Denis Dochain

List of Publications by Year
in descending order

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186	5,281	81743	98622
papers	citations	39 h-index	67 g-index

191	191	191	2333
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Dynamical model development and parameter identification for an anaerobic wastewater treatment process. Biotechnology and Bioengineering, 2001, 75, 424-438.	1.7	485
2	State and parameter estimation in chemical and biochemical processes: a tutorial. Journal of Process Control, 2003, 13, 801-818.	1.7	404
3	Review and classification of recent observers applied in chemical process systems. Computers and Chemical Engineering, 2015, 76, 27-41.	2.0	187
4	Adaptive identification and control algorithms for nonlinear bacterial growth systems. Automatica, 1984, 20, 621-634.	3.0	153
5	Adaptive extremum seeking control of continuous stirred tank bioreactors with unknown growth kinetics. Automatica, 2004, 40, 881-888.	3.0	144
6	Dynamical analysis of distributed parameter tubular reactors. Automatica, 2000, 36, 349-361.	3.0	141
7	Modelling and adaptive control of nonlinear distributed parameter bioreactors via orthogonal collocation. Automatica, 1992, 28, 873-883.	3.0	138
8	Structural identifiability of biokinetic models of activated sludge respiration. Water Research, 1995, 29, 2571-2578.	5.3	114
9	On-line estimation of microbial specific growth rates. Automatica, 1986, 22, 705-709.	3.0	107
10	Extremum seeking control and its application to process and reaction systems: A survey. Mathematics and Computers in Simulation, 2011, 82, 369-380.	2.4	98
11	Discontinuous feedback stabilization of minimum-phase semilinear infinite-dimensional systems with application to chemical tubular reactor. IEEE Transactions on Automatic Control, 2002, 47, 1293-1304.	3.6	93
12	Asymptotic observers for stirred tank reactors. Chemical Engineering Science, 1992, 47, 4167-4177.	1.9	92
13	On the use of observability measures for sensor location in tubular reactor. Journal of Process Control, 1998, 8, 497-505.	1.7	91
14	Tuning of observer-based estimators: theory and application to the on-line estimation of kinetic parameters. Control Engineering Practice, 2000, 8, 377-388.	3.2	85
15	Interval observers for biochemical processes with uncertain kinetics and inputs. Mathematical Biosciences, 2005, 193, 235-253.	0.9	83
16	A time-varying extremum-seeking control approach. Automatica, 2015, 51, 356-363.	3.0	83
17	Thermodynamics and chemical systems stability: The CSTR case study revisited. Journal of Process Control, 2009, 19, 371-379.	1.7	81
18	Adaptive control of anaerobic digestion processes?a pilot-scale application. Biotechnology and Bioengineering, 1988, 31, 287-294.	1.7	79

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19	Trajectory analysis of nonisothermal tubular reactor nonlinear models. Systems and Control Letters, 2001, 42, 169-184.	1.3	75
20	Optimal LQ-Feedback Regulation of a Nonisothermal Plug Flow Reactor Model by Spectral Factorization. IEEE Transactions on Automatic Control, 2007, 52, 1179-1193.	3.6	71
21	Power-shaping control of reaction systems: The CSTR case. Automatica, 2010, 46, 1877-1883.	3.0	65
22	On modelling, monitoring and control of fixed bed bioreactors. Computers and Chemical Engineering, 1997, 21, 1255-1266.	2.0	64
23	Linking Models and Experiments. Industrial & Engineering Chemistry Research, 2016, 55, 6891-6903.	1.8	62
24	An entropy-based formulation of irreversible processes based on contact structures. Chemical Engineering Science, 2010, 65, 5204-5216.	1.9	61
25	Evaluation of control strategies for anaerobic digestion processes. International Journal of Adaptive Control and Signal Processing, 1993, 7, 309-321.	2.3	59
26	Adaptive extremum-seeking control of nonisothermal continuous stirred tank reactors. Chemical Engineering Science, 2005, 60, 3671-3681.	1.9	57
27	Adaptive extremum-seeking control of a continuous stirred tank bioreactor with Haldane's Kinetics. Journal of Process Control, 2004, 14, 317-328.	1.7	56
28	Optimal temperature control of a steady-state exothermic plug-flow reactor. AICHE Journal, 2002, 48, 279-286.	1.8	53
29	Oxygen control for an industrial pilot-scale fed-batch filamentous fungal fermentation. Journal of Process Control, 2007, 17, 595-606.	1.7	53
30	On-line optimization of fedbatch bioreactors by adaptive extremum seeking control. Journal of Process Control, 2011, 21, 1526-1532.	1.7	53
31	Optimal selection of orthogonal polynomials applied to the integration of chemical reactor equations by collocation methods. Computers and Chemical Engineering, 2000, 24, 2571-2588.	2.0	48
32	State observers for tubular reactors with unknown kinetics. Journal of Process Control, 2000, 10, 259-268.	1.7	47
33	A proportional-integral extremum-seeking controller design technique. Automatica, 2017, 77, 61-67.	3.0	47
34	Generalized parameter estimation-based observers: Application to power systems and chemicalâ€“biological reactors. Automatica, 2021, 129, 109635.	3.0	47
35	A simplified method to assess structurally identifiable parameters in Monod-based activated sludge models. Water Research, 2003, 37, 2893-2904.	5.3	45
36	Global observability and detectability analysis of uncertain reaction systems and observer design. International Journal of Control, 2008, 81, 1062-1070.	1.2	43

