JesÃºs PicÃ³

List of Publications by Year
in descending order

102	1,962	236925 25	265206 42
papers	citations	h-index	g-index

108	108	108	1490
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Multi-Objective Optimization Tuning Framework for Kinetic Parameter Selection and Estimation. Methods in Molecular Biology, 2022, 2385, 65-89.	0.9	1
2	Modeling and Optimization of a Molecular Biocontroller for the Regulation of Complex Metabolic Pathways. Frontiers in Molecular Biosciences, 2022, 9, 801032.	3.5	1
3	Stochastic Differential Equations for Practical Simulation of Gene Circuits. Methods in Molecular Biology, 2021, 2229, 41-90.	0.9	2
4	Gene Expression Space Shapes the Bioprocess Trade-Offs among Titer, Yield and Productivity. Applied Sciences (Switzerland), 2021, 11, 5859.	2.5	1
5	Gene variant space for biosensor-based dynamic regulation. , 2021, , 485-491.		0
6	RBS and Promoter Strengths Determine the Cell-Growth-Dependent Protein Mass Fractions and Their Optimal Synthesis Rates. ACS Synthetic Biology, 2021, 10, 3290-3303.	3.8	11
7	Multiobjective Identification of a Feedback Synthetic Gene Circuit. IEEE Transactions on Control Systems Technology, 2020, 28, 208-223.	5.2	6
8	Revealing Time-Varying Joint Impedance With Kernel-Based Regression and Nonparametric Decomposition. IEEE Transactions on Control Systems Technology, 2020, 28, 224-237.	5.2	10
9	Extended Metabolic Biosensor Design for Dynamic Pathway Regulation of Cell Factories. IScience, 2020, 23, 101305.	4.1	30
10	Output Feedback Linearization of Turbidostats After Time Scaling. IEEE Transactions on Control Systems Technology, 2019, 27, 1668-1676.	5.2	3
11	Characterization of Gene Circuit Parts Based on Multiobjective Optimization by Using Standard Calibrated Measurements. ChemBioChem, 2019, 20, 2653-2665.	2.6	10
12	Analysis of Transcriptional Feedback Strategy for Reducing Interaction in Gene Expression Processes. IFAC-PapersOnLine, 2019, 52, 526-531.	0.9	0
13	Biomolecular signal tracker with fast time response.. IFAC-PapersOnLine, 2019, 52, 1-6.	0.9	2
14	Reference Conditioning Anti-windup for the Biomolecular Antithetic Controller. IFAC-PapersOnLine, 2019, 52, 156-162.	0.9	3
15	Fluorescence calibration and color equivalence for quantitative synthetic biology.. IFAC-PapersOnLine, 2019, 52, 129-134.	0.9	2
16	Global stabilisation of continuous bioreactors: Tools for analysis and design of feeding laws. Automatica, 2018, 89, 340-348.	5.0	13
17	Host-circuit interactions explain unexpected behavior of a gene circuit.. IFAC-PapersOnLine, 2018, 51, 86-89.	0.9	5
18	Flux-dependent graphs for metabolic networks. Npj Systems Biology and Applications, 2018, 4, 32.	3.0	29

