

# Aaron S Burton

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/2966830/publications.pdf>

Version: 2024-02-01

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	Understanding prebiotic chemistry through the analysis of extraterrestrial amino acids and nucleobases in meteorites. <i>Chemical Society Reviews</i> , 2012, 41, 5459.	38.1	301
2	Nanopore DNA Sequencing and Genome Assembly on the International Space Station. <i>Scientific Reports</i> , 2017, 7, 18022.	3.3	264
3	Radar-Enabled Recovery of the Sutter's Mill Meteorite, a Carbonaceous Chondrite Regolith Breccia. <i>Science</i> , 2012, 338, 1583-1587.	12.6	191
4	The Search for Chiral Asymmetry as a Potential Biosignature in our Solar System. <i>Chemical Reviews</i> , 2020, 120, 4660-4689.	47.7	156
5	Meteoritic Amino Acids: Diversity in Compositions Reflects Parent Body Histories. <i>ACS Central Science</i> , 2016, 2, 370-379.	11.3	126
6	Unusual nonterrestrial $\alpha$ -proteinogenic amino acid excesses in the Tagish Lake meteorite. <i>Meteoritics and Planetary Science</i> , 2012, 47, 1347-1364.	1.6	106
7	Perseverance's Scanning Habitable Environments with Raman and Luminescence for Organics and Chemicals (SHERLOC) Investigation. <i>Space Science Reviews</i> , 2021, 217, 1.	8.1	94
8	A Plausible Simultaneous Synthesis of Amino Acids and Simple Peptides on the Primordial Earth. <i>Angewandte Chemie - International Edition</i> , 2014, 53, 8132-8136.	13.8	82
9	Compound-specific carbon, nitrogen, and hydrogen isotopic ratios for amino acids in CM and CR chondrites and their use in evaluating potential formation pathways. <i>Meteoritics and Planetary Science</i> , 2012, 47, 1517-1536.	1.6	77
10	Nanopore sequencing in microgravity. <i>Npj Microgravity</i> , 2016, 2, 16035.	3.7	76
11	SHERLOC: Scanning habitable environments with Raman & luminescence for organics & chemicals. , 2015, , .		67
12	A propensity for $\alpha$ -amino acids in thermally altered Antarctic meteorites. <i>Meteoritics and Planetary Science</i> , 2012, 47, 374-386.	1.6	66
13	The amino acid composition of the Sutter's Mill $\text{CM}_2$ carbonaceous chondrite. <i>Meteoritics and Planetary Science</i> , 2014, 49, 2074-2086.	1.6	57
14	Does aspartic acid racemization constrain the depth limit of the subsurface biosphere?. <i>Geobiology</i> , 2014, 12, 1-19.	2.4	52
15	OSIRIS-REx Contamination Control Strategy and Implementation. <i>Space Science Reviews</i> , 2018, 214, 1.	8.1	50
16	Extraterrestrial amino acids identified in metal-rich $\text{CH}$ and $\text{CB}$ carbonaceous chondrites from Antarctica. <i>Meteoritics and Planetary Science</i> , 2013, 48, 390-402.	1.6	48
17	Mineralogy, petrology, chronology, and exposure history of the Chelyabinsk meteorite and parent body. <i>Meteoritics and Planetary Science</i> , 2015, 50, 1790-1819.	1.6	48
18	The effects of parent-body hydrothermal heating on amino acid abundances in CI-like chondrites. <i>Polar Science</i> , 2014, 8, 255-263.	1.2	46

