Karl Leon Leon Mitchell

List of Publications by Year
in descending order

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	Hypotheses for Triton's plumes: New analyses and future remote sensing tests. Icarus, 2022, 375, 114835.	1.1	6
2	Singleâ€•and Multiâ€Pass Magnetometric Subsurface Ocean Detection and Characterization in Icy Worlds Using Principal Component Analysis (PCA): Application to Triton. Earth and Space Science, 2022, 9, .	1.1	9
3	Bridge to the stars: A mission concept to an interstellar object. Planetary and Space Science, 2021, 197, 105137.	0.9	17
4	Tritonâ€™s Variable Interaction With Neptuneâ€™s Magnetospheric Plasma. Journal of Geophysical Research: Space Physics, 2021, 126, e2021JA029740.	0.8	9
5	QUEST: A New Frontiers Uranus orbiter mission concept study. Acta Astronautica, 2020, 170, 6-26.	1.7	19
6	Labyrinth terrain on Titan. Icarus, 2020, 344, 113764.	1.1	29
7	Titan as Revealed by the Cassini Radar. Space Science Reviews, 2019, 215, 1.	3.7	34
8	Magellan Stereo Revisted. , 2019, , .		0
9	The Microstructural Evolution of Water Ice in the Solar System Through Sintering. Journal of Geophysical Research E: Planets, 2019, 124, 243-277.	1.5	30
10	OCEANUS: A high science return Uranus orbiter with a low-cost instrument suite. Acta Astronautica, 2018, 148, 1-11.	1.7	5
11	Bathymetry and composition of Titan's Ontario Lacus derived from Monte Carlo-based waveform inversion of Cassini RADAR altimetry data. Icarus, 2018, 300, 203-209.	1.1	38
12	Camilla: A centaur reconnaissance and impact mission concept. Planetary and Space Science, 2018, 164, 184-193.	0.9	0
13	Topographic Constraints on the Evolution and Connectivity of Titan's Lacustrine Basins. Geophysical Research Letters, 2017, 44, 11,745.	1.5	43
14	The influence of subsurface flow on lake formation and north polar lake distribution on Titan. Icarus, 2016, 277, 103-124.	1.1	20
15	Nature, distribution, and origin of Titanâ€™s Undifferentiated Plains. Icarus, 2016, 270, 162-182.	1.1	45
16	A robotic approach to mapping post-eruptive volcanic fissure conduits. Journal of Volcanology and Geothermal Research, 2016, 320, 19-28.	0.8	9
17	Titanâ€™s surface at 2.18-cm wavelength imaged by the Cassini RADAR radiometer: Results and interpretations through the first ten years of observation. Icarus, 2016, 270, 443-459.	1.1	79
18	THEO concept mission: Testing the Habitability of Enceladusâ€™s Ocean. Advances in Space Research, 2016, 58, 1117-1137.	1.2	13

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19	Laboratory measurements of cryogenic liquid alkane microwave absorptivity and implications for the composition of Ligeia Mare, Titan. Geophysical Research Letters, 2015, 42, 1340-1345.	1.5	48
20	Design of a low cost mission to the Neptunian system. , 2014, , .		2
21	Transient features in a Titan sea. Nature Geoscience, 2014, 7, 493-496.	5.4	43
22	Crater topography on Titan: Implications for landscape evolution. Icarus, 2013, 223, 82-90.	1.1	42
23	Cryovolcanism on Titan: New results from Cassini RADAR and VIMS. Journal of Geophysical Research E: Planets, 2013, 118, 416-435.	1.5	128
24	Planetary volcanism. , 2013, , 384-413.		4
25	EnVision: taking the pulse of our twin planet. Experimental Astronomy, 2012, 33, 337-363.	1.6	23
26	Regional geomorphology and history of Titanâ€™s Xanadu province. Icarus, 2011, 211, 672-685.	1.1	52
27	Transient surface liquid in Titanâ€™s polar regions from Cassini. Icarus, 2011, 211, 655-671.	1.1	113
28	Distribution and interplay of geologic processes on Titan from Cassini radar data. Icarus, 2010, 205, 540-558.	1.1	122
29	Impact craters on Titan. Icarus, 2010, 206, 334-344.	1.1	126
30	Active shoreline of Ontario Lacus, Titan: A morphological study of the lake and its surroundings. Geophysical Research Letters, 2010, 37, .	1.5	66
31	Beyond Earth: How extra-terrestrial volcanism has changed our definition of a volcano. , 2010, , .		9
32	Determining Titan surface topography from Cassini SAR data. Icarus, 2009, 202, 584-598.	1.1	108
33	The rheology of cryovolcanic slurries: Motivation and phenomenology of methanol-water slurries with implications for Titan. Icarus, 2009, 202, 607-619.	1.1	15
34	Fluvial network analysis on Titan: Evidence for subsurface structures and westâ€toâ€east wind flow, southwestern Xanadu. Geophysical Research Letters, 2009, 36, .	1.5	51
35	Photometric changes on Saturn's Titan: Evidence for active cryovolcanism. Geophysical Research Letters, 2009, 36, .	1.5	38
36	Cassini RADAR images at Hotei Arcus and western Xanadu, Titan: Evidence for geologically recent cryovolcanic activity. Geophysical Research Letters, 2009, 36, .	1.5	55

