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	Distributed model predictive control: A tutorial review and future research directions. Computers and Chemical Engineering, 2013, 51, 21-41.	3.8	697
2	A tutorial review of economic model predictive control methods. Journal of Process Control, 2014, 24, 1156-1178.	3.3	536
3	Nonlinear and Robust Control of PDE Systems. Systems and Control: Foundations and Applications, 2001, , .	0.3	403
4	Economic model predictive control of nonlinear process systems using Lyapunov techniques. AICHE Journal, 2012, 58, 855-870.	3.6	320
5	Stabilization of nonlinear systems with state and control constraints using Lyapunov-based predictive control. Systems and Control Letters, 2006, 55, 650-659.	2.3	281
6	Output feedback control of switched nonlinear systems using multiple Lyapunov functions. Systems and Control Letters, 2005, 54, 1163-1182.	2.3	278
7	Finite-Dimensional Control of Parabolic PDE Systems Using Approximate Inertial Manifolds. Journal of Mathematical Analysis and Applications, 1997, 216, 398-420.	1.0	269
8	Lyapunov-Based Model Predictive Control of Nonlinear Systems Subject to Data Losses. IEEE Transactions on Automatic Control, 2008, 53, 2076-2089.	5.7	253
9	Distributed model predictive control of nonlinear process systems. AICHE Journal, 2009, 55, 1171-1184.	3.6	211
10	Finite-dimensional approximation and control of non-linear parabolic PDE systems. International Journal of Control, 2000, 73, 439-456.	1.9	190
11	Effect of Thermodynamic Restriction on Energy Cost Optimization of RO Membrane Water Desalination. Industrial & Engineering Chemistry Research, 2009, 48, 6010-6021.	3.7	190
12	Predictive control of particle size distribution in particulate processes. Chemical Engineering Science, 2006, 61, 268-281.	3.8	186
13	Dynamic optimization of dissipative PDE systems using nonlinear order reduction. Chemical Engineering Science, 2002, 57, 5083-5114.	3.8	177
14	Isolation and handling of actuator faults in nonlinear systems. Automatica, 2008, 44, 53-62.	5.0	177
15	Feedback control of hyperbolic PDE systems. AICHE Journal, 1996, 42, 3063-3086.	3.6	170
16	Supervisory Predictive Control of Standalone Wind/Solar Energy Generation Systems. IEEE Transactions on Control Systems Technology, 2011, 19, 199-207.	5.2	164
17	Analysis and control of parabolic PDE systems with input constraints. Automatica, 2003, 39, 715-725.	5.0	160
18	Robust control of parabolic PDE systems. Chemical Engineering Science, 1998, 53, 2949-2965.	3.8	159

#	ARTICLE	IF	CITATIONS
19	Bounded robust control of constrained multivariable nonlinear processes. Chemical Engineering Science, 2003, 58, 3025-3047.	3.8	156
20	Smart plant operations: Vision, progress and challenges. AICHE Journal, 2007, 53, 2734-2741.	3.6	147
21	Global stabilization of the Kuramotoâ€"Sivashinsky equation via distributed output feedback control. Systems and Control Letters, 2000, 39, 283-294.	2.3	137
22	Integrating robustness, optimality and constraints in control of nonlinear processes. Chemical Engineering Science, 2001, 56, 1841-1868.	3.8	135
23	Control of nonlinear distributed process systems: Recent developments and challenges. AICHE Journal, 2001, 47, 514-518.	3.6	131
24	Multi-scale modeling and analysis of an industrial HVOF thermal spray process. Chemical Engineering Science, 2005, 60, 3649-3669.	3.8	127
25	Integrated fault-detection and fault-tolerant control of process systems. AICHE Journal, 2006, 52, 2129-2148.	3.6	123
26	Distributed model predictive control of nonlinear systems subject to asynchronous and delayed measurements. Automatica, 2010, 46, 52-61.	5.0	120
27	Nonlinear control of particulate processes. AICHE Journal, 1999, 45, 1279-1297.	3.6	119
28	Feedback control of the Kuramotoâ€"Sivashinsky equation. Physica D: Nonlinear Phenomena, 2000, 137, 49-61.	2.8	118
29	Wave suppression by nonlinear finite-dimensional control. Chemical Engineering Science, 2000, 55, 2627-2640.	3.8	113
