properties. <i>Journal of Geophysical Research</i> , 2004, 109, .	3.3	102
15	Near-infrared spectral mapping of Titan's mountains and channels. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	82
16	New estimates for Io eruption temperatures: Implications for the interior. <i>Icarus</i> , 2007, 192, 491-502.	1.1	81
17	Discovery of a flank caldera and very young glacial activity at Hecates Tholus, Mars. <i>Nature</i> , 2005, 434, 356-361.	13.7	80
18	Titan's surface at 2.18-cm wavelength imaged by the Cassini RADAR radiometer: Results and interpretations through the first ten years of observation. <i>Icarus</i> , 2016, 270, 443-459.	1.1	79

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19	Titan's young surface: Initial impact crater survey by Cassini RADAR and model comparison. <i>Geophysical Research Letters</i> , 2007, 34, .	1.5	72
20	Active shoreline of Ontario Lacus, Titan: A morphological study of the lake and its surroundings. <i>Geophysical Research Letters</i> , 2010, 37, .	1.5	66
21	Selection of the landing site in Isidis Planitia of Mars probe Beagle 2. <i>Journal of Geophysical Research</i> , 2003, 108, 1-1.	3.3	65
22	Cassini RADAR images at Hotei Arcus and western Xanadu, Titan: Evidence for geologically recent cryovolcanic activity. <i>Geophysical Research Letters</i> , 2009, 36, .	1.5	55
23	Regional geomorphology and history of Titan's Xanadu province. <i>Icarus</i> , 2011, 211, 672-685.	1.1	52
24	Fluvial network analysis on Titan: Evidence for subsurface structures and west-to-east wind flow, southwestern Xanadu. <i>Geophysical Research Letters</i> , 2009, 36, .	1.5	51
25	Laboratory measurements of cryogenic liquid alkane microwave absorptivity and implications for the composition of Ligeia Mare, Titan. <i>Geophysical Research Letters</i> , 2015, 42, 1340-1345.	1.5	48
26	Stereo cloud-top heights and cloud fraction retrieval from ATSR-2. <i>International Journal of Remote Sensing</i> , 2007, 28, 1921-1938.	1.3	46
27	Nature, distribution, and origin of Titan's Undifferentiated Plains. <i>Icarus</i> , 2016, 270, 162-182.	1.1	45
28	Coupled conduit flow and shape in explosive volcanic eruptions. <i>Journal of Volcanology and Geothermal Research</i> , 2005, 143, 187-203.	0.8	44
29	Transient features in a Titan sea. <i>Nature Geoscience</i> , 2014, 7, 493-496.	5.4	43
30	Topographic Constraints on the Evolution and Connectivity of Titan's Lacustrine Basins. <i>Geophysical Research Letters</i> , 2017, 44, 11,745.	1.5	43
31	Crater topography on Titan: Implications for landscape evolution. <i>Icarus</i> , 2013, 223, 82-90.	1.1	42
32	Formation of Mangala Valles outflow channel, Mars: Morphological development and water discharge and duration estimates. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	38
33	Photometric changes on Saturn's Titan: Evidence for active cryovolcanism. <i>Geophysical Research Letters</i> , 2009, 36, .	1.5	38
34	Bathymetry and composition of Titan's Ontario Lacus derived from Monte Carlo-based waveform inversion of Cassini RADAR altimetry data. <i>Icarus</i> , 2018, 300, 203-209.	1.1	38
35	Formation of Aromatum Chaos, Mars: Morphological development as a result of volcano-ice interactions. <i>Journal of Geophysical Research</i> , 2006, 111, .	3.3	36
36	Titan as Revealed by the Cassini Radar. <i>Space Science Reviews</i> , 2019, 215, 1.	3.7	34

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37	Formation of Ravi Vallis outflow channel, Mars: Morphological development, water discharge, and duration estimates. <i>Journal of Geophysical Research</i> , 2006, 111, .	3.3	32
38	The lakes and seas of Titan. <i>Eos</i> , 2007, 88, 569-570.	0.1	30
39	The Microstructural Evolution of Water Ice in the Solar System Through Sintering. <i>Journal of Geophysical Research E: Planets</i> , 2019, 124, 243-277.	1.5	30
40	Labyrinth terrain on Titan. <i>Icarus</i> , 2020, 344, 113764.	1.1	29
41	Microwave dielectric constant of liquid hydrocarbons: Application to the depth estimation of Titan's lakes. <i>Geophysical Research Letters</i> , 2008, 35, .	1.5	24
42	EnVision: taking the pulse of our twin planet. <i>Experimental Astronomy</i> , 2012, 33, 337-363.	1.6	23
43	The influence of subsurface flow on lake formation and north polar lake distribution on Titan. <i>Icarus</i> , 2016, 277, 103-124.	1.1	20
44	QUEST: A New Frontiers Uranus orbiter mission concept study. <i>Acta Astronautica</i> , 2020, 170, 6-26.	1.7	19
45	Bridge to the stars: A mission concept to an interstellar object. <i>Planetary and Space Science</i> , 2021, 197, 105137.	0.9	17
46	Formation of Mangala Fossa, the source of the Mangala Valles, Mars: Morphological development as a result of volcano-cryosphere interactions. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	15
47	The rheology of cryovolcanic slurries: Motivation and phenomenology of methanol-water slurries with implications for Titan. <i>Icarus</i> , 2009, 202, 607-619.	1.1	15
48	THEO concept mission: Testing the Habitability of Enceladus's Ocean. <i>Advances in Space Research</i> , 2016, 58, 1117-1137.	1.2	13
49	Comparison between ATSR's stereo, MOS O2's band and ground-based cloud top heights. <i>International Journal of Remote Sensing</i> , 2007, 28, 1969-1987.	1.3	10
50	Beyond Earth: How extra-terrestrial volcanism has changed our definition of a volcano. , 2010, , .		9
51	A robotic approach to mapping post-eruptive volcanic fissure conduits. <i>Journal of Volcanology and Geothermal Research</i> , 2016, 320, 19-28.	0.8	9
52	Triton's Variable Interaction With Neptune's Magnetospheric Plasma. <i>Journal of Geophysical Research: Space Physics</i> , 2021, 126, e2021JA029740.	0.8	9
53	Single- and Multi-Pass Magnetometric Subsurface Ocean Detection and Characterization in Icy Worlds Using Principal Component Analysis (PCA): Application to Triton. <i>Earth and Space Science</i> , 2022, 9, .	1.1	9
54	Mars: a geologically active planet. <i>Astronomy and Geophysics</i> , 2003, 44, 4.16-4.20.	0.1	6

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55	Hypotheses for Triton's plumes: New analyses and future remote sensing tests. <i>Icarus</i> , 2022, 375, 114835.	1.1	6
56	OCEANUS: A high science return Uranus orbiter with a low-cost instrument suite. <i>Acta Astronautica</i> , 2018, 148, 1-11.	1.7	5
57	Planetary volcanism. , 2013, , 384-413.		4
58	Design of a low cost mission to the Neptunian system. , 2014, , .		2
59	Camilla: A centaur reconnaissance and impact mission concept. <i>Planetary and Space Science</i> , 2018, 164, 184-193.	0.9	0
60	Magellan Stereo Revisted. , 2019, , .		0