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37	A constrained extremumâ€seeking control approach. International Journal of Robust and Nonlinear Control, 2015, 25, 3132-3153.	2.1	43
38	Adaptive Extremum Seeking Control of Fed-Batch Bioreactors. European Journal of Control, 2003, 9, 618-631.	1.6	42
39	Adaptive extremum seeking control of continuous stirred-tank bioreactors. AICHE Journal, 2003, 49, 113-123.	1.8	41
40	Design of adaptive controllers for non-linear stirred tank bioreactors: extension to the MIMO situation. Journal of Process Control, 1991, 1, 41-48.	1.7	39
41	Some Properties of Conservative Port Contact Systems. IEEE Transactions on Automatic Control, 2009, 54, 2341-2351.	3.6	38
42	Adaptive control of the hydrogen concentration in anaerobic digestion. Industrial & Engineering Chemistry Research, 1991, 30, 129-136.	1.8	37
43	Flatness-Based Extremum-Seeking Control Over Periodic Orbits. IEEE Transactions on Automatic Control, 2007, 52, 2005-2012.	3.6	35
44	Adaptive extremum-seeking control of convection-reaction distributed reactor with limited actuation. Computers and Chemical Engineering, 2008, 32, 2994-3001.	2.0	34
45	State observation and adaptive linearizing control for distributed parameter (bio)chemical reactors. International Journal of Adaptive Control and Signal Processing, 2001, 15, 633-653.	2.3	32
46	Power-shaping control: Writing the system dynamics into the Braytonâ€“Moser form. Systems and Control Letters, 2011, 60, 618-624.	1.3	32
47	Asymptotic stability of infinite-dimensional semilinear systems: Application to a nonisothermal reactor. Systems and Control Letters, 2007, 56, 122-132.	1.3	31
48	Modeling aerobic carbon source degradation processes using titrimetric data and combined respirometric-titrimetric data: Structural and practical identifiability. Biotechnology and Bioengineering, 2002, 79, 754-767.	1.7	30
49	Enthalpy based modelling and design of asymptotic observers for chemical reactors. International Journal of Control, 2009, 82, 1389-1403.	1.2	30
50	An extremum seeking approach via variable-structure control for fed-batch bioreactors with uncertain growth rate. Journal of Process Control, 2014, 24, 663-671.	1.7	30
51	Optimal LQ-feedback control for a class of first-order hyperbolic distributed parameter systems. ESAIM - Control, Optimisation and Calculus of Variations, 2008, 14, 897-908.	0.7	29
52	Stability analysis and passivity properties of a class of thermodynamic processes: An internal entropy production approach. Chemical Engineering Science, 2016, 139, 261-272.	1.9	28
53	Onâ€line estimation of microbial specific growthâ€rates: An illustrative case study. Canadian Journal of Chemical Engineering, 1988, 66, 626-631.	0.9	27
54	Output feedback adaptive extremum seeking control of a continuous stirred tank bioreactor with Monod's kinetics. Journal of Process Control, 2004, 14, 807-818.	1.7	27

