Antonio A Alonso

List of Publications by Year
in descending order

102	2,959	159358	182168
papers	citations	30	51
		h-index	g-index

106	106	106	2096
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Model-Based Real Time Operation of the Freeze-Drying Process. Processes, 2020, 8, 325.	1.3	21
2	Chitin production from crustacean biomass: Sustainability assessment of chemical and enzymatic processes. Journal of Cleaner Production, 2018, 172, 4140-4151.	4.6	68
3	SELANSI: a toolbox for simulation of stochastic gene regulatory networks. Bioinformatics, 2018, 34, 893-895.	1.8	17
4	Routes to Multiple Equilibria for Mass-Action Kinetic Systems. Complexity, 2018, 2018, 1-13.	0.9	0
5	Efficient simulation of stochastic gene regulatory networks. IFAC-PapersOnLine, 2018, 51, 84-85.	0.5	1
6	Numerical analysis of a method for a partial integro-differential equation model in regulatory gene networks. Mathematical Models and Methods in Applied Sciences, 2018, 28, 2069-2095.	1.7	5
7	Stochastic modeling and numerical simulation of gene regulatory networks with protein bursting. Journal of Theoretical Biology, 2017, 421, 51-70.	0.8	39
8	Smart sensor to predict retail fresh fish quality under ice storage. Journal of Food Engineering, 2017, 197, 87-97.	2.7	42
9	Wegscheider's condition and passivity of open chemical reaction systems 1 1This work received partial financial support through PIE 201230E042 and AGL2015-67504-C3-2-R. IFAC-PapersOnLine, 2017, 50, 564-569.	0.5	0
10	Stochastic Individual-Based Modeling of Bacterial Growth and Division Using Flow Cytometry. Frontiers in Microbiology, 2017, 8, 2626.	1.5	25
11	A Normalisation Strategy to Optimally Design Experiments in Computational Biology. Advances in Intelligent Systems and Computing, 2017, , 126-136.	0.5	1
12	Modeling and Optimization Techniques with Applications in Food Processes, Bio-processes and Bio-systems. SEMA SIMAI Springer Series, 2016, , 187-216.	0.4	6
13	Feasible Equilibrium in Kinetic Systems**This work received partial financial support through grants PIE201230E042 and Salvador de Madariaga (PR2011-0363) and PIE 201230E042.. IFAC-PapersOnLine, 2016, 49, 18-23.	0.5	0
14	Uniqueness of feasible equilibria for mass action law (MAL) kinetic systems. Journal of Process Control, 2016, 48, 41-71.	1.7	9
15	Toward predictive food process models: A protocol for parameter estimation. Critical Reviews in Food Science and Nutrition, 2016, 58, 1-14.	5.4	27
16	Pollutant levels in discarded fish species by Spanish trawlers operating in the Great Sole Bank and the Atlantic coast of the Iberian Peninsula. Marine Pollution Bulletin, 2016, 108, 303-310.	2.3	3
17	Shaping protein distributions in stochastic self-regulated gene expression networks. Physical Review E, 2015, 92, 032712.	0.8	23
18	Quality and shelf-life prediction for retail fresh hake (Merluccius merluccius). International Journal of Food Microbiology, 2015, 208, 65-74.	2.1	33

