Raghu Rengaswamy

List of Publications by Year
in descending order

192 papers	8,918 citations	81900 39 h-index	43889 91 g-index
198 all docs	198 docs citations	198 times ranked	4233 citing authors

#	Article	IF	Citations
1	Phosphoric Acid Fuel Cells. , 2022, , 437-458.		2
2	Novel ratio-metric features enable the identification of new driver genes across cancer types. Scientific Reports, 2022, 12, 5.	3.3	10
3	Metabolic modeling of hostâ€“microbe interactions for therapeutics in colorectal cancer. Npj Systems Biology and Applications, 2022, 8, 1.	3.0	18
4	Droplet microfluidic networks as hybrid dynamical systems: Inlet spacing optimization for sorting of drops. AICHE Journal, 2022, 68, .	3.6	3
5	Designing Biological Circuits: From Principles to Applications. ACS Synthetic Biology, 2022, 11, 1377-1388.	3.8	9
6	A Computational Framework for Studying Gut-Brain Axis in Autism Spectrum Disorder. Frontiers in Physiology, 2022, 13, 760753.	2.8	7
7	Integration of machine learning and first principles models. AICHE Journal, 2022, 68, .	3.6	23
8	Reinforcement-Learning designs droplet microfluidic networks. Computers and Chemical Engineering, 2022, 161, 107787.	3.8	7
9	Real-Time testing of novel robust digital pitch controller for digital hydraulic pitch system in wind turbine. Energy Sources, Part A: Recovery, Utilization and Environmental Effects, 2022, 44, 3477-3496.	2.3	3
10	Data-driven prognostics for Lithium-ion battery health monitoring. Computer Aided Chemical Engineering, 2021, , 487-492.	0.5	1
11	Comparison of first trimester dating methods for gestational age estimation and their implication on preterm birth classification in a North Indian cohort. BMC Pregnancy and Childbirth, 2021, 21, 343.	2.4	5
12	A systems engineering perspective on electrochemical energy technologies and a framework for application driven choice of technology. Renewable and Sustainable Energy Reviews, 2021, 147, 111165.	16.4	7
13	Spacing Optimization for Active Droplet Sorting in Microfluidic Networks Using Genetic Algorithm. Industrial & Engineering Chemistry Research, 2021, 60, 1699-1708.	3.7	8
14	Effect of gas pressure and clamping pressure on interfacial contact resistance of a cylindrical polymer electrolyte membrane fuel cell. International Journal of Sustainable Engineering, 2021, 14, 1791-1799.	3.5	2
15	Development of cylindrical PEM fuel cells with semi-cylindrical cathode current collectors. International Journal of Hydrogen Energy, 2020, 45, 10549-10558.	7.1	25
16	Rapid impedance spectroscopy using dual phase shifted chirp signals for electrochemical applications. International Journal of Hydrogen Energy, 2020, 45, 10536-10548.	7.1	7
17	Sensor network design based on system-wide reliability criteria. Part II: Formulations and applications. Journal of Process Control, 2020, 93, 14-27.	3.3	8
18	Sensor network design based on system-wide reliability criteria. Part I: Objectives. Journal of Process Control, 2020, 93, 66-82.	3.3	7

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19	Rapid humidity regulation by mixing of dry and humid gases with feedback control for PEM fuel cells. International Journal of Hydrogen Energy, 2019, 44, 389-407.	7.1	18
20	Interfacial contact resistance in polymer electrolyte membrane fuel cells: Recent developments and challenges. Renewable and Sustainable Energy Reviews, 2019, 115, 109351.	16.4	33
21	On the role of hydrodynamic interactions in the engineered-assembly of droplet ensembles. Soft Matter, 2019, 15, 7863-7875.	2.7	5
22	Machine Learning Derived Quantitative Structure Property Relationship (QSPR) to Predict Drug Solubility in Binary Solvent Systems. Industrial & Engineering Chemistry Research, 2019, 58, 3082-3092.	3.7	33