30	Predictive control of transport-reaction processes. Computers and Chemical Engineering, 2005, 29, 2335-2345.	3.8	109
31	Predictive control of parabolic PDEs with state and control constraints. International Journal of Robust and Nonlinear Control, 2006, 16, 749-772.	3.7	109
32	Robust control of hyperbolic PDE systems. Chemical Engineering Science, 1998, 53, 85-105.	3.8	106
33	Predictive control of crystal size distribution in protein crystallization. Nanotechnology, 2005, 16, S562-S574.	2.6	105
34	Computational study of particle in-flight behavior in the HVOF thermal spray process. Chemical Engineering Science, 2006, 61, 6540-6552.	3.8	103
35	Energy Consumption Optimization of Reverse Osmosis Membrane Water Desalination Subject to Feed Salinity Fluctuation. Industrial & Engineering Chemistry Research, 2009, 48, 9581-9589.	3.7	102
36	On RO membrane and energy costs and associated incentives for future enhancements of membrane permeability. Journal of Membrane Science, 2009, 344, 1-5.	8.2	101

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37	CFD modeling and control of a steam methane reforming reactor. Chemical Engineering Science, 2016, 148, 78-92.	3.8	101
38	Machine learningâ€based predictive control of nonlinear processes. Part I: Theory. AICHE Journal, 2019, 65, e16729.	3.6	101
39	Sequential and iterative architectures for distributed model predictive control of nonlinear process systems. AIChE Journal, 2010, 56, 2137-2149.	3.6	100
40	Robust hybrid predictive control of nonlinear systems. Automatica, 2005, 41, 209-217.	5.0	97
41	CFD modeling of a industrial-scale steam methane reforming furnace. Chemical Engineering Science, 2017, 171, 576-598.	3.8	97
42	Estimation and control of surface roughness in thin film growth using kinetic Monte-Carlo models. Chemical Engineering Science, 2003, 58, 3115-3129.	3.8	96
43	Predictive control of parabolic PDEs with boundary control actuation. Chemical Engineering Science, 2006, 61, 6239-6248.	3.8	96
44	Minimization of energy consumption for a two-pass membrane desalination: Effect of energy recovery, membrane rejection and retentate recycling. Journal of Membrane Science, 2009, 339, 126-137.	8.2	95
45	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
46	Modeling and Control of High-Velocity Oxygen-Fuel (HVOF) Thermal Spray: A Tutorial Review. Journal of Thermal Spray Technology, 2009, 18, 753-768.	3.1	88
47	Coordinating feedback and switching for control of hybrid nonlinear processes. AIChE Journal, 2003, 49, 2079-2098.	3.6	87
48	Crystal shape and size control using a plug flow crystallization configuration. Chemical Engineering Science, 2014, 119, 30-39.	3.8	86
49	Modeling and control of crystal shape in continuous protein crystallization. Chemical Engineering Science, 2014, 107, 47-57.	3.8	86
50	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
51	Singular perturbation modeling of nonlinear processes with nonexplicit time-scale multiplicity. Chemical Engineering Science, 1998, 53, 1491-1504.	3.8	84
52	Reverse osmosis desalination with high permeability membranes â€" Cost optimization and research needs. Desalination and Water Treatment, 2010, 15, 256-266.	1.0	84
53	Fault-tolerant control of nonlinear process systems subject to sensor faults. AICHE Journal, 2007, 53, 654-668.	3.6	81
54	Distributed economic MPC: Application to a nonlinear chemical process network. Journal of Process Control, 2012, 22, 689-699.	3.3	78

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55	Robust control of parabolic PDE systems with time-dependent spatial domains. Automatica, 2001, 37, 61-69.	5.0	76
56	Integrating nonlinear output feedback control and optimal actuator/sensor placement for transport-reaction processes. Chemical Engineering Science, 2001, 56, 4517-4535.	3.8	75
57	Fault-tolerant control of nonlinear processes: performance-based reconfiguration and robustness. International Journal of Robust and Nonlinear Control, 2006, 16, 91-111.	3.7	74
