Panagiotis D Christofides

List of Publications by Year
in descending order

451 papers	16,049 citations	15504 65 h-index	26613 107 g-index
469 all docs	469 docs citations	469 times ranked	5682 citing authors

#	Article	IF	Citations
1	Machine-learning-based construction of barrier functions and models for safe model predictive control. AICHE Journal, 2022, 68, e17456.	3.6	6
2	Microscopic and data-driven modeling and operation of thermal atomic layer etching of aluminum oxide thin films. Chemical Engineering Research and Design, 2022, 177, 96-107.	5.6	13
3	Process structure-based recurrent neural network modeling for predictive control: A comparative study. Chemical Engineering Research and Design, 2022, 179, 77-89.	5.6	27
4	Machine Learning-Based Operational Modeling of an Electrochemical Reactor: Handling Data Variability and Improving Empirical Models. Industrial & Engineering Chemistry Research, 2022, 61, 8399-8410.	3.7	11
5	Handling noisy data in sparse model identification using subsampling and co-teaching. Computers and Chemical Engineering, 2022, 157, 107628.	3.8	13
6	Barrier-function-based distributed predictive control for operational safety of nonlinear processes. Computers and Chemical Engineering, 2022, 159, 107690.	3.8	4
7	Statistical machine-learning-based predictive control of uncertain nonlinear processes. AICHE Journal, 2022, 68, .	3.6	24
8	Multiscale computational fluid dynamics modeling of thermal atomic layer etching: Application to chamber configuration design. Computers and Chemical Engineering, 2022, 161, 107757.	3.8	13
9	Multivariable run-to-run control of thermal atomic layer etching of aluminum oxide thin films. Chemical Engineering Research and Design, 2022, 182, 1-12.	5.6	7
10	Recurrent Neural-Network-Based Model Predictive Control of a Plasma Etch Process. Industrial & Engineering Chemistry Research, 2022, 61, 638-652.	3.7	9
11	In-situ infrared thermographic inspection for local powder layer thickness measurement in laser powder bed fusion. Additive Manufacturing, 2022, 55, 102873.	3.0	9
12	Statistical machine-learning-based predictive control using barrier functions for process operational safety. Computers and Chemical Engineering, 2022, 163, 107860.	3.8	6
13	Multiscale computational fluid dynamics modeling of spatial thermal atomic layer etching. Computers and Chemical Engineering, 2022, 163, 107861.	3.8	9
14	Cyber-security of centralized, decentralized, and distributed control-detector architectures for nonlinear processes. Chemical Engineering Research and Design, 2021, 165, 25-39.	5.6	24
15	Machine learning-based modeling and operation of plasma-enhanced atomic layer deposition of hafnium oxide thin films. Computers and Chemical Engineering, 2021, 144, 107148.	3.8	16
16	Robust detection of intermittent multiplicative sensor fault. Asian Journal of Control, 2021, 23, 463-473.	3.0	2
17	Estimation-Based Predictive Control of Nonlinear Processes Using Recurrent Neural Networks. IFAC-PapersOnLine, 2021, 54, 91-96.	0.9	0
18	A Two-Tier Control Architecture For Cybersecurity and Operational Safety. Advances in Industrial Control, 2021, , 241-266.	0.5	1

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19	Safeness Index-Based MPC and EMPC. Advances in Industrial Control, 2021, , 35-58.	0.5	0
20	Operational Safety Via Control Lyapunov-Barrier Function-Based MPC. Advances in Industrial Control, 2021, , 59-94.	0.5	1
21	Co-Teaching Approach to Machine Learning-based Predictive Control of Nonlinear Processes. IFAC-PapersOnLine, 2021, 54, 639-646.	0.9	1
22	Data-based reduced-order modeling of nonlinear two-time-scale processes. Chemical Engineering Research and Design, 2021, 166, 1-9.	5.6	17
23	Machine-learning-based state estimation and predictive control of nonlinear processes. Chemical Engineering Research and Design, 2021, 167, 268-280.	5.6	29