23	Perspectiveâ€"Micro Photosynthetic Power Cells. Journal of the Electrochemical Society, 2019, 166, B3012-B3016.	2.9	13
24	Feasibility Studies of Micro Photosynthetic Power Cells as a Competitor of Photovoltaic Cells for Low and Ultra-Low Power IoT Applications. Energies, 2019, 12, 1595.	3.1	9
25	Hierarchical Multilabel Segmentation for System Identification Using Historical Data. Industrial & Engineering Chemistry Research, 2019, 58, 11303-11315.	3.7	0
26	Entrainment of superoxide rhythm by menadione in HCT116 colon cancer cells. Scientific Reports, 2019, 9, 3347.	3.3	6
27	On developing a framework for detection of oscillations in data. ISA Transactions, 2019, 89, 96-112.	5.7	4
28	Interacting coalescence avalanches in a 2D droplet assembly. AICHE Journal, 2019, 65, 1111-1118.	3.6	3
29	Prediction error-based clustering approach for multiple-model learning using statistical testing. Engineering Applications of Artificial Intelligence, 2019, 77, 125-135.	8.1	6
30	Low grade heat recovery for power generation through electrochemical route: Vanadium Redox Flow Battery, a case study. Applied Surface Science, 2019, 474, 262-268.	6.1	27
31	Optimal power distribution control for a network of fuel cell stacks. Journal of Process Control, 2019, 74, 88-98.	3.3	12
32	Actuator network design to mitigate contamination effects in Water Distribution Networks. Computers and Chemical Engineering, 2018, 108, 194-205.	3.8	15
33	A novel approach for benchmarking and assessing the performance of state estimators. ISA Transactions, 2018, 80, 137-145.	5.7	2
34	Modeling and control of battery systems. Part I: Revisiting Butlerâ€"Volmer equations to model non-linear coupling of various capacity fade mechanisms. Computers and Chemical Engineering, 2018, 119, 336-351.	3.8	3
35	Modeling and control of battery systems. Part II: A model predictive controller for optimal charging. Computers and Chemical Engineering, 2018, 119, 326-335.	3.8	14
36	On modeling and optimization of micro-photosynthetic power cells. Computers and Chemical Engineering, 2017, 107, 284-293.	3.8	3

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37	Data mining and control loop performance assessment: The multivariate case. AICHE Journal, 2017, 63, 3311-3328.	3.6	12
38	Effects of water induced pore blockage and mitigation strategies in low temperature PEMÂfuelÂcells â€“ A simulation study. International Journal of Hydrogen Energy, 2017, 42, 23799-23813.	7.1	17
39	Averaged model for probabilistic coalescence avalanches in two-dimensional emulsions: Insights into uncertainty propagation. Physical Review E, 2017, 95, 032608.	2.1	2
40	An improved scaling procedure for analysis and simplification of process models. Chemical Engineering Research and Design, 2017, 120, 410-422.	5.6	1
41	State and Parameter Estimation in Distributed Constrained Systems. 2. GA-EKF Based Sensor Placement for a Water Gas Shift Reactor. Industrial & Engineering Chemistry Research, 2017, 56, 216-224.	3.7	2
42	State and Parameter Estimation in Distributed Constrained Systems. 1. Extended Kalman Filtering of a Special Class of Differential-Algebraic Equation Systems. Industrial & Engineering Chemistry Research, 2017, 56, 206-215.	3.7	17
43	Rapid impedance measurement using chirp signals for electrochemical system analysis. Computers and Chemical Engineering, 2017, 106, 421-436.	3.8	35
44	On the Detection of Valve Nonlinearities in Otherwise Linear Closed-Loop Systems. IEEE Transactions on Automatic Control, 2017, 62, 955-960.	5.7	1
45	Strategies for Effective Utilization of Hydrogen in Cylindrical PEM Fuel Cells. ECS Transactions, 2017, 80, 485-496.	0.5	3
46	Capacity Fade Minimizing Model Predictive Control Approach for the Identification and Realization of Charge-Discharge Cycles in Lithium Ion Batteries. Computer Aided Chemical Engineering, 2017, 40, 2581-2586.	0.5	0
