S Joe Qin

List of Publications by Year
in descending order

374 papers	27,177 citations	7568 77 h-index	6471 157 g-index
391 all docs	391 docs citations	391 times ranked	12205 citing authors

#	Article	IF	Citations
1	Extracting a low-dimensional predictable time series. Optimization and Engineering, 2022, 23, 1189-1214.	2.4	5
2	Load-flexible fixed-bed reactors by multi-period design optimization. Chemical Engineering Journal, 2022, 428, 130771.	12.7	18
3	Kernel-Based Statistical Process Monitoring and Fault Detection in the Presence of Missing Data. IEEE Transactions on Industrial Informatics, 2022, 18, 4477-4487.	11.3	15
4	Integrated metalâ€“organic framework and pressure/vacuum swing adsorption process design: Descriptor optimization. AIChE Journal, 2022, 68, e17524.	3.6	12
5	Fusionâ€Induced Growth of Biomimetic Polymersomes: Behavior of Poly(dimethylsiloxane)â€Poly(ethylene) Tj ETQq1 1 0.784314 rgB 2022, 43, e2100712.	3.9	6
6	Fault diagnosis of dynamic processes with reconstruction and magnitude profile estimation for an industrial application. Control Engineering Practice, 2022, 121, 105008.	5.5	12
7	Sustainability of green solvents â€“ review and perspective. Green Chemistry, 2022, 24, 410-437.	9.0	95
8	Graph neural networks for the prediction of infinite dilution activity coefficients. , 2022, 1, 216-225.		20
9	Digitization in Catalysis Research: Towards a Holistic Description of a Ni/Al₂O₃ Reference Catalyst for CO₂ Methanation. ChemCatChem, 2022, 14, .	3.7	14
10	Latent vector autoregressive modeling and feature analysis of high dimensional and noisy data from dynamic systems. AIChE Journal, 2022, 68, .	3.6	7
11	Computational Screening of Metal-Organic Frameworks for Ethylene Purification from Ethane/Ethylene/Acetylene Mixture. Nanomaterials, 2022, 12, 869.	4.1	3
12	Multiscale process systems engineeringâ€”analysis and design of chemical and energy systems from molecular design up to process optimization. Frontiers of Chemical Science and Engineering, 2022, 16, 137-140.	4.4	0
13	Increased efficiency of charge-mediated fusion in polymer/lipid hybrid membranes. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2122468119.	7.1	13
14	Latent State Space Modeling of High-Dimensional Time Series With a Canonical Correlation Objective. , 2022, 6, 3469-3474.		5
15	Rational Screening of Deep Eutectic Solvents for the Direct Extraction of Î±-Tocopherol from Deodorized Distillates. ACS Sustainable Chemistry and Engineering, 2022, 10, 8216-8227.	6.7	12
16	Evaluation of COSMO-RS for solidâ€“liquid equilibria prediction of binary eutectic solvent systems. Green Energy and Environment, 2021, 6, 371-379.	8.7	41
17	Neural recommender system for the activity coefficient prediction and<scp>UNIFAC</scp>model extension of ionic<scp>liquidâ€solute</scp>systems. AIChE Journal, 2021, 67, e17171.	3.6	42
18	Stable Lasso for Model Structure Learning of Inferential Sensor Modeling. IFAC-PapersOnLine, 2021, 54, 228-233.	0.9	2