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55	A multivariable control scheme in a two-stage anaerobic digestion system described by partial differential equations. Journal of Process Control, 2009, 19, 1324-1332.	1.7	27
56	On an evolution criterion of homogeneous multi-component mixtures with chemical transformation. Systems and Control Letters, 2013, 62, 170-177.	1.3	27
57	The optimal design of two interconnected (bio)chemical reactors revisited. Computers and Chemical Engineering, 2005, 30, 70-82.	2.0	26
58	On-line estimation of VFA concentration in anaerobic digestion via methane outflow rate measurements. Computers and Chemical Engineering, 2016, 94, 250-256.	2.0	26
59	Adaptive control algorithms for nonminimum phase nonlinear bioreactors. Computers and Chemical Engineering, 1992, 16, 449-462.	2.0	25
60	Local observability and controllability of stirred tank reactors. Journal of Process Control, 1992, 2, 139-144.	1.7	25
61	State observers for processes with uncertain kinetics. International Journal of Control, 2003, 76, 1483-1492.	1.2	25
62	A time-varying extremum-seeking control approach. , 2013, , .		24
63	Observability analysis of nonlinear tubular (bio)reactor models: a case study. Journal of Process Control, 2004, 14, 661-669.	1.7	23
64	Minimal Time Control of Fed-Batch Processes With Growth Functions Having Several Maxima. IEEE Transactions on Automatic Control, 2011, 56, 2671-2676.	3.6	23
65	Modelling, identification and control of a denitrifying biofilter. Journal of Process Control, 2000, 10, 73-91.	1.7	22
66	Software sensors to monitor the dynamics of microbial communities: application to anaerobic digestion. Acta Biotheoretica, 2000, 48, 197-205.	0.7	22
67	Microbial ecology and bioprocess control: Opportunities and challenges. Journal of Process Control, 2008, 18, 865-875.	1.7	22
68	Real-time optimization of a tubular reactor with distributed feed. AICHE Journal, 2006, 52, 2120-2128.	1.8	19
69	A Minmax Extremum-Seeking Controller Design Technique. IEEE Transactions on Automatic Control, 2014, 59, 1874-1886.	3.6	19
70	ADAPTIVE CONTROL OF FEDBATCH BIOREACTORS. Chemical Engineering Communications, 1990, 87, 67-85.	1.5	18
71	Solution of the convectionâ€“dispersionâ€“reaction equation by a sequencing method. Computers and Chemical Engineering, 2003, 27, 615-629.	2.0	17
72	Asymptotic Behavior and Stability for Solutions of a Biochemical Reactor Distributed Parameter Model. IEEE Transactions on Automatic Control, 2008, 53, 412-416.	3.6	17

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73	Decomposed Threshold ARMAX Models for short- to medium-term wind power forecasting. IFAC-PapersOnLine, 2018, 51, 49-54.	0.5	16
74	A Robust Asymptotic Observer for Systems That Converge to Unobservable Statesâ€"A Batch Reactor Case Study. IEEE Transactions on Automatic Control, 2020, 65, 2693-2699.	3.6	16
75	Feedback linearizing control of a fluidized bed reactor. Canadian Journal of Chemical Engineering, 1992, 70, 356-367.	0.9	15
76	Adaptive extremum seeking control of a non-isothermal tubular reactor with unknown kinetics. Computers and Chemical Engineering, 2005, 29, 839-849.	2.0	15
77	Dynamical modeling of alcoholic fermentation and its link with nitrogen consumption. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 43, 496-501.	0.4	15
78	Stability analysis of an infinite-dimensional linearized plug flow reactor model. , 2004, , .		14
79	Long run coexistence in the chemostat with multiple species. Journal of Theoretical Biology, 2009, 257, 252-259.	0.8	13
80	A multi-objective extremum-seeking controller design technique. International Journal of Control, 2015, 88, 38-53.	1.2	13
81	Real-Time Optimization of Fed-Batch Bioreactors via Adaptive Extremum-Seeking Control. Chemical Engineering Research and Design, 2003, 81, 1289-1295.	2.7	12
82	Nitrogen-backboned modeling of wine-making in standard and nitrogen-added fermentations. Bioprocess and Biosystems Engineering, 2014, 37, 5-16.	1.7	12
83	State observers for reaction systems with improved convergence rates. Journal of Process Control, 2019, 83, 53-62.	1.7	12
84	Design of adaptive linearizing controllers for non-isothermal reactors. International Journal of Control, 1994, 59, 689-710.	1.2	11
85	Monitoring and control of process and power systems: Towards new paradigms. Annual Reviews in Control, 2006, 30, 69-79.	4.4	11
86	Analysis and control of the exothermic continuous stirred tank reactor: the power-shaping approach. , 2009, , .		11
87	Model identification and reduction for the control of an ice cream crystallization process. Chemical Engineering Science, 2014, 119, 274-287.	1.9	11
88	A thermodynamic approach towards Lyapunov based control of reaction rate. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 9117-9122.	0.4	11
89	Dissipative pseudo-Hamiltonian realization of chemical systems using irreversible thermodynamics. Mathematical and Computer Modelling of Dynamical Systems, 2017, 23, 135-155.	1.4	11
90	Two modelling approaches of winemaking: first principle and metabolic engineering. Mathematical and Computer Modelling of Dynamical Systems, 2010, 16, 535-553.	1.4	10