47	Optimal Power Sharing Control in Networked Fuel Cell Stacks. Computer Aided Chemical Engineering, 2016, 38, 1761-1766.	0.5	1
48	Dynamic Model of a Slagging Entrained-Flow Gasifier Including Models of Slag Transport, Deposition, and Slag Layer. Industrial & Engineering Chemistry Research, 2016, 55, 279-292.	3.7	16
49	Micro photosynthetic cell for power generation from algae: Bio-electrochemical modeling and verification. Technology, 2016, 04, 249-258.	1.4	6
50	Optimal back-off point determination and controller weight selection for multivariate systems under finite-horizon control. Journal of Process Control, 2016, 40, 134-145.	3.3	0
51	A novel framework for integrating data mining with control loop performance assessment. AICHE Journal, 2016, 62, 146-165.	3.6	14
52	Modeling of rechargeable batteries. Current Opinion in Chemical Engineering, 2016, 13, 63-74.	7.8	7
53	Development of a hybrid shrinkingâ€core shrinkingâ€particle model for entrainedâ€flow gasifiers. AICHE Journal, 2016, 62, 659-669.	3.6	11
54	Sensor network design for contaminant detection and identification in water distribution networks. Computers and Chemical Engineering, 2016, 87, 246-256.	3.8	20

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55	Coalescence of drops in a 2D microchannel: critical transitions to autocatalytic behaviour. Soft Matter, 2016, 12, 115-122.	2.7	5
56	Phosphoric acid fuel cells. , 2016, , 57-70.		4
57	Very large scale droplet microfluidic integration (VLDMI) using genetic algorithm. Computers and Chemical Engineering, 2016, 85, 94-104.	3.8	13
58	Multivariate Control Loop Performance Assessment With Hurst Exponent and Mahalanobis Distance. IEEE Transactions on Control Systems Technology, 2016, 24, 1067-1074.	5.2	18
59	Online Diagnostics of HTPEM Fuel Cells Using Small Amplitude Transient Analysis for CO Poisoning. IEEE Transactions on Industrial Electronics, 2015, 62, 5175-5186.	7.9	10
60	On-line performance monitoring of PEM fuel cell using a fast EIS approach. , 2015, , .		3
61	A New Measure To Improve the Reliability of Stiction Detection Techniques. Industrial & Engineering Chemistry Research, 2015, 54, 7476-7488.	3.7	3
62	Optimal Sensor Placement for Fault Diagnosis Using Magnitude Ratio. Industrial & Engineering Chemistry Research, 2015, 54, 9369-9381.	3.7	16
63	Classification of High-Temperature PEM Fuel Cell Degradation Mechanisms Using Equivalent Circuits. IEEE Transactions on Industrial Electronics, 2015, 62, 5265-5274.	7.9	20
64	An integrated approach for oscillation diagnosis in linear closed loop systems. Chemical Engineering Research and Design, 2015, 93, 483-495.	5.6	9
65	Investigating Arrangement of Composite Drops in Two-Dimensional Microchannels Using Multiagent Simulations: A Design Perspective. Industrial & Engineering Chemistry Research, 2015, 54, 10835-10842.	3.7	3
66	Electrical Circuit Analysis of CO Poisoning in High-Temperature PEM Fuel Cells for Fault Diagnostics and Mitigation. IEEE Transactions on Industry Applications, 2015, 51, 619-630.	4.9	17
67	Data Reconciliation and Dynamic Modeling of a Sour Water Gas Shift Reactor. Industrial & Engineering Chemistry Research, 2014, 53, 19855-19869.	3.7	11
68	Understanding control in microchannels to manipulate drop-drop interactions. , 2014, , .		0
69	Origin of periodic and chaotic dynamics due to drops moving in a microfluidic loop device. Physical Review E, 2014, 89, 023015.	2.1	13
70	Derivation of an equivalent electrical circuit model for degradation mechanisms in high temperature pem fuel cells in performance estimation. , 2014, , .		1
71	Data driven approach for performance assessment of linear and nonlinear Kalman filters. , 2014, , .		5