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37	Fluvial channels on Titan: Initial Cassini RADAR observations. Planetary and Space Science, 2008, 56, 1132-1144.	0.9	151
38	Titan's inventory of organic surface materials. Geophysical Research Letters, 2008, 35, .	1.5	184
39	Microwave dielectric constant of liquid hydrocarbons: Application to the depth estimation of Titan's lakes. Geophysical Research Letters, 2008, 35, .	1.5	24
40	Hydrocarbon lakes on Titan: Distribution and interaction with a porous regolith. Geophysical Research Letters, 2008, 35, .	1.5	227
41	Stereo cloudâ€top heights and cloud fraction retrieval from ATSRâ€2. International Journal of Remote Sensing, 2007, 28, 1921-1938.	1.3	46
42	Formation of Mangala Valles outflow channel, Mars: Morphological development and water discharge and duration estimates. Journal of Geophysical Research, 2007, 112, .	3.3	38
43	Comparison between ATSRâ€2 stereo, MOS O2â€A band and groundâ€based cloud top heights. International Journal of Remote Sensing, 2007, 28, 1969-1987.	1.3	10
44	Formation of Mangala Fossa, the source of the Mangala Valles, Mars: Morphological development as a result of volcano-cryosphere interactions. Journal of Geophysical Research, 2007, 112, .	3.3	15
45	Titan's young surface: Initial impact crater survey by Cassini RADAR and model comparison. Geophysical Research Letters, 2007, 34, .	1.5	72
46	The lakes and seas of Titan. Eos, 2007, 88, 569-570.	0.1	30
47	Nearâ€infrared spectral mapping of Titan's mountains and channels. Journal of Geophysical Research, 2007, 112, .	3.3	82
48	Cryovolcanic features on Titan's surface as revealed by the Cassini Titan Radar Mapper. Icarus, 2007, 186, 395-412.	1.1	191
49	New estimates for Io eruption temperatures: Implications for the interior. Icarus, 2007, 192, 491-502.	1.1	81
50	The lakes of Titan. Nature, 2007, 445, 61-64.	13.7	507
51	Formation of Aromatum Chaos, Mars: Morphological development as a result of volcano-ice interactions. Journal of Geophysical Research, 2006, 111, .	3.3	36
52	Formation of Ravi Vallis outflow channel, Mars: Morphological development, water discharge, and duration estimates. Journal of Geophysical Research, 2006, 111, .	3.3	32
53	The Sand Seas of Titan: Cassini RADAR Observations of Longitudinal Dunes. Science, 2006, 312, 724-727.	6.0	351
54	Evidence from the Mars Express High Resolution Stereo Camera for a frozen sea close to Mars' equator. Nature, 2005, 434, 352-356.	13.7	201

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55	Discovery of a flank caldera and very young glacial activity at Hecates Tholus, Mars. Nature, 2005, 434, 356-361.	13.7	80
56	Coupled conduit flow and shape in explosive volcanic eruptions. Journal of Volcanology and Geothermal Research, 2005, 143, 187-203.	0.8	44
57	Mars outflow channels: A reappraisal of the estimation of water flow velocities from water depths, regional slopes, and channel floor properties. Journal of Geophysical Research, 2004, 109, .	3.3	102
58	Mars: a geologically active planet. Astronomy and Geophysics, 2003, 44, 4.16-4.20.	0.1	6
59	Selection of the landing site in Isidis Planitia of Mars probe Beagle 2. Journal of Geophysical Research, 2003, 108, 1-1.	3.3	65
60	Generation of recent massive water floods at Cerberus Fossae, Mars by dike emplacement, cryospheric cracking, and confined aquifer groundwater release. Geophysical Research Letters, 2003, 30, .	1.5	143