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19	Î²-Carotene extraction from Dunaliella salina by supercritical CO2. Journal of Applied Phycology, 2021, 33, 1435-1445.	2.8	21
20	Scale up of Transmembrane NADH Oxidation in Synthetic Giant Vesicles. Bioconjugate Chemistry, 2021, 32, 897-903.	3.6	3
21	Bottom-Up Synthesis of Artificial Cells: Recent Highlights and Future Challenges. Annual Review of Chemical and Biomolecular Engineering, 2021, 12, 287-308.	6.8	28
22	Model-based optimal design of phase change ionic liquids for efficient thermal energy storage. Green Energy and Environment, 2021, 6, 392-404.	8.7	30
23	Integrated ionic liquid and <scp>rateâ€based</scp> absorption process design for gas separation: Global optimization using hybrid models. AICHE Journal, 2021, 67, e17340.	3.6	29
24	Guest Editorial Special Issue on Deep Integration of Artificial Intelligence and Data Science for Process Manufacturing. IEEE Transactions on Neural Networks and Learning Systems, 2021, 32, 3294-3295.	11.3	2
25	En route to dynamic life processes by SNARE-mediated fusion of polymer and hybrid membranes. Nature Communications, 2021, 12, 4972.	12.8	21
26	Plant-wide troubleshooting and diagnosis using dynamic embedded latent feature analysis. Computers and Chemical Engineering, 2021, 152, 107392.	3.8	9
27	Integration of process knowledge and statistical learning for the Dow data challenge problem. Computers and Chemical Engineering, 2021, 153, 107451.	3.8	12
28	Guest Editorial: Industrial Artificial Intelligence for Smart Manufacturing. IEEE Transactions on Industrial Informatics, 2021, 17, 8319-8323.	11.3	2
29	Adaptive dynamic predictive monitoring scheme based on DLV models. IFAC-PapersOnLine, 2021, 54, 91-96.	0.9	0
30	A stable Lasso algorithm for inferential sensor structure learning and parameter estimation. Journal of Process Control, 2021, 107, 70-82.	3.3	6
31	Computer-aided solvent screening for the fractionation of wet microalgae biomass. Green Chemistry, 2021, 23, 10014-10029.	9.0	4
32	Latent Vector Autoregressive Modeling for Reduced Dimensional Dynamic Feature Extraction and Prediction. , 2021, , .		2
33	A Non-iterative Partial Least Squares Algorithm for Supervised Learning with Collinear Data. , 2021, , .		0
34	Multiscale Kernel Based Residual Convolutional Neural Network for Motor Fault Diagnosis Under Nonstationary Conditions. IEEE Transactions on Industrial Informatics, 2020, 16, 3797-3806.	11.3	211
35	Modeling inter-layer interactions for out-of-plane shape deviation reduction in additive manufacturing. IISE Transactions, 2020, 52, 721-731.	2.4	15
36	Extending the UNIFAC model for ionic liquidâ€“solute systems by combining experimental and computational databases. AICHE Journal, 2020, 66, e16821.	3.6	55

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37	New Dynamic Predictive Monitoring Schemes Based on Dynamic Latent Variable Models. Industrial & Engineering Chemistry Research, 2020, 59, 2353-2365.	3.7	24
38	Reconstruction and analysis of a carbon-core metabolic network for Dunaliella salina. BMC Bioinformatics, 2020, 21, 1.	2.6	379
39	Subspace model identification under load disturbance with unknown transient and periodic dynamics. Journal of Process Control, 2020, 85, 100-111.	3.3	8
40	Bridging systems theory and data science: A unifying review of dynamic latent variable analytics and process monitoring. Annual Reviews in Control, 2020, 50, 29-48.	7.9	84
41	Power-to-Syngas Processes by Reactor-Separator Superstructure Optimization. Computer Aided Chemical Engineering, 2020, 48, 1387-1392.	0.5	0
42	Dynamic-Inner Canonical Correlation Analysis based Process Monitoring. , 2020, , .		2
43	Precise determination of LJ parameters and Eucken correction factors for a more accurate modeling of transport properties in gases. Heat and Mass Transfer, 2020, 56, 2515-2527.	2.1	2
44	On the role of microkinetic network structure in the interplay between oxygen evolution reaction and catalyst dissolution. Scientific Reports, 2020, 10, 14140.	3.3	9
45	Porosity and Structure of Hierarchically Porous Ni/Al2O3 Catalysts for CO2 Methanation. Catalysts, 2020, 10, 1471.	3.5	25
46	Hybrid Semiâ€parametric Modeling in Separation Processes: A Review. Chemie-Ingenieur-Technik, 2020, 92, 842-855.	0.8	31
47	Symmetry Breaking and Emergence of Directional Flows in Minimal Actomyosin Cortices. Cells, 2020, 9, 1432.	4.1	7
48	Dynamic latent variable regression for inferential sensor modeling and monitoring. Computers and Chemical Engineering, 2020, 137, 106809.	3.8	39
49	Efficient Dynamic Latent Variable Analysis for High-Dimensional Time Series Data. IEEE Transactions on Industrial Informatics, 2020, 16, 4068-4076.	11.3	39
50	Selectivity and Sustainability of Electroenzymatic Process for Glucose Conversion to Gluconic Acid. Catalysts, 2020, 10, 269.	3.5	8
51	Constructing artificial respiratory chain in polymer compartments: Insights into the interplay betweenbo₃oxidase and the membrane. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 15006-15017.	7.1	37
52	Systematic Screening of Deep Eutectic Solvents as Sustainable Separation Media Exemplified by the CO₂ Capture Process. ACS Sustainable Chemistry and Engineering, 2020, 8, 8741-8751.	6.7	64
53	On Data Science for Process Systems Modeling, Control and Operations. IFAC-PapersOnLine, 2020, 53, 11325-11331.	0.9	2
54	Dynamic Weighted Canonical Correlation Analysis for Auto-Regressive Modeling. IFAC-PapersOnLine, 2020, 53, 200-205.	0.9	1

