Danielle Tullman-Ercek

List of Publications by Year
in descending order

57 papers	1,744 citations	304743 22 h-index	315739 38 g-index
73 all docs	73 docs citations	73 times ranked	1857 citing authors

#	Article	IF	Citations
1	Engineering the <i>Salmonella</i> type III secretion system to export spider silk monomers. Molecular Systems Biology, 2009, 5, 309.	7.2	130
2	Osmolyte-Mediated Encapsulation of Proteins inside MS2 Viral Capsids. ACS Nano, 2012, 6, 8658-8664.	14.6	110
3	Multiplexed mass spectrometry of individual ions improves measurement of proteoforms and their complexes. Nature Methods, 2020, 17, 391-394.	19.0	110
4	Enhancing Tolerance to Short-Chain Alcohols by Engineering the Escherichia coli AcrB Efflux Pump to Secrete the Non-native Substrate <i>n</i>-Butanol. ACS Synthetic Biology, 2014, 3, 30-40.	3.8	103
5	Developing Gram-negative bacteria for the secretion of heterologous proteins. Microbial Cell Factories, 2018, 17, 196.	4.0	84
6	Evidence for Improved Encapsulated Pathway Behavior in a Bacterial Microcompartment through Shell Protein Engineering. ACS Synthetic Biology, 2017, 6, 1880-1891.	3.8	71
7	Production and applications of engineered viral capsids. Applied Microbiology and Biotechnology, 2014, 98, 5847-5858.	3.6	69
8	Influence of Electrostatics on Small Molecule Flux through a Protein Nanoreactor. ACS Synthetic Biology, 2015, 4, 1011-1019.	3.8	58
9	Engineering nanoscale protein compartments for synthetic organelles. Current Opinion in Biotechnology, 2013, 24, 627-632.	6.6	55
10	Localization of Proteins to the 1,2-Propanediol Utilization Microcompartment by Non-native Signal Sequences Is Mediated by a Common Hydrophobic Motif. Journal of Biological Chemistry, 2015, 290, 24519-24533.	3.4	53
11	A systems-level model reveals that 1,2-Propanediol utilization microcompartments enhance pathway flux through intermediate sequestration. PLoS Computational Biology, 2017, 13, e1005525.	3.2	51
12	Transcriptional feedback regulation of efflux protein expression for increased tolerance to and production of n-butanol. Metabolic Engineering, 2016, 33, 130-137.	7.0	48
13	Dumpster Diving in the Gut: Bacterial Microcompartments as Part of a Host-Associated Lifestyle. PLoS Pathogens, 2016, 12, e1005558.	4.7	45
14	Quantitative characterization of all single amino acid variants of a viral capsid-based drug delivery vehicle. Nature Communications, 2018, 9, 1385.	12.8	43
15	A Pseudomonas putida efflux pump acts on short-chain alcohols. Biotechnology for Biofuels, 2018, 11, 136.	6.2	42
16	A rapid flow cytometry assay for the relative quantification of protein encapsulation into bacterial microcompartments. Biotechnology Journal, 2014, 9, 348-354.	3.5	41
17	Getting pumped: membrane efflux transporters for enhanced biomolecule production. Current Opinion in Chemical Biology, 2015, 28, 15-19.	6.1	41
18	A Selection for Assembly Reveals That a Single Amino Acid Mutant of the Bacteriophage MS2 Coat Protein Forms a Smaller Virus-like Particle. Nano Letters, 2016, 16, 5944-5950.	9.1	36

