

# Wolfgang Marquardt

## List of Publications by Year in descending order

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458  
papers

11,776  
citations

28736

57  
h-index

62345

84  
g-index

489  
all docs

489  
docs citations

489  
times ranked

7675  
citing authors

#	ARTICLE	IF	CITATIONS
1	Toward co-optimization of renewable fuel blend production and combustion in ultra-high efficiency SI engines. <i>International Journal of Engine Research</i> , 2023, 24, 29-41.	1.4	12
2	Integrated design of renewable fuels and their production processes: recent advances and challenges. <i>Current Opinion in Chemical Engineering</i> , 2020, 27, 45-50.	3.8	15
3	Renewable production of ammonia and nitric acid. <i>AIChE Journal</i> , 2020, 66, e16947.	1.8	26
4	An Experimental Assessment of Model-Based Solvent Selection for Enhancing Reaction Kinetics. <i>Industrial &amp; Engineering Chemistry Research</i> , 2019, 58, 13517-13532.	1.8	5
5	Shortcut-based optimization of distillation-based processes by a novel reformulation of the feed angle method. <i>Chemical Engineering Research and Design</i> , 2018, 132, 135-148.	2.7	21
6	On reduced modeling of mass transport in wavy falling films. <i>AIChE Journal</i> , 2018, 64, 2265-2276.	1.8	11
7	COSMO-CAMPD: a framework for integrated design of molecules and processes based on COSMO-RS. <i>Molecular Systems Design and Engineering</i> , 2018, 3, 645-657.	1.7	34
8	Design of Robust Input-Constrained Feedback Controllers for Nonlinear Systems. <i>IFAC-PapersOnLine</i> , 2018, 51, 732-737.	0.5	0
9	Conceptual design of ammonia-based energy storage system: System design and time-invariant performance. <i>AIChE Journal</i> , 2017, 63, 1620-1637.	1.8	80
10	Closed-loop reactor network synthesis with guaranteed robustness. <i>Computers and Chemical Engineering</i> , 2017, 107, 294-317.	2.0	1
11	Model-Based Formulation of Biofuel Blends by Simultaneous Product and Pathway Design. <i>Energy &amp; Fuels</i> , 2017, 31, 4096-4121.	2.5	49
12	Pinch-based shortcut method for the conceptual design of adiabatic absorption columns. <i>AIChE Journal</i> , 2017, 63, 1213-1225.	1.8	8
13	Pinch-based shortcut method for the conceptual design of isothermal extraction columns. <i>AIChE Journal</i> , 2017, 63, 1236-1245.	1.8	17
14	Systematic Design of a Butadiene Telomerization Process: The Catalyst Makes the Difference. <i>Chemie-Ingenieur-Technik</i> , 2017, 89, 1479-1489.	0.4	5
15	Optimality-based grid adaptation for input-affine optimal control problems. <i>Computers and Chemical Engineering</i> , 2016, 92, 189-203.	2.0	11
16	Index analysis and reduction of systems of quasi-linear partial-differential and algebraic equations. <i>Computers and Chemical Engineering</i> , 2016, 89, 41-52.	2.0	2
17	A modeling strategy for integrated batch process development based on mixed-logic dynamic optimization. <i>Computers and Chemical Engineering</i> , 2016, 94, 287-311.	2.0	5
18	Massive, automated solvent screening for minimum energy demand in hybrid extraction-distillation using COSMO-RS. <i>Chemical Engineering Research and Design</i> , 2016, 115, 433-442.	2.7	39

