Manuel CÃ¡novas DÃ-az

List of Publications by Year
in descending order

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117	3,728	182225	206121
papers	citations	30 h-index	51 g-index

122	122	122	4468
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Brn3a as a Marker of Retinal Ganglion Cells: Qualitative and Quantitative Time Course Studies in Naiˆve and Optic Neveâ€“Injured Retinas. , 2009, 50, 3860.		465
2	Ectoines in cell stress protection: Uses and biotechnological production. Biotechnology Advances, 2010, 28, 782-801.	6.0	296
3	The sarcoglycan complex in the six autosomal recessive limb-girdle muscular dystrophies. Human Molecular Genetics, 1996, 5, 1963-1969.	1.4	167
4	Protein acetylation affects acetate metabolism, motility and acid stress response in Escherichia coli. Molecular Systems Biology, 2014, 10, 762.	3.2	159
5	A Compressive Review about TaxolÂ®: History and Future Challenges. Molecules, 2020, 25, 5986.	1.7	148
6	An insight into the role of phosphotransacetylase (pta) and the acetate/acetyl-CoA node in Escherichia coli. Microbial Cell Factories, 2009, 8, 54.	1.9	118
7	Regulation of bacterial physiology by lysine acetylation of proteins. New Biotechnology, 2014, 31, 586-595.	2.4	107
8	Acetate metabolism regulation in Escherichia coli: carbon overflow, pathogenicity, and beyond. Applied Microbiology and Biotechnology, 2016, 100, 8985-9001.	1.7	98
9	cAMPâ€CRP coâ€ordinates the expression of the protein acetylation pathway with central metabolism in Escherichia coli. Molecular Microbiology, 2011, 82, 1110-1128.	1.2	82
10	Polyolefin fiber-reinforced concrete enhanced with steel-hooked fibers in low proportions. Materials & Design, 2014, 60, 57-65.	5.1	76
11	TLC Preparative Purification of Picrocrocin, HTCC and Crocin from Saffron. Journal of Food Science, 1992, 57, 714-716.	1.5	71
12	Acetate scavenging activity in Escherichia coli: interplay of acetylâ€“CoA synthetase and the PEPâ€“glyoxylate cycle in chemostat cultures. Applied Microbiology and Biotechnology, 2012, 93, 2109-2124.	1.7	71
13	Thermal biology of Phymaturus lizards: evolutionary constraints or lack of environmental variation?. Zoology, 2009, 112, 425-432.	0.6	62
14	Distance to ill-posedness and the consistency value of linear semi-infinite inequality systems. Mathematical Programming, 2005, 103, 95-126.	1.6	57
15	Stability and Well-Posedness in Linear Semi-Infinite Programming. SIAM Journal on Optimization, 1999, 10, 82-98.	1.2	54
16	Role of Central Metabolism in the Osmoadaptation of the Halophilic Bacterium Chromohalobacter salexigens. Journal of Biological Chemistry, 2013, 288, 17769-17781.	1.6	53
17	An acetylatable lysine controls CRP function in E. coli. Molecular Microbiology, 2018, 107, 116-131.	1.2	51
18	Metric Regularity in Convex Semi-Infinite Optimization under Canonical Perturbations. SIAM Journal on Optimization, 2007, 18, 717-732.	1.2	50