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55	Dynamic Nonlinear Partial Least Squares Modeling Using Gaussian Process Regression. Industrial & Engineering Chemistry Research, 2019, 58, 16676-16686.	3.7	44
56	Back Cover: Bottomâ€Up Synthetic Biology: Towards the Modular Design of Artifical Cells from Functional Modules (Adv. Biosys. 6/2019). Advanced Biology, 2019, 3, 1970062.	3.0	0
57	Latent Variable Regression for Process and Quality Modeling. , 2019, , .		4
58	Miniplant-Scale Evaluation of a Semibatch-Continuous Tandem Reactor System for the Hydroformylation of Long-Chain Olefins. Industrial & Engineering Chemistry Research, 2019, 58, 2471-2480.	3.7	5
59	The FluxMax approach for simultaneous process synthesis and heat integration: Production of hydrogen cyanide. AICHE Journal, 2019, 65, e16554.	3.6	15
60	Dynamic characterization of geologic CO2 storage aquifers from monitoring data with ensemble Kalman filter. International Journal of Greenhouse Gas Control, 2019, 81, 199-215.	4.6	18
61	Energyâ€Efficient Gasâ€Phase Electrolysis ofÂHydrogen Chloride. Chemie-Ingenieur-Technik, 2019, 91, 795-808.	0.8	10
62	Bottomâ€Up Synthetic Biology: Towards the Modular Design of Artifical Cells from Functional Modules. Advanced Biology, 2019, 3, 1900095.	3.0	2
63	Classification and Diagnosis of Bioprocess Cell Growth Productions Using Early-Stage Data. Industrial & Engineering Chemistry Research, 2019, 58, 13469-13480.	3.7	7
64	Rational design of double salt ionic liquids as extraction solvents: Separation of thiophene/nâ€octane as example. AICHE Journal, 2019, 65, e16625.	3.6	48
65	Compartments for Synthetic Cells: Osmotically Assisted Separation of Oil from Double Emulsions in a Microfluidic Chip. ChemBioChem, 2019, 20, 2604-2608.	2.6	19
66	Advances and opportunities in machine learning for process data analytics. Computers and Chemical Engineering, 2019, 126, 465-473.	3.8	209
67	Supervised Diagnosis of Quality and Process Faults with Canonical Correlation Analysis. Industrial & Engineering Chemistry Research, 2019, 58, 11213-11223.	3.7	32
68	Derivation of rate equations for equilibrium limited gas-solid reactions. Chemical Engineering Science, 2019, 203, 76-85.	3.8	2
69	Polymerâ€Based Module for NAD⁺ Regeneration with Visible Light. ChemBioChem, 2019, 20, 2593-2596.	2.6	36
70	Optimal Solvent Design for Extractive Distillation Processes: A Multiobjective Optimization-Based Hierarchical Framework. Industrial & Engineering Chemistry Research, 2019, 58, 5777-5786.	3.7	72
71	Directed Growth of Biomimetic Microcompartments. Advanced Biology, 2019, 3, e1800314.	3.0	25
72	Dynamic Processes Modeling and Monitoring based on a Novel Dynamic Latent Variable Model. , 2019, , .		0