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19	Fast NMPC schemes for regulatory and economic NMPC – A review. <i>Journal of Process Control</i> , 2016, 44, 162-183.	1.7	51
20	A Unifying Approach for the Calculation of Azeotropes and Pinch Points in Homogeneous and Heterogeneous Mixtures. <i>Industrial &amp; Engineering Chemistry Research</i> , 2016, 55, 6815-6834.	1.8	17
21	Model-Based Design of Tailor-Made Biofuels. <i>Energy &amp; Fuels</i> , 2016, 30, 1109-1134.	2.5	70
22	In-line Monitoring of Monomer and Polymer Content During Microgel Synthesis Using Precipitation Polymerization via Raman Spectroscopy and Indirect Hard Modeling. <i>Applied Spectroscopy</i> , 2016, 70, 416-426.	1.2	37
23	Convergence and Stability of a Constrained Partition-Based Moving Horizon Estimator. <i>IEEE Transactions on Automatic Control</i> , 2016, 61, 1316-1321.	3.6	21
24	Reactor network synthesis with guaranteed robust stability. <i>Computers and Chemical Engineering</i> , 2016, 86, 75-89.	2.0	11
25	Screening Pathways for the Production of Next Generation Biofuels. <i>Energy &amp; Fuels</i> , 2016, 30, 445-456.	2.5	42
26	Tailor-made fuels for future engine concepts. <i>International Journal of Engine Research</i> , 2016, 17, 16-27.	1.4	101
27	Optimal experimental design for identification of transport coefficient models in convection–diffusion equations. <i>Computers and Chemical Engineering</i> , 2015, 80, 101-113.	2.0	17
28	Fractionation of lignocellulosic biomass using the OrganoCat process. <i>Green Chemistry</i> , 2015, 17, 3533-3539.	4.6	113
29	A unifying framework for optimization-based design of integrated reaction–separation processes. <i>Computers and Chemical Engineering</i> , 2015, 81, 260-271.	2.0	34
30	Predictive pressure drop models for membrane channels with non-woven and woven spacers. <i>Desalination</i> , 2015, 376, 41-54.	4.0	32
31	A comparison of distributed MPC schemes on a hydro–power plant benchmark. <i>Optimal Control Applications and Methods</i> , 2015, 36, 306-332.	1.3	29
32	A Novel Group Contribution Method for the Prediction of the Derived Cetane Number of Oxygenated Hydrocarbons. <i>Energy &amp; Fuels</i> , 2015, 29, 5781-5801.	2.5	86
33	Comparison between phosphine and NHC-modified Pd catalysts in the telomerization of butadiene with methanol – A kinetic study combined with model-based experimental analysis. <i>Journal of Catalysis</i> , 2015, 329, 547-559.	3.1	16
34	A Hybrid Evolutionary–Deterministic Optimization Approach for Conceptual Design. <i>Industrial &amp; Engineering Chemistry Research</i> , 2015, 54, 10054-10072.	1.8	33
35	Dynamic Real-Time Optimization of Industrial Polymerization Processes with Fast Dynamics. <i>Industrial &amp; Engineering Chemistry Research</i> , 2015, 54, 11881-11893.	1.8	30
36	Adjoint Sensitivity Analysis for Nonsmooth Differential-Algebraic Equation Systems. <i>SIAM Journal of Scientific Computing</i> , 2015, 37, A2380-A2402.	1.3	4

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37	An iterative partition-based moving horizon estimator with coupled inequality constraints. <i>Automatica</i> , 2015, 61, 302-307.	3.0	29
38	Exploitation of the control switching structure in multi-stage optimal control problems by adaptive shooting methods. <i>Computers and Chemical Engineering</i> , 2015, 73, 82-101.	2.0	9
39	Efficient optimization-based design for the separation of heterogeneous azeotropic mixtures. <i>Computers and Chemical Engineering</i> , 2015, 72, 34-51.	2.0	57
40	Towards Model-Based Design of Tailor-Made Fuels from Biomass. <i>Notes on Numerical Fluid Mechanics and Multidisciplinary Design</i> , 2015, , 193-211.	0.2	3
41	A software environment for economic NMPC and dynamic real-time optimization of chemical processes. <i>Automatisierungstechnik</i> , 2014, 62, 150-161.	0.4	8
42	Dynamic optimization using adaptive direct multiple shooting. <i>Computers and Chemical Engineering</i> , 2014, 60, 242-259.	2.0	53
43	Optimierungsbasierter Entwurf von Extraktionskolonnen mit Nicht-Gleichgewichtsmodellen. <i>Chemie-Ingenieur-Technik</i> , 2014, 86, 1497-1497.	0.4	0
44	Infinite-Horizon Continuous-Time NMPC via Time Transformation. <i>IEEE Transactions on Automatic Control</i> , 2014, 59, 2543-2548.	3.6	9
45	Conceptual Design of Azeotropic Distillation Processes. , 2014, , 305-355.		11
46	Systematic and Optimization-Based Design of Integrated Reaction-Separation Processes. <i>Computer Aided Chemical Engineering</i> , 2014, , 417-422.	0.3	4
47	Efficient Optimization-Based Design of Membrane-Assisted Distillation Processes. <i>Industrial &amp; Engineering Chemistry Research</i> , 2014, 53, 15698-15717.	1.8	38
48	Consistent hierarchical economic NMPC for a class of hybrid systems using neighboring-extremal updates. <i>Journal of Process Control</i> , 2014, 24, 389-398.	1.7	14
49	Computer-aided screening of solvents for optimal reaction rates. <i>Chemical Engineering Science</i> , 2014, 115, 167-176.	1.9	11
50	Distributed MPC and partition-based MHE for distributed output feedback. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2014, 47, 2183-2188.	0.4	3
51	"Cross the border, close the gap". <i>Science Studies</i> , 2014, , 117-134.	0.0	0
52	An efficient process for the saccharification of wood chips by combined ionic liquid pretreatment and enzymatic hydrolysis. <i>Bioresource Technology</i> , 2013, 146, 144-151.	4.8	31
53	Robust control design of a class of nonlinear input- and state-constrained systems. <i>Annual Reviews in Control</i> , 2013, 37, 232-245.	4.4	8
54	On the integration of model identification and process optimization. <i>Computer Aided Chemical Engineering</i> , 2013, , 1021-1026.	0.3	5