#	Article	IF	Citations
19	<i>De novo</i> design of signal sequences to localize cargo to the 1,2â€propanediol utilization microcompartment. Protein Science, 2017, 26, 1086-1092.	7.6	30
20	Tuning the Catalytic Activity of Subcellular Nanoreactors. Journal of Molecular Biology, 2016, 428, 2989-2996.	4.2	27
21	Apparent size and morphology of bacterial microcompartments varies with technique. PLoS ONE, 2020, 15, e0226395.	2.5	27
22	Type III secretion as a generalizable strategy for the production of fullâ€length biopolymerâ€forming proteins. Biotechnology and Bioengineering, 2016, 113, 2313-2320.	3.3	26
23	Engineering Transcriptional Regulation to Control Pdu Microcompartment Formation. PLoS ONE, 2014, 9, e113814.	2.5	25
24	Systematic Engineering of a Protein Nanocage for High-Yield, Site-Specific Modification. Journal of the American Chemical Society, 2019, 141, 3875-3884.	13.7	25
25	Self-assembling Shell Proteins PduA and PduJ have Essential and Redundant Roles in Bacterial Microcompartment Assembly. Journal of Molecular Biology, 2021, 433, 166721.	4.2	24
26	Bacterial microcompartments: tiny organelles with big potential. Current Opinion in Microbiology, 2021, 63, 36-42.	5.1	24
27	Mussel Adhesive-Inspired Proteomimetic Polymer. Journal of the American Chemical Society, 2022, 144, 4383-4392.	13.7	24
28	Cargo encapsulation in bacterial microcompartments: Methods and analysis. Methods in Enzymology, 2019, 617, 155-186.	1.0	22
29	Computational and Experimental Approaches to Controlling Bacterial Microcompartment Assembly. ACS Central Science, 2021, 7, 658-670.	11.3	21
30	Experimental Evaluation of Coevolution in a Self-Assembling Particle. Biochemistry, 2019, 58, 1527-1538.	2.5	19
31	Dynamic Control of Gene Expression with Riboregulated Switchable Feedback Promoters. ACS Synthetic Biology, 2021, 10, 1199-1213.	3.8	19
32	Using Transcriptional Control To Increase Titers of Secreted Heterologous Proteins by the Type III Secretion System. Applied and Environmental Microbiology, 2014, 80, 5927-5934.	3.1	18
33	A genomic integration platform for heterologous cargo encapsulation in 1,2-propanediol utilization bacterial microcompartments. Biochemical Engineering Journal, 2020, 156, 107496.	3.6	18
34	A Secretion-Amplification Role for <i>Salmonella enterica</i> Translocon Protein SipD. ACS Synthetic Biology, 2017, 6, 1006-1015.	3.8	17
35	Evolutionary engineering improves tolerance for medium-chain alcohols in Saccharomyces cerevisiae. Biotechnology for Biofuels, 2018, 11, 90.	6.2	17
36	The effects of time, temperature, and pH on the stability of PDU bacterial microcompartments. Protein Science, 2014, 23, 1434-1441.	7.6	16

#	Article	IF	Citations
37	Practical considerations for the encapsulation of multi-enzyme cargos within the bacterial microcompartment for metabolic engineering. Current Opinion in Systems Biology, 2017, 5, 16-22.	2.6	16
38	Spatially organizing biochemistry: choosing a strategy to translate synthetic biology to the factory. Scientific Reports, 2018, 8, 8196.	3.3	14
39	Engineering expression and function of membrane proteins. Methods, 2018, 147, 66-72.	3.8	13
40	Learning from protein fitness landscapes: a review of mutability, epistasis, and evolution. Current Opinion in Systems Biology, 2019, 14, 25-31.	2.6	13
41	Engineering a Virus-like Particle to Display Peptide Insertions Using an Apparent Fitness Landscape. Biomacromolecules, 2020, 21, 4194-4204.	5.4	13
42	Functional enzymeâ€"polymer complexes. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2119509119.	7.1	13
43	Proteins adopt functionally active conformations after type III secretion. Microbial Cell Factories, 2016, 15, 213.	4.0	10
44	'Channeling' Hans Krebs. Nature Chemical Biology, 2015, 11, 180-181.	8.0	7
45	Type-III secretion filaments as scaffolds for inorganic nanostructures. Journal of the Royal Society Interface, 2016, 13, 20150938.	3.4	7
46	An optimized growth medium for increased recombinant protein secretion titer via the type III secretion system. Microbial Cell Factories, 2021, 20, 44.	4.0	7
47	High-Throughput Screening Test for Adhesion in Soft Materials Using Centrifugation. ACS Central Science, 2021, 7, 1135-1143.	11.3	7
48	Linking the Salmonella enterica 1,2-Propanediol Utilization Bacterial Microcompartment Shell to the Enzymatic Core via the Shell Protein PduB. Journal of Bacteriology, 2022, 204, e0057621.	2.2	7
49	Vertex protein PduN tunes encapsulated pathway performance by dictating bacterial metabolosome morphology. Nature Communications, 2022, 13, .	12.8	7
50	Density-based binning of gene clusters to infer function or evolutionary history using GeneGrouper. Bioinformatics, 2022, 38, 612-620.	4.1	4
51	Use of Transcriptional Control to Increase Secretion of Heterologous Proteins in T3S Systems. Methods in Molecular Biology, 2017, 1531, 71-79.	0.9	2
52	An estimate is worth about a thousand experiments: using order-of-magnitude estimates to identify cellular engineering targets. Microbial Cell Factories, 2018, 17, 135.	4.0	1
53	An assay for the bacterial sweet spot. Biotechnology Journal, 2013, 8, 1377-1378.	3.5	0
54	Type III Secretion Filaments as Templates for Metallic Nanostructure Synthesis. Methods in Molecular Biology, 2018, 1798, 155-171.	0.9	0

#	Article	IF	Citations
55	Editorial overview: Energy biotechnology. Current Opinion in Biotechnology, 2019, 57, vii-ix.	6.6	0
56	Dissecting difference in heterologous protein secretion titer by Type III secretion system between strains of Salmonella enterica. FASEB Journal, 2018, 32, 674.22.	0.5	0
57	Editorial overview: Bacterial microcompartments to the fore as metabolism is put in its place. Current Opinion in Microbiology, 2021, 64, 159-161.	5.1	0