58	Minimizing energy consumption in reverse osmosis membrane desalination using optimization-based control. Journal of Process Control, 2010, 20, 1261-1269.	3.3	74
59	Coordinating feedback and switching for control of spatially distributed processes. Computers and Chemical Engineering, 2004, 28, 111-128.	3.8	72
60	A distributed control framework for smart grid development: Energy/water system optimal operation and electric grid integration. Journal of Process Control, 2011, 21, 1504-1516.	3.3	72
61	Distributed Supervisory Predictive Control of Distributed Wind and Solar Energy Systems. IEEE Transactions on Control Systems Technology, 2013, 21, 504-512.	5.2	71
62	Feedback control of growth rate and surface roughness in thin film growth. AICHE Journal, 2003, 49, 2099-2113.	3.6	70
63	Model-based control of particulate processes. Chemical Engineering Science, 2008, 63, 1156-1172.	3.8	70
64	Robust control of particulate processes using uncertain population balances. AICHE Journal, 2000, 46, 266-280.	3.6	69
65	Multivariable Predictive Control of Thin Film Deposition Using a Stochastic PDE Model. Industrial & Engineering Chemistry Research, 2005, 44, 2416-2427.	3.7	68
66	Robust predictive control of switched systems: Satisfying uncertain schedules subject to state and control constraints. International Journal of Adaptive Control and Signal Processing, 2008, 22, 161-179.	4.1	68
67	Plasma enhanced chemical vapor deposition: Modeling and control. Chemical Engineering Science, 1999, 54, 3305-3314.	3.8	67
68	Optimization of transport-reaction processes using nonlinear model reduction. Chemical Engineering Science, 2000, 55, 4349-4366.	3.8	67
69	Nonlinear Control of Incompressible Fluid Flow: Application to Burgers' Equation and 2D Channel Flow. Journal of Mathematical Analysis and Applications, 2000, 252, 230-255.	1.0	66
70	Supervisory Predictive Control for Long-Term Scheduling of an Integrated Wind/Solar Energy Generation and Water Desalination System. IEEE Transactions on Control Systems Technology, 2012, 20, 504-512.	5.2	66
71	Modeling and control of protein crystal shape and size in batch crystallization. AICHE Journal, 2013, 59, 2317-2327.	3.6	66
72	Machineâ€learningâ€based predictive control of nonlinear processes. Part II: Computational implementation. AICHE Journal, 2019, 65, e16734.	3.6	65

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73	Networked and Distributed Predictive Control. Advances in Industrial Control, 2011, , .	0.5	64
74	Nonlinear Model-Based Control of an Experimental Reverse-Osmosis Water Desalination System. Industrial & Engineering Chemistry Research, 2009, 48, 6126-6136.	3.7	62
75	Real-Time Adaptive Machine-Learning-Based Predictive Control of Nonlinear Processes. Industrial & Engineering Chemistry Research, 2020, 59, 2275-2290.	3.7	62
76	Model-predictive control of feed flow reversal in a reverse osmosis desalination process. Journal of Process Control, 2009, 19, 433-442.	3.3	61
77	Mineral scale monitoring for reverse osmosis desalination via real-time membrane surface image analysis. Desalination, 2011, 273, 64-71.	8.2	61
78	Robust stabilization of infinite-dimensional systems using sliding-mode output feedback control. International Journal of Control, 2004, 77, 1115-1136.	1.9	60
79	Diamond Jet Hybrid HVOF Thermal Spray:Â Gas-Phase and Particle Behavior Modeling and Feedback Control Design. Industrial & Engineering Chemistry Research, 2004, 43, 3632-3652.	3.7	60
80	Modeling and control of HVOF thermal spray processing of WCâ€"Co coatings. Powder Technology, 2005, 156, 177-194.	4.2	60
81	Fault-tolerant control of process systems using communication networks. AICHE Journal, 2005, 51, 1665-1682.	3.6	60
82	Iterative Distributed Model Predictive Control of Nonlinear Systems: Handling Asynchronous, Delayed Measurements. IEEE Transactions on Automatic Control, 2012, 57, 528-534.	5.7	60
