Adam Guss

List of Publications by Year
in descending order

68 papers	4,292 citations	109321 35 h-index	114465 63 g-index
71 all docs	71 docs citations	71 times ranked	4101 citing authors

#	ARTICLE	IF	CITATIONS
1	The Genome of <i>M. acetivorans</i> Reveals Extensive Metabolic and Physiological Diversity. Genome Research, 2002, 12, 532-542.	5.5	573
2	Genetic analysis of pigment biosynthesis in Xanthobacter autotrophicus Py2 using a new, highly efficient transposon mutagenesis system that is functional in a wide variety of bacteria. Archives of Microbiology, 2002, 178, 193-201.	2.2	266
3	Direct conversion of plant biomass to ethanol by engineered <i>Caldicellulosiruptor bescii</i>. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 8931-8936.	7.1	185
4	Phylogenetic and metabolic diversity of bacteria associated with cystic fibrosis. ISME Journal, 2011, 5, 20-29.	9.8	171
5	Mutant alcohol dehydrogenase leads to improved ethanol tolerance in <i>Clostridium thermocellum</i>. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 13752-13757.	7.1	159
6	Consolidated bioprocessing of cellulose to isobutanol using Clostridium thermocellum. Metabolic Engineering, 2015, 31, 44-52.	7.0	149
7	Innovative Chemicals and Materials from Bacterial Aromatic Catabolic Pathways. Joule, 2019, 3, 1523-1537.	24.0	142
8	Combined inactivation of the Clostridium cellulolyticum lactate and malate dehydrogenase genes substantially increases ethanol yield from cellulose and switchgrass fermentations. Biotechnology for Biofuels, 2012, 5, 2.	6.2	125
9	Metabolic engineering of <i>Pseudomonas putida</i> for increased polyhydroxyalkanoate production from lignin. Microbial Biotechnology, 2020, 13, 290-298.	4.2	120
10	Metabolic engineering of Caldicellulosiruptor bescii yields increased hydrogen production from lignocellulosic biomass. Biotechnology for Biofuels, 2013, 6, 85.	6.2	111
11	New methods for tightly regulated gene expression and highly efficient chromosomal integration of cloned genes for<i>Methanosarcina</i>species. Archaea, 2008, 2, 193-203.	2.3	109
12	Deletion of the Cel48S cellulase from <i>Clostridium thermocellum</i>. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 17727-17732.	7.1	108
13	Elimination of hydrogenase active site assembly blocks H2 production and increases ethanol yield in Clostridium thermocellum. Biotechnology for Biofuels, 2015, 8, 20.	6.2	96
14	Development of a high efficiency integration system and promoter library for rapid modification of Pseudomonas putida KT2440. Metabolic Engineering Communications, 2017, 5, 1-8.	3.6	93
15	Toward low-cost biological and hybrid biological/catalytic conversion of cellulosic biomass to fuels. Energy and Environmental Science, 2022, 15, 938-990.	30.8	93
16	Mutant selection and phenotypic and genetic characterization of ethanol-tolerant strains of Clostridium thermocellum. Applied Microbiology and Biotechnology, 2011, 92, 641-652.	3.6	79
17	Hydrogen is a preferred intermediate in the energy-conserving electron transport chain of <i>Methanosarcina barkeri</i>. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 15915-15920.	7.1	78
18	Thermochemical wastewater valorization<i>via</i>enhanced microbial toxicity tolerance. Energy and Environmental Science, 2018, 11, 1625-1638.	30.8	77