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73	Systematic Selection of Green Solvents and Process Optimization for the Hydroformylation of Long-Chain Olefines. Processes, 2019, 7, 882.	2.8	6
74	Surrogate Modeling for Liquidâ€“Liquid Equilibria Using a Parameterization of the Binodal Curve. Processes, 2019, 7, 753.	2.8	6
75	Overview of Surrogate Modeling in Chemical Process Engineering. Chemie-Ingenieur-Technik, 2019, 91, 228-239.	0.8	154
76	Distributed Approach for Temporalâ€“Spatial Charging Coordination of Plug-in Electric Taxi Fleet. IEEE Transactions on Industrial Informatics, 2019, 15, 3185-3195.	11.3	25
77	A Guide to Concentration Alternating Frequency Response Analysis of Fuel Cells. Journal of Visualized Experiments, 2019, , .	0.3	0
78	Effect of the MEA design on the performance of PEMWE single cells with different sizes. Journal of Applied Electrochemistry, 2018, 48, 701-711.	2.9	29
79	Ultra-low loading Pt-sputtered gas diffusion electrodes for oxygen reduction reaction. Journal of Applied Electrochemistry, 2018, 48, 221-232.	2.9	21
80	Transmembrane NADH Oxidation with Tetracyanoquinodimethane. Langmuir, 2018, 34, 5435-5443.	3.5	12
81	Prediction of acid dissociation constants of organic compounds using group contribution methods. Chemical Engineering Science, 2018, 183, 95-105.	3.8	40
82	Comparative study on monitoring schemes for non-Gaussian distributed processes. Journal of Process Control, 2018, 67, 69-82.	3.3	29
83	Dynamic concurrent kernel CCA for strip-thickness relevant fault diagnosis of continuous annealing processes. Journal of Process Control, 2018, 67, 12-22.	3.3	47
84	A novel dynamic PCA algorithm for dynamic data modeling and process monitoring. Journal of Process Control, 2018, 67, 1-11.	3.3	301
85	Computerâ€aided design of ionic liquids as solvents for extractive desulfurization. AICHE Journal, 2018, 64, 1013-1025.	3.6	152
86	Sequential bottom-up assembly of mechanically stabilized synthetic cells by microfluidics. Nature Materials, 2018, 17, 89-96.	27.5	314
87	Dynamic latent variable analytics for process operations and control. Computers and Chemical Engineering, 2018, 114, 69-80.	3.8	66
88	Thermodynamic Network Flow Approach for Chemical Process Synthesis. Computer Aided Chemical Engineering, 2018, 43, 881-886.	0.5	3
89	Regularized LTI System Identification with Multiple Regularization Matrix. IFAC-PapersOnLine, 2018, 51, 180-185.	0.9	7
90	Hybrid Latent Variable Modeling of High Dimensional Time Series Data. IFAC-PapersOnLine, 2018, 51, 563-568.	0.9	2

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91	DiCCA with Discrete-Fourier Transforms for Power System Events Detection and Localization. IFAC-PapersOnLine, 2018, 51, 726-731.	0.9	4
92	Map-Reduce Decentralized PCA for Big Data Monitoring and Diagnosis of Faults in High-Speed Train Bearings. IFAC-PapersOnLine, 2018, 51, 144-149.	0.9	11
93	A Platform for Fault Diagnosis of High-Speed Train based on Big Data. IFAC-PapersOnLine, 2018, 51, 309-314.	0.9	11
94	Dynamic-Inner Canonical Correlation and Causality Analysis for High Dimensional Time Series Data. IFAC-PapersOnLine, 2018, 51, 476-481.	0.9	29
95	Maximizing Fault Detectability with Closed-Loop Control. IFAC-PapersOnLine, 2018, 51, 696-701.	0.9	0
96	Quantitative single cell analysis uncovers the life/death decision in CD95 network. PLoS Computational Biology, 2018, 14, e1006368.	3.2	20
97	Identification of Key Transport Phenomena in High-Temperature Reactors: Flow and Heat Transfer Characteristics. Industrial & Engineering Chemistry Research, 2018, 57, 15884-15897.	3.7	6
98	Mechanisms behind overshoots in mean cluster size profiles in aggregation-breakup processes. Journal of Colloid and Interface Science, 2018, 528, 336-348.	9.4	8
99	Regression on dynamic PLS structures for supervised learning of dynamic data. Journal of Process Control, 2018, 68, 64-72.	3.3	77
100	Linear Programming Approach for Structure Optimization of Renewable-to-Chemicals (R2Chem) Production Networks. Industrial & Engineering Chemistry Research, 2018, 57, 9889-9902.	3.7	16
101	MaxSynBio: Avenues Towards Creating Cells from the Bottom Up. Angewandte Chemie - International Edition, 2018, 57, 13382-13392.	13.8	234
102	Process Variability Source Analysis for a Multi-step Bio-process. Computer Aided Chemical Engineering, 2018, , 2497-2502.	0.5	0
103	Out-of-equilibrium microcompartments for the bottom-up integration of metabolic functions. Nature Communications, 2018, 9, 2391.	12.8	55
104	A hybrid stochasticâ€“deterministic optimization approach for integrated solvent and process design. Chemical Engineering Science, 2017, 159, 207-216.	3.8	53
105	Autoregressive Dynamic Latent Variable Models for Process Monitoring. IEEE Transactions on Control Systems Technology, 2017, 25, 366-373.	5.2	79
106	Measurement and simulation of mass transfer and backmixing behavior in a gas-liquid helically coiled tubular reactor. Chemical Engineering Science, 2017, 170, 410-421.	3.8	27
107	Systematic Method for Screening Ionic Liquids as Extraction Solvents Exemplified by an Extractive Desulfurization Process. ACS Sustainable Chemistry and Engineering, 2017, 5, 3382-3389.	6.7	116
108	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.	3.7	40

