

S Joe Qin

List of Publications by Year in descending order

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374
papers

27,177
citations

7551

77
h-index

6630

156
g-index

391
all docs

391
docs citations

391
times ranked

12205
citing authors

#	ARTICLE	IF	CITATIONS
1	A survey of industrial model predictive control technology. <i>Control Engineering Practice</i> , 2003, 11, 733-764.	3.2	3,949
2	Statistical process monitoring: basics and beyond. <i>Journal of Chemometrics</i> , 2003, 17, 480-502.	0.7	1,313
3	Survey on data-driven industrial process monitoring and diagnosis. <i>Annual Reviews in Control</i> , 2012, 36, 220-234.	4.4	1,152
4	Recursive PCA for adaptive process monitoring. <i>Journal of Process Control</i> , 2000, 10, 471-486.	1.7	703
5	Recursive PLS algorithms for adaptive data modeling. <i>Computers and Chemical Engineering</i> , 1998, 22, 503-514.	2.0	524
6	Reconstruction-based contribution for process monitoring. <i>Automatica</i> , 2009, 45, 1593-1600.	3.0	510
7	An overview of subspace identification. <i>Computers and Chemical Engineering</i> , 2006, 30, 1502-1513.	2.0	482
8	Selection of the Number of Principal Components: The Variance of the Reconstruction Error Criterion with a Comparison to Other Methods. <i>Industrial & Engineering Chemistry Research</i> , 1999, 38, 4389-4401.	1.8	472
9	Identification of faulty sensors using principal component analysis. <i>AIChE Journal</i> , 1996, 42, 2797-2812.	1.8	460
10	Multimode process monitoring with Bayesian inference-based finite Gaussian mixture models. <i>AIChE Journal</i> , 2008, 54, 1811-1829.	1.8	446
11	Reconstruction-Based Fault Identification Using a Combined Index. <i>Industrial & Engineering Chemistry Research</i> , 2001, 40, 4403-4414.	1.8	414
12	Nonlinear PLS modeling using neural networks. <i>Computers and Chemical Engineering</i> , 1992, 16, 379-391.	2.0	383
13	Reconstruction and analysis of a carbon-core metabolic network for <i>Dunaliella salina</i> . <i>BMC Bioinformatics</i> , 2020, 21, 1.	1.2	379
14	Fault detection and diagnosis based on modified independent component analysis. <i>AIChE Journal</i> , 2006, 52, 3501-3514.	1.8	363
15	On unifying multiblock analysis with application to decentralized process monitoring. <i>Journal of Chemometrics</i> , 2001, 15, 715-742.	0.7	338
16	Subspace approach to multidimensional fault identification and reconstruction. <i>AIChE Journal</i> , 1998, 44, 1813-1831.	1.8	334
17	Sequential bottom-up assembly of mechanically stabilized synthetic cells by microfluidics. <i>Nature Materials</i> , 2018, 17, 89-96.	13.3	314
18	Geometric properties of partial least squares for process monitoring. <i>Automatica</i> , 2010, 46, 204-210.	3.0	313