72	Optimal Sensor Placement for Contamination Detection and Identification in Water Distribution Networks. Computer Aided Chemical Engineering, 2014, 33, 1447-1452.	0.5	3

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73	Understanding drop-pattern formation in 2-D microchannels: a multi-agent approach. Microfluidics and Nanofluidics, 2014, 17, 527-537.	2.2	6
74	Design of multi-functional microfluidic ladder networks to passively control droplet spacing using genetic algorithms. Computers and Chemical Engineering, 2014, 60, 413-425.	3.8	14
75	Data-based automated diagnosis and iterative retuning of proportional-integral (PI) controllers. Control Engineering Practice, 2014, 29, 23-41.	5.5	23
76	Receding-Horizon Nonlinear Kalman (RNK) Filter for State Estimation. IEEE Transactions on Automatic Control, 2013, 58, 2054-2059.	5.7	28
77	Generalized shape constrained spline fitting for qualitative analysis of trends. Computers and Chemical Engineering, 2013, 58, 116-134.	3.8	31
78	Droplet digital signal generation in microfluidic networks using model predictive control. Journal of Process Control, 2013, 23, 132-139.	3.3	12
79	Degradation of high temperature PEM fuel cells and the impact on electrical performance. , 2013, , .		4
80	Electrical circuit analysis of CO poisoning in high temperature PEM fuel cells for rapid fault diagnostics. , 2013, , .		4
81	Traffic of pairs of drops in microfluidic ladder networks with fore-aft structural asymmetry. Microfluidics and Nanofluidics, 2013, 14, 337-344.	2.2	12
82	Online fault diagnostics and impedance signature mapping of High Temperature PEM fuel cells using rapid small signal injection. , 2013, , .		5
83	A New Cluster Validity Index for Fuzzy Clustering. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 325-330.	0.4	18
84	A generative approach to qualitative trend analysis for batch process fault diagnosis. , 2013, , .		2
85	A reliability measure for model based stiction detection approaches. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 750-755.	0.4	6
86	Root Cause Analysis of Linear Closed-Loop Oscillatory Chemical Process Systems. Industrial & Engineering Chemistry Research, 2012, 51, 13712-13731.	3.7	12
87	Control loop performance assessment using detrended fluctuation analysis (DFA). Automatica, 2012, 48, 1359-1363.	5.0	59
88	Automatic oscillation detection and characterization in closed-loop systems. Control Engineering Practice, 2012, 20, 733-746.	5.5	44
89	Modeling Studies of a Cylindrical Polymer Electrolyte Membrane Fuel Cell Cathode. Industrial & Engineering Chemistry Research, 2012, 51, 5003-5010.	3.7	2
90	A Genetic Algorithm (GA) based rational approach for design of discrete microfluidic networks. Computer Aided Chemical Engineering, 2012, , 507-511.	0.5	5

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91	Design of a modelâ€based feedback controller for active sorting and synchronization of droplets in a microfluidic loop. AICHE Journal, 2012, 58, 2120-2130.	3.6	20
92	Evaluation of prediction error based fuzzy model clustering approaches for multiple model learning. International Journal of Advances in Engineering Sciences and Applied Mathematics, 2012, 4, 10-21.	1.1	2
93	Preface for special issue on â€œData Analysis: Techniques and Applicationsâ€. International Journal of Advances in Engineering Sciences and Applied Mathematics, 2012, 4, 1-2.	1.1	0
94	Optimization studies of a polymer electrolyte membrane fuel cell with multiple catalyst layers. Journal of Power Sources, 2012, 206, 197-203.	7.8	28
95	Constrained unscented recursive estimator for nonlinear dynamic systems. Journal of Process Control, 2012, 22, 718-728.	3.3	25