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55	Is biomass fractionation by Organosolv-like processes economically viable? A conceptual design study. <i>Bioresource Technology</i> , 2013, 150, 89-97.	4.8	86
56	State estimation for large-scale wastewater treatment plants. <i>Water Research</i> , 2013, 47, 4774-4787.	5.3	57
57	Conceptual Design of Distillation-Based Hybrid Separation Processes. <i>Annual Review of Chemical and Biomolecular Engineering</i> , 2013, 4, 45-68.	3.3	84
58	Incremental Identification of Distributed Parameter Systems. <i>Advances in Chemical Engineering</i> , 2013, , 51-106.	0.5	1
59	Shortcut method for the design of extraction columns for multi-component mixture separations. <i>Computer Aided Chemical Engineering</i> , 2013, , 1039-1044.	0.3	3
60	On the Numerical Solution of Discounted Economic NMPC on Infinite Horizons. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2013, 46, 209-214.	0.4	7
61	Urheberrecht und Open Access: Angemessene Rahmenbedingungen für die Wissenschaft. <i>Bibliothek: Forschung Und Praxis</i> , 2013, 37, .	0.0	1
62	Reformulation strategies for eigenvalue optimization using Sylvester's criterion and Cholesky decomposition. <i>Computer Aided Chemical Engineering</i> , 2013, 32, 487-492.	0.3	2
63	A novel approach to hybrid evolutionary-deterministic optimization in process design. <i>Computer Aided Chemical Engineering</i> , 2013, , 961-966.	0.3	3
64	An iterative partition-based moving horizon estimator for large-scale linear systems. , 2013, , .		9
65	Dynamic modeling of direct contact membrane distillation processes. <i>Computer Aided Chemical Engineering</i> , 2012, 31, 170-174.	0.3	7
66	A hierarchical distributed economic NMPC architecture based on neighboring-extremal updates. , 2012, , .		2
67	Concentration Measurements in Ionic Liquid-Water Mixtures by Mid-Infrared Spectroscopy and Indirect Hard Modeling. <i>Applied Spectroscopy</i> , 2012, 66, 208-217.	1.2	20
68	Hierarchical Economic NMPC for a Class of Hybrid Systems Using Neighboring-Extremal Updates. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2012, 45, 561-566.	0.4	0
69	Robust Design of Closed-Loop Nonlinear Systems with Input and State Constraints. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2012, 45, 916-921.	0.4	1
70	Incremental identification of reaction systems—A comparison between rate-based and extent-based approaches. <i>Chemical Engineering Science</i> , 2012, 83, 24-38.	1.9	50
71	Towards model-based design of biofuel value chains. <i>Current Opinion in Chemical Engineering</i> , 2012, 1, 465-471.	3.8	11
72	What is Wrong with Quantitative Structure-Property Relations Models Based on Three-Dimensional Descriptors?. <i>Journal of Chemical Information and Modeling</i> , 2012, 52, 1984-1993.	2.5	38

