Aaron S Burton

List of Publications by Year
in descending order

44 papers	2,431 citations	218677 26 h-index	265206 42 g-index
47 all docs	47 docs citations	47 times ranked	2687 citing authors

#	Article	IF	Citations
1	Visualization and identification of single meteoritic organic molecules by atomic force microscopy. Meteoritics and Planetary Science, 2022, 57, 644-656.	1.6	4
2	Chirality in Organic and Mineral Systems: A Review of Reactivity and Alteration Processes Relevant to Prebiotic Chemistry and Life Detection Missions. Symmetry, 2022, 14, 460.	2.2	15
3	COSPAR Sample Safety Assessment Framework (SSAF). Astrobiology, 2022, 22, S-186-S-216.	3.0	7
4	Perseveranceâ€™s Scanning Habitable Environments with Raman and Luminescence for Organics and Chemicals (SHERLOC) Investigation. Space Science Reviews, 2021, 217, 1.	8.1	94
5	Calibration of the SHERLOC Deep Ultraviolet Fluorescenceâ€“Raman Spectrometer on the Perseverance Rover. Applied Spectroscopy, 2021, 75, 000370282110133.	2.2	18
6	Real-Time Culture-Independent Microbial Profiling Onboard the International Space Station Using Nanopore Sequencing. Genes, 2021, 12, 106.	2.4	41
7	The Search for Chiral Asymmetry as a Potential Biosignature in our Solar System. Chemical Reviews, 2020, 120, 4660-4689.	47.7	156
8	Off Earth Identification of Bacterial Populations Using 16S rDNA Nanopore Sequencing. Genes, 2020, 11, 76.	2.4	43
9	Analysis of amino acids, hydroxy acids, and amines in CR chondrites. Meteoritics and Planetary Science, 2020, 55, 2422-2439.	1.6	25
10	The CM carbonaceous chondrite regolith Diepenveen. Meteoritics and Planetary Science, 2019, 54, 1431-1461.	1.6	9
11	Radiation Tolerance of Nanopore Sequencing Technology for Life Detection on Mars and Europa. Scientific Reports, 2019, 9, 5370.	3.3	23
12	OSIRIS-REx Contamination Control Strategy and Implementation. Space Science Reviews, 2018, 214, 1.	8.1	50
13	Insights into Abiotically-Generated Amino Acid Enantiomeric Excesses Found in Meteorites. Life, 2018, 8, 14.	2.4	38
14	Nanopore DNA Sequencing and Genome Assembly on the International Space Station. Scientific Reports, 2017, 7, 18022.	3.3	264
15	The elusive quest for RNA knots. RNA Biology, 2016, 13, 134-139.	3.1	10
16	Meteoritic Amino Acids: Diversity in Compositions Reflects Parent Body Histories. ACS Central Science, 2016, 2, 370-379.	11.3	126
17	Nanopore sequencing in microgravity. Npj Microgravity, 2016, 2, 16035.	3.7	76
18	SHERLOC: Scanning habitable environments with Raman & luminescence for organics & chemicals. , 2015, , .		67

