Jeffrey J Tabor

List of Publications by Year
in descending order

46 papers	3,782 citations	236925 25 h-index	265206 42 g-index
52 all docs	52 docs citations	52 times ranked	3111 citing authors

#	Article	IF	Citations
1	Robust multicellular computing using genetically encoded NOR gates and chemical â€˜wiresâ€™. Nature, 2011, 469, 212-215.	27.8	781
2	Engineering Escherichia coli to see light. Nature, 2005, 438, 441-442.	27.8	565
3	A Synthetic Genetic Edge Detection Program. Cell, 2009, 137, 1272-1281.	28.9	442
4	Multichromatic Control of Gene Expression in Escherichia coli. Journal of Molecular Biology, 2011, 405, 315-324.	4.2	225
5	Engineering bacterial thiosulfate and tetrathionate sensors for detecting gut inflammation. Molecular Systems Biology, 2017, 13, 923.	7.2	194
6	Characterizing bacterial gene circuit dynamics with optically programmed gene expression signals. Nature Methods, 2014, 11, 449-455.	19.0	179
7	Refactoring and Optimization of Light-Switchable<i>Escherichia coli</i>Two-Component Systems. ACS Synthetic Biology, 2014, 3, 820-831.	3.8	144
8	FlowCal: A User-Friendly, Open Source Software Tool for Automatically Converting Flow Cytometry Data from Arbitrary to Calibrated Units. ACS Synthetic Biology, 2016, 5, 774-780.	3.8	108
9	An open-hardware platform for optogenetics and photobiology. Scientific Reports, 2016, 6, 35363.	3.3	108
10	Repurposing <i>Synechocystis</i> PCC6803 UirSâ€“UirR as a UV-Violet/Green Photoreversible Transcriptional Regulatory Tool in <i>E. coli</i>. ACS Synthetic Biology, 2016, 5, 733-740.	3.8	77
11	Rewiring bacterial two-component systems by modular DNA-binding domain swapping. Nature Chemical Biology, 2019, 15, 690-698.	8.0	75
12	Optogenetic control of Bacillus subtilis gene expression. Nature Communications, 2019, 10, 3099.	12.8	69
13	Optogenetic characterization methods overcome key challenges in synthetic and systems biology. Nature Chemical Biology, 2014, 10, 502-511.	8.0	66
14	Phosphatase activity tunes two-component system sensor detection threshold. Nature Communications, 2018, 9, 1433.	12.8	66
15	A Miniaturized <i>Escherichia coli</i> Green Light Sensor with High Dynamic Range. ChemBioChem, 2018, 19, 1255-1258.	2.6	64
16	Engineering Diagnostic and Therapeutic Gut Bacteria. Microbiology Spectrum, 2017, 5, .	3.0	59
17	Engineering an <i>E. coli</i> Near-Infrared Light Sensor. ACS Synthetic Biology, 2018, 7, 240-248.	3.8	52
18	Non-transcriptional regulatory processes shape transcriptional network dynamics. Nature Reviews Microbiology, 2011, 9, 817-828.	28.6	46

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19	Light-Activated Nuclear Translocation of Adeno-Associated Virus Nanoparticles Using Phytochrome B for Enhanced, Tunable, and Spatially Programmable Gene Delivery. ACS Nano, 2016, 10, 225-237.	14.6	45
20	Post-translational tools expand the scope of synthetic biology. Current Opinion in Chemical Biology, 2012, 16, 300-306.	6.1	43
21	Optogenetic control of gut bacterial metabolism to promote longevity. ELife, 2020, 9, .	6.0	43
22	Multiplexing cellâ€cell communication. Molecular Systems Biology, 2020, 16, e9618.	7.2	39
23	An Engineered <i>B.Âsubtilis</i> Inducible Promoter System with over 10â€¯000-Fold Dynamic Range. ACS Synthetic Biology, 2019, 8, 1673-1678.	3.8	35
24	A photoconversion model for full spectral programming and multiplexing of optogeneticÂsystems. Molecular Systems Biology, 2017, 13, 926.	7.2	31
25	Communicating Structure and Function in Synthetic Biology Diagrams. ACS Synthetic Biology, 2019, 8, 1818-1825.	3.8	30
26	Engineering stochasticity in gene expression. Molecular BioSystems, 2008, 4, 754.	2.9	27
27	How to train your microbe: methods for dynamically characterizing gene networks. Current Opinion in Microbiology, 2015, 24, 113-123.	5.1	27
28	Bacterial two-component systems as sensors for synthetic biology applications. Current Opinion in Systems Biology, 2021, 28, 100398.	2.6	27
29	Deoxyribozymes that recode sequence information. Nucleic Acids Research, 2006, 34, 2166-2172.	14.5	18
30	Production of Phytochromes by High-Cell-Density <i>E. coli</i> Fermentation. ACS Synthetic Biology, 2019, 8, 2442-2450.	3.8	17
31	Playing to win at DNA computation. Nature Biotechnology, 2003, 21, 1013-1015.	17.5	16
32	Mucosal acidosis elicits a unique molecular signature in epithelia and intestinal tissue mediated by GPR31-induced CREB phosphorylation. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	11
33	Performance Characteristics for Sensors and Circuits Used to Program E. coli. , 2009, , 401-439.		8
34	Meeting Measurement Precision Requirements for Effective Engineering of Genetic Regulatory Networks. ACS Synthetic Biology, 2022, 11, 1196-1207.	3.8	8
35	Modular gene-circuit design takes two steps forward. Nature Methods, 2012, 9, 1061-1063.	19.0	6
36	Leveraging synthetic biology for tissue engineering applications. Inflammation and Regeneration, 2014, 34, 015-022.	3.7	6

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37	Reverse transduction can improve efficiency of AAV vectors in transductionâ€resistant cells. Biotechnology and Bioengineering, 2018, 115, 3042-3049.	3.3	5
38	Engineering Diagnostic and Therapeutic Gut Bacteria. , 0, , 331-361.		4
39	Programming living cells to function as massively parallel computers. Proceedings - Design Automation Conference, 2007, , .	0.0	3
40	Plate-Based Assays for Light-Regulated Gene Expression Systems. Methods in Enzymology, 2011, 497, 373-391.	1.0	3
41	Independent control of mean and noise by convolution of gene expression distributions. Nature Communications, 2021, 12, 6957.	12.8	3
42	Multiplexed Bacterial Cell-Cell Communication via a Genetically Encoded CRISPRi-Based Multiplexer-Demultiplexer Circuit. , 2016, , .		2
43	Taking pictures with E. coli: signal processing using synthetic biology. IEEE Signal Processing Magazine, 2006, 23, 144-142.	5.6	1
44	Developing RNA Tools for Engineered Regulatory Systems. Biotechnology and Genetic Engineering Reviews, 2006, 22, 21-44.	6.2	1
45	DIY optogenetics: Building, programming, and using the Light Plate Apparatus. Methods in Enzymology, 2019, 624, 197-226.	1.0	1
46	An Optogenetic Approach to Dynamically Study Membrane Confinement of Prestin. Biophysical Journal, 2016, 110, 138a.	0.5	0