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91	From Brayton-Moser formulation to Port Hamiltonian representation: the CSTR case study. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 1628-1633.	0.4	10
92	Analysis of the multiplicity of equilibrium profiles in tubular reactor models**This paper presents research results of the Belgian Network DYSCO (Dynamical Systems, Control, and Optimization), funded by the Interuniversity Attraction Poles Programme, initiated by the Belgian State, Science Policy Office. The scientific responsibility rests with its authors.. IFAC-PapersOnLine, 2016, 49, 903-908.	0.5	10
93	IEEE Transactions on control systems technology special issue on control of industrial spatially distributed processes. IEEE Transactions on Control Systems Technology, 2003, 11, 609-611.	3.2	9
94	Extremumâ€seeking control of retention for a microparticulate system. Canadian Journal of Chemical Engineering, 2008, 86, 815-827.	0.9	9
95	Input constrained adaptive tracking for a nonlinear distributed parameter tubular reactor. International Journal of Adaptive Control and Signal Processing, 2010, 24, 249-260.	2.3	9
96	Robust sliding modeâ€based extremumâ€seeking controller for reaction systems via uncertainty estimation approach. International Journal of Robust and Nonlinear Control, 2017, 27, 3218-3235.	2.1	9
97	Adaptive local tracking of a temperature profile in tubular reactor with partial measurements. Journal of Process Control, 2017, 50, 29-39.	1.7	9
98	Generalized Hamiltonian representation of thermo-mechanical systems based on an entropic formulation. Journal of Process Control, 2017, 51, 18-26.	1.7	9
99	Effect of mesoscopic conservative phenomena in the dynamics of chemical reactions at the macroscopic scale. Physica A: Statistical Mechanics and its Applications, 2017, 486, 79-91.	1.2	9
100	A comment on thermodynamically consistent feasibility condition of asymptotic observers. Chemical Engineering Science, 2019, 199, 258-274.	1.9	9
101	A thermodynamic approach to the passive boundary control of tubular reactors. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 383-388.	0.4	8
102	A proportional integral extremum-seeking control approach. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 377-382.	0.4	8
103	Analysis of the multiplicity of steady-state profiles of two tubular reactor models. Computers and Chemical Engineering, 2018, 114, 318-324.	2.0	8
104	Approximation of the dynamical model of fixed bed reactors via a singular perturbation approach. Mathematics and Computers in Simulation, 1994, 37, 165-172.	2.4	7
105	Dynamical Analysis of a Tubular Biochemical Reactor Infinite-Dimensional Nonlinear Model. , 0, , .		7
106	Dynamical modelling, identification and software sensors for SBRs. Mathematical and Computer Modelling of Dynamical Systems, 2008, 14, 17-26.	1.4	7
107	Thermodynamics based stabilitization of CSTR networks. , 2012, , .		7
108	Conservative and dissipative phenomena in thermodynamical systems stability. IFAC-PapersOnLine, 2016, 49, 28-33.	0.5	7