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19	Regulation of acetate metabolism in Escherichia coli BL21 by protein NÎµ-lysine acetylation. Applied Microbiology and Biotechnology, 2015, 99, 3533-3545.	1.7	48
20	Proton mobility in hydrated sulfonated polystyrene. Journal of Membrane Science, 2006, 280, 461-469.	4.1	47
21	Variational Analysis in Semi-Infinite and Infinite Programming, I: Stability of Linear Inequality Systems of Feasible Solutions. SIAM Journal on Optimization, 2010, 20, 1504-1526.	1.2	45
22	Permeabilization of Escherichia coli cells in the biotransformation of trimethylammonium compounds into l-carnitine. Enzyme and Microbial Technology, 2005, 37, 300-308.	1.6	43
23	Transcriptional regulation differs in affected facioscapulohumeral muscular dystrophy patients compared to asymptomatic related carriers. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 6220-6225.	3.3	43
24	Lipid biomarkers and metabolic effects of lycopene from tomato juice on liver of rats with induced hepatic steatosis. Journal of Nutritional Biochemistry, 2013, 24, 1870-1881.	1.9	42
25	Impact of the Expression System on Recombinant Protein Production in Escherichia coli BL21. Frontiers in Microbiology, 2021, 12, 682001.	1.5	42
26	High-density Escherichia coli cultures for continuous l (â^')-carnitine production. Applied Microbiology and Biotechnology, 1999, 51, 760-764.	1.7	40
27	Stem cells from umbilical cord blood differentiate into myotubes and express dystrophin in vitro only after exposure to in vivo muscle environment. Biology of the Cell, 2007, 99, 185-196.	0.7	40
28	Engineering protein production by rationally choosing a carbon and nitrogen source using E. coli BL21 acetate metabolism knockout strains. Microbial Cell Factories, 2019, 18, 151.	1.9	38
29	Salt stress effects on the central and carnitine metabolisms ofEscherichia coli. Biotechnology and Bioengineering, 2007, 96, 722-737.	1.7	36
30	A model that links growth and secondary metabolite production in plant cell suspension cultures. Biotechnology and Bioengineering, 1995, 46, 291-297.	1.7	32
31	A cross-flow reactor with immobilized pectolytic enzymes for juice clarification. Biotechnology Letters, 1987, 9, 875-880.	1.1	31
32	Biotransformation of D(+)-carnitine into L(â^')-carnitine by resting cells ofEscherichia coliO44 K74. Journal of Applied Microbiology, 1998, 85, 883-890.	1.4	31
33	2,3,5-triphenyltetrazolium chloride as a viability assay for immobilized plant cells. Biotechnology Letters, 1992, 6, 319-322.	0.5	30
34	Production of L-carnitine by secondary metabolism of bacteria. Microbial Cell Factories, 2007, 6, 31.	1.9	30
35	The Protein Acetyltransferase PatZ from Escherichia coli Is Regulated by Autoacetylation-induced Oligomerization. Journal of Biological Chemistry, 2015, 290, 23077-23093.	1.6	29
36	GlgS, described previously as a glycogen synthesis control protein, negatively regulates motility and biofilm formation in Escherichia coli. Biochemical Journal, 2013, 452, 559-573.	1.7	28

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37	Kinetic and operational study of a cross-flow reactor with immobilized pectolytic enzymes. Enzyme and Microbial Technology, 1990, 12, 499-505.	1.6	27
38	Modeling, optimization and experimental assessment of continuous L-(â^')-carnitine production byEscherichia colicultures. Biotechnology and Bioengineering, 2002, 80, 794-805.	1.7	27
39	Understanding the interplay of carbon and nitrogen supply for ectoines production and metabolic overflow in high density cultures of Chromohalobacter salexigens. Microbial Cell Factories, 2017, 16, 23.	1.9	27
40	Metabolomic responses in caged clams, Ruditapes decussatus, exposed to agricultural and urban inputs in a Mediterranean coastal lagoon (Mar Menor, SE Spain). Science of the Total Environment, 2015, 524-525, 136-147.	3.9	26
41	Insights into metabolic osmoadaptation of the ectoines-producer bacterium Chromohalobacter salexigens through a high-quality genome scale metabolic model. Microbial Cell Factories, 2018, 17, 2.	1.9	26
42	Iminophosphorane-mediated synthesis of 1-substituted-Î²-carbolines: investigative studies on the preparation of alkaloids lavendamycin and eudistomins framework.. Tetrahedron Letters, 1992, 33, 2891-2894.	0.7	25
43	Modeling of the biotransformation of crotonobetaine intoL-(â^')-carnitine byEscherichia colistrains. Biotechnology and Bioengineering, 2002, 77, 764-775.	1.7	25
44	Picrocrocin hydrolysis by immobilized ?-glucosidase. Biotechnology Letters, 1992, 14, 475-480.	1.1	24
45	The modulus of elasticity of high performance concrete. Materiaux Et Constructions, 1995, 28, 559-568.	0.3	21
46	Systematic Production of Inactivating and Non-Inactivating Suppressor Mutations at the relA Locus That Compensate the Detrimental Effects of Complete spoT Loss and Affect Glycogen Content in Escherichia coli. PLoS ONE, 2014, 9, e106938.	1.1	21
47	Link between primary and secondary metabolism in the biotransformation of trimethylammonium compounds byescherichia coli. Biotechnology and Bioengineering, 2003, 84, 686-699.	1.7	20
48	Characterization of CobB kinetics and inhibition by nicotinamide. PLoS ONE, 2017, 12, e0189689.	1.1	20
49	Analysis of Escherichia coli cell state by flow cytometry during whole cell catalyzed biotransformation for l-carnitine production. Process Biochemistry, 2007, 42, 25-33.	1.8	19
50	Metabolic adaptation of Escherichia coli to long-term exposure to salt stress. Process Biochemistry, 2010, 45, 1459-1467.	1.8	19
51	Exhaled volatile organic compounds analysis in clinical pediatrics: a systematic review. Pediatric Research, 2021, 89, 1352-1363.	1.1	19
52	Metabolomic responses of mussel Mytilus galloprovincialis to fluoranthene exposure under different nutritive conditions. Marine Environmental Research, 2019, 144, 194-202.	1.1	18
53	l(â^')-Carnitine production with immobilized Escherichia coli cells in continuous reactors. Enzyme and Microbial Technology, 1997, 21, 531-536.	1.6	17
54	Lycopene overproduction and in situ extraction in organic-aqueous culture systems using a metabolically engineered Escherichia coli. AMB Express, 2015, 5, 65.	1.4	17