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19	Process data analytics in the era of big data. <i>AICHE Journal</i> , 2014, 60, 3092-3100.	1.8	309
20	A novel dynamic PCA algorithm for dynamic data modeling and process monitoring. <i>Journal of Process Control</i> , 2018, 67, 1-11.	1.7	301
21	Demand reduction in building energy systems based on economic model predictive control. <i>Chemical Engineering Science</i> , 2012, 67, 92-100.	1.9	297
22	Control performance monitoring – a review and assessment. <i>Computers and Chemical Engineering</i> , 1998, 23, 173-186.	2.0	288
23	Multivariate process monitoring and fault diagnosis by multi-scale PCA. <i>Computers and Chemical Engineering</i> , 2002, 26, 1281-1293.	2.0	266
24	Decentralized Fault Diagnosis of Large-Scale Processes Using Multiblock Kernel Partial Least Squares. <i>IEEE Transactions on Industrial Informatics</i> , 2010, 6, 3-10.	7.2	252
25	MaxSynBio: Avenues Towards Creating Cells from the Bottom Up. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 13382-13392.	7.2	234
26	Quality-relevant and process-relevant fault monitoring with concurrent projection to latent structures. <i>AICHE Journal</i> , 2013, 59, 496-504.	1.8	231
27	An Overview of Nonlinear Model Predictive Control Applications. , 2000, , 369-392.		228
28	Total projection to latent structures for process monitoring. <i>AICHE Journal</i> , 2010, 56, 168-178.	1.8	224
29	A new fault diagnosis method using fault directions in Fisher discriminant analysis. <i>AICHE Journal</i> , 2005, 51, 555-571.	1.8	214
30	Joint diagnosis of process and sensor faults using principal component analysis. <i>Control Engineering Practice</i> , 1998, 6, 457-469.	3.2	213
31	Multiscale Kernel Based Residual Convolutional Neural Network for Motor Fault Diagnosis Under Nonstationary Conditions. <i>IEEE Transactions on Industrial Informatics</i> , 2020, 16, 3797-3806.	7.2	211
32	Advances and opportunities in machine learning for process data analytics. <i>Computers and Chemical Engineering</i> , 2019, 126, 465-473.	2.0	209
33	A new subspace identification approach based on principal component analysis. <i>Journal of Process Control</i> , 2002, 12, 841-855.	1.7	208
34	Reconstruction-Based Contribution for Process Monitoring with Kernel Principal Component Analysis. <i>Industrial & Engineering Chemistry Research</i> , 2010, 49, 7849-7857.	1.8	183
35	Determining the number of principal components for best reconstruction. <i>Journal of Process Control</i> , 2000, 10, 245-250.	1.7	182
36	Analysis and generalization of fault diagnosis methods for process monitoring. <i>Journal of Process Control</i> , 2011, 21, 322-330.	1.7	181

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37	Multiway Gaussian Mixture Model Based Multiphase Batch Process Monitoring. Industrial & Engineering Chemistry Research, 2009, 48, 8585-8594.	1.8	177
38	Fault Detection of Non-Linear Processes Using Kernel Independent Component Analysis. Canadian Journal of Chemical Engineering, 2007, 85, 526-536.	0.9	168
39	Multiblock Principal Component Analysis Based on a Combined Index for Semiconductor Fault Detection and Diagnosis. IEEE Transactions on Semiconductor Manufacturing, 2006, 19, 159-172.	1.4	166
40	A New Method of Dynamic Latent-Variable Modeling for Process Monitoring. IEEE Transactions on Industrial Electronics, 2014, 61, 6438-6445.	5.2	162
41	Comparison of four neural net learning methods for dynamic system identification. IEEE Transactions on Neural Networks, 1992, 3, 122-130.	4.8	161
42	Overview of Surrogate Modeling in Chemical Process Engineering. Chemie-Ingenieur-Technik, 2019, 91, 228-239.	0.4	154
43	Computer-aided design of ionic liquids as solvents for extractive desulfurization. AIChE Journal, 2018, 64, 1013-1025.	1.8	152
44	Detection and identification of faulty sensors in dynamic processes. AIChE Journal, 2001, 47, 1581-1593.	1.8	151
45	Closed-loop subspace identification: an orthogonal projection approach. Journal of Process Control, 2005, 15, 53-66.	1.7	146
46	Root cause diagnosis of plant-wide oscillations using Granger causality. Journal of Process Control, 2014, 24, 450-459.	1.7	145
47	Generalized Reconstruction-Based Contributions for Output-Relevant Fault Diagnosis With Application to the Tennessee Eastman Process. IEEE Transactions on Control Systems Technology, 2011, 19, 1114-1127.	3.2	142
48	Semiconductor manufacturing process control and monitoring: A fab-wide framework. Journal of Process Control, 2006, 16, 179-191.	1.7	139
49	Consistent dynamic PCA based on errors-in-variables subspace identification. Journal of Process Control, 2001, 11, 661-678.	1.7	135
50	A Curve Fitting Method for Detecting Valve Stiction in Oscillating Control Loops. Industrial & Engineering Chemistry Research, 2007, 46, 4549-4560.	1.8	134
51	Detection, identification, and reconstruction of faulty sensors with maximized sensitivity. AIChE Journal, 1999, 45, 1963-1976.	1.8	131
52	Systematic Method for Screening Ionic Liquids as Extraction Solvents Exemplified by an Extractive Desulfurization Process. ACS Sustainable Chemistry and Engineering, 2017, 5, 3382-3389.	3.2	116
53	Fault Detection of Nonlinear Processes Using Multiway Kernel Independent Component Analysis. Industrial & Engineering Chemistry Research, 2007, 46, 7780-7787.	1.8	115
54	A two-stage iterative learning control technique combined with real-time feedback for independent disturbance rejection. Automatica, 2004, 40, 1913-1922.	3.0	114