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109	Monitoring of a biodiesel production process via reset observer. Journal of Process Control, 2016, 42, 104-113.	1.7	7
110	Biodiesel production in a continuous packed bed reactor with recycle: A modeling approach for an esterification system. Renewable Energy, 2018, 116, 857-865.	4.3	7
111	Model based extremum-seeking controller via modelling-error compensation approach. Journal of Process Control, 2019, 80, 193-201.	1.7	7
112	Management of an integrated network of wastewater treatment plants for improving water quality in a river basin. IFAC-PapersOnLine, 2019, 52, 358-363.	0.5	7
113	Analysis of the Existence of Equilibrium Profiles in Nonisothermal Axial Dispersion Tubular Reactors. IEEE Transactions on Automatic Control, 2020, 65, 1525-1536.	3.6	7
114	Contact structures: application to interconnected thermodynamical systems. , 2007, , .		6
115	Modeling of the aromatic profile in wine-making fermentation: the backbone equations. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 10597-10602.	0.4	6
116	On the equivalence of storage functions in controlled thermodynamic systems. IFAC-PapersOnLine, 2016, 49, 579-584.	0.5	6
117	Burning magneto-hydrodynamics plasmas model: A port-based modelling approach. IFAC-PapersOnLine, 2017, 50, 13038-13043.	0.5	6
118	Port-Hamiltonian modeling and reduction of a burning plasma system. IFAC-PapersOnLine, 2018, 51, 68-73.	0.5	6
119	Antiwindup Inputâ€“Output Linearization Strategy for the Control of a Multistage Continuous Fermenter With Input Constraints. IEEE Transactions on Control Systems Technology, 2020, 28, 766-775.	3.2	6
120	Exponential stability of nonlinear infinite-dimensional systems: Application to nonisothermal axial dispersion tubular reactors. Automatica, 2020, 121, 109201.	3.0	6
121	Application of an Adaptive Linearizing Inferential Controller to a PHB Process. Biotechnology and Biotechnological Equipment, 1995, 9, 96-102.	0.5	5
122	A model development approach to ensure identifiability of a simple mass balance model for photosynthesis and respiration in a plant growth chamber. Ecological Modelling, 2012, 246, 105-118.	1.2	5
123	Periodic trajectories of distributed parameter biochemical systems with time delay. Applied Mathematics and Computation, 2012, 218, 7395-7405.	1.4	5
124	Hybrid observer for parameters estimation in ethylene polymerization reactor: A simulation study. Applied Soft Computing Journal, 2016, 49, 687-698.	4.1	5
125	Software Sensor for Online Estimation of the VFAâ€™s Concentration in Anaerobic Digestion Processes via a High-Order Sliding Mode Observer. Industrial & Engineering Chemistry Research, 2018, 57, 14173-14181.	1.8	5
126	Port-Hamiltonian Sliding Mode Observer Design for a Counter-current Heat Exchanger. IFAC-PapersOnLine, 2020, 53, 4910-4915.	0.5	5

