Rodrigo Ledesma-Amaro

List of Publications by Year
in descending order

107 papers	5,189 citations	109321 35 h-index	102487 66 g-index
119 all docs	119 docs citations	119 times ranked	3718 citing authors

#	Article	IF	Citations
1	Microscopy imaging of living cells in metabolic engineering. Trends in Biotechnology, 2022, 40, 752-765.	9.3	4
2	Production of human milk fat substitute by engineered strains of Yarrowia lipolytica. Metabolic Engineering Communications, 2022, 14, e00192.	3.6	8
3	Unraveling the potential of non-conventional yeasts in biotechnology. FEMS Yeast Research, 2022, 22, .	2.3	15
4	Advancing Yarrowia lipolytica as a superior biomanufacturing platform by tuning gene expression using promoter engineering. Bioresource Technology, 2022, 347, 126717.	9.6	31
5	Engineering the Lipid and Fatty Acid Metabolism in <i>Yarrowia lipolytica</i> for Sustainable Production of High Oleic Oils. ACS Synthetic Biology, 2022, 11, 1542-1554.	3.8	24
6	Division of labor for substrate utilization in natural and synthetic microbial communities. Current Opinion in Biotechnology, 2022, 75, 102706.	6.6	19
7	CRISPR-Cas13a cascade-based viral RNA assay for detecting SARS-CoV-2 and its mutations in clinical samples. Sensors and Actuators B: Chemical, 2022, 362, 131765.	7.8	23
8	Hypersecretion of OmlA antigen in Corynebacterium glutamicum through high-throughput based development process. Applied Microbiology and Biotechnology, 2022, 106, 2953-2967.	3.6	3
9	Editorial overview: Chemical Biotechnology. Current Opinion in Biotechnology, 2022, 75, 102732.	6.6	0
10	Synthetic biology and bioelectrochemical tools for electrogenetic system engineering. Science Advances, 2022, 8, eabm5091.	10.3	17
11	New synthetic biology tools for metabolic control. Current Opinion in Biotechnology, 2022, 76, 102724.	6.6	21
12	Development of a dedicated Golden Gate Assembly Platform (RtGGA) for Rhodotorula toruloides. Metabolic Engineering Communications, 2022, 15, e00200.	3.6	8
13	De novo biosynthesis of rubusoside and rebaudiosides in engineered yeasts. Nature Communications, 2022, 13, .	12.8	36
14	Advances in synthetic biology tools paving the way for the biomanufacturing of unusual fatty acids using the Yarrowia lipolytica chassis. Biotechnology Advances, 2022, 59, 107984.	11.7	22
15	A pathway independent multi-modular ordered control system based on thermosensors and CRISPRi improves bioproduction in <i>Bacillus subtilis</i>. Nucleic Acids Research, 2022, 50, 6587-6600.	14.5	20
16	Engineering Yarrowia lipolytica to produce nutritional fatty acids: Current status and future perspectives. Synthetic and Systems Biotechnology, 2022, 7, 1024-1033.	3.7	7
17	A paper-based assay for the colorimetric detection of SARS-CoV-2 variants at single-nucleotide resolution. Nature Biomedical Engineering, 2022, 6, 957-967.	22.5	83
18	Engineering <i>Yarrowia lipolytica</i> for sustainable production of the chamomile sesquiterpene (â^’)-Î±-bisabolol. Green Chemistry, 2021, 23, 780-787.	9.0	46

#	Article	IF	Citations
19	The elucidation of phosphosugar stress response in <i>Bacillus subtilis</i> guides strain engineering for high <i>N</i>â€acetylglucosamine production. Biotechnology and Bioengineering, 2021, 118, 383-396.	3.3	8
20	rfaRm: An R client-side interface to facilitate the analysis of the Rfam database of RNA families. PLoS ONE, 2021, 16, e0245280.	2.5	1