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55	A multiregion fuzzy logic controller for nonlinear process control. IEEE Transactions on Fuzzy Systems, 1994, 2, 74-81.	6.5	107
56	Multiblock Concurrent PLS for Decentralized Monitoring of Continuous Annealing Processes. IEEE Transactions on Industrial Electronics, 2014, 61, 6429-6437.	5.2	107
57	Reconstruction based fault prognosis for continuous processes. Control Engineering Practice, 2010, 18, 1211-1219.	3.2	106
58	Fault detection of plasma etchers using optical emission spectra. IEEE Transactions on Semiconductor Manufacturing, 2000, 13, 374-385.	1.4	103
59	Data-driven root cause diagnosis of faults in process industries. Chemometrics and Intelligent Laboratory Systems, 2016, 159, 1-11.	1.8	102
60	Self-Validating Inferential Sensors with Application to Air Emission Monitoring. Industrial & Engineering Chemistry Research, 1997, 36, 1675-1685.	1.8	101
61	Statistical MIMO controller performance monitoring. Part I: Data-driven covariance benchmark. Journal of Process Control, 2008, 18, 277-296.	1.7	100
62	Optimal operational control for complex industrial processes. Annual Reviews in Control, 2014, 38, 81-92.	4.4	100
63	Quality Relevant Data-Driven Modeling and Monitoring of Multivariate Dynamic Processes: The Dynamic T-PLS Approach. IEEE Transactions on Neural Networks, 2011, 22, 2262-2271.	4.8	98
64	Closed-loop subspace identification using the parity space. Automatica, 2006, 42, 315-320.	3.0	97
65	Application of economic MPC to the energy and demand minimization of a commercial building. Journal of Process Control, 2014, 24, 1282-1291.	1.7	97
66	Improved nonlinear fault detection technique and statistical analysis. AIChE Journal, 2008, 54, 3207-3220.	1.8	96
67	Toward Artificial Mitochondrion: Mimicking Oxidative Phosphorylation in Polymer and Hybrid Membranes. Nano Letters, 2017, 17, 6816-6821.	4.5	96
68	Sustainability of green solvents – review and perspective. Green Chemistry, 2022, 24, 410-437.	4.6	95
69	Online monitoring of nonlinear multivariate industrial processes using filtering KICA-PCA. Control Engineering Practice, 2014, 22, 205-216.	3.2	94
70	Recent developments in multivariable controller performance monitoring. Journal of Process Control, 2007, 17, 221-227.	1.7	93
71	A novel subspace identification approach with enforced causal models. Automatica, 2005, 41, 2043-2053.	3.0	87
72	A unified geometric approach to process and sensor fault identification and reconstruction. Computers and Chemical Engineering, 1998, 22, 927-943.	2.0	84