83	Robust output feedback control of quasi-linear parabolic PDE systems. Systems and Control Letters, 1999, 36, 307-316.	2.3	59
84	Robust output feedback control of nonlinear singularly perturbed systems. Automatica, 2000, 36, 45-52.	5.0	59
85	Economic model predictive control of nonlinear process systems using empirical models. AICHE Journal, 2015, 61, 816-830.	3.6	58
86	Feedback control of two-time-scale nonlinear systems. International Journal of Control, 1996, 63, 965-994.	1.9	57
87	Hybrid predictive control of nonlinear systems: method and applications to chemical processes. International Journal of Robust and Nonlinear Control, 2004, 14, 199-225.	3.7	55
88	Control and optimization of multiscale process systems. Computers and Chemical Engineering, 2006, 30, 1670-1686.	3.8	55
89	Multiscale modeling and operation of PECVD of thin film solar cells. Chemical Engineering Science, 2015, 136, 50-61.	3.8	55
90	Control Lyapunov-Barrier function-based model predictive control of nonlinear systems. Automatica, 2019, 109, 108508.	5.0	55

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91	Uniting bounded control and MPC for stabilization of constrained linear systems. Automatica, 2004, 40, 101-110.	5.0	54
92	A two-tier architecture for networked process control. Chemical Engineering Science, 2008, 63, 5394-5409.	3.8	54
93	Self-adaptive feed flow reversal operation of reverse osmosis desalination. Desalination, 2013, 308, 63-72.	8.2	53
94	Output Feedback Control of Parabolic PDE Systems with Nonlinear Spatial Differential Operators. Industrial & Engineering Chemistry Research, 1999, 38, 4372-4380.	3.7	52
95	Optimal control of diffusion-convection-reaction processes using reduced-order models. Computers and Chemical Engineering, 2008, 32, 2123-2135.	3.8	52
96	Multiscale modeling and run-to-run control of PECVD of thin film solar cells. Renewable Energy, 2017, 100, 129-140.	8.9	52
97	Real-Time Optimization and Control of Nonlinear Processes Using Machine Learning. Mathematics, 2019, 7, 890.	2.2	52
98	Analysis and control of particulate processes with input constraints. AICHE Journal, 2001, 47, 1849-1865.	3.6	49
99	Modeling and analysis of HVOF thermal spray process accounting for powder size distribution. Chemical Engineering Science, 2003, 58, 849-857.	3.8	49
100	Economic model predictive control with time€varying objective function for nonlinear process systems. AICHE Journal, 2014, 60, 507-519.	3.6	49
101	On finite-time and infinite-time cost improvement of economic model predictive control for nonlinear systems. Automatica, 2014, 50, 2561-2569.	5.0	49
102	Hybrid predictive control of process systems. AICHE Journal, 2004, 50, 1242-1259.	3.6	47
103	Process operational safety using model predictive control based on a process Safeness Index. Computers and Chemical Engineering, 2017, 104, 76-88.	3.8	46
104	Diamond Jet Hybrid HVOF Thermal Spray:Â Rule-Based Modeling of Coating Microstructure. Industrial & Engineering Chemistry Research, 2004, 43, 3653-3665.	3.7	45
105	Dynamic output feedback covariance control of stochastic dissipative partial differential equations. Chemical Engineering Science, 2008, 63, 4531-4542.	3.8	45
106	Detection, isolation and handling of actuator faults in distributed model predictive control systems. Journal of Process Control, 2010, 20, 1059-1075.	3.3	45
107	Model predictive control of nonlinear singularly perturbed systems: Application to a large-scale process network. Journal of Process Control, 2011, 21, 1296-1305.	3.3	45
108	Integrated optimal actuator/sensor placement and robust control of uncertain transport-reaction processes. Computers and Chemical Engineering, 2002, 26, 187-203.	3.8	44

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109	Distributed nonlinear control of diffusion–reaction processes. International Journal of Robust and Nonlinear Control, 2004, 14, 133-156.	3.7	44
