Mark P Styczynski

List of Publications by Year
in descending order

51	1,416	430754	345118
papers	citations	18 h-index	36 g-index

59	59	59	2270
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Systematic Identification of Conserved Metabolites in GC/MS Data for Metabolomics and Biomarker Discovery. Analytical Chemistry, 2007, 79, 966-973.	3.2	223
2	The Cancer Microbiome: Distinguishing Direct and Indirect Effects Requires a Systemic View. Trends in Cancer, 2020, 6, 192-204.	3.8	162
3	Applications of metabolomics in cancer research. Journal of Carcinogenesis, 2013, 12, 9.	2.5	83
4	BLOSUM62 miscalculations improve search performance. Nature Biotechnology, 2008, 26, 274-275.	9.4	79
5	Point-of-care biomarker quantification enabled by sample-specific calibration. Science Advances, 2019, 5, eaax4473.	4.7	73
6	A Multi-Modality CMOS Sensor Array for Cell-Based Assay and Drug Screening. IEEE Transactions on Biomedical Circuits and Systems, 2015, 9, 801-814.	2.7	65
7	Development of a Pigment-Based Whole-Cell Zinc Biosensor for Human Serum. ACS Synthetic Biology, 2018, 7, 267-275.	1.9	59
8	Precision metabolic engineering: The design of responsive, selective, and controllable metabolic systems. Metabolic Engineering, 2015, 31, 123-131.	3.6	56
9	Overview of computational methods for the inference of gene regulatory networks. Computers and Chemical Engineering, 2005, 29, 519-534.	2.0	48
10	NS-kNN: a modified k-nearest neighbors approach for imputing metabolomics data. Metabolomics, 2018, 14, 153.	1.4	44
11	Metabolic Profiling of Escherichia coli-Based Cell-Free Expression Systems for Process Optimization. Industrial & Engineering Chemistry Research, 2019, 58, 22472-22482.	1.8	30
12	OVCAR-3 Spheroid-Derived Cells Display Distinct Metabolic Profiles. PLoS ONE, 2015, 10, e0118262.	1.1	29
13	Precise metabolic engineering of carotenoid biosynthesis in Escherichia coli towards a low-cost biosensor. Metabolic Engineering, 2015, 31, 171-180.	3.6	28
14	Dynamic and tunable metabolite control for robust minimal-equipment assessment of serum zinc. Nature Communications, 2019, 10, 5514.	5.8	26
15	Metabolomics identifies the intersection of phosphoethanolamine with menaquinone-triggered apoptosis in an in vitro model of leukemia. Molecular BioSystems, 2015, 11, 2406-2416.	2.9	25
16	Distinct metabolic responses of an ovarian cancer stem cell line. BMC Systems Biology, 2014, 8, 134.	3.0	23
17	Precise control of lycopene production to enable a fast-responding, minimal-equipment biosensor. Metabolic Engineering, 2017, 43, 46-53.	3.6	23
18	Active Analyte Import Improves the Dynamic Range and Sensitivity of a Vitamin B₁₂ Biosensor. ACS Synthetic Biology, 2020, 9, 402-411.	1.9	22