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73	Bridging systems theory and data science: A unifying review of dynamic latent variable analytics and process monitoring. <i>Annual Reviews in Control</i> , 2020, 50, 29-48.	4.4	84
74	Concurrent quality and process monitoring with canonical correlation analysis. <i>Journal of Process Control</i> , 2017, 60, 95-103.	1.7	83
75	Dynamics of CO ₂ Absorption and Desorption Processes in Alkanolamine with Cosolvent Polyethylene Glycol. <i>Industrial & Engineering Chemistry Research</i> , 2012, 51, 12081-12088.	1.8	82
76	Integrated solvent and process design exemplified for a Diels-Alder reaction. <i>AIChE Journal</i> , 2015, 61, 147-158.	1.8	81
77	Decentralized Fault Diagnosis of Continuous Annealing Processes Based on Multilevel PCA. <i>IEEE Transactions on Automation Science and Engineering</i> , 2013, 10, 687-698.	3.4	80
78	Autoregressive Dynamic Latent Variable Models for Process Monitoring. <i>IEEE Transactions on Control Systems Technology</i> , 2017, 25, 366-373.	3.2	79
79	Regression on dynamic PLS structures for supervised learning of dynamic data. <i>Journal of Process Control</i> , 2018, 68, 64-72.	1.7	77
80	CO ₂ methanation: Optimal start-up control of a fixed-bed reactor for power-to-gas applications. <i>AIChE Journal</i> , 2017, 63, 23-31.	1.8	76
81	Optimal Solvent Design for Extractive Distillation Processes: A Multiobjective Optimization-Based Hierarchical Framework. <i>Industrial & Engineering Chemistry Research</i> , 2019, 58, 5777-5786.	1.8	72
82	Nonlinear FIR modeling via a neural net PLS approach. <i>Computers and Chemical Engineering</i> , 1996, 20, 147-159.	2.0	69
83	Statistical MIMO controller performance monitoring. Part II: Performance diagnosis. <i>Journal of Process Control</i> , 2008, 18, 297-319.	1.7	69
84	Predictive control methods to improve energy efficiency and reduce demand in buildings. <i>Computers and Chemical Engineering</i> , 2013, 51, 77-85.	2.0	66
85	Performance monitoring of model-predictive controllers via model residual assessment. <i>Journal of Process Control</i> , 2013, 23, 473-482.	1.7	66
86	Dynamic latent variable analytics for process operations and control. <i>Computers and Chemical Engineering</i> , 2018, 114, 69-80.	2.0	66
87	Deactivation of Modified Iron Oxide Materials in the Cyclic Water Gas Shift Process for CO-Free Hydrogen Production. <i>Industrial & Engineering Chemistry Research</i> , 2008, 47, 303-310.	1.8	65
88	Systematic Screening of Deep Eutectic Solvents as Sustainable Separation Media Exemplified by the CO ₂ Capture Process. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 8741-8751.	3.2	64
89	Projection based MIMO control performance monitoring: λ -covariance monitoring in state space. <i>Journal of Process Control</i> , 2003, 13, 739-757.	1.7	63
90	Closed-loop subspace identification with innovation estimation. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2003, 36, 861-866.	0.4	61

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91	Sensor validation and process fault diagnosis for FCC units under MPC feedback. Control Engineering Practice, 2001, 9, 877-888.	3.2	60
92	On-line batch process monitoring using a consecutively updated multiway principal component analysis model. Computers and Chemical Engineering, 2003, 27, 1903-1912.	2.0	60
93	Data-driven Fault Detection and Diagnosis for Complex Industrial Processes. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2009, 42, 1115-1125.	0.4	59
94	Use of principal component analysis for sensor fault identification. Computers and Chemical Engineering, 1996, 20, S713-S718.	2.0	56
95	Out-of-equilibrium microcompartments for the bottom-up integration of metabolic functions. Nature Communications, 2018, 9, 2391.	5.8	55
96	Extending the UNIFAC model for ionic liquid-solute systems by combining experimental and computational databases. AIChE Journal, 2020, 66, e16821.	1.8	55
97	Economic model predictive control for building energy systems. , 2011, , .		54
98	A hybrid stochastic-deterministic optimization approach for integrated solvent and process design. Chemical Engineering Science, 2017, 159, 207-216.	1.9	53
99	Output Relevant Fault Reconstruction and Fault Subspace Extraction in Total Projection to Latent Structures Models. Industrial & Engineering Chemistry Research, 2010, 49, 9175-9183.	1.8	52
100	Dynamic-Inner Partial Least Squares for Dynamic Data Modeling. IFAC-PapersOnLine, 2015, 48, 117-122.	0.5	52
101	Plasma etching endpoint detection using multiple wavelengths for small open-area wafers. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2001, 19, 66-75.	0.9	51
102	Simultaneous design of the optimal reaction and process concept for multiphase systems. Chemical Engineering Science, 2014, 115, 69-87.	1.9	51
103	Adaptive actuator fault compensation for linear systems with matching and unmatching uncertainties. Journal of Process Control, 2009, 19, 985-990.	1.7	50
104	Synthesis of Single-Crystal Gold Nano- and Microprisms Using a Solvent-Reductant-Template Ionic Liquid. European Journal of Inorganic Chemistry, 2008, 2008, 3769-3775.	1.0	49
105	Rational design of double salt ionic liquids as extraction solvents: Separation of thiophene/n-octane as example. AIChE Journal, 2019, 65, e16625.	1.8	48
106	Recursive Least Squares Estimation for Run-to-Run Control With Metrology Delay and Its Application to STI Etch Process. IEEE Transactions on Semiconductor Manufacturing, 2005, 18, 309-319.	1.4	47
107	Dynamic concurrent kernel CCA for strip-thickness relevant fault diagnosis of continuous annealing processes. Journal of Process Control, 2018, 67, 12-22.	1.7	47
108	On the Stability of MIMO EWMA Run-to-Run Controllers With Metrology Delay. IEEE Transactions on Semiconductor Manufacturing, 2006, 19, 78-86.	1.4	46