110	Economic model predictive control of nonlinear singularly perturbed systems. Journal of Process Control, 2013, 23, 743-754.	3.3	43
111	Economic model predictive control of switched nonlinear systems. Systems and Control Letters, 2013, 62, 77-84.	2.3	43
112	Lyapunov–based model predictive control of nonlinear systems subject to time–varying measurement delays. International Journal of Adaptive Control and Signal Processing, 2009, 23, 788-807.	4.1	42
113	Regulation of film thickness, surface roughness and porosity in thin film growth using deposition rate. Chemical Engineering Science, 2009, 64, 3903-3913.	3.8	42
114	Robust moving horizon estimation based output feedback economic model predictive control. Systems and Control Letters, 2014, 68, 101-109.	2.3	42
115	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
116	Feedback control of surface roughness using stochastic PDEs. AICHE Journal, 2005, 51, 345-352.	3.6	41
117	Composite fast–slow MPC design for nonlinear singularly perturbed systems. AICHE Journal, 2012, 58, 1802-1811.	3.6	41
118	Economic Machine-Learning-Based Predictive Control of Nonlinear Systems. Mathematics, 2019, 7, 494.	2.2	40
119	Robust semi-global output tracking for nonlinear singularly perturbed systems. International Journal of Control, 1996, 65, 639-666.	1.9	39
120	Nonlinear Feedback Control of Parabolic Partial Differential Equation Systems with Time-dependent Spatial Domains. Journal of Mathematical Analysis and Applications, 1999, 239, 124-157.	1.0	39
121	Simulation, estimation and control of size distribution in aerosol processes with simultaneous reaction, nucleation, condensation and coagulation. Computers and Chemical Engineering, 2002, 26, 1153-1169.	3.8	39
122	Feedback control of surface roughness of GaAs (0≈0≈1) thin films using kinetic Monte Carlo models. Computers and Chemical Engineering, 2004, 29, 225-241.	3.8	39
123	Multirate Lyapunov-based distributed model predictive control of nonlinear uncertain systems. Journal of Process Control, 2011, 21, 1231-1242.	3.3	39
124	Detecting and Handling Cyber-Attacks in Model Predictive Control of Chemical Processes. Mathematics, 2018, 6, 173.	2.2	38
125	Feedback control of nonlinear differential difference equation systems. Chemical Engineering Science, 1999, 54, 5677-5709.	3.8	37
126	Modeling and control of film porosity in thin film deposition. Chemical Engineering Science, 2009, 64, 3668-3682.	3.8	37

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127	Fault-Tolerant Process Control. , 2013, , .		37
128	Crystal shape modeling and control in protein crystal growth. Chemical Engineering Science, 2013, 87, 216-223.	3.8	37
129	Economic Model Predictive Control of Transport-Reaction Processes. Industrial & Engineering Chemistry Research, 2014, 53, 7382-7396.	3.7	37
130	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
131	Novel design and operational control of integrated ultrafiltration â€" Reverse osmosis system with RO concentrate backwash. Desalination, 2016, 382, 43-52.	8.2	36
132	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
133	Crystal temperature control in the Czochralski crystal growth process. AICHE Journal, 2001, 47, 79-106.	3.6	35
134	Fault-tolerant control of a polyethylene reactor. Journal of Process Control, 2007, 17, 439-451.	3.3	35
135	Control of particulate processes: Recent results and future challenges. Powder Technology, 2007, 175, 1-7.	4.2	35
136	Control and Monitoring of a High Recovery Reverse Osmosis Desalination Process. Industrial & Engineering Chemistry Research, 2008, 47, 6698-6710.	3.7	35
137	State-estimation-based economic model predictive control of nonlinear systems. Systems and Control Letters, 2012, 61, 926-935.	2.3	35
138	Proactive faultâ€tolerant model predictive control. AICHE Journal, 2013, 59, 2810-2820.	3.6	35
139	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