24	Machine learning-based predictive control using noisy data: evaluating performance and robustness via a large-scale process simulator. Chemical Engineering Research and Design, 2021, 168, 275-287.	5.6	22
25	Improving Machine Learning Modeling of Nonlinear Processes Under Noisy Data Via Co-teaching Method. , 2021, , .		0
26	Handling Noisy Data in Machine Learning Modeling and Predictive Control of Nonlinear Processes. , 2021, , .		1
27	Integration of feedback control and run-to-run control for plasma enhanced atomic layer deposition of hafnium oxide thin films. Computers and Chemical Engineering, 2021, 148, 107267.	3.8	9
28	Finite element modeling of direct metal laser solidification process: Sensor data replication and use in defect detection and data reduction via machine learning. Chemical Engineering Research and Design, 2021, 171, 254-267.	5.6	6
29	Statistical Machine Learning in Model Predictive Control of Nonlinear Processes. Mathematics, 2021, 9, 1912.	2.2	32
30	Machine learning-based model predictive control of diffusion-reaction processes. Chemical Engineering Research and Design, 2021, 173, 129-139.	5.6	8
31	Modeling UF fouling and backwash in seawater RO feedwater treatment using neural networks with evolutionary algorithm and Bayesian binary classification. Desalination, 2021, 513, 115129.	8.2	11
32	Sparse-identification-based model predictive control of nonlinear two-time-scale processes. Computers and Chemical Engineering, 2021, 153, 107411.	3.8	17
33	A three-level hierachical framework for additive manufacturing. Digital Chemical Engineering, 2021, 1, 100001.	2.2	4
34	Machine learning modeling and predictive control of nonlinear processes using noisy data. AICHE Journal, 2021, 67, e17164.	3.6	35
35	Intermittent sensor fault detection for stochastic LTV systems with parameter uncertainty and limited resolution. International Journal of Control, 2020, 93, 788-796.	1.9	15
36	Real-Time Adaptive Machine-Learning-Based Predictive Control of Nonlinear Processes. Industrial & Engineering Chemistry Research, 2020, 59, 2275-2290.	3.7	62

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37	Control Lyapunov-Barrier function-based predictive control of nonlinear processes using machine learning modeling. Computers and Chemical Engineering, 2020, 134, 106706.	3.8	16
38	Computational fluid dynamics-based in-situ sensor analytics of direct metal laser solidification process using machine learning. Computers and Chemical Engineering, 2020, 143, 107069.	3.8	14
39	Incorporating Structural Process Knowledge in Recurrent Neural Network Modeling of Nonlinear Processes. , 2020, , .		0
40	Decentralized machine-learning-based predictive control of nonlinear processes. Chemical Engineering Research and Design, 2020, 162, 45-60.	5.6	6
41	Machine <scp>learningâ€based</scp> distributed model predictive control of nonlinear processes. AICHE Journal, 2020, 66, e17013.	3.6	26
42	Run-to-Run Control of Thermal Atomic Layer Deposition. , 2020, , .		0
43	Machine Learning-Based Cyber-attack Detection and Resilient Operation via Economic Model Predictive Control for Nonlinear Processes. , 2020, , .		1
44	Control Lyapunov-Barrier Function-Based Predictive Control of Nonlinear Systems Using Machine Learning Models. , 2020, , .		1
45	Multiscale computational fluid dynamics modeling and reactor design of plasma-enhanced atomic layer deposition. Computers and Chemical Engineering, 2020, 142, 107066.	3.8	15
46	Cyber-attack detection and resilient operation of nonlinear processes under economic model predictive control. Computers and Chemical Engineering, 2020, 136, 106806.	3.8	24
47	Post cyber-attack state reconstruction for nonlinear processes using machine learning. Chemical Engineering Research and Design, 2020, 159, 248-261.	5.6	20