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127	Stability Analysis of Two Linear Distributed Parameter Bioprocess Models. Mathematical and Computer Modelling of Dynamical Systems, 2000, 6, 267-281.	1.4	4
128	A state observer for (bio)processes with uncertain kinetics. , 2002, , .		4
129	Estimation of the Hydrodynamic and Biokinetic Models of Soil Bioremediation Processes. Chemical Engineering Research and Design, 2003, 81, 1279-1288.	2.7	4
130	Entropy-based stabilizing feedback law under input constraints of a CSTR. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 27-32.	0.4	4
131	Partial inventory control of the CSTR via reaction-dependent generalized inventories. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 9123-9128.	0.4	4
132	Dissipative and conservative structures for thermo-mechanical systems. IFAC-PapersOnLine, 2015, 48, 1057-1064.	0.5	4
133	Potential-based analysis of closed reacting systemsâˆ—â€”The research presented in this paper was supported by the Belgian Interuniversity Attraction Poles Phase VII/19 â€" â€œDynamical systems, control and optimizationâ€•(DYSCO) and the Belgian Fonds National de la Recherche Scientifique (FNRS). The third author gratefully acknowledges the financial support of the Viet Nam National Foundation for Science and Technology Development (NAFOSTED) through project code 104.99-2014.74.. IFAC-PapersOnLine, 2015, 48, 1065-1069.	0.5	4
134	Cascade Nonlinear Control for a Class of Cascade Systemsâˆ—â€”Financial support from project CONACyT CB-2014-I0017-242125.. IFAC-PapersOnLine, 2015, 48, 819-826.	0.5	4
135	Microrespirometric model calibration applied to wastewater processes. Biochemical Engineering Journal, 2017, 128, 168-177.	1.8	4
136	Control design for thermodynamic systems on contact manifolds. IFAC-PapersOnLine, 2017, 50, 588-593.	0.5	4
137	An asymptotic observer for batch processes with single biogas measurement. IFAC-PapersOnLine, 2018, 51, 420-424.	0.5	4
138	Steady-state and stability analysis of a population balance based nonlinear ice cream crystallization model. , 2012, , .		3
139	Feedback Stabilization of Metriplectic Systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 12-17.	0.4	3
140	Global Adaptiveî»Tracking of a Temperature Profile in Tubular Reactor. ESAIM Proceedings and Surveys, 2015, 49, 11-22.	0.5	3
141	Nutritive value of three tropical forage legumes and their influence on growth performance, carcass traits and organ weights of pigs. Tropical Animal Health and Production, 2016, 48, 1165-1173.	0.5	3
142	Passivity and stability properties of multi-physics systems using the entropy production 1 1This research was supported by the Belgian Network DYSCO, funded by the Inter-university Attraction Poles Program, initiated by the Belgian Science Policy Office. The first author is a FRIA fellow (F.R.S.-FNRS).. IFAC-PapersOnLine, 2018, 51, 13-18.	0.5	3
143	A simple model of wastewater treatment plants for managing the quality of the Seine River. IFAC-PapersOnLine, 2018, 51, 880-885.	0.5	3
144	On-line estimation of the VFA concentration in anaerobic digestion processes based on a super-twisting observer. , 2018, , .		3

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145	Constrained global adaptive controller for a plug-flow tubular reactor with partial temperature measurements. IMA Journal of Mathematical Control and Information, 2019, 36, 1089-1104.	1.1	3
146	A non-equilibrium approach to model flash dynamics with interface transport. Journal of Process Control, 2019, 80, 211-222.	1.7	3
147	Increasing the dilution rate can globally stabilize two-step biological systems. Journal of Process Control, 2020, 95, 67-74.	1.7	3
148	Thermodynamic Analysis and Feedback Stabilization for Irreversible Liquidâ€“Vapor Systems. Industrial & Engineering Chemistry Research, 2020, 59, 2252-2260.	1.8	3
149	Identification and control of an industrial polymerisation reactor. Control Engineering Practice, 2004, 12, 909-915.	3.2	2
150	State estimation for a class of exothermic fed-batch processes. International Journal of Modelling, Identification and Control, 2008, 4, 89.	0.2	2
151	Towards power-shaping control of the CSTR: from thermodynamics to the Brayton-Moser formulation of the dynamics. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 43, 709-714.	0.4	2
152	Stability and feedback stabilization for a class of mixed potential systems. , 2013, , .		2
153	Representation of irreversible systems in a metric thermodynamic phase spaceâˆ—â*—The research presented in this paper was supported by the Bel- gian Interuniversity Attraction Poles Phase VII/19 â€" â€œDynamical systems, control and optimizationâ€•(DYSCO) and the Belgian Fonds National de la Recherche Scientifique (FNRS).. IFAC-PapersOnLine, 2015, 48, 1070-1074.	0.5	2
154	On the relaxing dissipation of dissipative pseudo Hamiltonian models. IFAC-PapersOnLine, 2015, 48, 1051-1056.	0.5	2
155	Towards a potential-based analysis of reacting systems11The research presented in this paper was supported by the Belgian Interuniversity Attraction Poles Phase VII/19 â€" â€œDynamical systems, control and optimizationâ€•(DYSCO) and the Belgian Fonds National de la Recherche Scientifique (FNRS). The second author gratefully acknowledges the financial support of the Viet Nam National Foundation for Science and Technology Development (NAFOSTED) through project code 104.99-2014.74.. IFAC-PapersOnLine, 2015, 48, 141-143.	0.5	2
156	Metric Thermodynamic Phase Space and Stability Problems. IFAC-PapersOnLine, 2016, 49, 52-57.	0.5	2
157	On-line optimization of biomethane production in continuous AD processes via model-based ESC approach. Water Science and Technology, 2019, 80, 1725-1730.	1.2	2
158	Noise-to-state exponentially stabilizing (state, input)-disturbed CSTRs with non-vanishing noise. Automatica, 2022, 142, 110387.	3.0	2
159	A sequential convex moving horizon estimator for bioprocesses. Journal of Process Control, 2022, 116, 19-24.	1.7	2
160	Modelling of an autonomous power system at variable speed for transient simulation using Lagrange's laws. Canadian Journal of Electrical and Computer Engineering, 1993, 18, 127-131.	1.5	1
161	State Observers for Processes with Uncertain Kinetics. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2000, 33, 171-176.	0.4	1
162	LQ-Optimal Control of a Class of First-Order Hyperbolic PDE's Systems. , 2006, , .		1