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19	Optimisation of processing routes for a marine biorefinery. Journal of Cleaner Production, 2015, 104, 489-501.	4.6	23
20	Valorisation of fish by-products against waste management treatments â€" Comparison of environmental impacts. Waste Management, 2015, 46, 103-112.	3.7	82
21	Fish discards management in selected Spanish and Portuguese mÃ©tiers: Identification and potential valorisation. Trends in Food Science and Technology, 2014, 36, 29-43.	7.8	36
22	Modeling Bacterial Population Growth from Stochastic Single-Cell Dynamics. Applied and Environmental Microbiology, 2014, 80, 5241-5253.	1.4	30
23	Sustainability of port activities within the framework of the fisheries sector: Port of Vigo (NW Spain). Ecological Indicators, 2013, 30, 45-51.	2.6	6
24	Real time optimization for quality control of batch thermal sterilization of prepackaged foods. Food Control, 2013, 32, 392-403.	2.8	29
25	Derivation of Postharvest Fruit Behavior Reduced Order Models for Online Monitoring and Control of Quality Parameters During Refrigeration. Journal of Food Process Engineering, 2013, 36, 480-491.	1.5	0
26	COMPUTING ALL SPARSE KINETIC STRUCTURES FOR A LORENZ SYSTEM USING OPTIMIZATION. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2013, 23, 1350141.	0.7	5
27	Stability in Chemical Reaction Networks. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 36-41.	0.4	0
28	Robust and efficient numerical methods for the optimal control of spatially distributed biological systems. , 2012, , .		0
29	On The Geometry of Equilibrium Solutions of Kinetic Systems Obeying the Mass Action Law. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 469-474.	0.4	1
30	Inducing sustained oscillations in mass action kinetic networks of a certain class. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 475-480.	0.4	3
31	Toward Optimal Operation Conditions of Freeze-Drying Processes via a Multilevel Approach. Drying Technology, 2012, 30, 1432-1448.	1.7	13
32	Dynamic optimization of distributed biological systems using robust and efficient numerical techniques. BMC Systems Biology, 2012, 6, 79.	3.0	11
33	Characterizing Multistationarity Regimes in Biochemical Reaction Networks. PLoS ONE, 2012, 7, e39194.	1.1	27
34	Fish discards management: Pollution levels and best available removal techniques. Marine Pollution Bulletin, 2012, 64, 1277-1290.	2.3	14
35	A robust multi-model predictive controller for distributed parameter systems. Journal of Process Control, 2012, 22, 60-71.	1.7	45
36	Time-scale modeling and optimal control of freezeâ€"drying. Journal of Food Engineering, 2012, 111, 655-666.	2.7	44

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37	Inference of complex biological networks: distinguishability issues and optimization-based solutions. BMC Systems Biology, 2011, 5, 177.	3.0	66
38	On-line estimation in a distributed parameter bioreactor: Application to the gluconic acid production. Computers and Chemical Engineering, 2011, 35, 84-91.	2.0	4
39	Parametric Condition for Multistationarity in Biochemical Reaction Networks*. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 43, 30-35.	0.4	0
40	Model reduction as a tool for robust predictive control: application to OPR. Computer Aided Chemical Engineering, 2010, 28, 487-492.	0.3	0
41	An iterative identification procedure for dynamic modeling of biochemical networks. BMC Systems Biology, 2010, 4, 11.	3.0	144
42	Efficient and robust multi-objective optimization of food processing: A novel approach with application to thermal sterilization. Journal of Food Engineering, 2010, 98, 317-324.	2.7	45
43	Contributing to fisheries sustainability by making the best possible use of their resources: the BEFAIR initiative. Trends in Food Science and Technology, 2010, 21, 569-578.	7.8	18
44	Real time optimisation for thermal processes. , 2009, , .		1
45	Exploring multiplicity conditions in enzymatic reaction networks. Biotechnology Progress, 2009, 25, 619-631.	1.3	14
46	An Extended Ant Colony Optimization Algorithm for Integrated Process and Control System Design. Industrial & Engineering Chemistry Research, 2009, 48, 6723-6738.	1.8	39
47	Exponential observers for distributed tubular (bio)reactors. AICHE Journal, 2008, 54, 2943-2956.	1.8	19
48	Optimal tuning of thermodynamicâ€based decentralized PI control loops: Application to the Tennessee Eastman Process. AICHE Journal, 2008, 54, 2904-2924.	1.8	2
49	Robust feed-back control of travelling waves in a class of reactionâ€"diffusion distributed biological systems. Physica D: Nonlinear Phenomena, 2008, 237, 2353-2364.	1.3	26
50	Dynamic analysis and control of biochemical reaction networks. Mathematics and Computers in Simulation, 2008, 79, 999-1009.	2.4	20
51	A Tabu search-based algorithm for mixed-integer nonlinear problems and its application to integrated process and control system design. Computers and Chemical Engineering, 2008, 32, 1877-1891.	2.0	54
52	Hierarchical design of decentralized control structures for the Tennessee Eastman Process. Computers and Chemical Engineering, 2008, 32, 1995-2015.	2.0	22
53	Local dissipative Hamiltonian description of reversible reaction networks. Systems and Control Letters, 2008, 57, 554-560.	1.3	50
54	Quality and Safety Models and Optimization as Part of Computerâ€Integrated Manufacturing. Comprehensive Reviews in Food Science and Food Safety, 2008, 7, 168-174.	5.9	27