48	Microscopic modeling and optimal operation of plasma enhanced atomic layer deposition. Chemical Engineering Research and Design, 2020, 159, 439-454.	5.6	14
49	Integrating Feedback Control and Run-to-Run Control in Multi-Wafer Thermal Atomic Layer Deposition of Thin Films. Processes, 2020, 8, 18.	2.8	11
50	Real-time machine learning for operational safety of nonlinear processes via barrier-function based predictive control. Chemical Engineering Research and Design, 2020, 155, 88-97.	5.6	6
51	A cyberâ€secure controlâ€detector architecture for nonlinear processes. AICHE Journal, 2020, 66, e16907.	3.6	29
52	Process structure-based recurrent neural network modeling for model predictive control of nonlinear processes. Journal of Process Control, 2020, 89, 74-84.	3.3	86
53	Operational trend prediction and classification for chemical processes: A novel convolutional neural network method based on symbolic hierarchical clustering. Chemical Engineering Science, 2020, 225, 115796.	3.8	15
54	Smart manufacturing: Machine learning-based economic MPC and preventive maintenance. , 2020, , 477-497.		0

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55	Real-time Machine Learning-Based CLBF-MPC of Nonlinear Systems. IFAC-PapersOnLine, 2020, 53, 11589-11594.	0.9	1
56	Economic MPC of Nonlinear Processes via Recurrent Neural Networks Using Structural Process Knowledge. IFAC-PapersOnLine, 2020, 53, 11607-11613.	0.9	1
57	Control Lyapunov-Barrier function-based model predictive control of nonlinear systems. Automatica, 2019, 109, 108508.	5.0	55
58	Operational safety via model predictive control: The Torrance refinery accident revisited. Chemical Engineering Research and Design, 2019, 149, 138-146.	5.6	4
59	Machine learning–based predictive control of nonlinear processes. Part I: Theory. AICHE Journal, 2019, 65, e16729.	3.6	101
60	Machine–learning–based predictive control of nonlinear processes. Part II: Computational implementation. AICHE Journal, 2019, 65, e16734.	3.6	65
61	Machine learning-based modeling and operation for ALD of SiO2 thin-films using data from a multiscale CFD simulation. Chemical Engineering Research and Design, 2019, 151, 131-145.	5.6	36
62	Real-Time Optimization and Control of Nonlinear Processes Using Machine Learning. Mathematics, 2019, 7, 890.	2.2	52
63	Optimizing process economics and operational safety via economic MPC using barrier functions and recurrent neural network models. Chemical Engineering Research and Design, 2019, 152, 455-465.	5.6	11
64	Machine Learning-Based Model Predictive Control of Distributed Chemical Processes. IFAC-PapersOnLine, 2019, 52, 120-127.	0.9	6
65	Multiscale computational fluid dynamics modeling of thermal atomic layer deposition with application to chamber design. Chemical Engineering Research and Design, 2019, 147, 529-544.	5.6	35
66	Operational safety of an ammonia process network via model predictive control. Chemical Engineering Research and Design, 2019, 146, 277-289.	5.6	3
67	Model predictive control of phthalic anhydride synthesis in a fixed-bed catalytic reactor via machine learning modeling. Chemical Engineering Research and Design, 2019, 145, 173-183.	5.6	26
68	Microscopic modeling and optimal operation of thermal atomic layer deposition. Chemical Engineering Research and Design, 2019, 145, 159-172.	5.6	22
69	Operational safety of chemical processes via Safeness-Index based MPC: Two large-scale case studies. Computers and Chemical Engineering, 2019, 125, 204-215.	3.8	15
70	Computational Fluid Dynamics Modeling and Control of Phthalic Anhydride Synthesis in a Fixed-Bed Catalytic Reactor. , 2019, , .		1
71	Economic Machine-Learning-Based Predictive Control of Nonlinear Systems. Mathematics, 2019, 7, 494.	2.2	40
72	Improving Diabetes Conventional Therapy via Machine Learning Modeling. , 2019, , .		2