140	Machine learning modeling and predictive control of nonlinear processes using noisy data. AICHE Journal, 2021, 67, e17164.	3.6	35
141	Nonlinear control of spatially inhomogenous aerosol processes. Chemical Engineering Science, 1999, 54, 2669-2678.	3.8	34
142	Enhancing dataâ€based fault isolation through nonlinear control. AICHE Journal, 2008, 54, 223-241.	3.6	34
143	Modeling and control of shape distribution of protein crystal aggregates. Chemical Engineering Science, 2013, 104, 484-497.	3.8	34
144	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

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145	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
146	Model predictive control of nonlinear stochastic partial differential equations with application to a sputtering process. AICHE Journal, 2008, 54, 2065-2081.	3.6	33
147	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
148	Multiscale, Multidomain Modeling and Parallel Computation: Application to Crystal Shape Evolution in Crystallization. Industrial & Engineering Chemistry Research, 2015, 54, 11903-11914.	3.7	33
149	Output feedback control of nonlinear systems subject to sensor data losses. Systems and Control Letters, 2008, 57, 631-642.	2.3	32
150	Investigation of film surface roughness and porosity dependence on lattice size in a porous thin film deposition process. Physical Review E, 2009, 80, 041122.	2.1	32
151	Enhancing the Crystal Production Rate and Reducing Polydispersity in Continuous Protein Crystallization. Industrial & Engineering Chemistry Research, 2014, 53, 15538-15548.	3.7	32
152	Modeling and control of ibuprofen crystal growth and size distribution. Chemical Engineering Science, 2015, 134, 414-422.	3.8	32
153	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
154	Statistical Machine Learning in Model Predictive Control of Nonlinear Processes. Mathematics, 2021, 9, 1912.	2.2	32
155	A feedback control framework for safe and economicallyâ€‹optimal operation of nonlinear processes. AICHE Journal, 2016, 62, 2391-2409.	3.6	31
156	Feedback control of surface roughness in sputtering processes using the stochastic Kuramotoâ€"Sivashinsky equation. Computers and Chemical Engineering, 2005, 29, 741-759.	3.8	30
157	Nonlinear Feedback Control of Surface Roughness Using a Stochastic PDE:Â Design and Application to a Sputtering Process. Industrial & Engineering Chemistry Research, 2006, 45, 7177-7189.	3.7	30
158	Selection of control configurations for economic model predictive control systems. AICHE Journal, 2014, 60, 3230-3242.	3.6	30
159	Model-Based Control of Particulate Processes. Particle Technology Series, 2002, , .	0.5	30
160	Robust near-optimal output feedback control of non-linear systems. International Journal of Control, 2001, 74, 133-157.	1.9	29
161	Studies on nonlinear dynamics and control of a tubular reactor with recycle. Nonlinear Analysis: Theory, Methods & Applications, 2001, 47, 5933-5944.	1.1	29
162	Feedback control of HVOF thermal spray process accounting for powder size distribution. Journal of Thermal Spray Technology, 2004, 13, 108-120.	3.1	29

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163	Real-time furnace balancing of steam methane reforming furnaces. Chemical Engineering Research and Design, 2018, 134, 238-256.	5.6	29
164	A cyber‐secure control‐detector architecture for nonlinear processes. AICHE Journal, 2020, 66, e16907.	3.6	29
165	Machine-learning-based state estimation and predictive control of nonlinear processes. Chemical Engineering Research and Design, 2021, 167, 268-280.	5.6	29
166	Predictive Output Feedback Control of Parabolic Partial Differential Equations (PDEs). Industrial & Engineering Chemistry Research, 2006, 45, 8421-8429.	3.7	28
167	Lyapunov-based Model Predictive Control of Nonlinear Systems Subject to Data Losses. Proceedings of the American Control Conference, 2007, , .	0.0	28
168	Stability of nonlinear asynchronous systems. Systems and Control Letters, 2008, 57, 465-473.	2.3	27
