Guillermo Gosset

List of Publications by Year
in descending order

105 papers	4,945 citations	66343 42 h-index	106344 65 g-index
108 all docs	108 docs citations	108 times ranked	4175 citing authors

#	Article	IF	Citations
1	Improvement of Escherichia coli production strains by modification of the phosphoenolpyruvate:sugar phosphotransferase system. Microbial Cell Factories, 2005, 4, 14.	4.0	230
2	Transcriptome Analysis of Crp-Dependent Catabolite Control of Gene Expression in <i>Escherichia coli</i>. Journal of Bacteriology, 2004, 186, 3516-3524.	2.2	218
3	Expression of <i>galP</i> and <i>glk</i> in a <i>Escherichia coli</i> PTS mutant restores glucose transport and increases glycolytic flux to fermentation products. Biotechnology and Bioengineering, 2003, 83, 687-694.	3.3	159
4	New insights into Escherichia coli metabolism: carbon scavenging, acetate metabolism and carbon recycling responses during growth on glycerol. Microbial Cell Factories, 2012, 11, 46.	4.0	155
5	Functional Interactions between the Carbon and Iron Utilization Regulators, Crp and Fur, in <i>Escherichia coli</i>. Journal of Bacteriology, 2005, 187, 980-990.	2.2	129
6	Production of aromatic compounds in bacteria. Current Opinion in Biotechnology, 2009, 20, 651-658.	6.6	129
7	Engineering Escherichia coli to overproduce aromatic amino acids and derived compounds. Microbial Cell Factories, 2014, 13, 126.	4.0	126
8	Analysis of bacterial community during the fermentation of pulque, a traditional Mexican alcoholic beverage, using a polyphasic approach. International Journal of Food Microbiology, 2008, 124, 126-134.	4.7	119
9	Metabolic engineering and protein directed evolution increase the yield of <scp>L</scp>â€phenylalanine synthesized from glucose in <i>Escherichia coli</i>. Biotechnology and Bioengineering, 2004, 87, 516-524.	3.3	117
10	Replacement of the glucose phosphotransferase transport system by galactose permease reduces acetate accumulation and improves process performance of Escherichia coli for recombinant protein production without impairment of growth rate. Metabolic Engineering, 2006, 8, 281-290.	7.0	115
11	Current knowledge of the Escherichia coli phosphoenolpyruvateâ€“carbohydrate phosphotransferase system: peculiarities of regulation and impact on growth and product formation. Applied Microbiology and Biotechnology, 2012, 94, 1483-1494.	3.6	111
12	Metabolic Engineering of Bacillus subtilis for Ethanol Production: Lactate Dehydrogenase Plays a Key Role in Fermentative Metabolism. Applied and Environmental Microbiology, 2007, 73, 5190-5198.	3.1	99
13	Coutilization of glucose and glycerol enhances the production of aromatic compounds in an Escherichia coli strain lacking the phosphoenolpyruvate: carbohydrate phosphotransferase system. Microbial Cell Factories, 2008, 7, 1.	4.0	99
14	Determination of the nucleotide sequence for the glutamate synthase structural genes of Escherichia coli K-12. Gene, 1987, 60, 1-11.	2.2	92
15	Adaptation for fast growth on glucose by differential expression of central carbon metabolism and gal regulon genes in an Escherichia coli strain lacking the phosphoenolpyruvate:carbohydrate phosphotransferase system. Metabolic Engineering, 2005, 7, 70-87.	7.0	90
16	Metabolic engineering for the production of shikimic acid in an evolved Escherichia coli strain lacking the phosphoenolpyruvate: carbohydrate phosphotransferase system. Microbial Cell Factories, 2010, 9, 21.	4.0	87
17	Transcriptional and metabolic response of recombinant <i>Escherichia coli</i> to spatial dissolved oxygen tension gradients simulated in a scaleâ€down system. Biotechnology and Bioengineering, 2006, 93, 372-385.	3.3	83