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109	Discriminating between disturbance and process model mismatch in model predictive control. Journal of Process Control, 2009, 19, 1610-1616.	1.7	46
110	Hydrogen and Carbon Monoxide Production by Chemical Looping over Iron-Aluminium Oxides. Energy Technology, 2016, 4, 304-313.	1.8	45
111	Comprehensive monitoring of nonlinear processes based on concurrent kernel projection to latent structures. IEEE Transactions on Automation Science and Engineering, 2016, 13, 1129-1137.	3.4	45
112	Dynamic Nonlinear Partial Least Squares Modeling Using Gaussian Process Regression. Industrial & Engineering Chemistry Research, 2019, 58, 16676-16686.	1.8	44
113	Minimum variance performance map for constrained model predictive control. Journal of Process Control, 2009, 19, 1199-1204.	1.7	43
114	Adaptive actuator/component fault compensation for nonlinear systems. AIChE Journal, 2008, 54, 2404-2412.	1.8	42
115	Comparison of flocculation methods for harvesting Dunaliella. Bioresource Technology, 2015, 196, 145-152.	4.8	42
116	Thermomorphic solvent selection for homogeneous catalyst recovery based on COSMO-RS. Chemical Engineering and Processing: Process Intensification, 2016, 99, 97-106.	1.8	42
117	Model-based Optimal Sabatier Reactor Design for Power-to-Gas Applications. Energy Technology, 2017, 5, 911-921.	1.8	42
118	Neural recommender system for the activity coefficient prediction and UNIFAC model extension of ionic liquid-solute systems. AIChE Journal, 2021, 67, e17171.	1.8	42
119	VLE and LLE Data for the System Cyclohexane + Cyclohexene + Water + Cyclohexanol. Journal of Chemical & Engineering Data, 2004, 49, 1675-1681.	1.0	41
120	Fault Diagnosis in the Feedback-Invariant Subspace of Closed-Loop Systems. Industrial & Engineering Chemistry Research, 2005, 44, 2359-2368.	1.8	41
121	Achieving state estimation equivalence for misassigned disturbances in offset-free model predictive control. AIChE Journal, 2009, 55, 396-407.	1.8	41
122	Evaluation of COSMO-RS for solid-liquid equilibria prediction of binary eutectic solvent systems. Green Energy and Environment, 2021, 6, 371-379.	4.7	41
123	Total PLS Based Contribution Plots for Fault Diagnosis. Zidonghua Xuebao/Acta Automatica Sinica, 2009, 35, 759-765.	0.3	41
124	Continuous Crystallization in a Helically Coiled Flow Tube: Analysis of Flow Field, Residence Time Behavior, and Crystal Growth. Industrial & Engineering Chemistry Research, 2017, 56, 3699-3712.	1.8	40
125	Prediction of acid dissociation constants of organic compounds using group contribution methods. Chemical Engineering Science, 2018, 183, 95-105.	1.9	40
126	Dynamic latent variable regression for inferential sensor modeling and monitoring. Computers and Chemical Engineering, 2020, 137, 106809.	2.0	39