96	Constraint Programming based Input Signal Design for System Identification. Computer Aided Chemical Engineering, 2012, 31, 965-969.	0.5	0
97	Modeling and Control Challenges in the development of Discrete Microfluidic Devices. Computer Aided Chemical Engineering, 2012, 31, 1231-1235.	0.5	0
98	Computationally Efficient Identification of Global ARX Parameters With Guaranteed Stability. IEEE Transactions on Automatic Control, 2011, 56, 1406-1411.	5.7	5
99	Receding Nonlinear Kalman (RNK) Filter for Nonlinear Constrained State Estimation. Computer Aided Chemical Engineering, 2011, 29, 844-848.	0.5	4
100	Optimal Plant Friendly Input Design for System Identification. Industrial & Engineering Chemistry Research, 2011, 50, 13045-13055.	3.7	6
101	Diagnosis of root cause for oscillations in closed-loop chemical process systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 13145-13150.	0.4	2
102	Sort-synchronization control in microfluidic loop devices with experimental uncertainties using a model predictive control (MPC) framework. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 4886-4891.	0.4	2
103	Multivariable optimization studies of cathode catalyst layer of a polymer electrolyte membrane fuel cell. Chemical Engineering Research and Design, 2011, 89, 10-22.	5.6	20
104	Application of empirical mode decomposition in the field of polymer physics. Journal of Polymer Science, Part B: Polymer Physics, 2011, 49, 277-290.	2.1	3
105	Kalman-based strategies for Fault Detection and Identification (FDI): Extensions and critical evaluation for a buffer tank system. Computers and Chemical Engineering, 2011, 35, 806-816.	3.8	43
106	Development of a cylindrical PEM fuel cell. International Journal of Hydrogen Energy, 2011, 36, 713-719.	7.1	26
107	Plant Friendly Input Design: Convex Relaxation and Quality. IEEE Transactions on Automatic Control, 2011, 56, 1467-1472.	5.7	16
108	Resilient control in view of valve stiction: extension of a Kalman-based FTC scheme. Computer Aided Chemical Engineering, 2010, , 547-552.	0.5	1

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109	A framework for on-line trend extraction and fault diagnosis. Engineering Applications of Artificial Intelligence, 2010, 23, 950-960.	8.1	57
110	Parametric study of the cathode and the role of liquid saturation on the performance of a polymer electrolyte membrane fuel cellâ€"A numerical approach. Journal of Power Sources, 2010, 195, 6782-6794.	7.8	11
111	Performance analysis of a PEM fuel cell cathode with multiple catalyst layers. International Journal of Hydrogen Energy, 2010, 35, 6356-6365.	7.1	43
112	Control of proton exchange membrane fuel cells using data driven state space models. Chemical Engineering Research and Design, 2010, 88, 861-874.	5.6	8
113	Recursive state estimation techniques for nonlinear differential algebraic systems. Chemical Engineering Science, 2010, 65, 4548-4556.	3.8	60
114	Dimensional optimization of a tubular solid oxide fuel cell. Computers and Chemical Engineering, 2010, 34, 1789-1802.	3.8	12
115	Stiction identification in nonlinear process control loops. Computers and Chemical Engineering, 2010, 34, 1890-1898.	3.8	17
116	Achieving resilience in critical infrastructures: A case study for a nuclear power plant cooling loop. , 2010, , .		8
117	System Identification and Nonlinear Model Predictive Control of a Solid Oxide Fuel Cell. Industrial & Engineering Chemistry Research, 2010, 49, 4800-4808.	3.7	22
118	Development of a Closed Form Nonlinear Predictive Control Law Based on a Class of Wiener Models. Industrial & Engineering Chemistry Research, 2010, 49, 148-165.	3.7	4
119	PEMFC Fault Diagnosis, Modeling, and Mitigation. IEEE Transactions on Industry Applications, 2010, 46, 295-303.	4.9	36