#	Article	IF	Citations
19	Multi-objective optimization for gene expression noise reduction in a synthetic gene circuit.* *This work is partially supported by Spanish government and European Union (FEDER-CICYT) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 75 thanks the support from the Ayudas para movilidad dentro del Programa para la FormaciÃ³n de Personal Investigador (FPI) de la UPV para estancias 2016. A.V. thanks the Max Planck Society, the CSBD and the MPI-CBG. The authors are. IFAC-PapersOnLine, 2017, 50, 4472-4477.	0.9	3
20	Multi-objective identification of synthetic circuits stochastic models using flow flcytometry data. , 2017, , .		1
21	Engineered Control of Genetic Variability Reveals Interplay among Quorum Sensing, Feedback Regulation, and Biochemical Noise. ACS Synthetic Biology, 2017, 6, 1903-1912.	3.8	22
22	Parameter identification in synthetic biological circuits using multi-objective optimization * *This work is partially supported by Spanish government and European Union (FEDER-CICYT) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 632 Td (DP ValÃ¨ncia and Becas IberoamÃ©rica of Santander Group, Spain 2015. G.R.M. thanks the partial support provided by the postdoctoral fellowship BJT-304804/2014-2 from the National Council of Scientific and Technologic Developm. IFAC-PapersOnLine, 2016, 49, 77-82.	0.9	2
23	Contractivity of a genetic circuit with internal feedback and cell-to-cell communication * *This research was partially funded by grant FEDER-CICYT DPI2014-55276-C5-1-R. Yadira Boada thanks grant FPI/2013-3242 of the Universitat PolitÃ¨cnica de Valencia.. IFAC-PapersOnLine, 2016, 49, 213-218.	0.9	1
24	PID controller tuning for unstable processes using a multi-objective optimisation design procedure. IFAC-PapersOnLine, 2016, 49, 284-289.	0.9	11
25	Optimization Alternatives for Robust Model-based Design of Synthetic Biological Circuits**The research leading to these results has received funding from the European Union (FP7/2007-2013 under) Tj ETQq1 1 0.784314 rgBT /Ov Development of Brazil (BIT-304804/2014-2). Yadira Boada thanks also grant FPI/2013-3242 of the Universitat PolitÃ¨cnica de Valencia.. IFAC-PapersOnLine, 2016, 49, 821-826.	0.9	3
26	PFA toolbox: a MATLAB tool for Metabolic Flux Analysis. BMC Systems Biology, 2016, 10, 46.	3.0	6
27	Multi-objective optimization framework to obtain model-based guidelines for tuning biological synthetic devices: an adaptive network case. BMC Systems Biology, 2016, 10, 27.	3.0	35
28	Fusion of genomic, proteomic and phenotypic data: the case of potyviruses. Molecular BioSystems, 2016, 12, 253-261.	2.9	2
29	Improvement of a CLE stochastic simulation of gene synthetic network with quorum sensing and feedback in a cell population. , 2015, , .		7
30	MCR-ALS on metabolic networks: Obtaining more meaningful pathways. Chemometrics and Intelligent Laboratory Systems, 2015, 142, 293-303.	3.5	11
31	Closing the Loop. Diabetes Technology and Therapeutics, 2015, 17, S-27-S-38.	4.4	0
32	Topology analysis and visualization of Potyvirus protein-protein interaction network. BMC Systems Biology, 2014, 8, 129.	3.0	31
33	Validation of an FBA model for Pichia pastoris in chemostat cultures. BMC Systems Biology, 2014, 8, 142.	3.0	7
34	Sufficient conditions for state observability in multi-substrate bioprocesses with additive growth dynamics. IEEE Latin America Transactions, 2014, 12, 928-934.	1.6	2
35	Metabolic flux understanding of Pichia pastoris grown on heterogenous culture media. Chemometrics and Intelligent Laboratory Systems, 2014, 134, 89-99.	3.5	15
36	Stability preserving maps for finite-time convergence: Super-twisting sliding-mode algorithm. Automatica, 2013, 49, 534-539.	5.0	50