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127	Efficient Dynamic Latent Variable Analysis for High-Dimensional Time Series Data. IEEE Transactions on Industrial Informatics, 2020, 16, 4068-4076.	7.2	39
128	Constructing artificial respiratory chain in polymer compartments: Insights into the interplay between bo <i>3</i> oxidase and the membrane. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 15006-15017.	3.3	37
129	Fault Detection and Operation Mode Identification Based on Pattern Classification with Variable Selection. Industrial & Engineering Chemistry Research, 2004, 43, 1701-1710.	1.8	36
130	Steady-state analysis of the Anaerobic Digestion Model No. 1 (ADM1). Nonlinear Dynamics, 2013, 73, 535-549.	2.7	36
131	Optimal design of solvents for extractive reaction processes. AIChE Journal, 2016, 62, 3238-3249.	1.8	36
132	Polymer-Based Module for NAD ⁺ Regeneration with Visible Light. ChemBioChem, 2019, 20, 2593-2596.	1.3	36
133	Dynamic Behavior of a PEM Fuel Cell During Electrochemical CO Oxidation on a PtRu Anode. Topics in Catalysis, 2008, 51, 89-97.	1.3	35
134	Dynamic flux balance modeling to increase the production of high-value compounds in green microalgae. Biotechnology for Biofuels, 2016, 9, 165.	6.2	34
135	Thermodynamic analysis and optimization of RWGS processes for solar syngas production from CO ₂ . AIChE Journal, 2017, 63, 15-22.	1.8	34
136	Two-Step Reactive Distillation Process for Cyclohexanol Production from Cyclohexene. Industrial & Engineering Chemistry Research, 2009, 48, 9534-9545.	1.8	32
137	Valorization of the aqueous phase obtained from hydrothermally treated Dunaliella salina remnant biomass. Bioresource Technology, 2016, 219, 64-71.	4.8	32
138	Unevenly Sampled Dynamic Data Modeling and Monitoring With an Industrial Application. IEEE Transactions on Industrial Informatics, 2017, 13, 2203-2213.	7.2	32
139	Supervised Diagnosis of Quality and Process Faults with Canonical Correlation Analysis. Industrial & Engineering Chemistry Research, 2019, 58, 11213-11223.	1.8	32
140	Hybrid Semi-parametric Modeling in Separation Processes: A Review. Chemie-Ingenieur-Technik, 2020, 92, 842-855.	0.4	31
141	Fault diagnosis of continuous annealing processes using a reconstruction-based method. Control Engineering Practice, 2012, 20, 511-518.	3.2	30
142	Offline Predictive Control of Out-of-Plane Shape Deformation for Additive Manufacturing. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2016, 138, .	1.3	30
143	Model-based optimal design of phase change ionic liquids for efficient thermal energy storage. Green Energy and Environment, 2021, 6, 392-404.	4.7	30
144	Computer simulation of gas generation and transport in landfills. V: Use of artificial neural network and the genetic algorithm for short- and long-term forecasting and planning. Chemical Engineering Science, 2011, 66, 2646-2659.	1.9	29

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145	Effect of the MEA design on the performance of PEMWE single cells with different sizes. Journal of Applied Electrochemistry, 2018, 48, 701-711.	1.5	29
146	Comparative study on monitoring schemes for non-Gaussian distributed processes. Journal of Process Control, 2018, 67, 69-82.	1.7	29
147	Dynamic-Inner Canonical Correlation and Causality Analysis for High Dimensional Time Series Data. IFAC-PapersOnLine, 2018, 51, 476-481.	0.5	29
148	Integrated ionic liquid and CO_2 -based absorption process design for gas separation: Global optimization using hybrid models. AIChE Journal, 2021, 67, e17340.	1.8	29
149	Variance component analysis based fault diagnosis of multi-layer overlay lithography processes. IIE Transactions, 2009, 41, 764-775.	2.1	28
150	Probabilistic reactor design in the framework of elementary process functions. Computers and Chemical Engineering, 2016, 94, 45-59.	2.0	28
151	Bottom-Up Synthesis of Artificial Cells: Recent Highlights and Future Challenges. Annual Review of Chemical and Biomolecular Engineering, 2021, 12, 287-308.	3.3	28
152	A strong tracking predictor for nonlinear processes with input time delay. Computers and Chemical Engineering, 2004, 28, 2523-2540.	2.0	27
153	Dynamic latent variable modeling for statistical process monitoring. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 12886-12891.	0.4	27
154	Measurement and simulation of mass transfer and backmixing behavior in a gas-liquid helically coiled tubular reactor. Chemical Engineering Science, 2017, 170, 410-421.	1.9	27
155	MIMO control performance monitoring using left/right diagonal interactors. Journal of Process Control, 2009, 19, 1267-1276.	1.7	26
156	Integrated reaction-extraction process for the hydroformylation of long-chain alkenes with a homogeneous catalyst. Computers and Chemical Engineering, 2017, 105, 212-223.	2.0	26
157	Optimal industrial load control in smart grid: A case study for oil refineries. , 2013, , .		25
158	Nonstationarity and cointegration tests for fault detection of dynamic processes. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 10616-10621.	0.4	25
159	Directed Growth of Biomimetic Microcompartments. Advanced Biology, 2019, 3, e1800314.	3.0	25
160	Distributed Approach for Temporal-Spatial Charging Coordination of Plug-in Electric Taxi Fleet. IEEE Transactions on Industrial Informatics, 2019, 15, 3185-3195.	7.2	25
161	Porosity and Structure of Hierarchically Porous Ni/Al ₂ O ₃ Catalysts for CO ₂ Methanation. Catalysts, 2020, 10, 1471.	1.6	25
162	Sensor Fault Detection via Multiscale Analysis and Nonparametric Statistical Inference. Industrial & Engineering Chemistry Research, 1998, 37, 1024-1032.	1.8	24