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109	Unevenly Sampled Dynamic Data Modeling and Monitoring With an Industrial Application. IEEE Transactions on Industrial Informatics, 2017, 13, 2203-2213.	11.3	32
110	Modelâ€based Optimal Sabatier Reactor Design for Powerâ€toâ€Gas Applications. Energy Technology, 2017, 5, 911-921.	3.8	42
111	Toward Artificial Mitochondrion: Mimicking Oxidative Phosphorylation in Polymer and Hybrid Membranes. Nano Letters, 2017, 17, 6816-6821.	9.1	96
112	Optimal Reactor Design via Flux Profile Analysis for an Integrated Hydroformylation Process. Industrial & Engineering Chemistry Research, 2017, 56, 11507-11518.	3.7	18
113	Concurrent quality and process monitoring with canonical correlation analysis. Journal of Process Control, 2017, 60, 95-103.	3.3	83
114	Distributed optimization of multi-building energy systems with spatially and temporally coupled constraints. , 2017, , .		7
115	Quality-relevant fault detection of nonlinear processes based on kernel concurrent canonical correlation analysis. , 2017, , .		6
116	Crystal Population Growth in a Continuous Helically Coiled Flow Tube Crystallizer. Chemical Engineering and Technology, 2017, 40, 1584-1590.	1.5	16
117	Thermodynamic analysis and optimization of RWGS processes for solar syngas production from CO₂. AIChE Journal, 2017, 63, 15-22.	3.6	34
118	CO₂ methanation: Optimal startâ€up control of a fixedâ€bed reactor for powerâ€toâ€gas applications. AIChE Journal, 2017, 63, 23-31.	3.6	76
119	Integrated reactionâ€“extraction process for the hydroformylation of long-chain alkenes with a homogeneous catalyst. Computers and Chemical Engineering, 2017, 105, 212-223.	3.8	26
120	Concurrent Monitoring and Diagnosis of Process and Quality Faults with Canonical Correlation Analysis. IFAC-PapersOnLine, 2017, 50, 7999-8004.	0.9	10
121	Physics-Based Surrogate Models for Optimal Control of a CO 2 Methanation Reactor. Computer Aided Chemical Engineering, 2017, 40, 127-132.	0.5	3
122	Economic linear objective function approach for structure optimization of renewables-to-chemicals (R2Chem) networks. Computer Aided Chemical Engineering, 2017, 40, 1975-1980.	0.5	3
123	Sliding window games for cooperative building temperature control using a distributed learning method. Frontiers of Engineering Management, 2017, 4, 304.	6.1	5
124	Dynamic Optimization of Constrained Semi-Batch Processes using Pontryaginâ€™s Minimum Principle and Parsimonious Parameterization. Computer Aided Chemical Engineering, 2017, 40, 2041-2046.	0.5	0
125	Computationally Efficient Steady-State Process Simulation by Applying a Simultaneous Dynamic Method. Computer Aided Chemical Engineering, 2016, 38, 517-522.	0.5	3
126	Optimal design of solvents for extractive reaction processes. AIChE Journal, 2016, 62, 3238-3249.	3.6	36