120	Experimental evaluation of linear model based control strategies for PEMFCs. , 2009, , .		1
121	Transport, sensitivity, and dimensional optimization studies of a tubular Solid Oxide Fuel Cell. Journal of Power Sources, 2009, 190, 499-510.	7.8	6
122	Reply to Comments on â€œRobust and reliable estimation via unscented recursive nonlinear dynamic data reconciliationâ€•(URNDDR). Journal of Process Control, 2009, 19, 719-721.	3.3	15
123	Dynamic modeling and validation studies of a tubular solid oxide fuel cell. Chemical Engineering Science, 2009, 64, 2158-2172.	3.8	54
124	A Review of Solid Oxide Fuel Cell (SOFC) Dynamic Models. Industrial & Engineering Chemistry Research, 2009, 48, 6068-6086.	3.7	127
125	Structural Properties of Gene Regulatory Networks: Definitions and Connections. IEEE/ACM Transactions on Computational Biology and Bioinformatics, 2009, 6, 158-170.	3.0	6
126	Dynamic modeling and system identification of a tubular solid oxide fuel cell (TSOFC). , 2009, , .		6

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127	Stiction Identification in Nonlinear Process Control Loops. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2009, 42, 691-696.	0.4	0
128	New nonlinear residual feedback observer for fault diagnosis in nonlinear systems. Automatica, 2008, 44, 2222-2229.	5.0	68
129	Approaches for efficient stiction compensation in process control valves. Computers and Chemical Engineering, 2008, 32, 218-229.	3.8	80
130	Robust sensor network design for fault diagnosis. Computers and Chemical Engineering, 2008, 32, 1067-1084.	3.8	55
131	Issues in modeling stiction in process control valves. , 2008, , .		3
132	Blind identification of stiction in nonlinear process control loops. , 2008, , .		1
133	Multi-objective optimal input design for plant friendly identification. , 2008, , .		2
134	Quantification of performance of sensor networks for fault diagnosis. AICHE Journal, 2007, 53, 902-917.	3.6	12
135	Fault diagnosis using dynamic trend analysis: A review and recent developments. Engineering Applications of Artificial Intelligence, 2007, 20, 133-146.	8.1	120
136	A two-dimensional steady state model including the effect of liquid water for a PEM fuel cell cathode. Journal of Power Sources, 2007, 173, 375-393.	7.8	73
137	A Signed Directed Graph and Qualitative Trend Analysis-Based Framework for Incipient Fault Diagnosis. Chemical Engineering Research and Design, 2007, 85, 1407-1422.	5.6	80
138	An Integrated Qualitativeâ€“Quantitative Hypothesis Driven Approach for Comprehensive Fault Diagnosis. Chemical Engineering Research and Design, 2007, 85, 1281-1294.	5.6	7
139	Isothermal models for anode-supported tubular solid oxide fuel cells. Chemical Engineering Science, 2007, 62, 4250-4267.	3.8	29
140	A modified empirical mode decomposition (EMD) process for oscillation characterization in control loops. Control Engineering Practice, 2007, 15, 1135-1148.	5.5	79
141	Isothermal Isobaric Reactive Flash Problem. Industrial & Engineering Chemistry Research, 2006, 45, 6548-6554.	3.7	5
142	ROOT CAUSE ANALYSIS OF OSCILLATING CONTROL LOOPS. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2006, 39, 1151-1156.	0.4	1
143	Integrating stiction diagnosis and stiction compensation in process control valves. Computer Aided Chemical Engineering, 2006, 21, 1233-1238.	0.5	10
144	A signed directed graph-based systematic framework for steady-state malfunction diagnosis inside control loops. Chemical Engineering Science, 2006, 61, 1790-1810.	3.8	71

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145	Dynamic characteristics of spherical agglomerate for study of cathode catalyst layers in proton exchange membrane fuel cells (PEMFC). Journal of Power Sources, 2006, 158, 110-123.	7.8	37