169	Handling communication disruptions in distributed model predictive control. Journal of Process Control, 2011, 21, 173-181.	3.3	27
170	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
171	Multiscale three-dimensional CFD modeling for PECVD of amorphous silicon thin films. Computers and Chemical Engineering, 2018, 113, 184-195.	3.8	27
172	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
173	Algorithms for improved fixed-time performance of Lyapunov-based economic model predictive control of nonlinear systems. Journal of Process Control, 2013, 23, 404-414.	3.3	26
174	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
175	Process operational safety via model predictive control: Recent results and future research directions. Computers and Chemical Engineering, 2018, 114, 171-190.	3.8	26
176	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
177	Machine <scp>learning‐based</scp> distributed model predictive control of nonlinear processes. AICHE Journal, 2020, 66, e17013.	3.6	26
178	Computation of optimal actuator locations for nonlinear controllers in transport-reaction processes. Computers and Chemical Engineering, 2000, 24, 577-583.	3.8	25
179	Stochastic Modeling and Simultaneous Regulation of Surface Roughness and Porosity in Thin Film Deposition. Industrial & Engineering Chemistry Research, 2009, 48, 6690-6700.	3.7	25
180	Energy-Optimal Control of RO Desalination. Industrial & Engineering Chemistry Research, 2014, 53, 7409-7420.	3.7	25

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181	Analysis of mode transitions in biological networks. AICHE Journal, 2005, 51, 2220-2234.	3.6	24
182	Dynamics and control of thin film surface microstructure in a complex deposition process. Chemical Engineering Science, 2005, 60, 1603-1617.	3.8	24
183	Studies on feedback control of cardiac alternans. Computers and Chemical Engineering, 2008, 32, 2086-2098.	3.8	24
184	Smart manufacturing: Handling preventive actuator maintenance and economics using model predictive control. AIChE Journal, 2014, 60, 2179-2196.	3.6	24
185	Cyber-attack detection and resilient operation of nonlinear processes under economic model predictive control. Computers and Chemical Engineering, 2020, 136, 106806.	3.8	24
186	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
187	Statistical <scp>machine‐learning‐</scp> based predictive control of uncertain nonlinear processes. AICHE Journal, 2022, 68, .	3.6	24
188	Robust control of multivariable two-time-scale nonlinear systems. Journal of Process Control, 1997, 7, 313-328.	3.3	23
189	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
190	Safe economic model predictive control of nonlinear systems. Systems and Control Letters, 2018, 118, 69-76.	2.3	23
191	Model-based estimation and control of particle velocity and melting in HVOF thermal spray. Chemical Engineering Science, 2004, 59, 5647-5656.	3.8	22
192	Data‐based monitoring and reconfiguration of a distributed model predictive control system. International Journal of Robust and Nonlinear Control, 2012, 22, 68-88.	3.7	22
193	On identification of well‐conditioned nonlinear systems: Application to economic model predictive control of nonlinear processes. AICHE Journal, 2015, 61, 3353-3373.	3.6	22
194	Microscopic modeling and optimal operation of thermal atomic layer deposition. Chemical Engineering Research and Design, 2019, 145, 159-172.	5.6	22
195	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
196	Real‐time preventive sensor maintenance using robust moving horizon estimation and economic model predictive control. AICHE Journal, 2015, 61, 3374-3389.	3.6	21
197	Actuator stiction compensation via model predictive control for nonlinear processes. AICHE Journal, 2016, 62, 2004-2023.	3.6	21
198	Error‐triggered on‐line model identification for model‐based feedback control. AICHE Journal, 2017, 63, 949-966.	3.6	21

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