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127	Hydrogen and Carbon Monoxide Production by Chemical Looping over Ironâ€Aluminium Oxides. Energy Technology, 2016, 4, 304-313.	3.8	45
128	Feature selection based on concurrent projection to latent structures for high dimensional spectra data. , 2016, , .		1
129	Offline Predictive Control of Out-of-Plane Shape Deformation for Additive Manufacturing. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2016, 138, .	2.2	30
130	Material development and process optimization for gas-phase hydrogen chloride electrolysis with oxygen depolarized cathode. Journal of Applied Electrochemistry, 2016, 46, 755-767.	2.9	7
131	Binding kinetics and multi-bond: Finding correlations by synthesizing interactions between ligand-coated bionanoparticles and receptor surfaces. Analytical Biochemistry, 2016, 505, 8-17.	2.4	2
132	Diagnostic concept for dynamically operated biogas production plants. Renewable Energy, 2016, 96, 479-489.	8.9	18
133	Bi-level Demand Response Game with Information Sharing among Consumers**The work is supported in part by Alberta Innovates Technology Futures (AITF) postdoctoral fellowship.. IFAC-PapersOnLine, 2016, 49, 663-668.	0.9	7
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	Concurrent Canonical Correlation Analysis Modeling for Quality-Relevant Monitoring. IFAC-PapersOnLine, 2016, 49, 1044-1049.	0.9	23
136	Valorization of the aqueous phase obtained from hydrothermally treated Dunaliella salina remnant biomass. Bioresource Technology, 2016, 219, 64-71.	9.6	32
137	Fault Detection of Multimode Processes Using Concurrent Projection to Latent Structures. IFAC-PapersOnLine, 2016, 49, 705-710.	0.9	2
138	Prescriptive analytics for understanding of out-of-plane deformation in additive manufacturing. , 2016, , .		9
139	Data-driven root cause diagnosis of faults in process industries. Chemometrics and Intelligent Laboratory Systems, 2016, 159, 1-11.	3.5	102
140	Probabilistic reactor design in the framework of elementary process functions. Computers and Chemical Engineering, 2016, 94, 45-59.	3.8	28
141	A Short-Cut Method for the Quantification of Crystallization Kinetics. 1. Method Development. Crystal Growth and Design, 2016, 16, 6743-6755.	3.0	11
142	Deep causal mining for plant-wide oscillations with multilevel Granger causality analysis. , 2016, , .		5
143	A comparison study of data-driven projection to latent structures modeling and monitoring methods on high-speed train operation. , 2016, , .		5
144	Thermomorphic solvent selection for homogeneous catalyst recovery based on COSMO-RS. Chemical Engineering and Processing: Process Intensification, 2016, 99, 97-106.	3.6	42

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145	Comprehensive monitoring of nonlinear processes based on concurrent kernel projection to latent structures. IEEE Transactions on Automation Science and Engineering, 2016, 13, 1129-1137.	5.2	45
146	Nonlinear Model Order Reduction for Catalytic Tubular Reactors. Computer Aided Chemical Engineering, 2016, 38, 2373-2378.	0.5	1
147	Drill-down diagnosis of deficient models in MPC. IFAC-PapersOnLine, 2015, 48, 759-764.	0.9	2
148	Fault Diagnosis Using Concurrent Projection to Latent Structures. IFAC-PapersOnLine, 2015, 48, 1276-1281.	0.9	2
149	Integrated solvent and process design exemplified for a Dielsâ€“Alder reaction. AICHE Journal, 2015, 61, 147-158.	3.6	81
150	Out-of-plane geometric error prediction for additive manufacturing. , 2015, , .		12
151	PLS-based Similarity Analysis for Mode Identification in Multimode Manufacturing Processes. IFAC-PapersOnLine, 2015, 48, 777-782.	0.9	8
152	Dynamic-Inner Partial Least Squares for Dynamic Data Modeling. IFAC-PapersOnLine, 2015, 48, 117-122.	0.9	52
153	Rational selection of experimental readout and intervention sites for reducing uncertainties in computational model predictions. BMC Bioinformatics, 2015, 16, 13.	2.6	5
154	Fast evaluation of univariate aggregation integrals on equidistant grids. Computers and Chemical Engineering, 2015, 74, 115-127.	3.8	14
155	Miniemulsion-Based Process for Controlling the Size and Shape of Zinc Oxide Nanoparticles. Industrial & Engineering Chemistry Research, 2015, 54, 10293-10300.	3.7	14
156	Comparison of flocculation methods for harvesting Dunaliella. Bioresource Technology, 2015, 196, 145-152.	9.6	42
157	Data Driven Conceptual Process Design for the Hydroformylation of 1-Dodecene in a Thermomorphic Solvent System. Industrial & Engineering Chemistry Research, 2015, 54, 6761-6771.	3.7	11
158	Reduction of microkinetic reaction models for reactor optimization exemplified for hydrogen production from methane. Chemical Engineering Journal, 2015, 281, 981-994.	12.7	13
159	Dynamic time warping based causality analysis for root-cause diagnosis of nonstationary fault processes. IFAC-PapersOnLine, 2015, 48, 1288-1293.	0.9	18
160	Bias-eliminated subspace model identification under time-varying deterministic type load disturbance. Journal of Process Control, 2015, 25, 41-49.	3.3	19
161	Guest Editorial Integrated Optimization of Industrial Automation. IEEE Transactions on Automation Science and Engineering, 2014, 11, 963-964.	5.2	0
162	Model-based prediction of optimal conditions for 1-octene hydroformylation. Chemical Engineering Science, 2014, 115, 58-68.	3.8	9