146	Characterization and fault diagnosis of PAFC cathode by EIS technique and a novel mathematical model approach. Journal of Power Sources, 2006, 161, 971-986.	7.8	10
147	Robust and reliable estimation via Unscented Recursive Nonlinear Dynamic Data Reconciliation. Journal of Process Control, 2006, 16, 1075-1086.	3.3	120
148	Optimization Study of an Agglomerate Model for Platinum Reduction and Performance in PEM Fuel Cell Cathode. Chemical Engineering Research and Design, 2006, 84, 952-964.	5.6	24
149	A distributed dynamic model for chronoamperometry, chronopotentiometry and gas starvation studies in PEM fuel cell cathode. Chemical Engineering Science, 2006, 61, 7393-7409.	3.8	17
150	Scope for process systems engineering studies in proton exchange membrane fuel cells (PEMFC): A review of opportunities. Computer Aided Chemical Engineering, 2006, 21, 835-840.	0.5	2
151	Techniques for stiction diagnosis and compensation in process control loops. , 2006, , .		1
152	Step response analysis of phosphoric acid fuel cell (PAFC) cathode through a transient model. Journal of Power Sources, 2005, 140, 274-279.	7.8	21
153	Fault Diagnosis by Qualitative Trend Analysis of the Principal Components. Chemical Engineering Research and Design, 2005, 83, 1122-1132.	5.6	63
154	Recursive estimation in constrained nonlinear dynamical systems. AICHE Journal, 2005, 51, 946-959.	3.6	83
155	A dynamic spherical agglomerate model for proton exchange membrane fuel cells (PEMFC). Computer Aided Chemical Engineering, 2005, , 541-546.	0.5	1
156	Control Loop Performance Assessment. 1. A Qualitative Approach for Stiction Diagnosis. Industrial & Engineering Chemistry Research, 2005, 44, 6708-6718.	3.7	64
157	Stiction Compensation in Process Control Loops:Â A Framework for Integrating Stiction Measure and Compensation. Industrial & Engineering Chemistry Research, 2005, 44, 9164-9174.	3.7	50
158	Control Loop Performance Assessment. 2. Hammerstein Model Approach for Stiction Diagnosis. Industrial & Engineering Chemistry Research, 2005, 44, 6719-6728.	3.7	116
159	Industrial Experience with Object-Oriented Modelling. Chemical Engineering Research and Design, 2004, 82, 527-552.	5.6	7
160	A novel interval-halving framework for automated identification of process trends. AICHE Journal, 2004, 50, 149-162.	3.6	72
161	Application of signed digraphs-based analysis for fault diagnosis of chemical process flowsheets. Engineering Applications of Artificial Intelligence, 2004, 17, 501-518.	8.1	119
162	Lexicographic Optimization Based Sensor Network Design for Robust Fault Diagnosis. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2004, 37, 215-220.	0.4	2

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163	Recursive state estimation in nonlinear processes. , 2004, , .		6
164	Multi-objective input signal design for plant friendly identification of process systems. , 2004, , .		4
165	A review of process fault detection and diagnosis. Computers and Chemical Engineering, 2003, 27, 293-311.	3.8	1,972
166	A review of process fault detection and diagnosis. Computers and Chemical Engineering, 2003, 27, 313-326.	3.8	1,243
167	A review of process fault detection and diagnosis. Computers and Chemical Engineering, 2003, 27, 327-346.	3.8	1,445
168	Fuzzy-logic based trend classification for fault diagnosis of chemical processes. Computers and Chemical Engineering, 2003, 27, 347-362.	3.8	100
169	A Systematic Framework for the Development and Analysis of Signed Digraphs for Chemical Processes. 1. Algorithms and Analysis. Industrial & Engineering Chemistry Research, 2003, 42, 4789-4810.	3.7	102
170	A Systematic Framework for the Development and Analysis of Signed Digraphs for Chemical Processes. 2. Control Loops and Flowsheet Analysis. Industrial & Engineering Chemistry Research, 2003, 42, 4811-4827.	3.7	69