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163	Nonlinear Frequency Response Analysis of the Ferrocyanide Oxidation Kinetics. Part II. Measurement Routine and Experimental Validation. <i>Journal of Physical Chemistry C</i> , 2011, 115, 17352-17358.	1.5	24
164	New Dynamic Predictive Monitoring Schemes Based on Dynamic Latent Variable Models. <i>Industrial & Engineering Chemistry Research</i> , 2020, 59, 2353-2365.	1.8	24
165	Adaptive generic model control for a class of nonlinear time-varying processes with input time delay. <i>Journal of Process Control</i> , 2004, 14, 517-531.	1.7	23
166	Concurrent Canonical Correlation Analysis Modeling for Quality-Relevant Monitoring. <i>IFAC-PapersOnLine</i> , 2016, 49, 1044-1049.	0.5	23
167	Nonlinear frequency response analysis for the diagnosis of carbon monoxide poisoning in PEM fuel cell anodes. <i>Journal of Applied Electrochemistry</i> , 2011, 41, 1021-1032.	1.5	22
168	Electrochemical Membrane Reactors for Sustainable Chlorine Recycling. <i>Membranes</i> , 2012, 2, 510-528.	1.4	22
169	Evaluation of Different Process Concepts for the Indirect Hydration of Cyclohexene to Cyclohexanol. <i>Organic Process Research and Development</i> , 2013, 17, 343-358.	1.3	22
170	Feasibility of an Electrochemical Membrane Reactor for the Partial Oxidation of n-Butane to Maleic Anhydride. <i>Industrial & Engineering Chemistry Research</i> , 2004, 43, 4551-4558.	1.8	21
171	Projection based MIMO control performance monitoring: "measured disturbances and setpoint changes". <i>Journal of Process Control</i> , 2005, 15, 89-102.	1.7	21
172	Ultra-low loading Pt-sputtered gas diffusion electrodes for oxygen reduction reaction. <i>Journal of Applied Electrochemistry</i> , 2018, 48, 221-232.	1.5	21
173	β -Carotene extraction from <i>Dunaliella salina</i> by supercritical CO ₂ . <i>Journal of Applied Phycology</i> , 2021, 33, 1435-1445.	1.5	21
174	En route to dynamic life processes by SNARE-mediated fusion of polymer and hybrid membranes. <i>Nature Communications</i> , 2021, 12, 4972.	5.8	21
175	A dynamic growth model of <i>Dunaliella salina</i> : Parameter identification and profile likelihood analysis. <i>Bioresource Technology</i> , 2014, 173, 21-31.	4.8	20
176	Quantitative single cell analysis uncovers the life/death decision in CD95 network. <i>PLoS Computational Biology</i> , 2018, 14, e1006368.	1.5	20
177	Graph neural networks for the prediction of infinite dilution activity coefficients. , 2022, 1, 216-225.		20
178	Partial least squares regression for recursive system identification. , 0, , .		19
179	Recursive PCA for Adaptive Process Monitoring. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 1999, 32, 6686-6691.	0.4	19
180	On-line data compression and error analysis using wavelet technology. <i>AIChE Journal</i> , 2000, 46, 119-132.	1.8	19

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181	Bias-eliminated subspace model identification under time-varying deterministic type load disturbance. <i>Journal of Process Control</i> , 2015, 25, 41-49.	1.7	19
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