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163	Avidity of influenza virus: Model-based identification of adsorption kinetics from surface plasmon resonance experiments. Journal of Chromatography A, 2014, 1326, 125-129.	3.7	9
164	Online monitoring of nonlinear multivariate industrial processes using filtering KICAâ€“PCA. Control Engineering Practice, 2014, 22, 205-216.	5.5	94
165	Simultaneous design of the optimal reaction and process concept for multiphase systems. Chemical Engineering Science, 2014, 115, 69-87.	3.8	51
166	Ensemblesâ€based and GAâ€based optimization for landfill gas production. AICHE Journal, 2014, 60, 2063-2071.	3.6	6
167	A New Method of Dynamic Latent-Variable Modeling for Process Monitoring. IEEE Transactions on Industrial Electronics, 2014, 61, 6438-6445.	7.9	162
168	Multiblock Concurrent PLS for Decentralized Monitoring of Continuous Annealing Processes. IEEE Transactions on Industrial Electronics, 2014, 61, 6429-6437.	7.9	107
169	A dynamic growth model of Dunaliella salina : Parameter identification and profile likelihood analysis. Bioresource Technology, 2014, 173, 21-31.	9.6	20
170	Process data analytics in the era of big data. AICHE Journal, 2014, 60, 3092-3100.	3.6	309
171	Multi-directional reconstruction based contributions for root-cause diagnosis of dynamic processes. , 2014, , .		16
172	Application of economic MPC to the energy and demand minimization of a commercial building. Journal of Process Control, 2014, 24, 1282-1291.	3.3	97
173	Subspace identification with non-steady Kalman filter parameterization. Journal of Process Control, 2014, 24, 1337-1345.	3.3	13
174	Root cause diagnosis of plant-wide oscillations using Granger causality. Journal of Process Control, 2014, 24, 450-459.	3.3	145
175	Optimal operational control for complex industrial processes. Annual Reviews in Control, 2014, 38, 81-92.	7.9	100
176	Quality-Relevant Monitoring and Diagnosis with Dynamic Concurrent Projection to Latent Structures. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 2740-2745.	0.4	12
177	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
178	Combined Indices for ICA and Their Applications to Multivariate Process Fault Diagnosis. Zidonghua Xuebao/Acta Automatica Sinica, 2014, 39, 494-501.	0.3	9
179	Data-Driven Fault Diagnosis of Shaft Furnace Roasting Processes Using Reconstruction and Reconstruction-Based Contribution Approaches. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 8897-8902.	0.4	0
180	Steady-state analysis of the Anaerobic Digestion Model No. 1 (ADM1). Nonlinear Dynamics, 2013, 73, 535-549.	5.2	36

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181	Predictive control methods to improve energy efficiency and reduce demand in buildings. Computers and Chemical Engineering, 2013, 51, 77-85.	3.8	66
182	Reactor configurations for biogas plants â€“ a model based analysis. Chemical Engineering Science, 2013, 104, 413-426.	3.8	18
183	Decentralized Fault Diagnosis of Continuous Annealing Processes Based on Multilevel PCA. IEEE Transactions on Automation Science and Engineering, 2013, 10, 687-698.	5.2	80
184	Qualityâ€relevant and processâ€relevant fault monitoring with concurrent projection to latent structures. AICHE Journal, 2013, 59, 496-504.	3.6	231
185	Evaluation of Different Process Concepts for the Indirect Hydration of Cyclohexene to Cyclohexanol. Organic Process Research and Development, 2013, 17, 343-358.	2.7	22
186	Performance monitoring of model-predictive controllers via model residual assessment. Journal of Process Control, 2013, 23, 473-482.	3.3	66
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