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73	On Impact of Unsafe Set Structure in Control Lyapunov-Barrier Function-Based Model Predictive Control. , 2019, , .		0
74	Run‑to‑run control of PECVD systems: Application to a multiscale three‑dimensional CFD model of silicon thin film deposition. AICHE Journal, 2019, 65, e16400.	3.6	6
75	Handling bounded and unbounded unsafe sets in Control Lyapunov-Barrier function-based model predictive control of nonlinear processes. Chemical Engineering Research and Design, 2019, 143, 140-149.	5.6	16
76	Integrating Safeness Index-Based Model Predictive Control and Safety Relief Valve Activation for Operational Safety of Chemical Processes. , 2019, , .		0
77	Economic model predictive control of stochastic nonlinear systems. AICHE Journal, 2018, 64, 3312-3322.	3.6	19
78	Real-time furnace balancing of steam methane reforming furnaces. Chemical Engineering Research and Design, 2018, 134, 238-256.	5.6	29
79	On integration of feedback control and safety systems: Analyzing two chemical process applications. Chemical Engineering Research and Design, 2018, 132, 616-626.	5.6	32
80	Process operational safety via model predictive control: Recent results and future research directions. Computers and Chemical Engineering, 2018, 114, 171-190.	3.8	26
81	Fouling indicators for field monitoring the effectiveness of operational strategies of ultrafiltration as pretreatment for seawater desalination. Desalination, 2018, 431, 86-99.	8.2	21
82	Multiscale three-dimensional CFD modeling for PECVD of amorphous silicon thin films. Computers and Chemical Engineering, 2018, 113, 184-195.	3.8	27
83	Achieving operational process safety via model predictive control. Journal of Loss Prevention in the Process Industries, 2018, 53, 74-88.	3.3	11
84	Bayesian model averaging for estimating the spatial temperature distribution in a steam methane reforming furnace. Chemical Engineering Research and Design, 2018, 131, 465-487.	5.6	17
85	Elucidating and handling effects of valve-induced nonlinearities in industrial feedback control loops. Computers and Chemical Engineering, 2018, 116, 156-175.	3.8	7
86	Optimal operation of batch enantiomer crystallization: From ternary diagrams to predictive control. AICHE Journal, 2018, 64, 1618-1637.	3.6	5
87	Estimating the Spatial Temperature Distribution in a Steam Methane Reforming Furnace Using Bayesian Modelling. Computer Aided Chemical Engineering, 2018, , 2017-2022.	0.5	2
88	Steam Methane Reforming Furnace Temperature Balancing Using Bayesian Model Identification. , 2018, , .		0
89	Handling Process Safety and Stochastic Uncertainty in Economic Model Predictive Control. IFAC-PapersOnLine, 2018, 51, 424-429.	0.9	1
90	Control Lyapunov-Barrier Function-Based Economic Model Predictive Control of Nonlinear Systems. IFAC-PapersOnLine, 2018, 51, 48-53.	0.9	1

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91	Optimal Enantiomer Crystallization Operation using Ternary Diagram Information. Computer Aided Chemical Engineering, 2018, 44, 499-504.	0.5	2
92	Multiscale Three-Dimensional CFD Modeling for PECVD of Amorphous Silicon Thin Films. Computer Aided Chemical Engineering, 2018, 44, 2431-2436.	0.5	0
93	Distributed Economic Model Predictive Control with Safeness-Index Based Constraints of a Nonlinear Chemical Process. , 2018, , .		1
94	Detecting and Handling Cyber-Attacks in Model Predictive Control of Chemical Processes. Mathematics, 2018, 6, 173.	2.2	38
95	Control Lyapunov-Barrier Function-Based Model Predictive Control of Nonlinear Systems. , 2018, , .		7
96	On Integration of Model Predictive Control with Safety System: Preventing Thermal Runaway. Computer Aided Chemical Engineering, 2018, 44, 2011-2016.	0.5	1
97	Model Predictive Control of Batch Enantiomer Crystallization Using Ternary Diagram Information. , 2018, , .		0