21	Pathway Engineering for Beta-Carotene and Carotenoid Biosynthesis in Y. lipolytica. Methods in Molecular Biology, 2021, 2307, 191-204.	0.9	1
22	Comparative Genomics Analysis of Keratin-Degrading Chryseobacterium Species Reveals Their Keratinolytic Potential for Secondary Metabolite Production. Microorganisms, 2021, 9, 1042.	3.6	9
23	Synthetic biology for future food: Research progress and future directions. Future Foods, 2021, 3, 100025.	5.4	31
24	Reprogramming the metabolism of Klebsiella pneumoniae for efficient 1,3-propanediol production. Chemical Engineering Science, 2021, 236, 116539.	3.8	15
25	Bioproduction of Lâ€piperazic acid in gram scale using <i>Aureobasidium</i><i>Â</i><i>melanogenum</i>. Microbial Biotechnology, 2021, 14, 1722-1729.	4.2	5
26	Metabolic engineering strategies to enable microbial utilization of C1 feedstocks. Nature Chemical Biology, 2021, 17, 845-855.	8.0	77
27	Multilayer Genetic Circuits for Dynamic Regulation of Metabolic Pathways. ACS Synthetic Biology, 2021, 10, 1587-1597.	3.8	14
28	Engineering Plant Sesquiterpene Synthesis into Yeasts: A Review. Journal of Agricultural and Food Chemistry, 2021, 69, 9498-9510.	5.2	32
29	Control engineering and synthetic biology: working in synergy for the analysis and control of microbial systems. Current Opinion in Microbiology, 2021, 62, 68-75.	5.1	22
30	Editorial: Synthetic Biology of Yeasts for the Production of Non-Native Chemicals. Frontiers in Bioengineering and Biotechnology, 2021, 9, 730047.	4.1	3
31	Synergies of Systems Biology and Synthetic Biology in Human Microbiome Studies. Frontiers in Microbiology, 2021, 12, 681982.	3.5	8
32	Engineering Yarrowia lipolytica to produce fuels and chemicals from xylose: A review. Bioresource Technology, 2021, 337, 125484.	9.6	33
33	Engineering Yarrowia lipolytica to produce advanced biofuels: Current status and perspectives. Bioresource Technology, 2021, 341, 125877.	9.6	20
34	Editorial: Engineering Yeast to Produce Plant Natural Products. Frontiers in Bioengineering and Biotechnology, 2021, 9, 798097.	4.1	4
35	TargeTron Technology Applicable in Solventogenic Clostridia: Revisiting 12 Yearsâ€™ Advances. Biotechnology Journal, 2020, 15, 1900284.	3.5	11
36	Design of a programmable biosensor-CRISPRi genetic circuits for dynamic and autonomous dual-control of metabolic flux in Bacillus subtilis. Nucleic Acids Research, 2020, 48, 996-1009.	14.5	111

#	Article	IF	Citations
37	De novo production of resveratrol from glycerol by engineering different metabolic pathways in Yarrowia lipolytica. Metabolic Engineering Communications, 2020, 11, e00146.	3.6	16
38	Improving the homologous recombination efficiency of Yarrowia lipolytica by grafting heterologous component from Saccharomyces cerevisiae. Metabolic Engineering Communications, 2020, 11, e00152.	3.6	37
39	Engineering Bacterial Cellulose by Synthetic Biology. International Journal of Molecular Sciences, 2020, 21, 9185.	4.1	30
40	Towards next-generation model microorganism chassis for biomanufacturing. Applied Microbiology and Biotechnology, 2020, 104, 9095-9108.	3.6	9
41	Pyruvate-responsive genetic circuits for dynamic control of central metabolism. Nature Chemical Biology, 2020, 16, 1261-1268.	8.0	94
42	Assembly of pathway enzymes by engineering functional membrane microdomain components for improved N-acetylglucosamine synthesis in Bacillus subtilis. Metabolic Engineering, 2020, 61, 96-105.	7.0	15
43	Biovalorisation of crude glycerol and xylose into xylitol by oleaginous yeast Yarrowia lipolytica. Microbial Cell Factories, 2020, 19, 121.	4.0	38