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55	Biotransformation from geraniol to nerol by immobilized grapevine cells (V. vinifera). Applied Biochemistry and Biotechnology, 1996, 56, 169-180.	1.4	16
56	Design of Metabolic Engineering Strategies for Maximizing l-(-)-Carnitine Production by Escherichia coli. Integration of the Metabolic and Bioreactor Levels. Biotechnology Progress, 2008, 21, 329-337.	1.3	16
57	Data preprocessing workflow for exhaled breath analysis by GC/MS using open sources. Scientific Reports, 2020, 10, 22008.	1.6	16
58	Analysis of a packed-bed reactor for hydrolysis of picrocrocin by immobilized Î²-glucosidase. Enzyme and Microbial Technology, 1993, 15, 780-784.	1.6	15
59	L(-)-carnitine production using a recombinant Escherichia coli strain. Enzyme and Microbial Technology, 2001, 28, 785-791.	1.6	15
60	Effect of salt stress on crotonobetaine and D(+)-carnitine biotransformation into L(â¯)-carnitine by resting cells of Escherichia coli. Journal of Basic Microbiology, 2003, 43, 259-268.	1.8	15
61	Limonin consumption at acidic pH values and absence of aeration by Rhodococcus fascians cells in batch and immobilized continuous systems. Enzyme and Microbial Technology, 1998, 22, 111-116.	1.6	14
62	Role of energetic coenzyme pools in the production of l-carnitine by Escherichia coli. Metabolic Engineering, 2006, 8, 603-618.	3.6	13
63	Metabolic engineering for high yielding L(-)-carnitine production in Escherichia coli. Microbial Cell Factories, 2013, 12, 56.	1.9	13
64	Attenuated JNK signaling in multidrug-resistant leukemic cells. Dual role of MAPK in cell survival. Cellular Signalling, 2017, 30, 162-170.	1.7	13
65	Characterization of acetyl-CoA synthetase kinetics and ATP-binding. Biochimica Et Biophysica Acta - General Subjects, 2019, 1863, 1040-1049.	1.1	13
66	Enhanced accumulation of anthocyanins in Vitis vinifera cells immobilized in polyurethane foam. Enzyme and Microbial Technology, 1994, 16, 416-419.	1.6	12
67	Enzymatic Cycling Assay for d-Carnitine Determination. Analytical Biochemistry, 1999, 274, 34-39.	1.1	12
68	Membrane cell retention systems for continuous production of -carnitine using Proteus sp.. Journal of Membrane Science, 2003, 214, 101-111.	4.1	12
69	Analysis of the Escherichia coli response to glycerol pulse in continuous, highâ€cell density culture using a multivariate approach. Biotechnology and Bioengineering, 2009, 102, 910-922.	1.7	12
70	Collateral sensitivity to cold stress and differential BCL-2 family expression in new daunomycin-resistant lymphoblastoid cell lines. Experimental Cell Research, 2015, 331, 11-20.	1.2	12
71	Contribution of <scp>RpoS</scp> to metabolic efficiency and ectoines synthesis during the osmoâ€and heatâ€stress response in the halophilic bacterium <scp>C</scp>hromohalobacter salexigens. Environmental Microbiology Reports, 2015, 7, 301-311.	1.0	12
72	A practical experiment on enzyme immobilization and characterization of the immobilized derivatives. Biochemical Education, 1995, 23, 213-216.	0.1	11