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55	Desarrollo De Una Librería De Componentes En Ecosimpro Para La Operación De Plantas De Procesamiento Térmico De Alimentos. RIAI - Revista Iberoamericana De Automatica E Informatica Industrial, 2008, 5, 51-65.	0.6	4
56	Intelligent Control Based on Reinforcement Learning for Batch Thermal Sterilization of Canned Foods. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2008, 41, 3568-3573.	0.4	3
57	OPTIMAL DYNAMIC EXPERIMENTAL DESIGN IN SYSTEMS BIOLOGY: APPLICATIONS IN CELL SIGNALING.. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2007, 40, 73-78.	0.4	0
58	A FORMAL FRAMEWORK FOR MULTIPLICITY DETECTION AND ITS IMPLICATIONS IN ROBUST CONTROL OF BIOCHEMICAL NETWORKS. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2007, 40, 739-744.	0.4	1
59	Global Optimization for Integrated Design and Control of Computationally Expensive Process Models. Industrial & Engineering Chemistry Research, 2007, 46, 9148-9157.	1.8	22
60	Optimal Field Reconstruction of Distributed Process Systems from Partial Measurements. Industrial & Engineering Chemistry Research, 2007, 46, 530-539.	1.8	36
61	A systematic approach to plant-wide control based on thermodynamics. Computers and Chemical Engineering, 2007, 31, 677-691.	2.0	37
62	Robust feed-back control of distributed chemical reaction systems. Chemical Engineering Science, 2007, 62, 2941-2957.	1.9	15
63	Improved Optimization Methods for the Multiobjective Design of Bioprocesses. Industrial & Engineering Chemistry Research, 2006, 45, 8594-8603.	1.8	19
64	DYNAMIC ANALYSIS AND CONTROL OF CHEMICAL AND BIOCHEMICAL REACTION NETWORKS. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2006, 39, 165-170.	0.4	7
65	Stabilization of inhomogeneous patterns in a diffusion–reaction system under structural and parametric uncertainties. Journal of Theoretical Biology, 2006, 241, 295-306.	0.8	12
66	Computing optimal operating policies for the food industry. Journal of Food Engineering, 2006, 74, 13-23.	2.7	48
67	A thermodynamic based plant-wide control design procedure of the tennessee eastman process. Computer Aided Chemical Engineering, 2006, , 1413-1418.	0.3	0
68	A software toolbox for the dynamic optimization of nonlinear processes. Computer Aided Chemical Engineering, 2005, 20, 121-126.	0.3	4
69	A systematic approach to plant-wide control based on thermodynamics. Computer Aided Chemical Engineering, 2005, 20, 1105-1110.	0.3	0
70	An efficient real-time dynamic optimization architecture for the control of non-isothermal tubular reactors. Computer Aided Chemical Engineering, 2005, , 1333-1338.	0.3	1
71	Dynamic optimization of bioprocesses: Efficient and robust numerical strategies. Journal of Biotechnology, 2005, 117, 407-419.	1.9	179
72	Optimal sensor location and reduced order observer design for distributed process systems. Computers and Chemical Engineering, 2004, 28, 27-35.	2.0	79