98	Safe economic model predictive control of nonlinear systems. Systems and Control Letters, 2018, 118, 69-76.	2.3	23
99	Model Predictive Control for Process Operational Safety: Utilizing Safeness Index-Based Constraints and Control Lyapunov-Barrier Functions. Computer Aided Chemical Engineering, 2018, 44, 505-510.	0.5	2
100	Run-to-Run Control of Film Thickness in PECVD: Application to a Multiscale CFD Model of Amorphous Silicon Deposition. Computer Aided Chemical Engineering, 2018, 44, 511-516.	0.5	0
101	Eventâ€triggered filtering and intermittent fault detection for timeâ€varying systems with stochastic parameter uncertainty and sensor saturation. International Journal of Robust and Nonlinear Control, 2018, 28, 4666-4680.	3.7	16
102	Safeness Index-Based Economic Model Predictive Control of Stochastic Nonlinear Systems. Mathematics, 2018, 6, 69.	2.2	8
103	Economic Model Predictive Control: Handling Valve Actuator Dynamics and Process Equipment Considerations. Foundations and Trends in Systems and Control, 2018, 5, 293-350.	7.5	6
104	Lyapunov-based Economic Model Predictive Control of Stochastic Nonlinear Systems. , 2018, , .		1
105	Distributed economic model predictive control for operational safety of nonlinear processes. AICHE Journal, 2017, 63, 3404-3418.	3.6	17
106	Process operational safety using model predictive control based on a process Safeness Index. Computers and Chemical Engineering, 2017, 104, 76-88.	3.8	46
107	Model Predictive Control of a Steam Methane Reforming Reactor Described by a Computational Fluid Dynamics Model. Industrial & Engineering Chemistry Research, 2017, 56, 6002-6011.	3.7	26
108	Temperature balancing in steam methane reforming furnace via an integrated CFD/data-based optimization approach. Computers and Chemical Engineering, 2017, 104, 185-200.	3.8	42

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109	Fault-Tolerant Economic Model Predictive Control Using Error-Triggered Online Model Identification. Industrial & Engineering Chemistry Research, 2017, 56, 5652-5667.	3.7	16
110	Integrating Process Safety Considerations in Lyapunov-Based Model Predictive Control. IFAC-PapersOnLine, 2017, 50, 15910-15915.	0.9	0
111	Fault-Tolerant Economic Model Predictive Control Using Empirical Models * *Financial support from the National Science Foundation and the Department of Energy is gratefully acknowledged. IFAC-PapersOnLine, 2017, 50, 3517-3523.	0.9	2
112	An improved approach for H ẫž design of linear quadratic tracking control for chemical processes with partial actuator failure. Journal of Process Control, 2017, 58, 63-72.	3.3	18
113	Distributed economic model predictive control with Safeness-Index based constraints for nonlinear systems. Systems and Control Letters, 2017, 110, 21-28.	2.3	13
114	CFD modeling of a industrial-scale steam methane reforming furnace. Chemical Engineering Science, 2017, 171, 576-598.	3.8	97
115	Process safeness index: Its definition and use in economic model predictive control to ensure process operational safety. , 2017, , .		0
116	CFD Modeling of a Pilot-Scale Steam Methane Reforming Furnace. , 2017, , 75-117.		1
117	An economic model predictive control approach to integrated production management and process operation. AICHE Journal, 2017, 63, 1892-1906.	3.6	11
118	EMPC Systems: Computational Efficiency and Real-Time Implementation. Advances in Industrial Control, 2017, , 233-289.	0.5	0
119	Brief Overview of EMPC Methods and Some Preliminary Results. Advances in Industrial Control, 2017, , 57-73.	0.5	0
120	Two-Layer EMPC Systems. Advances in Industrial Control, 2017, , 171-232.	0.5	0
121	Multiscale modeling and run-to-run control of PECVD of thin film solar cells. Renewable Energy, 2017, 100, 129-140.	8.9	52