171	Qualitative trend analysis of the principal components: application to fault diagnosis. Computer Aided Chemical Engineering, 2003, 15, 968-973.	0.5	1
172	Consistent malfunction diagnosis inside control loops using signed directed graphs. Computer Aided Chemical Engineering, 2003, , 473-478.	0.5	2
173	Fault Diagnosis by Qualitative Trend Analysis of the Principal Components: Prospects and Some New Results. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2003, 36, 783-788.	0.4	3
174	Comprehensive Design of a Sensor Network for Chemical Plants Based on Various Diagnosability and Reliability Criteria. 2. Applications. Industrial & Engineering Chemistry Research, 2002, 41, 1840-1860.	3.7	41
175	Comprehensive Design of a Sensor Network for Chemical Plants Based on Various Diagnosability and Reliability Criteria. 1. Framework. Industrial & Engineering Chemistry Research, 2002, 41, 1826-1839.	3.7	66
176	A two-dimensional steady-state model for phosphoric acid fuel cells (PAFC). Journal of Power Sources, 2002, 112, 137-152.	7.8	47
177	Application and evaluation of linear/restricted nonlinear observers to a nonlinear CSTR. Computer Aided Chemical Engineering, 2001, , 853-858.	0.5	1
178	Systematic Development and Application of Digraphs for Process Diagnosis and Hazards Analysis. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2001, 34, 327-332.	0.4	1
179	A Framework for Sensor Network Design for Efficient and Reliable Fault Diagnosis. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2001, 34, 29-40.	0.4	0
180	A Novel Interval-Halving Algorithm for Process Trend Identification. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2001, 34, 155-160.	0.4	4

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181	A qualitative shape analysis formalism for monitoring control loop performance. Engineering Applications of Artificial Intelligence, 2001, 14, 23-33.	8.1	88
182	A comparison of model-based and neural network-based diagnostic methods. Engineering Applications of Artificial Intelligence, 2001, 14, 805-818.	8.1	19
183	A framework for integrating diagnostic knowledge with nonlinear optimization for data reconciliation and parameter estimation in dynamic systems. Chemical Engineering Science, 2001, 56, 2133-2148.	3.8	30
184	Design of sensor location based on various fault diagnostic observability and reliability criteria. Computers and Chemical Engineering, 2000, 24, 735-741.	3.8	55
185	A fast training neural network and its updation for incipient fault detection and diagnosis. Computers and Chemical Engineering, 2000, 24, 431-437.	3.8	44
186	Multivariable gain-scheduled fuzzy logic control of a fluidized catalytic cracker unit. Computers and Chemical Engineering, 2000, 24, 1083-1089.	3.8	5
187	Design of Sensor Network Based on the Signed Directed Graph of the Process for Efficient Fault Diagnosis. Industrial & Engineering Chemistry Research, 2000, 39, 999-1019.	3.7	65
188	Locating sensors in complex chemical plants based on fault diagnostic observability criteria. AICHE Journal, 1999, 45, 310-322.	3.6	130
189	Use of Inverse Repeat Sequence (IRS) for Identification in Chemical Process Systems. Industrial & Engineering Chemistry Research, 1999, 38, 3420-3429.	3.7	21
190	Modelling of microbial growth for sequential utilization in a multisubstrate environment. Process Biochemistry, 1997, 32, 643-650.	3.7	27
191	An optimal strategy to model microbial growth in a multiple substrate environment. , 1997, 56, 635-644.		34
192	A syntactic pattern-recognition approach for process monitoring and fault diagnosis. Engineering Applications of Artificial Intelligence, 1995, 8, 35-51.	8.1	125