Morgan Cable

List of Publications by Year
in descending order

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56 papers	1,912 citations	331670 21 h-index	254184 43 g-index
56 all docs	56 docs citations	56 times ranked	2407 citing authors

#	Article	IF	Citations
1	Science Goals and Mission Architecture of the Europa Lander Mission Concept. Planetary Science Journal, 2022, 3, 22.	3.6	42
2	Quantitative and Compositional Analysis of Trace Amino Acids in Icy Moon Analogues Using a Microcapillary Electrophoresis Laser-Induced Fluorescence Detection System. ACS Earth and Space Chemistry, 2022, 6, 333-345.	2.7	2
3	Science Objectives for Flagship-Class Mission Concepts for the Search for Evidence of Life at Enceladus. Astrobiology, 2022, 22, 685-712.	3.0	21
4	Analytical Chemistry Throughout This Solar System. Annual Review of Analytical Chemistry, 2022, 15, 197-219.	5.4	2
5	The Role of Seasonal Sediment Transport and Sintering in Shaping Titan's Landscapes: A Hypothesis. Geophysical Research Letters, 2022, 49, .	4.0	8
6	Modeling transmission windows in Titanâ€™s lower troposphere: Implications for infrared spectrometers aboard future aerial and surface missions. Icarus, 2021, 357, 114228.	2.5	3
7	Sampling Accelerated Micron Scale Ice Particles with a Quadrupole Ion Trap Mass Spectrometer. Journal of the American Society for Mass Spectrometry, 2021, 32, 1162-1168.	2.8	9
8	Analytical Chemistry in Astrobiology. Analytical Chemistry, 2021, 93, 5981-5997.	6.5	7
9	The Enceladus Orbilander Mission Concept: Balancing Return and Resources in the Search for Life. Planetary Science Journal, 2021, 2, 77.	3.6	74
10	Understanding Hypervelocity Sampling of Biosignatures in Space Missions. Astrobiology, 2021, 21, 421-442.	3.0	31
11	Sampling Plume Deposits on Enceladusâ€™ Surface to Explore Ocean Materials and Search for Traces of Life or Biosignatures. Planetary Science Journal, 2021, 2, 100.	3.6	8
12	A simple gas introduction system for cryogenic powder X-ray diffraction. Journal of Applied Crystallography, 2021, 54, 1268-1270.	4.5	2
13	Titan in a Test Tube: Organic Co-crystals and Implications for Titan Mineralogy. Accounts of Chemical Research, 2021, 54, 3050-3059.	15.6	17
14	The Science Case for a Return to Enceladus. Planetary Science Journal, 2021, 2, 132.	3.6	40
15	Science Goals and Objectives for the Dragonfly Titan Rotorcraft Relocatable Lander. Planetary Science Journal, 2021, 2, 130.	3.6	80
16	Balloon Locomotion for Extreme Terrain. Journal of Mechanisms and Robotics, 2021, 13, .	2.2	0
17	Developing compelling and science-focused mission concepts for NASA competed mission proposals. Acta Astronautica, 2021, 191, 502-502.	3.2	3
18	Analog Experiments for the Identification of Trace Biosignatures in Ice Grains from Extraterrestrial Ocean Worlds. Astrobiology, 2020, 20, 179-189.	3.0	37

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19	Properties and Behavior of the Acetonitrileâ€“Acetylene Co-Crystal under Titan Surface Conditions. ACS Earth and Space Chemistry, 2020, 4, 1375-1385.	2.7	13
20	Preferably Plinian and Pumaceous: Implications of Microbial Activity in Modern Volcanic Deposits at Askja Volcano, Iceland, and Relevancy for Mars Exploration. ACS Earth and Space Chemistry, 2020, 4, 1500-1514.	2.7	6
21	Discriminating Abiotic and Biotic Fingerprints of Amino Acids and Fatty Acids in Ice Grains Relevant to Ocean Worlds. Astrobiology, 2020, 20, 1168-1184.	3.0	38
22	Inelastic scattering dynamics of naphthalene and 2-octanone on highly oriented pyrolytic graphite. Journal of Chemical Physics, 2020, 152, 244709.	3.0	2
23	Mixed Hydrocarbon and Cyanide Ice Compositions for Titanâ€™s Atmospheric Aerosols: A Ternary-Phase Co-crystal Predicted by Density Functional Theory. ACS Earth and Space Chemistry, 2020, 4, 1195-1200.	2.7	11
24	Anisotropic thermal expansion of the acetyleneâ€“ammonia co-crystal under Titan's conditions. Journal of Applied Crystallography, 2020, 53, 1524-1530.	4.5	7
25	Raman Signatures and Thermal Expansivity of Acetylene Clathrate Hydrate. Journal of Physical Chemistry A, 2019, 123, 7051-7056.	2.5	7
26	Balloon-Based Concept Vehicle for Extreme Terrain Mobility. , 2019, , .		3
27	A Co-Crystal between Acetylene and Butane: A Potentially Ubiquitous Molecular Mineral on Titan. ACS Earth and Space Chemistry, 2019, 3, 2808-2815.	2.7	19
28	The NASA Roadmap to Ocean Worlds. Astrobiology, 2019, 19, 1-27.	3.0	209
29	The Acetylene-Ammonia Co-crystal on Titan. ACS Earth and Space Chemistry, 2018, 2, 366-375.	2.7	30
30	Prospects for mineralogy on Titan. American Mineralogist, 2018, 103, 343-349.	1.9	35
31	Imaging spectrometer emulates Landsat: A case study with Airborne Visible Infrared Imaging Spectrometer (AVIRIS) and Operational Land Imager (OLI) data. Remote Sensing of Environment, 2018, 215, 157-169.	11.0	8
32	FIRE - Flyby of Io with Repeat Encounters: A conceptual design for a New Frontiers mission to Io. Advances in Space Research, 2017, 60, 1080-1100.	2.6	1
33	Correlations Between Life-Detection Techniques and Implications for Sampling Site Selection in Planetary Analog Missions. Astrobiology, 2017, 17, 1009-1021.	3.0	17
34	A co-crystal between benzene and ethane: a potential evaporite material for Saturn's moon Titan. IUCrJ, 2016, 3, 192-199.	2.2	26
35	Enceladus Life Finder: The search for life in a habitable Moon. , 2016, , .		39
36	Chapter 3 Solids and Fluids at Low Temperatures. , 2016, , 27-54.		0