18	A family of removable cassettes designed to obtain antibiotic-resistance-free genomic modifications of Escherichia coli and other bacteria. Gene, 2000, 247, 255-264.	2.2	82

#	ARTICLE	IF	CITATIONS
19	Characterization of sugar mixtures utilization by an Escherichia coli mutant devoid of the phosphotransferase system. Applied Microbiology and Biotechnology, 2001, 57, 186-191.	3.6	80
20	Metabolic engineering for improving anthranilate synthesis from glucose in Escherichia coli. Microbial Cell Factories, 2009, 8, 19.	4.0	79
21	Characterization of bacterial diversity inPulque, a traditional Mexican alcoholic fermented beverage, as determined by 16S rDNA analysis. FEMS Microbiology Letters, 2004, 235, 273-279.	1.8	74
22	Consequences of phosphoenolpyruvate:sugar phosphotranferase system and pyruvate kinase isozymes inactivation in central carbon metabolism flux distribution in Escherichia coli. Microbial Cell Factories, 2012, 11, 127.	4.0	70
23	Engineering of a microbial coculture of Escherichia coli strains for the biosynthesis of resveratrol. Microbial Cell Factories, 2016, 15, 163.	4.0	69
24	Growth-rate recovery ofEscherichia colicultures carrying a multicopy plasmid, by engineering of the pentose-phosphate pathway. Biotechnology and Bioengineering, 2004, 87, 485-494.	3.3	68
25	Culture ofEscherichia coliunder dissolved oxygen gradients simulated in a two-compartment scale-down system: Metabolic response and production of recombinant protein. Biotechnology and Bioengineering, 2005, 89, 453-463.	3.3	65
26	Utility of an <i>Escherichia coli</i> strain engineered in the substrate uptake system for improved culture performance at high glucose and cell concentrations: An alternative to fedâ€batch cultures. Biotechnology and Bioengineering, 2008, 99, 893-901.	3.3	65
27	Engineering and adaptive evolution of Escherichia coli for d-lactate fermentation reveals GatC as a xylose transporter. Metabolic Engineering, 2012, 14, 469-476.	7.0	65
28	Metabolic transcription analysis of engineered Escherichia coli strains that overproduce L-phenylalanine. Microbial Cell Factories, 2007, 6, 30.	4.0	63
29	Metabolic Engineering of <i>Escherichia coli</i> for <scp>l</scp> -Tyrosine Production by Expression of Genes Coding for the Chorismate Mutase Domain of the Native Chorismate Mutase-Prephenate Dehydratase and a Cyclohexadienyl Dehydrogenase from <i>Zymomonas mobilis</i>. Applied and Environmental Microbiology, 2008, 74, 3284-3290.	3.1	60
30	Identification of regulatory network topological units coordinating the genome-wide transcriptional response to glucose in Escherichia coli. BMC Microbiology, 2007, 7, 53.	3.3	59
31	Production of Cinnamic and p-Hydroxycinnamic Acids in Engineered Microbes. Frontiers in Bioengineering and Biotechnology, 2015, 3, 116.	4.1	59
32	Microbial Origin of Plant-Type 2-Keto-3-Deoxy- d - arabino -Heptulosonate 7-Phosphate Synthases, Exemplified by the Chorismate- and Tryptophan-Regulated Enzyme from Xanthomonas campestris. Journal of Bacteriology, 2001, 183, 4061-4070.	2.2	57
33	Constitutive expression of selected genes from the pentose phosphate and aromatic pathways increases the shikimic acid yield in high-glucose batch cultures of an Escherichia coli strain lacking PTS and pykF. Microbial Cell Factories, 2013, 12, 86.	4.0	56
34	Production of cinnamic and p-hydroxycinnamic acid from sugar mixtures with engineered Escherichia coli. Microbial Cell Factories, 2015, 14, 6.	4.0	55
