David F Savage

List of Publications by Year
in descending order

44 papers	3,438 citations	186209 28 h-index	243529 44 g-index
67 all docs	67 docs citations	67 times ranked	4099 citing authors

#	Article	IF	Citations
1	Ratiometric Sensing of Redox Environments Inside Individual Carboxysomes Trapped in Solution. Journal of Physical Chemistry Letters, 2022, 13, 4455-4462.	2.1	7
2	Workshop-based learning and networking: a scalable model for research capacity strengthening in low- and middle-income countries. Global Health Action, 2022, 15, .	0.7	0
3	Discovery and characterization of a novel family of prokaryotic nanocompartments involved in sulfur metabolism. ELife, 2021, 10, .	2.8	45
4	New discoveries expand possibilities for carboxysome engineering. Current Opinion in Microbiology, 2021, 61, 58-66.	2.3	32
5	Accelerated RNA detection using tandem CRISPR nucleases. Nature Chemical Biology, 2021, 17, 982-988.	3.9	135
6	Comprehensive deletion landscape of CRISPR-Cas9 identifies minimal RNA-guided DNA-binding modules. Nature Communications, 2021, 12, 5664.	5.8	25
7	A nanocompartment system contributes to defense against oxidative stress in Mycobacterium tuberculosis. ELife, 2021, 10, .	2.8	15
8	The encapsulin from Thermotoga maritima is a flavoprotein with a symmetry matched ferritin-like cargo protein. Scientific Reports, 2021, 11, 22810.	1.6	16
9	Encapsulin carrier proteins for enhanced expression of antimicrobial peptides. Biotechnology and Bioengineering, 2020, 117, 603-613.	1.7	21
10	Recent advances on the structure and function of NDH-1: The complex I of oxygenic photosynthesis. Biochimica Et Biophysica Acta - Bioenergetics, 2020, 1861, 148254.	0.5	33
11	Multivalent interactions between CsoS2 and Rubisco mediate Î±-carboxysome formation. Nature Structural and Molecular Biology, 2020, 27, 281-287.	3.6	110
12	Functional reconstitution of a bacterial CO2 concentrating mechanism in Escherichia coli. ELife, 2020, 9, .	2.8	72
13	DABs are inorganic carbon pumps found throughout prokaryotic phyla. Nature Microbiology, 2019, 4, 2204-2215.	5.9	44
14	Revisiting Trade-offs between Rubisco Kinetic Parameters. Biochemistry, 2019, 58, 3365-3376.	1.2	142
15	Structure of the Cyanobacterial NAD(P)H Dehydrogenase-Like Complex of Oxygenic Photosynthesis. Microscopy and Microanalysis, 2019, 25, 1326-1327.	0.2	0
16	Circularly permuted and PAM-modified Cas9 variants broaden the targeting scope of base editors. Nature Biotechnology, 2019, 37, 626-631.	9.4	207
17	Controlling CRISPR-Cas9 with ligand-activated and ligand-deactivated sgRNAs. Nature Communications, 2019, 10, 2127.	5.8	133
18	Multiplexed Charge Detection Mass Spectrometry for High-Throughput Single Ion Analysis of Large Molecules. Analytical Chemistry, 2019, 91, 7458-7465.	3.2	48

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19	Learning to Build a Î²-Carboxysome. Biochemistry, 2019, 58, 2091-2092.	1.2	4
20	Cas14: Big Advances from Small CRISPR Proteins. Biochemistry, 2019, 58, 1024-1025.	1.2	41
21	Structure of the complex I-like molecule NDH ofÂoxygenic photosynthesis. Nature, 2019, 566, 411-414.	13.7	123
22	CRISPR-Cas9 Circular Permutants as Programmable Scaffolds for Genome Modification. Cell, 2019, 176, 254-267.e16.	13.5	73
23	A Hard Dayâ€™s Night: Cyanobacteria in Diel Cycles. Trends in Microbiology, 2019, 27, 231-242.	3.5	89
24	Protein Science by DNA Sequencing: How Advances in Molecular Biology Are Accelerating Biochemistry. Biochemistry, 2018, 57, 38-46.	1.2	12
25	Encapsulins: molecular biology of the shell. Critical Reviews in Biochemistry and Molecular Biology, 2017, 52, 583-594.	2.3	76
26	Rapid and Programmable Protein Mutagenesis Using Plasmid Recombineering. ACS Synthetic Biology, 2017, 6, 1825-1833.	1.9	24
27	Editorial Overview. Biofuels: At the crossroads. Current Opinion in Chemical Biology, 2016, 35, A1-A3.	2.8	1
28	Profiling of engineering hotspots identifies an allosteric CRISPR-Cas9 switch. Nature Biotechnology, 2016, 34, 646-651.	9.4	180
29	The stringent response regulates adaptation to darkness in the cyanobacterium Synechococcus elongatus. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, E4867-76.	3.3	82
30	pH determines the energetic efficiency of the cyanobacterial CO ₂ concentrating mechanism. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, E5354-62.	3.3	166
31	Rapid construction of metabolite biosensors using domain-insertion profiling. Nature Communications, 2016, 7, 12266.	5.8	104
32	An open-hardware platform for optogenetics and photobiology. Scientific Reports, 2016, 6, 35363.	1.6	108
33	Biofuel metabolic engineering with biosensors. Current Opinion in Chemical Biology, 2016, 35, 150-158.	2.8	24
34	Identification of a Minimal Peptide Tag for in Vivo and in Vitro Loading of Encapsulin. Biochemistry, 2016, 55, 3461-3468.	1.2	89
35	Programmed Ribosomal Frameshifting Mediates Expression of the Î±-Carboxysome. Journal of Molecular Biology, 2016, 428, 153-164.	2.0	50
36	Live-cell imaging of cyanobacteria. Photosynthesis Research, 2015, 126, 33-46.	1.6	30

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37	Protein Engineering of Cas9 for Enhanced Function. Methods in Enzymology, 2014, 546, 491-511.	0.4	23
38	The Bacterial Carbon-Fixing Organelle Is Formed by Shell Envelopment of Preassembled Cargo. PLoS ONE, 2013, 8, e76127.	1.1	114
39	Modularity of a carbon-fixing protein organelle. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 478-483.	3.3	231
40	Spatial and Temporal Organization of Chromosome Duplication and Segregation in the Cyanobacterium Synechococcus elongatus PCC 7942. PLoS ONE, 2012, 7, e47837.	1.1	57
41	Spatially Ordered Dynamics of the Bacterial Carbon Fixation Machinery. Science, 2010, 327, 1258-1261.	6.0	289
42	Structural context shapes the aquaporin selectivity filter. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 17164-17169.	3.3	74
43	A general protocol for the crystallization of membrane proteins for X-ray structural investigation. Nature Protocols, 2009, 4, 619-637.	5.5	116
44	Defossiling Fuel: How Synthetic Biology Can Transform Biofuel Production. ACS Chemical Biology, 2008, 3, 13-16.	1.6	91