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19	Systematic Applications of Metabolomics in Metabolic Engineering. Metabolites, 2012, 2, 1090-1122.	1.3	20
20	Integrative analysis associates monocytes with insufficient erythropoiesis during acute Plasmodium cynomolgi malaria in rhesus macaques. Malaria Journal, 2017, 16, 384.	0.8	20
21	Systems Biology-Based Investigation of Hostâ€“Plasmodium Interactions. Trends in Parasitology, 2018, 34, 617-632.	1.5	19
22	Metabolomics Analysis of the Toxic Effects of the Production of Lycopene and Its Precursors. Frontiers in Microbiology, 2018, 9, 760.	1.5	19
23	Metabolic modeling helps interpret transcriptomic changes during malaria. Biochimica Et Biophysica Acta - Molecular Basis of Disease, 2018, 1864, 2329-2340.	1.8	18
24	Protocell arrays for simultaneous detection of diverse analytes. Nature Communications, 2021, 12, 5724.	5.8	18
25	Humoral immunity prevents clinical malaria during Plasmodium relapses without eliminating gametocytes. PLoS Pathogens, 2019, 15, e1007974.	2.1	17
26	ElectroPen: An ultra-lowâ€“cost, electricity-free, portable electroporator. PLoS Biology, 2020, 18, e3000589.	2.6	16
27	Comparative transcriptomics and metabolomics in a rhesus macaque drug administration study. Frontiers in Cell and Developmental Biology, 2014, 2, 54.	1.8	15
28	Effective Use of Linear DNA in Cell-Free Expression Systems. Frontiers in Bioengineering and Biotechnology, 2021, 9, 715328.	2.0	15
29	Small molecule signaling, regulation, and potential applications in cellular therapeutics. Wiley Interdisciplinary Reviews: Systems Biology and Medicine, 2018, 10, e1405.	6.6	14
30	Differential metabolite levels in response to spawning-induced inappetence in Atlantic salmon Salmo salar. Comparative Biochemistry and Physiology Part D: Genomics and Proteomics, 2015, 13, 52-59.	0.4	13
31	Metabolic Dynamics in Escherichia coli-Based Cell-Free Systems. ACS Synthetic Biology, 2021, 10, 2252-2265.	1.9	11
32	An extension and novel solution to the (l,d)-motif challenge problem. Genome Informatics, 2004, 15, 63-71.	0.4	11
33	Reliable computation of equilibrium states and bifurcations in food chain models. Computers and Chemical Engineering, 2004, 28, 1981-1996.	2.0	9
34	Low-cost, point-of-care biomarker quantification. Current Opinion in Biotechnology, 2022, 76, 102738.	3.3	9
35	From genome-scale data to models of infectious disease: A Bayesian network-based strategy to drive model development. Mathematical Biosciences, 2015, 270, 156-168.	0.9	8
36	LK-DFBA: a linear programming-based modeling strategy for capturing dynamics and metabolite-dependent regulation in metabolism. BMC Bioinformatics, 2020, 21, 93.	1.2	7

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37	A tree-like Bayesian structure learning algorithm for small-sample datasets from complex biological model systems. BMC Systems Biology, 2015, 9, 49.	3.0	6
38	Improved metabolite profile smoothing for flux estimation. Molecular BioSystems, 2015, 11, 2394-2405.	2.9	6
39	Point-of-Care Analyte Quantification and Digital Readout via Lysate-Based Cell-Free Biosensors Interfaced with Personal Glucose Monitors. ACS Synthetic Biology, 2021, 10, 2862-2869.	1.9	6
40	Dramatic transcriptomic differences in Macaca mulatta and Macaca fascicularis with Plasmodium knowlesi infections. Scientific Reports, 2021, 11, 19519.	1.6	5
41	Manipulation of metabolism in complex eukaryotic systems to control cellular state. Current Opinion in Chemical Engineering, 2015, 10, 63-69.	3.8	4
42	Systems biology-based analysis of cell-free systems. Current Opinion in Biotechnology, 2022, 75, 102703.	3.3	4
43	The Metabolomics Societyâ€"Current State of the Membership and Future Directions. Metabolites, 2019, 9, 89.	1.3	2
44	SCOUR: a stepwise machine learning framework for predicting metabolite-dependent regulatory interactions. BMC Bioinformatics, 2021, 22, 365.	1.2	2
45	Live demonstration: A 1024-pixel CMOS multi-modality sensing array for cell-based assays. , 2016, , .		1
46	Gas Chromatographyâ€"Mass Spectrometry Microbial Metabolomics for Applications in Strain Optimization. Methods in Molecular Biology, 2019, 1927, 179-189.	0.4	1
47	Untargeted plasma metabolomic analysis of wild bottlenose dolphins (Tursiops truncatus) indicate protein degradation when in poorer health. Comparative Biochemistry and Physiology Part D: Genomics and Proteomics, 2022, 42, 100991.	0.4	1
48	Nucleic Acid Partitioning in PEG-Ficoll Protocells. Journal of Chemical & Engineering Data, 2022, 67, 1964-1971.	1.0	1
49	Editorial overview: Systems biology-the intersection of experiments and computation, underpinning biotechnology. Current Opinion in Biotechnology, 2016, 39, iv-vi.	3.3	0
50	Diverse classes of constraints enable broader applicability of a linear programming-based dynamic metabolic modeling framework. Scientific Reports, 2022, 12, 762.	1.6	0
51	Metabolomics Analysis of Cell-Free Systems Using. Methods in Molecular Biology, 2022, 2433, 217-226.	0.4	0