122	Lyapunov-Based EMPC: Closed-Loop Stability, Robustness, and Performance. Advances in Industrial Control, 2017, , 75-133.	0.5	0
123	Self-adaptive cycle-to-cycle control of in-line coagulant dosing in ultrafiltration for pre-treatment of reverse osmosis feed water. Desalination, 2017, 401, 22-31.	8.2	23
124	Errorâ€triggered onâ€line model identification for modelâ€based feedback control. AICHE Journal, 2017, 63, 949-966.	3.6	21
125	Distributed Economic MPC with Safety-Based Constraints for Nonlinear Systems * *Financial support from the National Science Foundation and the Department of Energy is gratefully acknowledged.. IFAC-PapersOnLine, 2017, 50, 12033-12040.	0.9	1
126	Multiscale Computational Fluid Dynamics: Methodology and Application to PECVD of Thin Film Solar Cells. Coatings, 2017, 7, 22.	2.6	13

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127	Steam methane reforming furnace temperature balancing via CFD model-based optimization. , 2017, , .		2
128	Economic Model Predictive Control of Transport-Reaction Processes. , 2017, , 547-589.		0
129	Elucidation and compensation of valve stiction-induced oscillations in closed-loop systems. , 2017, , .		0
130	Actuator stiction compensation via model predictive control for nonlinear processes. AICHE Journal, 2016, 62, 2004-2023.	3.6	21
131	A feedback control framework for safe and economically‐optimal operation of nonlinear processes. AIChE Journal, 2016, 62, 2391-2409.	3.6	31
132	Economic model predictive control for nonlinear processes incorporating actuator magnitude and rate of change constraints. , 2016, , .		3
133	Stiction compensation via model predictive control. , 2016, , .		0
134	Simultaneous control of safety constraint sets and process economics using economic model predictive control. , 2016, , .		3
135	Integrating production scheduling and process operation via economic model predictive control. , 2016, , .		1
136	Error-triggered on-line model identification in economic model predictive control. , 2016, , .		0
137	Empirical Modeling of Control Valve Layer with Application to Model Predictive Control-Based Stiction Compensation**Financial support from the National Science Foundation and the Department of Energy is gratefully acknowledged.. IFAC-PapersOnLine, 2016, 49, 41-46.	0.9	4
138	Handling Plant Variation via Error-Triggered On-line Model Identification: Application to Economic Model Predictive Control**Financial support from the National Science Foundation and the Department of Energy is gratefully acknowledged.. IFAC-PapersOnLine, 2016, 49, 790-795.	0.9	0
139	Economic model predictive control designs for input rate-of-change constraint handling and guaranteed economic performance. Computers and Chemical Engineering, 2016, 92, 18-36.	3.8	27
140	On closed-loop economic performance under Lyapunov-based economic model predictive control. , 2016, , .		1
141	Ultrafiltration with self-generated RO concentrate pulse backwash in a novel integrated seawater desalination UF-RO system. Journal of Membrane Science, 2016, 520, 111-119.	8.2	19
142	Elucidation of the role of constraints in economic model predictive control. Annual Reviews in Control, 2016, 41, 208-217.	7.9	11
143	Novel design and operational control of integrated ultrafiltration â€" Reverse osmosis system with RO concentrate backwash. Desalination, 2016, 382, 43-52.	8.2	36
144	CFD modeling and control of a steam methane reforming reactor. Chemical Engineering Science, 2016, 148, 78-92.	3.8	101

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145	Distributed Economic Model Predictive Control of a Catalytic Reactor: Evaluation of Sequential and Iterative Architectures. IFAC-PapersOnLine, 2015, 48, 26-31.	0.9	8
146	Economic Model Predictive Control: Elucidation of the Role of Constraints. IFAC-PapersOnLine, 2015, 48, 47-56.	0.9	2