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73	Bio-based Value Chains of the Future - An Opportunity for Process Systems Engineering. Computer Aided Chemical Engineering, 2012, 31, 19-28.	0.3	4
74	Integration of market dynamics into the design of biofuel processes. Computer Aided Chemical Engineering, 2012, , 850-854.	0.3	9
75	A Nonlinear Programming Approach to Conceptual Design of Reaction-Separation Systems. Computer Aided Chemical Engineering, 2012, , 592-596.	0.3	3
76	A Novel Method for Monitoring of Separation Performance in Distillation Columns. Computer Aided Chemical Engineering, 2012, 30, 907-911.	0.3	0
77	Exploiting grid adaptation and structure detection in multi-objective dynamic optimization problems. Computer Aided Chemical Engineering, 2012, 30, 782-786.	0.3	3
78	Benchmarking of next-generation biofuels from a process perspective. Biofuels, Bioproducts and Biorefining, 2012, 6, 292-301.	1.9	41
79	Reaction network flux analysis: Optimization-based evaluation of reaction pathways for biorenewables processing. AIChE Journal, 2012, 58, 1788-1801.	1.8	97
80	Heat-integrated distillation columns: Vapor recompression or internal heat integration?. AIChE Journal, 2012, 58, 3740-3750.	1.8	70
81	Auslegung von Heteroazeotrop-Rektifikationsprozessen mittels eines rigorosen Optimierungsansatzes. Chemie-Ingenieur-Technik, 2012, 84, 1260-1260.	0.4	0
82	Prozesssynthese der Bioraffinerie - Analyse der Fraktionierung durch konzeptionellen Prozessentwurf. Chemie-Ingenieur-Technik, 2012, 84, 1302-1302.	0.4	0
83	Ionische Flüssigkeiten in Mischungen mit Wasser zur Vorbehandlung von Holz. Chemie-Ingenieur-Technik, 2012, 84, 1315-1315.	0.4	0
84	Shortcut design of reactive distillation columns. Chemical Engineering Science, 2012, 71, 166-177.	1.9	21
85	A normal vector approach for integrated process and control design with uncertain model parameters and disturbances. Computers and Chemical Engineering, 2012, 40, 202-212.	2.0	16
86	Model-based structural optimization of seawater desalination plants. Desalination, 2012, 292, 30-44.	4.0	57
87	How to verify optimal controls computed by direct shooting methods? – A tutorial. Journal of Process Control, 2012, 22, 494-507.	1.7	26
88	Integrated Scheduling and Control of Continuous-Time Blending Processes. Computer Aided Chemical Engineering, 2012, 31, 1090-1094.	0.3	3
89	Rigorous Generation and Model-Based Selection of Future Biofuel Candidates. Computer Aided Chemical Engineering, 2012, , 1341-1345.	0.3	11
90	Modular equipment design in optimization-based process synthesis. Computer Aided Chemical Engineering, 2012, , 517-521.	0.3	3

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91	Software for Higher-order Sensitivity Analysis of Parametric DAEs. SNE Simulation Notes Europe, 2012, 22, .	0.2	1
92	First- and second-order parameter sensitivities of a metabolically and isotopically non-stationary biochemical network model. , 2012, , .		0
93	Stability-Preserving Optimization in the Presence of Fast Disturbances. IEEE Transactions on Automatic Control, 2011, 56, 2683-2687.	3.6	0
94	A multi-level adaptive solution strategy for 3D inverse problems in pool boiling. International Journal of Numerical Methods for Heat and Fluid Flow, 2011, 21, 469-493.	1.6	3
95	Identification of Transport Coefficient Models in Convection-Diffusion Equations. SIAM Journal of Scientific Computing, 2011, 33, 303-327.	1.3	10
96	Proper Orthogonal Decomposition for Model Reduction of Linear Differential-Algebraic Equation Systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 4582-4587.	0.4	3
97	Distributed Model-Predictive Control Driven by Simultaneous Derivation of Prices and Resources. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 398-403.	0.4	4
98	Conceptual Design of a Butyl-levulinate Reactive Distillation Process by Incremental Refinement. Chinese Journal of Chemical Engineering, 2011, 19, 371-379.	1.7	25
99	An ontology based approach for operational process modeling. Advanced Engineering Informatics, 2011, 25, 748-759.	4.0	25
100	Parallel sensitivity analysis for efficient large-scale dynamic optimization. Optimization and Engineering, 2011, 12, 489-508.	1.3	21
101	Robust Optimisation with Normal Vectors on Critical Manifolds of Disturbance-Induced Stability Loss. Journal of Nonlinear Science, 2011, 21, 57-92.	1.0	4
102	Shortcut-based design of multicomponent heteroazeotropic distillation. Chemical Engineering Research and Design, 2011, 89, 1168-1189.	2.7	38
103	Conceptual design of distillation processes for mixtures with distillation boundaries. II. Optimization of recycle policies. AIChE Journal, 2011, 57, 1540-1556.	1.8	15
104	Conceptual design of distillation processes for mixtures with distillation boundaries: I. Computational assessment of split feasibility. AIChE Journal, 2011, 57, 1526-1539.	1.8	18
105	Optimal process operation for the production of linear polyethylene resins with tailored molecular weight distribution. AIChE Journal, 2011, 57, 2149-2163.	1.8	17
106	A framework for work process modeling in the chemical industries. Computers and Chemical Engineering, 2011, 35, 679-691.	2.0	15
107	Information integration in chemical process engineering based on semantic technologies. Computers and Chemical Engineering, 2011, 35, 692-708.	2.0	57
108	Separation of butanol from acetoneâ€“butanolâ€“ethanol fermentation by a hybrid extractionâ€“distillation process. Computers and Chemical Engineering, 2011, 35, 949-963.	2.0	201