#	ARTICLE	IF	CITATIONS
19	A search for amino acids and nucleobases in the Martian meteorite Roberts Massif 04262 using liquid chromatography–mass spectrometry. <i>Meteoritics and Planetary Science</i> , 2013, 48, 786-795.	1.6	43
20	Off Earth Identification of Bacterial Populations Using 16S rDNA Nanopore Sequencing. <i>Genes</i> , 2020, 11, 76.	2.4	43
21	Real-Time Culture-Independent Microbial Profiling Onboard the International Space Station Using Nanopore Sequencing. <i>Genes</i> , 2021, 12, 106.	2.4	41
22	RNA-directed construction of structurally complex and active ligase ribozymes through recombination. <i>Rna</i> , 2005, 11, 1678-1687.	3.5	39
23	Insights into Abiotically-Generated Amino Acid Enantiomeric Excesses Found in Meteorites. <i>Life</i> , 2018, 8, 14.	2.4	38
24	Amino acid analyses of R and CK chondrites. <i>Meteoritics and Planetary Science</i> , 2015, 50, 470-482.	1.6	36
25	Amino acid analysis in micrograms of meteorite sample by nanoliquid chromatography–high-resolution mass spectrometry. <i>Journal of Chromatography A</i> , 2014, 1332, 30-34.	3.7	29
26	Heterogeneous distributions of amino acids provide evidence of multiple sources within the Almahata Sitta parent body, asteroid 2008 TC <sub>3</sub> . <i>Meteoritics and Planetary Science</i> , 2011, 46, 1703-1712.	1.6	28
27	Analysis of amino acids, hydroxy acids, and amines in CR chondrites. <i>Meteoritics and Planetary Science</i> , 2020, 55, 2422-2439.	1.6	25
28	Radiation Tolerance of Nanopore Sequencing Technology for Life Detection on Mars and Europa. <i>Scientific Reports</i> , 2019, 9, 5370.	3.3	23
29	DNA Before Proteins? Recent Discoveries in Nucleic Acid Catalysis Strengthen the Case. <i>Astrobiology</i> , 2009, 9, 125-130.	3.0	22
30	Calcium(II)-dependent catalytic activity of the <i>Azoarcus</i> ribozyme: testing the limits of resolution for <i>in vitro</i> selection. <i>Biochimie</i> , 2006, 88, 819-825.	2.6	18
31	Calibration of the SHERLOC Deep Ultraviolet Fluorescence–Raman Spectrometer on the <i>Perseverance</i> Rover. <i>Applied Spectroscopy</i> , 2021, 75, 000370282110133.	2.2	18
32	Chirality in Organic and Mineral Systems: A Review of Reactivity and Alteration Processes Relevant to Prebiotic Chemistry and Life Detection Missions. <i>Symmetry</i> , 2022, 14, 460.	2.2	15
33	Gel purification of radiolabeled nucleic acids via phosphorimaging: Dip-N-Dot. <i>Analytical Biochemistry</i> , 2009, 388, 351-352.	2.4	11
34	Enhancing the Prebiotic Relevance of a Set of Covalently Self-Assembling, Autorecombining RNAs Through <i>In Vitro</i> Selection. <i>Journal of Molecular Evolution</i> , 2010, 70, 233-241.	1.8	10
35	The elusive quest for RNA knots. <i>RNA Biology</i> , 2016, 13, 134-139.	3.1	10
36	The CM carbonaceous chondrite regolith Diepenveen. <i>Meteoritics and Planetary Science</i> , 2019, 54, 1431-1461.	1.6	9

#	ARTICLE	IF	CITATIONS
37	Conducting Miller-Urey Experiments. <i>Journal of Visualized Experiments</i> , 2014, , e51039.	0.3	8
38	COSPAR Sample Safety Assessment Framework (SSAF). <i>Astrobiology</i> , 2022, 22, S-186-S-216.	3.0	7
39	Isovaline monohydrate. <i>Acta Crystallographica Section E: Structure Reports Online</i> , 2013, 69, o1829-o1830.	0.2	6
40	Visualization and identification of single meteoritic organic molecules by atomic force microscopy. <i>Meteoritics and Planetary Science</i> , 2022, 57, 644-656.	1.6	4
41	A "warm formamide" scenario for the origins of life might not be so hot. <i>Physics of Life Reviews</i> , 2012, 9, 114-115.	2.8	2
42	2-Methylaspartic acid monohydrate. <i>Acta Crystallographica Section E: Structure Reports Online</i> , 2013, 69, o1856-o1857.	0.2	2
43	1-Azaniumcyclobutane-1-carboxylate monohydrate. <i>Acta Crystallographica Section E: Structure Reports Online</i> , 2014, 70, o217-o218.	0.2	0
44	Correlating Mineralogy and Amino Acid Contents of Milligram-Scale Murchison Carbonaceous Chondrite Samples. <i>Microscopy and Microanalysis</i> , 2015, 21, 2263-2264.	0.4	0