

Jose L Avalos

List of Publications by Year in Descending Order

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Version: 2024-04-09

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

40 papers	3,085 citations	20 h-index	51 g-index
51 ext. papers	3,734 ext. citations	13.2 avg, IF	5.52 L-index

#	Paper	IF	Citations
40	Biosensor for branched-chain amino acid metabolism in yeast and applications in isobutanol and isopentanol production.. <i>Nature Communications</i> , 2022 , 13, 270	17.4	1
39	Physiological limitations and opportunities in microbial metabolic engineering. <i>Nature Reviews Microbiology</i> , 2022 , 20, 35-48	22.2	8
38	Optogenetic Amplification Circuits for Light-Induced Metabolic Control. <i>ACS Synthetic Biology</i> , 2021 , 10, 1143-1154	5.7	12
37	Lights up on organelles: Optogenetic tools to control subcellular structure and organization. <i>WIREs Mechanisms of Disease</i> , 2021 , 13, e1500	0.3	4
36	Optogenetic control of the lac operon for bacterial chemical and protein production. <i>Nature Chemical Biology</i> , 2021 , 17, 71-79	11.7	30
35	Dynamical Modeling of Optogenetic Circuits in Yeast for Metabolic Engineering Applications. <i>ACS Synthetic Biology</i> , 2021 , 10, 219-227	5.7	3
34	Cellulosic biofuel production using emulsified simultaneous saccharification and fermentation (eSSF) with conventional and thermotolerant yeasts. <i>Biotechnology for Biofuels</i> , 2021 , 14, 157	7.8	3
33	Optogenetic Control of Microbial Consortia Populations for Chemical Production. <i>ACS Synthetic Biology</i> , 2021 , 10, 2015-2029	5.7	3
32	The Inducible Q System Enables Simultaneous Optogenetic Amplification and Inversion in for Bidirectional Control of Gene Expression. <i>ACS Synthetic Biology</i> , 2021 , 10, 2060-2075	5.7	2
31	¡Viva la mitochondria!: harnessing yeast mitochondria for chemical production. <i>FEMS Yeast Research</i> , 2020 , 20,	3.1	4
30	Mitochondrial Compartmentalization Confers Specificity to the 2-Ketoacid Recursive Pathway: Increasing Isopentanol Production in. <i>ACS Synthetic Biology</i> , 2020 , 9, 546-555	5.7	14
29	Partial Observations and Conservation Laws: Gray-Box Modeling in Biotechnology and Optogenetics. <i>Industrial & Engineering Chemistry Research</i> , 2020 , 59, 2611-2620	3.9	3
28	Optogenetics and biosensors set the stage for metabolic cybergenetics. <i>Current Opinion in Biotechnology</i> , 2020 , 65, 296-309	11.4	18
27	Design and Characterization of Rapid Optogenetic Circuits for Dynamic Control in Yeast Metabolic Engineering. <i>ACS Synthetic Biology</i> , 2020 , 9, 3254-3266	5.7	16
26	Optogenetic control of protein binding using light-switchable nanobodies. <i>Nature Communications</i> , 2020 , 11, 4044	17.4	43
25	Development of light-responsive protein binding in the monobody non-immunoglobulin scaffold. <i>Nature Communications</i> , 2020 , 11, 4045	17.4	16
24	Xylose assimilation enhances the production of isobutanol in engineered <i>Saccharomyces cerevisiae</i> . <i>Biotechnology and Bioengineering</i> , 2020 , 117, 372-381	4.9	24

23	Xylose utilization stimulates mitochondrial production of isobutanol and 2-methyl-1-butanol in. <i>Biotechnology for Biofuels</i> , 2019 , 12, 223	7.8	21
22	Light-based control of metabolic flux through assembly of synthetic organelles. <i>Nature Chemical Biology</i> , 2019 , 15, 589-597	11.7	85
21	Critical Roles of the Pentose Phosphate Pathway and GLN3 in Isobutanol-Specific Tolerance in Yeast. <i>Cell Systems</i> , 2019 , 9, 534-547.e5	10.6	18
20	Current and future modalities of dynamic control in metabolic engineering. <i>Current Opinion in Biotechnology</i> , 2018 , 52, 56-65	11.4	52
19	Optogenetic regulation of engineered cellular metabolism for microbial chemical production. <i>Nature</i> , 2018 , 555, 683-687	50.4	166
18	Mapping Local and Global Liquid Phase Behavior in Living Cells Using Photo-Oligomerizable Seeds. <i>Cell</i> , 2018 , 175, 1467-1480.e13	56.2	193
17	Embracing Biological Solutions to the Sustainable Energy Challenge. <i>CheM</i> , 2017 , 2, 20-51	16.2	31
16	Traditional and novel tools to probe the mitochondrial metabolism in health and disease. <i>Wiley Interdisciplinary Reviews: Systems Biology and Medicine</i> , 2017 , 9, e1373	6.6	11
15	Uncovering the role of branched-chain amino acid transaminases in <i>Saccharomyces cerevisiae</i> isobutanol biosynthesis. <i>Metabolic Engineering</i> , 2017 , 44, 302-312	9.7	32
14	Harnessing yeast organelles for metabolic engineering. <i>Nature Chemical Biology</i> , 2017 , 13, 823-832	11.7	84
13	Metabolic engineering: Biosensors get the green light. <i>Nature Chemical Biology</i> , 2016 , 12, 894-895	11.7	2
12	Compartmentalization of metabolic pathways in yeast mitochondria improves the production of branched-chain alcohols. <i>Nature Biotechnology</i> , 2013 , 31, 335-41	44.5	332
11	Crystal structure of the eukaryotic strong inward-rectifier K ⁺ channel Kir2.2 at 3.1 Å resolution. <i>Science</i> , 2009 , 326, 1668-74	33.3	274
10	Insights into the sirtuin mechanism from ternary complexes containing NAD ⁺ and acetylated peptide. <i>Structure</i> , 2006 , 14, 1231-40	5.2	115
9	The structural basis of sirtuin substrate affinity. <i>Biochemistry</i> , 2006 , 45, 7511-21	3.2	80
8	Mechanism of sirtuin inhibition by nicotinamide: altering the NAD(+) cosubstrate specificity of a Sir2 enzyme. <i>Molecular Cell</i> , 2005 , 17, 855-68	17.6	358
7	Structural basis for the mechanism and regulation of Sir2 enzymes. <i>Molecular Cell</i> , 2004 , 13, 639-48	17.6	119
6	SIR2 family of NAD(+)-dependent protein deacetylases. <i>Methods in Enzymology</i> , 2002 , 353, 282-300	1.7	43

5	Structure of a Sir2 enzyme bound to an acetylated p53 peptide. <i>Molecular Cell</i> , 2002 , 10, 523-35	17.6	210
4	A phylogenetically conserved NAD ⁺ -dependent protein deacetylase activity in the Sir2 protein family. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2000 , 97, 6658-63	11.5	622
3	Genetically encoded biosensors for branched-chain amino acid metabolism to monitor mitochondrial and cytosolic production of isobutanol and isopentanol in yeast		1
2	Optogenetic control of protein binding using light-switchable nanobodies		5
1	Anode co-valorization for scalable and sustainable electrolysis. <i>Green Chemistry</i> ,	10	1