35	Determination of 3â€deoxyâ€Dâ€<i>arabino</i>â€heptulosonate 7â€phosphate productivity and yield from glucose in <i>Escherichia coli</i> devoid of the glucose phosphotransferase transport system. Biotechnology and Bioengineering, 2001, 73, 530-535.	3.3	52
36	Expression of the melA gene from Rhizobium etli CFN42 in Escherichia coli and characterization of the encoded tyrosinase. Enzyme and Microbial Technology, 2006, 38, 772-779.	3.2	52

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37	Metabolic engineering of Escherichia coli for improving l-3,4-dihydroxyphenylalanine (l-DOPA) synthesis from glucose. Journal of Industrial Microbiology and Biotechnology, 2011, 38, 1845-1852.	3.0	52
38	Comparative analysis of the Salmonella typhi and Escherichia coli ompC genes. Gene, 1989, 83, 197-206.	2.2	51
39	Production of Melanins With Recombinant Microorganisms. Frontiers in Bioengineering and Biotechnology, 2019, 7, 285.	4.1	51
40	Genetic changes during a laboratory adaptive evolution process that allowed fast growth in glucose to an Escherichia coli strain lacking the major glucose transport system. BMC Genomics, 2012, 13, 385.	2.8	45
41	Metabolic engineering of Escherichia coli to optimize melanin synthesis from glucose. Microbial Cell Factories, 2013, 12, 108.	4.0	45
42	Homolactic fermentation from glucose and cellobiose using Bacillus subtilis. Microbial Cell Factories, 2009, 8, 23.	4.0	44
43	EngineeringEscherichia coli to improve culture performance and reduce formation of by-products during recombinant protein production under transient intermittent anaerobic conditions. Biotechnology and Bioengineering, 2006, 94, 1164-1175.	3.3	42
44	Tyrosinase from <i>Rhizobium etli</i> Is Involved in Nodulation Efficiency and Symbiosis-Associated Stress Resistance. Journal of Molecular Microbiology and Biotechnology, 2007, 13, 35-44.	1.0	41
45	Engineering Escherichia coli to increase plasmid DNA production in high cell-density cultivations in batch mode. Microbial Cell Factories, 2012, 11, 132.	4.0	41
46	Cell surface display of a Î²-glucosidase employing the type V secretion system on ethanologenic Escherichia coli for the fermentation of cellobiose to ethanol. Journal of Industrial Microbiology and Biotechnology, 2012, 39, 1141-1152.	3.0	40
47	Growth Recovery on Glucose under Aerobic Conditions of an <i>Escherichia coli</i> Strain Carrying a Phosphoenolpyruvate:Carbohydrate Phosphotransferase System Deletion by Inactivating <i>arcA</i> and Overexpressing the Genes Coding for Glucokinase and Galactose Permease. Journal of Molecular Microbiology and Biotechnology, 2007, 13, 105-116.	1.0	37
48	<i>Vitreoscilla</i> hemoglobin expression in engineered <i>Escherichia coli</i>: Improved performance in high cellâ€density batch cultivations. Biotechnology Journal, 2011, 6, 993-1002.	3.5	37
49	ATP limitation in a pyruvate formate lyase mutant of Escherichia coli MG1655 increases glycolytic flux to d-lactate. Journal of Industrial Microbiology and Biotechnology, 2009, 36, 1057-1062.	3.0	36
50	Disruption of the siderophoreâ€binding <i>desE</i> receptor gene in <i>Streptomyces coelicolor</i> A3(2) results in impaired growth in spite of multiple ironâ€“siderophore transport systems. Microbial Biotechnology, 2011, 4, 275-285.	4.2	36
51	Biotechnological production of l-tyrosine and derived compounds. Process Biochemistry, 2012, 47, 1017-1026.	3.7	35
52	Modification of glucose import capacity in Escherichia coli: physiologic consequences and utility for improving DNA vaccine production. Microbial Cell Factories, 2013, 12, 42.	4.0	34
53	PHB Biosynthesis in Catabolite Repression Mutant of Burkholderia sacchari. Current Microbiology, 2011, 63, 319-326.	2.2	32