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73	Redirecting metabolic fluxes through cofactor engineering: Role of CoA-esters pool during l(â^')-carnitine production by Escherichia coli. Journal of Biotechnology, 2007, 132, 110-117.	1.9	11
74	Model of central and trimethylammonium metabolism for optimizing l-carnitine production by E. coli. Metabolic Engineering, 2005, 7, 401-425.	3.6	10
75	Factors affecting the biotransformation of trimethylammonium compounds into l-carnitine by Escherichia coli. Biochemical Engineering Journal, 2005, 26, 145-154.	1.8	10
76	Role of betaine:CoA ligase (CaiC) in the activation of betaines and the transfer of coenzyme A inEscherichia coli. Journal of Applied Microbiology, 2008, 105, 42-50.	1.4	10
77	EasyLCMS: an asynchronous web application for the automated quantification of LC-MS data. BMC Research Notes, 2012, 5, 428.	0.6	10
78	Fructose metabolism in Chromohalobacter salexigens: interplay between the Embdenâ€“Meyerhofâ€“Parnas and Entnerâ€“Doudoroff pathways. Microbial Cell Factories, 2019, 18, 134.	1.9	10
79	Bacterial Sirtuins Overview: An Open Niche to Explore. Frontiers in Microbiology, 2021, 12, 744416.	1.5	10
80	Continuous ethanol production at high glucose concentrations by a passively immobilized Zymomonas mobilis system. Applied Microbiology and Biotechnology, 1989, 31, 249.	1.7	9
81	Fluctuating asymmetry as a proxy for oxidative stress in wild boar. Mammalian Biology, 2015, 80, 285-289.	0.8	9
82	Exhaled volatilome analysis as a useful tool to discriminate asthma with other coexisting atopic diseases in women of childbearing age. Scientific Reports, 2021, 11, 13823.	1.6	9
83	Quantitative analysis of the dynamic signaling pathway involved in the cAMP mediated induction of l-carnitine biosynthesis in E. coli cultures. Molecular BioSystems, 2010, 6, 699.	2.9	8
84	Quantitative stability of linear infinite inequality systems under block perturbations with applications to convex systems. Top, 2012, 20, 310-327.	1.1	8
85	Acquisition of MDR phenotype by leukemic cells is associated with increased caspaseâ€3 activity and a collateral sensitivity to cold stress. Journal of Cellular Biochemistry, 2012, 113, 1416-1425.	1.2	8
86	Electrocoalescence of emulsions in raffinate from the solvent extraction phase under AC electrical fields. Journal of Materials Research and Technology, 2020, 9, 490-497.	2.6	8
87	Properties of pectinesterase and endo-d-polygalacturonase coimmobilized in a porous glass support. Applied Biochemistry and Biotechnology, 1992, 37, 19-31.	1.4	7
88	pH influence on the consumption of limonin species by Rhodococcus fascians cells. Biotechnology Letters, 1996, 18, 423-428.	1.1	7
89	Effect of temperature and long-term operation on passively immobilizedZymomonas mobilis for continuous ethanol production. Biotechnology Letters, 1987, 9, 573-576.	1.1	6
90	pH influence on ethanol production and retained biomass in a passively immobilizedZymomonas mobilis system. Biotechnology Letters, 1988, 10, 437-442.	1.1	6

