Alejandro Vignoni

List of Publications by Year
in descending order

32 papers	366 citations	1162367 8 h-index	839053 18 g-index
36 all docs	36 docs citations	36 times ranked	338 citing authors

#	Article	IF	Citations
1	Robust estimation of bacterial cell count from optical density. Communications Biology, 2020, 3, 512.	2.0	86
2	Stability preserving maps for finite-time convergence: Super-twisting sliding-mode algorithm. Automatica, 2013, 49, 534-539.	3.0	50
3	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
4	Extended Metabolic Biosensor Design for Dynamic Pathway Regulation of Cell Factories. IScience, 2020, 23, 101305.	1.9	30
5	Specific growth rate estimation in (fed-)batch bioreactors using second-order sliding observers. Journal of Process Control, 2011, 21, 1049-1055.	1.7	28
6	Second-order sliding mode observer for multiple kinetic rates estimation in bioprocesses. Control Engineering Practice, 2013, 21, 1259-1265.	3.2	26
7	Engineered Control of Genetic Variability Reveals Interplay among Quorum Sensing, Feedback Regulation, and Biochemical Noise. ACS Synthetic Biology, 2017, 6, 1903-1912.	1.9	22
8	RBS and Promoter Strengths Determine the Cell-Growth-Dependent Protein Mass Fractions and Their Optimal Synthesis Rates. ACS Synthetic Biology, 2021, 10, 3290-3303.	1.9	11
9	Characterization of Gene Circuit Parts Based on Multiobjective Optimization by Using Standard Calibrated Measurements. ChemBioChem, 2019, 20, 2653-2665.	1.3	10
10	Alkylation of a hydrophilic photosensitizer enhances the contact-dependent photo-induced oxidation of phospholipid membranes. Dyes and Pigments, 2021, 187, 109131.	2.0	9
11	Improvement of a CLE stochastic simulation of gene synthetic network with quorum sensing and feedback in a cell population. , 2015, , .		7
12	Multiobjective Identification of a Feedback Synthetic Gene Circuit. IEEE Transactions on Control Systems Technology, 2020, 28, 208-223.	3.2	6
13	Host-circuit interactions explain unexpected behavior of a gene circuit.. IFAC-PapersOnLine, 2018, 51, 86-89.	0.5	5
14	Dynamical Systems Coordination via Sliding Mode Reference Conditioning*. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 11086-11091.	0.4	3
15	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	0.5	3
16	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 ETQq0 0 0 rgBT /Overlock 10 Tf 50 152 Td (DP 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.	0.5	3
17	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
18	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 72 Td (DPI 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.	0.5	2

#	Article	IF	Citations
19	Biomolecular signal tracker with fast time response.. IFAC-PapersOnLine, 2019, 52, 1-6.	0.5	2
20	Model mismatch in multi-objective optimisation and preservation of trade-off order.. IFAC-PapersOnLine, 2019, 52, 249-254.	0.5	2
21	Fluorescence calibration and color equivalence for quantitative synthetic biology.. IFAC-PapersOnLine, 2019, 52, 129-134.	0.5	2
22	Stochastic Differential Equations for Practical Simulation of Gene Circuits. Methods in Molecular Biology, 2021, 2229, 41-90.	0.4	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.	0.5	1
24	Multi-objective identification of synthetic circuits stochastic models using flow flcytometry data. , 2017, , .		1
25	Multi-objective identification from fluorescence recovery after photobleaching experiments: Understanding morphogenetic regulation of epithelial polarity. IFAC-PapersOnLine, 2018, 51, 8-11.	0.5	1
26	Gene Expression Space Shapes the Bioprocess Trade-Offs among Titer, Yield and Productivity. Applied Sciences (Switzerland), 2021, 11, 5859.	1.3	1
27	Multi-Objective Optimization Tuning Framework for Kinetic Parameter Selection and Estimation. Methods in Molecular Biology, 2022, 2385, 65-89.	0.4	1
28	Modeling and Optimization of a Molecular Biocontroller for the Regulation of Complex Metabolic Pathways. Frontiers in Molecular Biosciences, 2022, 9, 801032.	1.6	1
29	Automated code evaluation of computer programming sessions with MATLAB Grader. , 2021, , .		1
30	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
31	Sliding Mode Reference Coordination of Constrained Feedback Systems. Mathematical Problems in Engineering, 2013, 2013, 1-11.	0.6	0
32	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