54	Characterization of bacterial diversity in Pulque, a traditional Mexican alcoholic fermented beverage, as determined by 16S rDNA analysis. FEMS Microbiology Letters, 2004, 235, 273-279.	1.8	32

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55	A common precursor for the two subunits of the penicillin acylase from Escherichia coli ATCC11105. Gene, 1985, 40, 9-14.	2.2	31
56	Non-severe thermochemical hydrolysis of stover from white corn and sequential enzymatic saccharification and fermentation to ethanol. Bioresource Technology, 2015, 198, 611-618.	9.6	30
57	Segregostat: a novel concept to control phenotypic diversification dynamics on the example of Gramâ€negative bacteria. Microbial Biotechnology, 2019, 12, 1064-1075.	4.2	30
58	Adaptive Evolution of Escherichia coli Inactivated in the Phosphotransferase System Operon Improves Co-utilization of Xylose and Glucose Under Anaerobic Conditions. Applied Biochemistry and Biotechnology, 2011, 163, 485-496.	2.9	27
59	Transcription Analysis of Central Metabolism Genes in Escherichia coli. Possible Roles of Ïƒ38 in Their Expression, as a Response to Carbon Limitation. PLoS ONE, 2009, 4, e7466.	2.5	26
60	Acinetobacter baylyi ADP1 growth performance and lipid accumulation on different carbon sources. Applied Microbiology and Biotechnology, 2019, 103, 6217-6229.	3.6	26
61	pBRINT-Ts: a plasmid family with a temperature-sensitive replicon, designed for chromosomal integration into the lacZ gene of Escherichia coli1Published in conjunction with A Wisconsin Gathering Honoring Waclaw Szybalski on the occasion of his 75th year and 20years of Editorship-in-Chief of Gene, 10â€“11 August 1997, University of Wisconsin, Madison, WI, USA.1. Gene, 1998, 223, 213-219.	2.2	25
62	Metabolic regulation analysis of an ethanologenic Escherichia coli strain based on RT-PCR and enzymatic activities. Biotechnology for Biofuels, 2008, 1, 8.	6.2	25
63	Specific Ethanol Production Rate in Ethanologenic <i>Escherichia coli</i> Strain KO11 Is Limited by Pyruvate Decarboxylase. Journal of Molecular Microbiology and Biotechnology, 2008, 15, 55-64.	1.0	25
64	Role of Pyruvate Oxidase in <i>Escherichia coli</i> Strains Lacking the Phosphoenolpyruvate:Carbohydrate Phosphotransferase System. Journal of Molecular Microbiology and Biotechnology, 2004, 8, 209-221.	1.0	24
65	Acetate Metabolism in <i>Escherichia coli</i> Strains Lacking Phosphoenolpyruvate: Carbohydrate Phosphotransferase System; Evidence of Carbon Recycling Strategies and Futile Cycles. Journal of Molecular Microbiology and Biotechnology, 2009, 16, 224-235.	1.0	24
66	Catechol biosynthesis from glucose in Escherichia coli anthranilate-overproducer strains by heterologous expression of anthranilate 1,2-dioxygenase from Pseudomonas aeruginosa PAO1. Microbial Cell Factories, 2014, 13, 136.	4.0	24
67	Production of d-lactate from sugarcane bagasse and corn stover hydrolysates using metabolic engineered Escherichia coli strains. Bioresource Technology, 2016, 220, 208-214.	9.6	24
68	Metabolic engineering strategies for caffeic acid production in Escherichia coli. Electronic Journal of Biotechnology, 2019, 38, 19-26.	2.2	24
69	High cell-density cultivation in batch mode for plasmid DNA production by a metabolically engineered E. coli strain with minimized overflow metabolism. Biochemical Engineering Journal, 2011, 56, 165-171.	3.6	23
70	Microbial population heterogeneity versus bioreactor heterogeneity: Evaluation of Redox Sensor Green as an exogenous metabolic biosensor. Engineering in Life Sciences, 2016, 16, 643-651.	3.6	23