44	Evolutionary Engineering Improved <scp>d</scp>-Glucose/Xylose Cofermentation of <i>Yarrowia lipolytica</i>. Industrial & Engineering Chemistry Research, 2020, 59, 17113-17123.	3.7	10
45	Metabolic engineering for increased lipid accumulation in Yarrowia lipolytica â€“ A Review. Bioresource Technology, 2020, 313, 123707.	9.6	126
46	Multiplexed CRISPR technologies for gene editing and transcriptional regulation. Nature Communications, 2020, 11, 1281.	12.8	279
47	Combined evolutionary engineering and genetic manipulation improve low pH tolerance and butanol production in a synthetic microbial <i>Clostridium</i> community. Biotechnology and Bioengineering, 2020, 117, 2008-2022.	3.3	27
48	Recombinant Î²-Carotene Production by Yarrowia lipolytica â€“ Assessing the Potential of Micro-Scale Fermentation Analysis in Cell Factory Design and Bioreaction Optimization. Frontiers in Bioengineering and Biotechnology, 2020, 8, 29.	4.1	19
49	Bioproduction of succinic acid from xylose by engineered Yarrowia lipolytica without pH control. Biotechnology for Biofuels, 2020, 13, 113.	6.2	43
50	Synthetic metabolic channel by functional membrane microdomains for compartmentalized flux control. Metabolic Engineering, 2020, 59, 106-118.	7.0	21
51	Microbial Lipid Biotechnology to Produce Polyunsaturated Fatty Acids. Trends in Biotechnology, 2020, 38, 832-834.	9.3	36
52	Metabolic Engineering of <i>Clostridium cellulovorans</i> to Improve Butanol Production by Consolidated Bioprocessing. ACS Synthetic Biology, 2020, 9, 304-315.	3.8	35
53	Microbial Chassis Development for Natural Product Biosynthesis. Trends in Biotechnology, 2020, 38, 779-796.	9.3	84
54	Editorial: Synthetic Biology-Guided Metabolic Engineering. Frontiers in Bioengineering and Biotechnology, 2020, 8, 221.	4.1	3

#	Article	IF	Citations
55	Production of Long Chain Fatty Alcohols Found in Bumblebee Pheromones by Yarrowia lipolytica. Frontiers in Bioengineering and Biotechnology, 2020, 8, 593419.	4.1	8
56	Creating an in vivo bifunctional gene expression circuit through an aptamer-based regulatory mechanism for dynamic metabolic engineering in Bacillus subtilis. Metabolic Engineering, 2019, 55, 179-190.	7.0	29
57	Drop-in biofuel production using fatty acid photodecarboxylase from Chlorella variabilis in the oleaginous yeast Yarrowia lipolytica. Biotechnology for Biofuels, 2019, 12, 202.	6.2	59
58	Redirecting the lipid metabolism of the yeast <i>Starmerella bombicola</i> from glycolipid to fatty acid production. Journal of Industrial Microbiology and Biotechnology, 2019, 46, 1697-1706.	3.0	14
59	Improved <i>n</i> -Butanol Production from Clostridium cellulovorans by Integrated Metabolic and Evolutionary Engineering. Applied and Environmental Microbiology, 2019, 85, .	3.1	67
60	Engineering a Bifunctional Phr60-Rap60-Spo0A Quorum-Sensing Molecular Switch for Dynamic Fine-Tuning of Menaquinone-7 Synthesis in <i>Bacillus subtilis</i>. ACS Synthetic Biology, 2019, 8, 1826-1837.	3.8	87
61	Towards semi-synthetic microbial communities: enhancing soy sauce fermentation properties in B. subtilis co-cultures. Microbial Cell Factories, 2019, 18, 101.	4.0	12
62	Oneâ€vector CRISPR/Cas9 genome engineering of the industrial fungus <i>Ashbya gossypii</i>. Microbial Biotechnology, 2019, 12, 1293-1301.	4.2	20
63	Rapid Assembly of gRNA Arrays <i>via</i> Modular Cloning in Yeast. ACS Synthetic Biology, 2019, 8, 906-910.	3.8	39