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163	A Simple Mass Balance Model for Lettuce - The Water Balance. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 1442-1447.	0.4	1
164	Advanced methods for the control of food processes: the case of bioconversion in a fed-batch reactor. , 2013, , 226-264.		1
165	Passivity and Passive Feedback Stabilization for a Class of Mixed Potential Systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 9105-9110.	0.4	1
166	Identification of simple mass balance models for plant growth - evolving yields and incorporating developmental stages. , 2015, , .		1
167	Reaction flux versus reaction force: easy to stabilize?. IFAC-PapersOnLine, 2017, 50, 558-563.	0.5	1
168	A Non-equilibrium Approach to Model Flash Dynamics with Interface Transport. IFAC-PapersOnLine, 2018, 51, 874-879.	0.5	1
169	On the Positivity of Entropy Production in Multiphase Thermodynamic Systems. IFAC-PapersOnLine, 2019, 52, 13-18.	0.5	1
170	Some Structural Properties of Reaction Systems Useful For Estimation and Control. Industrial & Engineering Chemistry Research, 2019, 58, 13642-13650.	1.8	1
171	On local exponential stability of equilibrium profiles of nonlinear distributed parameter systems. IFAC-PapersOnLine, 2021, 54, 390-396.	0.5	1
172	Extremum seeking control for a mass structured cell population balance model in a bioreactor. IFAC-PapersOnLine, 2020, 53, 11392-11397.	0.5	1
173	On Local Stability of Equilibrium Profiles of Nonisothermal Axial Dispersion Tubular Reactors. IFAC-PapersOnLine, 2020, 53, 5315-5321.	0.5	1
174	Consideration of Maintenance in Wine Fermentation Modeling. Foods, 2022, 11, 1682.	1.9	1
175	A Non-equilibrium Approach to Model Dynamic Composite Systems with Interface Transport*The research presented in this paper was supported by the Institute of Information and Communication Technologies, Electronics and Applied Mathematics (ICTEAM) at Universit catholique de Louvain, the Belgian Interuniversity Attraction Poles "Dynamical systems, control and optimization" (DYSCO) and the Mexican Council for Science and Technology (CONACYT).. IFAC-PapersOnLine, 2016, 49, 76-81.	0.5	0
176	Stability of perturbed thermodynamic systems. IFAC-PapersOnLine, 2016, 49, 58-63.	0.5	0
177	Plant Growth Modelling:From Experimental Design to Modelling-TheArabidopsis Experiment*This paper presents research results of the Belgian Network DYSCO (Dynamical Systems, Control, and) Tj ETQq1 1 0.784314 rgBT /Overlock State, Science Policy Office. The scientific responsibility rests with its authors.. IFAC-PapersOnLine, 2016, 49, 236-241.	0.5	0
178	Modelling of Tokamak plasmas as open GENERIC systems. IFAC-PapersOnLine, 2019, 52, 7-12.	0.5	0
179	Lumped portâ€“Hamiltonian burning plasma control model. , 2019, , .		0
180	On Exponential Bistability of Equilibrium Profiles of Nonisothermal Axial Dispersion Tubular Reactors. IEEE Transactions on Automatic Control, 2021, 66, 3235-3242.	3.6	0

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182	ModÃ©lisation d'un procÃ©dÃ© de compostage en pile statique. Journal Europeen Des Systemes Automatises, 2010, 44, 409-422.	0.3	0
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