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19	Engineering glucose metabolism for enhanced muconic acid production in Pseudomonas putida KT2440. Metabolic Engineering, 2020, 59, 64-75.	7.0	76
20	Tandem chemical deconstruction and biological upcycling of poly(ethylene terephthalate) to Î²-ketoadipic acid by Pseudomonas putida KT2440. Metabolic Engineering, 2021, 67, 250-261.	7.0	74
21	Elimination of metabolic pathways to all traditional fermentation products increases ethanol yields in Clostridium thermocellum. Metabolic Engineering, 2015, 32, 49-54.	7.0	73
22	Production of itaconic acid from alkali pretreated lignin by dynamic two stage bioconversion. Nature Communications, 2021, 12, 2261.	12.8	72
23	Dcm methylation is detrimental to plasmid transformation in Clostridium thermocellum. Biotechnology for Biofuels, 2012, 5, 30.	6.2	71
24	Engineered Pseudomonas putida simultaneously catabolizes five major components of corn stover lignocellulose: Glucose, xylose, arabinose, p-coumaric acid, and acetic acid. Metabolic Engineering, 2020, 62, 62-71.	7.0	63
25	Metabolic engineering of Thermoanaerobacterium saccharolyticum for n-butanol production. Metabolic Engineering, 2014, 21, 17-25.	7.0	62
26	Differences in Hydrogenase Gene Expression between <i>Methanosarcina acetivorans</i> and <i>Methanosarcina barkeri</i>. Journal of Bacteriology, 2009, 191, 2826-2833.	2.2	60
27	Increase in Ethanol Yield via Elimination of Lactate Production in an Ethanol-Tolerant Mutant of Clostridium thermocellum. PLoS ONE, 2014, 9, e86389.	2.5	60
28	Genetic analysis ofmchmutants in twoMethanosarcinaspecies demonstrates multiple roles for the methanopterin-dependent C-1 oxidation/reduction pathway and differences in H2metabolism between closely related species. Molecular Microbiology, 2005, 55, 1671-1680.	2.5	59
29	Engineering electron metabolism to increase ethanol production in Clostridium thermocellum. Metabolic Engineering, 2017, 39, 71-79.	7.0	58
30	Approaches to genetic tool development for rapid domestication of non-model microorganisms. Biotechnology for Biofuels, 2021, 14, 30.	6.2	58
31	Cellulosic ethanol production via consolidated bioprocessing at 75ÂÂ°C by engineered Caldicellulosiruptor bescii. Biotechnology for Biofuels, 2015, 8, 163.	6.2	52
32	Characterization of <i>Clostridium thermocellum</i> strains with disrupted fermentation end-product pathways. Journal of Industrial Microbiology and Biotechnology, 2013, 40, 725-734.	3.0	50
33	Construction and Optimization of a Heterologous Pathway for Protocatechuate Catabolism in Escherichia coli Enables Bioconversion of Model Aromatic Compounds. Applied and Environmental Microbiology, 2017, 83, .	3.1	49
34	The ethanol pathway from Thermoanaerobacterium saccharolyticum improves ethanol production in Clostridium thermocellum. Metabolic Engineering, 2017, 42, 175-184.	7.0	49
35	Metabolism of syringyl lignin-derived compounds in Pseudomonas putida enables convergent production of 2-pyrone-4,6-dicarboxylic acid. Metabolic Engineering, 2021, 65, 111-122.	7.0	48
36	Elucidating central metabolic redox obstacles hindering ethanol production in Clostridium thermocellum. Metabolic Engineering, 2015, 32, 207-219.	7.0	38

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37	Assignment of the [4Feâ€4S] clusters of Ech hydrogenase from <i>Methanosarcina barkeri</i> to individual subunits via the characterization of siteâ€directed mutants. FEBS Journal, 2005, 272, 4741-4753.	4.7	33
38	Deletion of <i>nfnAB</i> in Thermoanaerobacterium saccharolyticum and Its Effect on Metabolism. Journal of Bacteriology, 2015, 197, 2920-2929.	2.2	32
39	Insights into the Evolution of Host Association through the Isolation and Characterization of a Novel Human Periodontal Pathobiont,<i>Desulfobulbus oralis</i>. MBio, 2018, 9, .	4.1	32
40	Functional heterologous expression of an engineered full length CipA from Clostridium thermocellum in Thermoanaerobacterium saccharolyticum. Biotechnology for Biofuels, 2013, 6, 32.	6.2	29
41	Enhanced ethanol formation by Clostridium thermocellum via pyruvate decarboxylase. Microbial Cell Factories, 2017, 16, 171.	4.0	29
42	Elimination of formate production in <i>Clostridium thermocellum</i>. Journal of Industrial Microbiology and Biotechnology, 2015, 42, 1263-1272.	3.0	28
43	Profile of Secreted Hydrolases, Associated Proteins, and SlpA in Thermoanaerobacterium saccharolyticum during the Degradation of Hemicellulose. Applied and Environmental Microbiology, 2014, 80, 5001-5011.	3.1	27
44	Deletion of Type I glutamine synthetase deregulates nitrogen metabolism and increases ethanol production in Clostridium thermocellum. Metabolic Engineering, 2017, 41, 182-191.	7.0	27
45	Pentose sugars inhibit metabolism and increase expression of an AgrD-type cyclic pentapeptide in Clostridium thermocellum. Scientific Reports, 2017, 7, 43355.	3.3	24
46	Complete Genome Sequence of Industrial Dairy Strain Streptococcus thermophilus DGCC 7710. Genome Announcements, 2018, 6, .	0.8	22
47	Rational development of transformation in Clostridium thermocellum ATCC 27405 via complete methylome analysis and evasion of native restrictionâ€"modification systems. Journal of Industrial Microbiology and Biotechnology, 2019, 46, 1435-1443.	3.0	22
48	Characterization of Xylan Utilization and Discovery of a New Endoxylanase in Thermoanaerobacterium saccharolyticum through Targeted Gene Deletions. Applied and Environmental Microbiology, 2012, 78, 8441-8447.	3.1	19
49	Evaluation of chromosomal insertion loci in the Pseudomonas putida KT2440 genome for predictable biosystems design. Metabolic Engineering Communications, 2020, 11, e00139.	3.6	18
50	LacI Transcriptional Regulatory Networks in Clostridium thermocellum DSM1313. Applied and Environmental Microbiology, 2017, 83, .	3.1	16
51	Clostridium thermocellum LL1210 pH homeostasis mechanisms informed by transcriptomics and metabolomics. Biotechnology for Biofuels, 2018, 11, 98.	6.2	16
52	Promiscuous plasmid replication in thermophiles: Use of a novel hyperthermophilic replicon for genetic manipulation of Clostridium thermocellum at its optimum growth temperature. Metabolic Engineering Communications, 2016, 3, 30-38.	3.6	15
53	Improved growth rate in Clostridium thermocellum hydrogenase mutant via perturbed sulfur metabolism. Biotechnology for Biofuels, 2017, 10, 6.	6.2	15
54	Engineered Pseudomonas putida KT2440 co-utilizes galactose and glucose. Biotechnology for Biofuels, 2019, 12, 295.	6.2	15