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37	Safety Auxiliary Feedback Element for the Artificial Pancreas in Type 1 Diabetes. IEEE Transactions on Biomedical Engineering, 2013, 60, 2113-2122.	4.2	58
38	Second-order sliding mode observer for multiple kinetic rates estimation in bioprocesses. Control Engineering Practice, 2013, 21, 1259-1265.	5.5	26
39	Sliding Mode Reference Coordination of Constrained Feedback Systems. Mathematical Problems in Engineering, 2013, 2013, 1-11.	1.1	0
40	Specific Kinetic Rates Regulation in Multi-Substrate Fermentation Processes. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 42-47.	0.4	0
41	Control of protein concentrations in heterogeneous cell populations. , 2013, , .		17
42	UAV reference conditioning for formation control via set invariance and sliding modes*. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 317-322.	0.4	2
43	Dynamic Metabolic Flux Analysis for Online Estimation of Recombinant Protein Productivity in Pichia pastoris Cultures. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 629-634.	0.4	1
44	Reaction rate reconstruction from biomass concentration measurement in bioreactors using modified second-order sliding mode algorithms. Bioprocess and Biosystems Engineering, 2012, 35, 1615-1625.	3.4	34
45	A dynamic non-isothermal model for a hydrocracking reactor: Model development by the method of continuous lumping and application to an industrial unit. Journal of Process Control, 2012, 22, 1956-1965.	3.3	21
46	Dynamic estimations of metabolic fluxes with constraint-based models and possibility theory. Journal of Process Control, 2012, 22, 1946-1955.	3.3	14
47	Sliding mode reference conditioning for coordination in swarms of non-identical multi-agent systems. , 2012, , .		3
48	Estimation of recombinant protein production in Pichia pastoris based on a constraint-based model. Journal of Process Control, 2012, 22, 1139-1151.	3.3	6
49	Nonlinear PI control of fed-batch processes for growth rate regulation. Journal of Process Control, 2012, 22, 789-797.	3.3	29
50	Dynamical Systems Coordination via Sliding Mode Reference Conditioning*. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 11086-11091.	0.4	3
51	Specific growth rate estimation in (fed-)batch bioreactors using second-order sliding observers. Journal of Process Control, 2011, 21, 1049-1055.	3.3	28
52	Possibilistic validation of a constraint-based model under data Scirccity: application to Pichia pastoris cultures. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 43, 19-23.	0.4	0
53	Possibilistic estimation of metabolic fluxes during a batch process accounting for extracellular dynamics. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 43, 24-29.	0.4	0
54	Specific Growth Rate Estimation in Bioreactors Using Second-Order Sliding Observers*. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 43, 251-256.	0.4	0