71	Effect of growth rate on plasmid DNA production and metabolic performance ofÂengineered Escherichia coli strains. Journal of Bioscience and Bioengineering, 2014, 117, 336-342.	2.2	22
72	Biosynthesis of catechol melanin from glycerol employing metabolically engineered Escherichia coli. Microbial Cell Factories, 2016, 15, 161.	4.0	22

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73	Nutrient-Scavenging Stress Response in an <i>Escherichia coli</i> Strain Lacking the Phosphoenolpyruvate:Carbohydrate Phosphotransferase System, as Explored by Gene Expression Profile Analysis. Journal of Molecular Microbiology and Biotechnology, 2005, 10, 51-63.	1.0	21
74	Inactivation of Pyruvate Kinase or the Phosphoenolpyruvate: Sugar Phosphotransferase System Increases Shikimic and Dehydroshikimic Acid Yields from Glucose in <i>Bacillus subtilis</i>. Journal of Molecular Microbiology and Biotechnology, 2014, 24, 37-45.	1.0	21
75	New Insights into the Role of Sigma Factor RpoS as Revealed in <i>Escherichia coli</i> Strains Lacking the Phosphoenolpyruvate:Carbohydrate Phosphotransferase System. Journal of Molecular Microbiology and Biotechnology, 2008, 14, 176-192.	1.0	20
76	Ag43-mediated display of a thermostable Î²-glucosidase in Escherichia coli and its use for simultaneous saccharification and fermentation at high temperatures. Microbial Cell Factories, 2014, 13, 106.	4.0	19
77	Physiological and transcriptional characterization of <i>Escherichia coli</i> strains lacking interconversion of phosphoenolpyruvate and pyruvate when glucose and acetate are coutilized. Biotechnology and Bioengineering, 2014, 111, 1150-1160.	3.3	19
78	Chromosomal Editing in Escherichia coli: Vectors for DNA Integration and Excision. Molecular Biotechnology, 2001, 19, 001-012.	2.4	18
79	Inactivation of the PTS as a Strategy to Engineer the Production of Aromatic Metabolites in <i>Escherichia coli</i>. Journal of Molecular Microbiology and Biotechnology, 2015, 25, 195-208.	1.0	18
80	Enhanced production of plasmid DNA by engineered Escherichia coli strains. Journal of Biotechnology, 2012, 158, 211-214.	3.8	16
81	Metabolic and transcriptional response of Escherichia coli with a NADP+-dependent glyceraldehyde 3-phosphate dehydrogenase from Streptococcus mutans. Antonie Van Leeuwenhoek, 2013, 104, 913-924.	1.7	16
82	Global transcriptomic analysis of an engineered Escherichia coli strain lacking the phosphoenolpyruvate: carbohydrate phosphotransferase system during shikimic acid production in rich culture medium. Microbial Cell Factories, 2014, 13, 28.	4.0	16
83	Engineering the Escherichia coli outer membrane protein OmpC for metal bioadsorption. Biotechnology Letters, 2000, 22, 623-629.	2.2	14
84	Volumetric oxygen transfer coefficient as a means of improving volumetric ethanol productivity and a criterion for scaling up ethanol production with<i>Escherichia coli</i>. Journal of Chemical Technology and Biotechnology, 2017, 92, 981-989.	3.2	13
85	Growth-dependent recombinant product formation kinetics can be reproduced through engineering of glucose transport and is prone to phenotypic heterogeneity. Microbial Cell Factories, 2019, 18, 26.	4.0	13
86	A novel plasmid vector designed for chromosomal gene integration and expression: Use for developing a genetically stable Escherichia coli melanin production strain. Plasmid, 2013, 69, 16-23.	1.4	12
87	Glucose kinases from Streptomyces peucetius var. caesius. Applied Microbiology and Biotechnology, 2014, 98, 6061-6071.	3.6	12