64	Synthetic Biology Tools to Engineer Microbial Communities for Biotechnology. Trends in Biotechnology, 2019, 37, 181-197.	9.3	309
65	Genetic engineering of Ehrlich pathway modulates production of higher alcohols in engineered <i>Yarrowia lipolytica</i>. FEMS Yeast Research, 2019, 19, .	2.3	16
66	De novo Biosynthesis of Odd-Chain Fatty Acids in Yarrowia lipolytica Enabled by Modular Pathway Engineering. Frontiers in Bioengineering and Biotechnology, 2019, 7, 484.	4.1	44
67	A synthetic biology approach to transform <i>Yarrowia lipolytica</i> into a competitive biotechnological producer of Î²â€carotene. Biotechnology and Bioengineering, 2018, 115, 464-472.	3.3	245
68	The Engineering Potential of Rhodosporidium toruloides as a Workhorse for Biotechnological Applications. Trends in Biotechnology, 2018, 36, 304-317.	9.3	171
69	Pathway Grafting for Polyunsaturated Fatty Acids Production in <i>Ashbya gossypii</i> through Golden Gate Rapid Assembly. ACS Synthetic Biology, 2018, 7, 2340-2347.	3.8	18
70	Synthetic biology tools for engineering Yarrowia lipolytica. Biotechnology Advances, 2018, 36, 2150-2164.	11.7	120
71	CRISPRi allows optimal temporal control of N-acetylglucosamine bioproduction by a dynamic coordination of glucose and xylose metabolism in Bacillus subtilis. Metabolic Engineering, 2018, 49, 232-241.	7.0	83
72	Rapid host strain improvement by in vivo rearrangement of a synthetic yeast chromosome. Nature Communications, 2018, 9, 1932.	12.8	96

#	Article	IF	Citations
73	Optimization of odd chain fatty acid production by Yarrowia lipolytica. Biotechnology for Biofuels, 2018, 11, 158.	6.2	75
74	Formation of folates by microorganisms: towards the biotechnological production of this vitamin. Applied Microbiology and Biotechnology, 2018, 102, 8613-8620.	3.6	44
75	Engineering Yarrowia lipolytica to enhance lipid production from lignocellulosic materials. Biotechnology for Biofuels, 2018, 11, 11.	6.2	103
76	Synthetic Biology to Improve the Production of Lipases and Esterases (Review). Methods in Molecular Biology, 2018, 1835, 229-242.	0.9	2
77	Synergistic Rewiring of Carbon Metabolism and Redox Metabolism in Cytoplasm and Mitochondria of <i>Aspergillus oryzae</i> for Increased <scp>l</scp>-Malate Production. ACS Synthetic Biology, 2018, 7, 2139-2147.	3.8	32
78	Golden Gate Assembly system dedicated to complex pathway manipulation in <i>Yarrowia lipolytica</i>. Microbial Biotechnology, 2017, 10, 450-455.	4.2	105
79	Using a vector pool containing variable-strength promoters to optimize protein production in Yarrowia lipolytica. Microbial Cell Factories, 2017, 16, 31.	4.0	90
80	Sugar versus fat: elimination of glycogen storage improves lipid accumulation in<i>Yarrowia lipolytica</i>. FEMS Yeast Research, 2017, 17, .	2.3	39
81	Engineering <i><scp>A</scp>shbya gossypii</i> strains for <i>de novo</i> lipid production using industrial byâ€products. Microbial Biotechnology, 2017, 10, 425-433.	4.2	15
82	Bioproduction of riboflavin: a bright yellow history. Journal of Industrial Microbiology and Biotechnology, 2017, 44, 659-665.	3.0	90
83	Sugar versus fat: elimination of glycogen storage improves lipid accumulation in Yarrowia lipolytica. FEMS Yeast Research, 2017, 17, .	2.3	32
84	Molecular Studies of the Flavinogenic Fungus Ashbya gossypii and the Flavinogenic Yeast Candida famata. , 2017, , 281-296.		1