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19	Correlating Mineralogy and Amino Acid Contents of Milligram-Scale Murchison Carbonaceous Chondrite Samples. Microscopy and Microanalysis, 2015, 21, 2263-2264.	0.4	0
20	Amino acid analyses of R and CK chondrites. Meteoritics and Planetary Science, 2015, 50, 470-482.	1.6	36
21	Mineralogy, petrology, chronology, and exposure history of the Chelyabinsk meteorite and parent body. Meteoritics and Planetary Science, 2015, 50, 1790-1819.	1.6	48
22	Does aspartic acid racemization constrain the depth limit of the subsurface biosphere?. Geobiology, 2014, 12, 1-19.	2.4	52
23	The amino acid composition of the Sutter's Mill <scp>CM</scp>2 carbonaceous chondrite. Meteoritics and Planetary Science, 2014, 49, 2074-2086.	1.6	57
24	1-Azaniumylcyclobutane-1-carboxylate monohydrate. Acta Crystallographica Section E: Structure Reports Online, 2014, 70, o217-o218.	0.2	0
25	Amino acid analysis in micrograms of meteorite sample by nanoliquid chromatographyâ€“high-resolution mass spectrometry. Journal of Chromatography A, 2014, 1332, 30-34.	3.7	29
26	A Plausible Simultaneous Synthesis of Amino Acids and Simple Peptides on the Primordial Earth. Angewandte Chemie - International Edition, 2014, 53, 8132-8136.	13.8	82
27	The effects of parent-body hydrothermal heating on amino acid abundances in CI-like chondrites. Polar Science, 2014, 8, 255-263.	1.2	46
28	Conducting Miller-Urey Experiments. Journal of Visualized Experiments, 2014, , e51039.	0.3	8
29	A search for amino acids and nucleobases in the Martian meteorite Roberts Massif 04262 using liquid chromatographyâ€mass spectrometry. Meteoritics and Planetary Science, 2013, 48, 786-795.	1.6	43
30	Extraterrestrial amino acids identified in metalâ€rich <scp>CH</scp> and <scp>CB</scp> carbonaceous chondrites from Antarctica. Meteoritics and Planetary Science, 2013, 48, 390-402.	1.6	48
31	Isovaline monohydrate. Acta Crystallographica Section E: Structure Reports Online, 2013, 69, o1829-o1830.	0.2	6
32	2-Methylaspartic acid monohydrate. Acta Crystallographica Section E: Structure Reports Online, 2013, 69, o1856-o1857.	0.2	2
33	Unusual nonterrestrial <scp>l</scp>â€proteinogenic amino acid excesses in the Tagish Lake meteorite. Meteoritics and Planetary Science, 2012, 47, 1347-1364.	1.6	106
34	Compoundâ€specific carbon, nitrogen, and hydrogen isotopic ratios for amino acids in CM and CR chondrites and their use in evaluating potential formation pathways. Meteoritics and Planetary Science, 2012, 47, 1517-1536.	1.6	77
35	Radar-Enabled Recovery of the Sutterâ€™s Mill Meteorite, a Carbonaceous Chondrite Regolith Breccia. Science, 2012, 338, 1583-1587.	12.6	191
36	Understanding prebiotic chemistry through the analysis of extraterrestrial amino acids and nucleobases in meteorites. Chemical Society Reviews, 2012, 41, 5459.	38.1	301

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37	A propensity for nâ€‰â€amino acids in thermally altered Antarctic meteorites. Meteoritics and Planetary Science, 2012, 47, 374-386.	1.6	66
38	A â€œwarm formamideâ€•scenario for the origins of life might not be so hot. Physics of Life Reviews, 2012, 9, 114-115.	2.8	2
39	Heterogeneous distributions of amino acids provide evidence of multiple sources within the Almahata Sitta parent body, asteroid 2008 TC₃. Meteoritics and Planetary Science, 2011, 46, 1703-1712.	1.6	28
40	Enhancing the Prebiotic Relevance of a Set of Covalently Self-Assembling, Autorecombining RNAs Through In Vitro Selection. Journal of Molecular Evolution, 2010, 70, 233-241.	1.8	10
41	Gel purification of radiolabeled nucleic acids via phosphorimaging: Dip-N-Dot. Analytical Biochemistry, 2009, 388, 351-352.	2.4	11
42	DNA Before Proteins? Recent Discoveries in Nucleic Acid Catalysis Strengthen the Case. Astrobiology, 2009, 9, 125-130.	3.0	22
43	Calcium(II)-dependent catalytic activity ofÂtheÂAzoarcus ribozyme: testing theÂlimits ofÂresolution forÂinÂvitro selection. Biochimie, 2006, 88, 819-825.	2.6	18
44	RNA-directed construction of structurally complex and active ligase ribozymes through recombination. Rna, 2005, 11, 1678-1687.	3.5	39