147	Realâ€time preventive sensor maintenance using robust moving horizon estimation and economic model predictive control. AICHE Journal, 2015, 61, 3374-3389.	3.6	21
148	On identification of wellâ€conditioned nonlinear systems: Application to economic model predictive control of nonlinear processes. AICHE Journal, 2015, 61, 3353-3373.	3.6	22
149	Economic model predictive control of nonlinear timeâ€delay systems: Closedâ€loop stability and delay compensation. AICHE Journal, 2015, 61, 4152-4165.	3.6	13
150	Accounting for the control actuator layer in economic model predictive control of nonlinear processes. , 2015, , .		1
151	On Operation of PECVD of Thin Film Solar Cellsâˆ’âˆ’Financial support from the National Science Foundation (NSF), CBET-1262812, is gratefully acknowledged.. IFAC-PapersOnLine, 2015, 48, 278-283.	0.9	2
152	Economic model predictive control of nonlinear process systems using empirical models. AICHE Journal, 2015, 61, 816-830.	3.6	58
153	A method for handling batch-to-batch parametric drift using moving horizon estimation: Application to run-to-run MPC of batch crystallization. Chemical Engineering Science, 2015, 127, 210-219.	3.8	37
154	Realâ€time economic model predictive control of nonlinear process systems. AICHE Journal, 2015, 61, 555-571.	3.6	19
155	Run-to-Run-Based Model Predictive Control of Protein Crystal Shape in Batch Crystallization. Industrial & Engineering Chemistry Research, 2015, 54, 4293-4302.	3.7	34
156	Multiscale modeling and operation of PECVD of thin film solar cells. Chemical Engineering Science, 2015, 136, 50-61.	3.8	55
157	Handling state constraints and economics in feedback control of transport-reaction processes. Journal of Process Control, 2015, 32, 98-108.	3.3	10
158	Detection and Isolation of Batch-to-Batch Parametric Drift in Crystallization Using In-Batch and Post-Batch Measurements. Industrial & Engineering Chemistry Research, 2015, 54, 5514-5526.	3.7	5
159	Modeling and control of ibuprofen crystal growth and size distribution. Chemical Engineering Science, 2015, 134, 414-422.	3.8	32
160	Handling computational delay in economic model predictive control of nonlinear process systems. , 2015, , .		0
161	Economic model predictive control of nonlinear process systems using multiple empirical models. , 2015, , .		3
162	Improved postprandial glucose control with a customized Model Predictive Controller. , 2015, , .		19

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163	Multiscale, Multidomain Modeling and Parallel Computation: Application to Crystal Shape Evolution in Crystallization. Industrial & Engineering Chemistry Research, 2015, 54, 11903-11914.	3.7	33
164	Integrated Design of Control Actuator Layer and Economic Model Predictive Control for Nonlinear Processes. Industrial & Engineering Chemistry Research, 2014, 53, 20000-20012.	3.7	6
165	Control configuration selection for economic model predictive control. , 2014, , .		0
166	Smart manufacturing: Handling preventive actuator maintenance and economics using model predictive control. AIChE Journal, 2014, 60, 2179-2196.	3.6	24
167	Selection of control configurations for economic model predictive control systems. AIChE Journal, 2014, 60, 3230-3242.	3.6	30
168	Economic model predictive control of a first-order hyperbolic PDE system. , 2014, , .		2
169	Integrating dynamic economic optimization and model predictive control for optimal operation of nonlinear process systems. Control Engineering Practice, 2014, 22, 242-251.	5.5	89
170	Optimal Time-varying Operation of Nonlinear Process Systems with Economic Model Predictive Control. Industrial & Engineering Chemistry Research, 2014, 53, 4991-5001.	3.7	18
171	Economic model predictive control with timeâ€varying objective function for nonlinear process systems. AIChE Journal, 2014, 60, 507-519.	3.6	49