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37	Synchronous in-field application of life-detection techniques in planetary analog missions. Planetary and Space Science, 2015, 106, 1-10.	1.7	10
38	An introduction to the NASA Hyperspectral InfraRed Imager (HyspIRI) mission and preparatory activities. Remote Sensing of Environment, 2015, 167, 6-19.	11.0	278
39	Microchip nonaqueous capillary electrophoresis of saturated fatty acids using a new fluorescent dye. Analytical Methods, 2014, 6, 9532-9535.	2.7	9
40	Formation of a New Benzeneâ€“Ethane Co-Crystalline Structure Under Cryogenic Conditions. Journal of Physical Chemistry A, 2014, 118, 4087-4094.	2.5	23
41	Experimental determination of the kinetics of formation of the benzeneâ€ethane coâ€crystal and implications for Titan. Geophysical Research Letters, 2014, 41, 5396-5401.	4.0	21
42	Understanding Icy Worlds to Maximize Science Return on Future Missions. Eos, 2014, 95, 256-256.	0.1	0
43	Design rules and operational optimization for rapid, contamination-free microfluidic transfer using monolithic membrane valves. Sensors and Actuators B: Chemical, 2013, 177, 668-675.	7.8	15
44	Enhancement of Anion Binding in Lanthanide Optical Sensors. Accounts of Chemical Research, 2013, 46, 2576-2584.	15.6	51
45	Low-Temperature Microchip Nonaqueous Capillary Electrophoresis of Aliphatic Primary Amines: Applications to Titan Chemistry. Analytical Chemistry, 2013, 85, 1124-1131.	6.5	35
46	Hydrolysis of 3-carboxy-6,8-difluoro-7-hydroxycoumarin (Pacific Blueâ„¢) succinimidyl ester under acidic and basic conditions. Dyes and Pigments, 2013, 96, 148-151.	3.7	7
47	Titan Tholins: Simulating Titan Organic Chemistry in the Cassini-Huygens Era. Chemical Reviews, 2012, 112, 1882-1909.	47.7	193
48	Luminescent lanthanide sensors. Advances in Inorganic Chemistry, 2011, 63, 1-45.	1.0	39
49	Terbium-Macrocycle Complexes as Chemical Sensors: Detection of an Aspirin Metabolite in Urine Using a Salicylurate-Specific Receptor Site. Inorganic Chemistry, 2010, 49, 4643-4647.	4.0	26
50	Detection of Bacterial Spores with Lanthanideâ^'Macrocycle Binary Complexes. Journal of the American Chemical Society, 2009, 131, 9562-9570.	13.7	108
51	Spectroscopic Analysis of Ligand Binding to Lanthanideâ^'Macrocycle Platforms. Analytical Chemistry, 2008, 80, 5750-5754.	6.5	27
52	Bacterial Spore Detection by [Tb3+(macrocycle)(dipicolinate)] Luminescence. Journal of the American Chemical Society, 2007, 129, 1474-1475.	13.7	171
53	Synthesis and magnetic characterization of microstructures prepared from microbial templates of differing morphology. Materials Letters, 2006, 60, 19-22.	2.6	18
54	Identifying the n=2 reaction mechanism of FAD through voltammetric simulations. Analytica Chimica Acta, 2005, 537, 299-306.	5.4	20

#	Article	IF	Citations
55	Enceladus. , 2005, , 1-1.		2
56	Spatial Variation in Results of Biosignature Analyses of Apparently Homogeneous Samples from Mars Analogue Environments in Iceland. ACS Earth and Space Chemistry, 0, , .	2.7	2