Patrick M Shih

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/3410219/publications.pdf

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49 papers	3,347 citations	236925 25 h-index	206112 48 g-index
54 all docs	54 docs citations	54 times ranked	4540 citing authors

#	Article	IF	Citations
1	Improving the coverage of the cyanobacterial phylum using diversity-driven genome sequencing. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 1053-1058.	7.1	769
2	Standards for plant synthetic biology: a common syntax for exchange of <scp>DNA</scp> parts. New Phytologist, 2015, 208, 13-19.	7.3	263
3	Direct Identification of the Meloidogyne incognita Secretome Reveals Proteins with Host Cell Reprogramming Potential. PLoS Pathogens, 2008, 4, e1000192.	4.7	225
4	Dynamic cyanobacterial response to hydration and dehydration in a desert biological soil crust. ISME Journal, 2013, 7, 2178-2191.	9.8	217
5	Precise age of Bangiomorpha pubescens dates the origin of eukaryotic photosynthesis. Geology, 2018, 46, 135-138.	4.4	148
6	Evolution of Phototrophy in the Chloroflexi Phylum Driven by Horizontal Gene Transfer. Frontiers in Microbiology, 2018, 9, 260.	3.5	143
7	Primary endosymbiosis events date to the later Proterozoic with cross-calibrated phylogenetic dating of duplicated ATPase proteins. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 12355-12360.	7.1	126
8	Biochemical characterization of predicted Precambrian RuBisCO. Nature Communications, 2016, 7, 10382.	12.8	112
9	Evolution of the 3-hydroxypropionate bicycle and recent transfer of anoxygenic photosynthesis into the Chloroflexi. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 10749-10754.	7.1	108
10	CRISPRâ€“Act3.0 for highly efficient multiplexed gene activation in plants. Nature Plants, 2021, 7, 942-953.	9.3	99
11	Introduction of a Synthetic CO2-fixing Photorespiratory Bypass into a Cyanobacterium. Journal of Biological Chemistry, 2014, 289, 9493-9500.	3.4	87
12	Hydrogen-based metabolism as an ancestral trait in lineages sibling to the Cyanobacteria. Nature Communications, 2019, 10, 463.	12.8	87
13	Bacterial diversification through geological time. Nature Ecology and Evolution, 2018, 2, 1458-1467.	7.8	81
14	A robust gene-stacking method utilizing yeast assembly for plant synthetic biology. Nature Communications, 2016, 7, 13215.	12.8	59
15	The evolution and productivity of carbon fixation pathways in response to changes in oxygen concentration over geological time. Free Radical Biology and Medicine, 2019, 140, 188-199.	2.9	59
16	Design of orthogonal regulatory systems for modulating gene expression in plants. Nature Chemical Biology, 2020, 16, 857-865.	8.0	57
17	Accumulation of high-value bioproducts in planta can improve the economics of advanced biofuels. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 8639-8648.	7.1	57
18	Fatty Acid and Alcohol Metabolism in Pseudomonas putida: Functional Analysis Using Random Barcode Transposon Sequencing. Applied and Environmental Microbiology, 2020, 86, .	3.1	52