85	Metabolic engineering of Yarrowia lipolytica to produce chemicals and fuels from xylose. Metabolic Engineering, 2016, 38, 115-124.	7.0	181
86	The filamentous fungus <i>Ashbya gossypii</i> as a competitive industrial inosine producer. Biotechnology and Bioengineering, 2016, 113, 2060-2063.	3.3	7
87	Metabolic Engineering for Expanding the Substrate Range of Yarrowia lipolytica. Trends in Biotechnology, 2016, 34, 798-809.	9.3	168
88	Yarrowia lipolytica AAL genes are involved in peroxisomal fatty acid activation. Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids, 2016, 1861, 555-565.	2.4	24
89	Microbial biotechnology for the synthesis of (pro)vitamins, biopigments and antioxidants: challenges and opportunities. Microbial Biotechnology, 2016, 9, 564-567.	4.2	39
90	Overexpression of diacylglycerol acyltransferase in<i>Yarrowia lipolytica</i>affects lipid body size, number and distribution. FEMS Yeast Research, 2016, 16, fow062.	2.3	47

#	Article	IF	Citations
91	Folic Acid Production by Engineered Ashbya gossypii. Metabolic Engineering, 2016, 38, 473-482.	7.0	35
92	Combining metabolic engineering and process optimization to improve production and secretion of fatty acids. Metabolic Engineering, 2016, 38, 38-46.	7.0	145
93	Modulation of gluconeogenesis and lipid production in an engineered oleaginous Saccharomyces cerevisiae transformant. Applied Microbiology and Biotechnology, 2016, 100, 8147-8157.	3.6	4
94	Yarrowia lipolytica as a biotechnological chassis to produce usual and unusual fatty acids. Progress in Lipid Research, 2016, 61, 40-50.	11.6	249
95	Guanine nucleotide binding to the Bateman domain mediates the allosteric inhibition of eukaryotic IMP dehydrogenases. Nature Communications, 2015, 6, 8923.	12.8	63
96	Increased production of inosine and guanosine by means of metabolic engineering of the purine pathway in Ashbya gossypii. Microbial Cell Factories, 2015, 14, 58.	4.0	34
97	Metabolic engineering of riboflavin production in Ashbya gossypii through pathway optimization. Microbial Cell Factories, 2015, 14, 163.	4.0	42
98	Engineering<i>Ashbya gossypii</i>for efficient biolipid production. Bioengineered, 2015, 6, 119-123.	3.2	22
99	Increased riboflavin production by manipulation of inosine 5â€²-monophosphate dehydrogenase in Ashbya gossypii. Applied Microbiology and Biotechnology, 2015, 99, 9577-9589.	3.6	31
100	Unraveling fatty acid transport and activation mechanisms in Yarrowia lipolytica. Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids, 2015, 1851, 1202-1217.	2.4	71
101	Engineering Yarrowia lipolytica to produce biodiesel from raw starch. Biotechnology for Biofuels, 2015, 8, 148.	6.2	66
102	Microbial oils: A customizable feedstock through metabolic engineering. European Journal of Lipid Science and Technology, 2015, 117, 141-144.	1.5	35
103	Tuning singleâ€cell oil production in <i>Ashbya gossypii</i> by engineering the elongation and desaturation systems. Biotechnology and Bioengineering, 2014, 111, 1782-1791.	3.3	21
104	Strain Design of Ashbya gossypii for Single-Cell Oil Production. Applied and Environmental Microbiology, 2014, 80, 1237-1244.	3.1	29
105	Genome scale metabolic modeling of the riboflavin overproducer <i>Ashbya gossypii</i>. Biotechnology and Bioengineering, 2014, 111, 1191-1199.	3.3	35
106	Biotechnological production of feed nucleotides by microbial strain improvement. Process Biochemistry, 2013, 48, 1263-1270.	3.7	31
107	Microbial production of vitamins. , 2013, , 571-594.		16