88	Plasmidâ€encoded biosynthetic genes alleviate metabolic disadvantages while increasing glucose conversion to shikimate in an engineered <i>Escherichia coli</i> strain. Biotechnology and Bioengineering, 2017, 114, 1319-1330.	3.3	12
89	Physiologic Consequences of Glucose Transport and Phosphoenolpyruvate Node Modifications in <i>Bacillus subtilis</i> 168. Journal of Molecular Microbiology and Biotechnology, 2012, 22, 177-197.	1.0	11
90	New insights on transcriptional responses of genes involved in carbon central metabolism, respiration and fermentation to low ATP levels in <i>Escherichia coli</i>. Journal of Basic Microbiology, 2013, 53, 365-380.	3.3	11

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91	Metabolic engineering and adaptive evolution of<i>Escherichia coli</i>KO11 for ethanol production through the Entner-Doudoroff and the pentose phosphate pathways. Journal of Chemical Technology and Biotechnology, 2017, 92, 990-996.	3.2	10
92	The Role of the <i>ydiB</i> Gene, Which Encodes Quinate/Shikimate Dehydrogenase, in the Production of Quinic, Dehydroshikimic and Shikimic Acids in a PTS⁻ Strain of <i>Escherichia coli</i>. Journal of Molecular Microbiology and Biotechnology, 2017, 27, 11-21.	1.0	9
93	Increasing pinosylvin production in Escherichia coli by reducing the expression level of the gene fabI -encoded enoyl-acyl carrier protein reductase. Electronic Journal of Biotechnology, 2018, 33, 11-16.	2.2	9
94	Metabolic modeling and response surface analysis of an Escherichia coli strain engineered for shikimic acid production. BMC Systems Biology, 2018, 12, 102.	3.0	9
95	Production in Escherichia coli of a rat chimeric proinsulin polypeptide carrying human A and B chains and its preparative chromatography. Journal of Biotechnology, 1994, 38, 89-96.	3.8	8
96	Limited oxygen conditions as an approach to scale-up and improve d and l-lactic acid production in mineral media and avocado seed hydrolysates with metabolically engineered Escherichia coli. Bioprocess and Biosystems Engineering, 2021, 44, 379-389.	3.4	7
97	Preparative Isolation by High Performance Liquid Chromatography of Human Insulin B Chain Produced in Escherichia Coli. Journal of Liquid Chromatography and Related Technologies, 1990, 13, 1517-1528.	1.0	5
98	The Phosphotransferase System-Dependent Sucrose Utilization Regulon in Enteropathogenic <i>Escherichia coli</i> Strains Is Located in a Variable Chromosomal Region Containing <i>iap</i> Sequences. Journal of Molecular Microbiology and Biotechnology, 2007, 13, 117-125.	1.0	5
99	Identification of network topological units coordinating the global expression response to glucose in Bacillus subtilis and its comparison to Escherichia coli. BMC Microbiology, 2009, 9, 176.	3.3	5
100	Evolution of an Escherichia coli PTSâˆ’ strain: a study of reproducibility and dynamics of an adaptive evolutive process. Applied Microbiology and Biotechnology, 2020, 104, 9309-9325.	3.6	5
101	Preparative Isolation of Recombinant Human Insulin-A Chain by Ion Exchange Chromatography. Journal of Liquid Chromatography and Related Technologies, 1992, 15, 2311-2324.	1.0	4
102	Improvement of the pBRINT-Ts Plasmid Family to Obtain Marker-Free Chromosomal Insertion of Cloned DNA in E. coli. BioTechniques, 2001, 30, 252-256.	1.8	4
103	Plasmid Vectors for Marker-Free Chromosomal Insertion of Genetic Material in <I>Escherichia coli</I>. , 2004, 267, 135-144.		4
104	Metabolic Engineering of Escherichia coli for Lactic Acid Production from Renewable Resources. , 2017, , 125-145.		3
105	Growth rate of a non-fermentative Escherichia coli strain is influenced by NAD+ regeneration. Biotechnology Letters, 2007, 29, 1857-1863.	2.2	1