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19	MetaPOAP: presence or absence of metabolic pathways in metagenome-assembled genomes. Bioinformatics, 2018, 34, 4284-4286.	4.1	50
20	Photosynthesis and early Earth. Current Biology, 2015, 25, R855-R859.	3.9	46
21	Novel bacterial clade reveals origin of form I Rubisco. Nature Plants, 2020, 6, 1158-1166.	9.3	46
22	Biotechnology and synthetic biology approaches for metabolic engineering of bioenergy crops. Plant Journal, 2016, 87, 103-117.	5.7	44
23	Gene stacking of multiple traits for high yield of fermentable sugars in plant biomass. Biotechnology for Biofuels, 2018, 11, 2.	6.2	38
24	Increased drought tolerance in plants engineered for low lignin and low xylan content. Biotechnology for Biofuels, 2018, 11, 195.	6.2	33
25	Towards a sustainable bio-based economy: Redirecting primary metabolism to new products with plant synthetic biology. Plant Science, 2018, 273, 84-91.	3.6	31
26	Cell biology of photosynthesis over geologic time. Current Biology, 2020, 30, R490-R494.	3.9	26
27	Cyanobacterial Evolution: Fresh Insight into Ancient Questions. Current Biology, 2015, 25, R192-R193.	3.9	24
28	Engineering Plant Synthetic Pathways for the Biosynthesis of Novel Antifungals. ACS Central Science, 2020, 6, 1394-1400.	11.3	22
29	Heinz-resistant tomato cultivars exhibit a lignin-based resistance to field dodder (Cuscuta) Tj ETQq1 1 0.784314 rgBT /Overlock 10	4.8	20
30	Arabidopsis thaliana PGR7 Encodes a Conserved Chloroplast Protein That Is Necessary for Efficient Photosynthetic Electron Transport. PLoS ONE, 2010, 5, e11688.	2.5	18
31	Discovery of photosynthesis genes through whole-genome sequencing of acetate-requiring mutants of Chlamydomonas reinhardtii. PLoS Genetics, 2021, 17, e1009725.	3.5	18
32	Robust Characterization of Two Distinct Glutarate Sensing Transcription Factors of Pseudomonas putida <scp>l</scp>-Lysine Metabolism. ACS Synthetic Biology, 2019, 8, 2385-2396.	3.8	17
33	Biosystems Design to Accelerate C ₃ -to-CAM Progression. Biodesign Research, 2020, 2020, .	1.9	16
34	Plant Biosystems Design Research Roadmap 1.0. Biodesign Research, 2020, 2020, .	1.9	16
35	Overexpression of the rice BAHD acyltransferase AT10 increases xylan-bound p-coumarate and reduces lignin in Sorghum bicolor. Biotechnology for Biofuels, 2021, 14, 217.	6.2	16
36	Agrobacterium tumefaciens : A Bacterium Primed for Synthetic Biology. Biodesign Research, 2020, 2020, .	1.9	14

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37	Utilizing Plant Synthetic Biology to Improve Human Health and Wellness. Frontiers in Plant Science, 2021, 12, 691462.	3.6	13
38	Bayesian Analysis of Congruence of Core Genes in Prochlorococcus and Synechococcus and Implications on Horizontal Gene Transfer. PLoS ONE, 2014, 9, e85103.	2.5	12
39	In-planta production of the biodegradable polyester precursor 2-pyrone-4,6-dicarboxylic acid (PDC): Stacking reduced biomass recalcitrance with value-added co-product. Metabolic Engineering, 2021, 66, 148-156.	7.0	12
40	Granick revisited: Synthesizing evolutionary and ecological evidence for the late origin of bacteriochlorophyll via ghost lineages and horizontal gene transfer. PLoS ONE, 2021, 16, e0239248.	2.5	10
41	Defining and engineering bioenergy plant feedstock ideotypes. Current Opinion in Biotechnology, 2020, 62, 196-201.	6.6	9
42	Plant-based engineering for production of high-valued natural products. Natural Product Reports, 2022, 39, 1492-1509.	10.3	9
43	Nitrogen Metabolism in Pseudomonas putida: Functional Analysis Using Random Barcode Transposon Sequencing. Applied and Environmental Microbiology, 2022, 88, e0243021.	3.1	8
44	Early Cyanobacteria and the Innovation of Microbial Sunscreens. MBio, 2019, 10, .	4.1	7
45	Draft Genome Sequence of Agrobacterium fabrum ARqua1. Microbiology Resource Announcements, 2020, 9, .	0.6	4
46	Optimization of Heterologous Glucoraphanin Production In Planta. ACS Synthetic Biology, 2022, 11, 1865-1873.	3.8	4
47	From breeding to genome design: A genomic makeover for potatoes. Cell, 2021, 184, 3843-3845.	28.9	2
48	Correction for Thompson et al., â€œFatty Acid and Alcohol Metabolism in Pseudomonas putida: Functional Analysis Using Random Barcode Transposon Sequencingâ€• Applied and Environmental Microbiology, 2021, 87, .	3.1	0
49	Draft Genome Sequence of Mycobacterium sp. Strain JC1 DSM 3803. Microbiology Resource Announcements, 2021, 10, .	0.6	0