172	A tutorial review of economic model predictive control methods. Journal of Process Control, 2014, 24, 1156-1178.	3.3	536
173	Robust moving horizon estimation based output feedback economic model predictive control. Systems and Control Letters, 2014, 68, 101-109.	2.3	42
174	Output feedback economic model predictive control of parabolic PDE systems. , 2014, , .		0
175	Stabilization of nonlinear sampled-data systems and economic model predictive control application. , 2014, , .		5
176	Enhancing the Crystal Production Rate and Reducing Polydispersity in Continuous Protein Crystallization. Industrial & Engineering Chemistry Research, 2014, 53, 15538-15548.	3.7	32
177	Crystal shape and size control using a plug flow crystallization configuration. Chemical Engineering Science, 2014, 119, 30-39.	3.8	86
178	Fault Detection and Isolation in a Spiral-Wound Reverse Osmosis (RO) Desalination Plant. Industrial & Engineering Chemistry Research, 2014, 53, 3257-3271.	3.7	3
179	Economic model predictive control of parabolic PDE systems using empirical eigenfunctions. , 2014, , .		0
180	On finite-time and infinite-time cost improvement of economic model predictive control for nonlinear systems. Automatica, 2014, 50, 2561-2569.	5.0	49

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181	Performance Monitoring of Economic Model Predictive Control Systems. Industrial & Engineering Chemistry Research, 2014, 53, 15406-15413.	3.7	2
182	Modeling and control of crystal shape in continuous protein crystallization. Chemical Engineering Science, 2014, 107, 47-57.	3.8	86
183	Economic model predictive control of parabolic PDE systems: Addressing state estimation and computational efficiency. Journal of Process Control, 2014, 24, 448-462.	3.3	34
184	Energy-Optimal Control of RO Desalination. Industrial & Engineering Chemistry Research, 2014, 53, 7409-7420.	3.7	25
185	Protein Crystal Shape and Size Control in Batch Crystallization: Comparing Model Predictive Control with Conventional Operating Policies. Industrial & Engineering Chemistry Research, 2014, 53, 5002-5014.	3.7	33
186	Economic Model Predictive Control of Transport-Reaction Processes. Industrial & Engineering Chemistry Research, 2014, 53, 7382-7396.	3.7	37
187	Economic model predictive control of parabolic PDE systems: Handling state constraints by adaptive proper orthogonal decomposition. , 2014, , .		0
188	Distributed model predictive control: A tutorial review and future research directions. Computers and Chemical Engineering, 2013, 51, 21-41.	3.8	697
189	Simulation and Control of Porosity in a Three-Dimensional Thin-Film Solar Cell. Industrial & Engineering Chemistry Research, 2013, 52, 11246-11252.	3.7	3
190	Model Predictive Control of a Nonlinear Large-Scale Process Network Used in the Production of Vinyl Acetate. Industrial & Engineering Chemistry Research, 2013, 52, 12463-12481.	3.7	7
191	Data-driven models of steady state and transient operations of spiral-wound RO plant. Desalination, 2013, 316, 154-161.	8.2	16
192	Fault-Tolerant Process Control. , 2013, , .		37
193	Crystal shape modeling and control in protein crystal growth. Chemical Engineering Science, 2013, 87, 216-223.	3.8	37
194	Economic model predictive control of nonlinear two-time-scale systems. , 2013, , .		2
195	Economic model predictive control of a transport-reaction process. , 2013, , .		0
196	Distributed Supervisory Predictive Control of Distributed Wind and Solar Energy Systems. IEEE Transactions on Control Systems Technology, 2013, 21, 504-512.	5.2	71
197	Economic model predictive control of nonlinear singularly perturbed systems. Journal of Process Control, 2013, 23, 743-754.	3.3	43
198	Economic model predictive control of switched nonlinear systems. Systems and Control Letters, 2013, 62, 77-84.	2.3	43

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