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91	Plasmid maintenance and physiology of a genetically engineered Escherichia coli strain during continuous l-carnitine production. Biotechnology Letters, 2007, 29, 1549-1556.	1.1	6
92	Model identification in presence of incomplete information by generalized principal component analysis: Application to the common and differential responses of Escherichia coli to multiple pulse perturbations in continuous, highâ€biomass density culture. Biotechnology and Bioengineering, 2009, 104, 785-795.	1.7	6
93	Relationship between lung function and exhaled volatile organic compounds in healthy infants. Pediatric Pulmonology, 2022, 57, 1282-1292.	1.0	6
94	Racemisation of d(+)-carnitine into l(â^')-carnitine by Escherichia coli strains. Process Biochemistry, 2003, 39, 287-293.	1.8	5
95	Title is missing!. Biotechnology Letters, 1997, 19, 1181-1184.	1.1	4
96	Culture collections and biochemistry. International Microbiology, 2003, 6, 105-112.	1.1	4
97	Whole cell biocatalysts stabilization forl-carnitine production. Biocatalysis and Biotransformation, 2005, 23, 149-158.	1.1	4
98	Modeling analysis of the l(â^')-carnitine production process by Escherichia coli. Process Biochemistry, 2006, 41, 281-288.	1.8	4
99	Impairing and Monitoring Glucose Catabolite Repression in L-Carnitine Biosynthesis. Biotechnology Progress, 2007, 23, 1286-1296.	1.3	4
100	Acetyl-coenzyme A Synthetase (Acs) Assay. Bio-protocol, 2012, 2, .	0.2	4
101	Role of wet experiment design in data generation: from in vivo to in silico and back. In Silico Biology, 2007, 7, S3-16.	0.4	3
102	Stability of a downflow anaerobic fixed-film reactor to feed change. Applied Microbiology and Biotechnology, 1988, 27, 601-605.	1.7	2
103	Stability against stop of flow of an immobilizedZymomonas mobilis bioreactor. Biotechnology Letters, 1989, 11, 665-668.	1.1	2
104	Comparative study of reactor performance for the resolution of d,l-amino acids. Process Biochemistry, 1992, 27, 339-346.	1.8	2
105	Thermostability of immobilized plant microsomes. Biotechnology Letters, 1993, 15, 1129-1132.	1.1	2
106	Bioequivalence Study of 2 Orodispersible Formulations of Ondansetron 8â€‰mg in Healthy Volunteers. Arzneimittelforschung, 2012, 62, 59-62.	0.5	2
107	An ideal spacing is required for the control of Class II CRP-dependent promoters by the status of CRP K100. FEMS Microbiology Letters, 2020, 367, .	0.7	2
108	Optimization of the start-up of a passively immobilized Zymomonas mobilis system for continuous ethanol production. Process Biochemistry, 1994, 29, 569-574.	1.8	1

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109	Bioequivalence Study of 2 Orodispersible Formulations of Zolmitriptan 5â€‰mg in Healthy Volunteers. Arzneimittelforschung, 2012, 62, 482-486.	0.5	1
110	Modelling and Analysis of Central Metabolism Operating Regulatory Interactions in Salt Stress Conditions in a L-Carnitine Overproducing E. coli Strain. PLoS ONE, 2012, 7, e34533.	1.1	1
111	Engineering of microbial cell factories for production of plant-based natural products. , 2021, , 381-392.		1
112	Influence of Home Indoor Dampness Exposure on Volatile Organic Compounds in Exhaled Breath of Mothers and Their Infants: The NELA Birth Cohort. Applied Sciences (Switzerland), 2022, 12, 6864.	1.3	1
113	Anaerobic digestion: A case study. Biochemical Education, 1988, 16, 82-84.	0.1	0
114	In silico model of the mitochondrial role in cardiac cell undergoing angina pectoris. Journal of Biotechnology, 2007, 131, S19.	1.9	0
115	A system biology approach to the l-carnitine biosynthesis optimization in E. coli through the analysis of the regulatory signalling pathway. New Biotechnology, 2009, 25, S355-S356.	2.4	0
116	Genome-scale reconstruction of the metabolic network in Chromohalobacter salexigens. New Biotechnology, 2009, 25, S333.	2.4	0
117	Study of acetate metabolism using different carbon and nitrogen sources in Escherichia coli. New Biotechnology, 2018, 44, S87-S88.	2.4	0