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73	Dissipative systems: from physics to robust nonlinear control. International Journal of Robust and Nonlinear Control, 2004, 14, 157-179.	2.1	29
74	Optimal sensor placement for state reconstruction of distributed process systems. AICHE Journal, 2004, 50, 1438-1452.	1.8	82
75	Reduced-Order Models for Nonlinear Distributed Process Systems and Their Application in Dynamic Optimization. Industrial & Engineering Chemistry Research, 2004, 43, 3353-3363.	1.8	31
76	Dynamic Optimization of Distributed Parameter Systems Using Second-Order Directional Derivatives. Industrial & Engineering Chemistry Research, 2004, 43, 6756-6765.	1.8	26
77	On systematic model reduction techniques for dynamic optimization and robust control of distributed process systems. Computer Aided Chemical Engineering, 2004, , 841-846.	0.3	2
78	Global Optimization of Bioprocesses using Stochastic and Hybrid Methods. Nonconvex Optimization and Its Applications, 2004, , 45-70.	0.1	17
79	Improving food processing using modern optimization methods. Trends in Food Science and Technology, 2003, 14, 131-144.	7.8	143
80	ROBUST NONLINEAR CONTROL DESIGN OF DISTRIBUTED PROCESS SYSTEMS WITH INPUT CONSTRAINTS. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2002, 35, 477-482.	0.4	2
81	From irreversible thermodynamics to a robust control theory for distributed process systems. Journal of Process Control, 2002, 12, 507-517.	1.7	34
82	A novel, efficient and reliable method for thermal process design and optimization. Part I: theory. Journal of Food Engineering, 2002, 52, 227-234.	2.7	53
83	A novel, efficient and reliable method for thermal process design and optimization. Part II: applications. Journal of Food Engineering, 2002, 52, 235-247.	2.7	44
84	Restricted second order information for the solution of optimal control problems using control vector parameterization. Journal of Process Control, 2002, 12, 243-255.	1.7	32
85	Dynamic optimization of chemical and biochemical processes using restricted second-order information. Computers and Chemical Engineering, 2001, 25, 539-546.	2.0	85
86	Stabilization of distributed systems using irreversible thermodynamics. Automatica, 2001, 37, 1739-1755.	3.0	158
87	Optimal Control of Distributed Processes Using Restricted Second Order Information. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2000, 33, 881-886.	0.4	1
88	From Irreversible Thermodynamics to a Robust Control Theory for Distributed Process Systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2000, 33, 269-274.	0.4	1
89	Passive control design for distributed process systems: Theory and applications. AICHE Journal, 2000, 46, 1593-1606.	1.8	26
90	Temperature control in microwave combination ovens. Journal of Food Engineering, 2000, 46, 21-29.	2.7	31

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91	Efficient Optimal Control of Bioprocesses Using Second-Order Information. Industrial & Engineering Chemistry Research, 2000, 39, 4287-4295.	1.8	40
92	Thermodynamic approach to the structural stability of process plants. AICHE Journal, 1999, 45, 802-816.	1.8	91
93	Modeling and adaptive control for batch sterilization. Computers and Chemical Engineering, 1998, 22, 445-458.	2.0	20
94	Design of a Class of Stabilizing Nonlinear State Feedback Controllers with Bounded Inputs. Industrial & Engineering Chemistry Research, 1998, 37, 131-144.	1.8	9
95	Process systems and passivity via the Clausius-Planck inequality. Systems and Control Letters, 1997, 30, 253-264.	1.3	160
96	A complete dynamic model for the thermal processing of bioproducts in batch units and its application to controller design. Chemical Engineering Science, 1997, 52, 1307-1322.	1.9	15
97	Process systems, passivity and the second law of thermodynamics. Computers and Chemical Engineering, 1996, 20, S1119-S1124.	2.0	76
98	Computer Aided Design and Optimization of Sterilization of Canned Tuna. , 1994, , 721-723.		0
99	Optimal control of heat and mass transfer in food and bioproducts processing. Computers and Chemical Engineering, 1994, 18, S699-S705.	2.0	15
100	Different Strategies for Controlling Pressure during the Cooling Stage in Batch Retorts. , 1994, , 724-726.		2
101	Kinetics of thermal degradation of thiamine and surface colour in canned tuna. Zeitschrift Fur Lebensmittel-Untersuchung Und -Forschung, 1993, 197, 127-131.	0.7	13
102	On-line quality control of non-linear batch systems: Application to the thermal processing of canned foods. Journal of Food Engineering, 1993, 19, 275-289.	2.7	13