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55	Validation of a constraint-based model of Pichia pastoris metabolism under data scarcity. BMC Systems Biology, 2010, 4, 115.	3.0	21
56	Data understanding with PCA: Structural and Variance Information plots. Chemometrics and Intelligent Laboratory Systems, 2010, 100, 48-56.	3.5	74
57	Which Metabolic Pathways Generate and Characterize the Flux Space? A Comparison among Elementary Modes, Extreme Pathways and Minimal Generators. Journal of Biomedicine and Biotechnology, 2010, 2010, 1-13.	3.0	52
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59	A possibilistic framework for constraint-based metabolic flux analysis. BMC Systems Biology, 2009, 3, 79.	3.0	11
60	The best approaches in the on-line monitoring of batch processes based on PCA: Does the modelling structure matter?. Analytica Chimica Acta, 2009, 642, 59-68.	5.4	65
61	Smooth sliding-mode observers for specific growth rate and substrate from biomass measurement. Journal of Process Control, 2009, 19, 1314-1323.	3.3	30
62	Geometric invariance and reference conditioning ideas for control of overflow metabolism. Journal of Process Control, 2009, 19, 1617-1626.	3.3	10
63	Subspace identification of Bilinear and LPV systems for open- and closed-loop data. Automatica, 2009, 45, 372-381.	5.0	206
64	Bilinear modelling of batch processes. Part I: theoretical discussion. Journal of Chemometrics, 2008, 22, 299-308.	1.3	59
65	Multiâ€phase analysis framework for handling batch process data. Journal of Chemometrics, 2008, 22, 632-643.	1.3	72
66	Bilinear modelling of batch processes. Part II: a comparison of PLS softâ€sensors. Journal of Chemometrics, 2008, 22, 533-547.	1.3	32
67	On â€œFeedback Stabilization of Fed-Batch Bioreactors: Non-Monotonic Growth Kineticsâ€• Biotechnology Progress, 2008, 21, 651-652.	2.6	2
68	Stoichiometric modelling of cell metabolism. Journal of Bioscience and Bioengineering, 2008, 105, 1-11.	2.2	150
69	Control of overflow metabolism via sliding mode reference conditioning. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2008, 41, 12613-12618.	0.4	1
70	A NONLINEAR OBSERVER FOR BIOPROCESSES USING LMI. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2007, 40, 393-398.	0.4	1
71	ADAPTIVE SLIDING MODE CONTROL OF FED-BATCH PROCESSES USING SPECIFIC GROWTH RATE ESTIMATION FEEDBACK. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2007, 40, 127-132.	0.4	2
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73	Self-tuning run to run optimization of fed-batch processes using unfold-PLS. AICHE Journal, 2007, 53, 1789-1804.	3.6	26
74	An interval approach for dealing with flux distributions and elementary modes activity patterns. Journal of Theoretical Biology, 2007, 246, 290-308.	1.7	55
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76	Controller Design Under Fuzzy Pole-Placement Specifications: An Interval Arithmetic Approach. IEEE Transactions on Fuzzy Systems, 2006, 14, 822-836.	9.8	22
77	Multi-phase principal component analysis for batch processes modelling. Chemometrics and Intelligent Laboratory Systems, 2006, 81, 127-136.	3.5	88
78	Globally stabilizing control of fed-batch processes with Haldane kinetics using growth rate estimation feedback. Journal of Process Control, 2006, 16, 865-875.	3.3	23
79	Online monitoring of batch processes using multi-phase principal component analysis. Journal of Process Control, 2006, 16, 1021-1035.	3.3	89
80	POSSIBILISTIC ROBUST CONTROL FOR FUZZY PLANTS: CONTROLLING PERFORMANCE DEGRADATION. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2005, 38, 257-262.	0.4	2
81	Comprehensive Pharmacokinetic Model of Insulin Glargine and Other Insulin Formulations. IEEE Transactions on Biomedical Engineering, 2005, 52, 1994-2005.	4.2	61
82	Sliding mode scheme for adaptive specific growth rate control in biotechnological fed-batch processes. International Journal of Control, 2005, 78, 128-141.	1.9	32
83	Intelligent robotic cell for Trencad/spl inodot//spl acute/s mosaics manufacturing. IEEE Transactions on Systems, Man and Cybernetics, Part C: Applications and Reviews, 2005, 35, 75-86.	2.9	0
84	Guaranteed tuning of PID controllers for parametric uncertain systems. , 2004, , .		13
85	Application of Functional Intervals to the Response Evaluation of Linear Time-Invariant Systems with Fuzzy Input. Reliable Computing, 2004, 10, 369-387.	0.8	4
86	A New Sensor for Absorbance Measurement. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2004, 37, 403-408.	0.4	3
87	Robust Adaptive Specific Growth Rate Control in Biotechnological Fed-Batch Processes. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2004, 37, 499-504.	0.4	1
88	Analysis of linear systems with fuzzy parametric uncertainty. Fuzzy Sets and Systems, 2003, 135, 81-121.	2.7	42
89	A geometric approach to robust performance of parametric uncertain systems. International Journal of Robust and Nonlinear Control, 2003, 13, 1271-1283.	3.7	8
90	Application of nonlinear time-scaling for robust controller design of reaction systems. International Journal of Robust and Nonlinear Control, 2002, 12, 57-69.	3.7	31

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91	On a Coefficientwise Stability Margin Analysis for Perturbed Polynomials. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2000, 33, 113-118.	0.4	0
92	Analysis of systems with variable parametric uncertainty using fuzzy functions. , 1999, , .		13
93	Some issues on AI techniques in RT process control. Annual Reviews in Control, 1999, 23, 125-137.	7.9	3
94	Some issues on AI techniques in RT process control. Annual Reviews in Control, 1999, 23, 125-137.	7.9	1
95	Localized BF-Type Networks for Identification and Adaptive Control of Discrete-Time Nonlinear Systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 1997, 30, 597-602.	0.4	1
96	Analysis of rulebase coherence in fuzzy control systems. Annual Review in Automatic Programming, 1994, 19, 79-84.	0.2	0
97	A SOFTWARE PACKAGE FOR INTEGRAL SLURRY MILLING CONTROL IN CEMENT PRODUCTION PLANTS. , 1992, , 239-244.		1
98	Iterative controller design by frequency scale experimental decomposition. , 0, , .		4
99	Application of functional intervals to the stability analysis of fuzzy linear systems. , 0, , .		3
100	Application of local consistency techniques to the design of controllers with robust performance. , 0, , .		0
101	Guaranteed output prediction under uncertainty of glucose endogenous metabolism for diabetic type I patients. , 0, , .		0
102	Reduction of population variability in protein expression: A control engineering approach. , 0, , .		0