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55	New Technologies are Needed to Improve the Recycling and Upcycling of Waste Plastics. ChemSusChem, 2021, 14, 3982-3984.	6.8	12
56	The impact of biotechnological advances on the future of <scp>US</scp> bioenergy. Biofuels, Bioproducts and Biorefining, 2015, 9, 454-467.	3.7	11
57	An iterative computational design approach to increase the thermal endurance of a mesophilic enzyme. Biotechnology for Biofuels, 2018, 11, 189.	6.2	11
58	Exchange of type II dockerin-containing subunits of the<i>Clostridium thermocellum</i>cellulosome as revealed by SNAP-tags. FEMS Microbiology Letters, 2013, 338, 46-53.	1.8	8
59	Improving Mobilization of Foreign DNA into Zymomonas mobilis Strain ZM4 by Removal of Multiple Restriction Systems. Applied and Environmental Microbiology, 2021, 87, e0080821.	3.1	6
60	Transcriptomic and proteomic changes from medium supplementation and strain evolution in high-yielding Clostridium thermocellum strains. Journal of Industrial Microbiology and Biotechnology, 2018, 45, 1007-1015.	3.0	5
61	Complete Genome Sequence of Salinisphaera sp. Strain LB1, a Moderately Halo-Acidophilic Bacterium Isolated from Lake Brown, Western Australia. Microbiology Resource Announcements, 2018, 7, .	0.6	3
62	Deletion of the <i>Clostridium thermocellum recA</i> gene reveals that it is required for thermophilic plasmid replication but not plasmid integration at homologous DNA sequences. Journal of Industrial Microbiology and Biotechnology, 2018, 45, 753-763.	3.0	3
63	Complete Genome Sequences of Two Megasphaera elsdenii Strains, NCIMB 702410 and ATCC 25940. Microbiology Resource Announcements, 2019, 8, .	0.6	2
64	Methylome and Complete Genome Sequence of Parageobacillus toebii DSM 14590 T , a Thermophilic Bacterium. Microbiology Resource Announcements, 2020, 9, .	0.6	2
65	Complete Genome Sequence of Thermoanaerobacterium sp. Strain RBIITD, a Butyrate- and Butanol-Producing Thermophile. Genome Announcements, 2018, 6, .	0.8	1
66	Complete Genome Sequences of Four Natural <i>Pseudomonas</i> Isolates That Catabolize a Wide Range of Aromatic Compounds Relevant to Lignin Valorization. Microbiology Resource Announcements, 2020, 9, .	0.6	1
67	Complete Genome Sequence of Caloramator sp. Strain E03, a Novel Ethanologenic, Thermophilic, Obligately Anaerobic Bacterium. Microbiology Resource Announcements, 2019, 8, .	0.6	0
68	Enhancing transcription in Escherichia coli and Pseudomonas putida using bacteriophage lambda anti-terminator protein Q. Biotechnology Letters, 2022, 44, 253-258.	2.2	0