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109	A two-layer architecture for economically optimal process control and operation. Journal of Process Control, 2011, 21, 311-321.	1.7	111
110	Sensitivity-based coordination in distributed model predictive control. Journal of Process Control, 2011, 21, 715-728.	1.7	78
111	A comparative analysis of distributed MPC techniques applied to the HD-MPC four-tank benchmark. Journal of Process Control, 2011, 21, 800-815.	1.7	160
112	Rigorous solution vs. fast update: Acceptable computational delay in NMPC. , 2011, , .		4
113	Disintegration and dissolution kinetics of wood chips in ionic liquids. Holzforschung, 2011, 65, .	0.9	56
114	Integrated process and control design by the normal vector approach. Computer Aided Chemical Engineering, 2011, , 668-672.	0.3	2
115	Constructive nonlinear dynamics for reactor network synthesis with guaranteed robust stability. Computer Aided Chemical Engineering, 2011, 29, 387-391.	0.3	1
116	Towards a rigorous model of electro dialysis processes. Computer Aided Chemical Engineering, 2011, 29, 116-120.	0.3	1
117	Mechanistic model for prediction of formate dehydrogenase kinetics under industrially relevant conditions. Biotechnology Progress, 2010, 26, 73-78.	1.3	14
118	Hybrid shooting " a new optimization method for unstable dynamical systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 43, 745-750.	0.4	0
119	Integration of model-predictive scheduling, dynamic real-time optimization and output tracking for a wastewater treatment process. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 43, 90-95.	0.4	4
120	Personal micro-blogging for workflow support in conceptual design. Computer Aided Chemical Engineering, 2010, 28, 1321-1326.	0.3	0
121	Combining Direct and Indirect Methods for Optimal Control " a Case Study. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 43, 775-780.	0.4	0
122	Efficient reconstruction of local heat fluxes in pool boiling experiments by goal-oriented adaptive mesh refinement. Heat and Mass Transfer, 2010, 46, 1121-1135.	1.2	9
123	The biorenewables opportunity "toward next generation process and product systems. AIChE Journal, 2010, 56, 2228-2235.	1.8	43
124	Rigorese Modellierung von Elektromembranverfahren. Chemie-Ingenieur-Technik, 2010, 82, 1430-1430.	0.4	0
125	Numerische Optimierung von RO-MED-Anlagen zur Meerwasserentsalzung. Chemie-Ingenieur-Technik, 2010, 82, 1432-1432.	0.4	0
126	Prozesssynthese - Kluft zwischen Theorie und Praxis?. Chemie-Ingenieur-Technik, 2010, 82, 1414-1415.	0.4	0



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127	LÃ¶sungskinetiken von Holz in ionischen FlÃ¼ssigkeiten. Chemie-Ingenieur-Technik, 2010, 82, 1568-1568.	0.4	0
128	Selective and Flexible Transformation of Biomassâ€Derived Platform Chemicals by a Multifunctional Catalytic System. Angewandte Chemie - International Edition, 2010, 49, 5510-5514.	7.2	530
129	Discrete first- and second-order adjoints and automatic differentiation for the sensitivity analysis of dynamic models. Procedia Computer Science, 2010, 1, 297-305.	1.2	33
130	Editorial: 2010. Journal of Process Control, 2010, 20, 1-2.	1.7	0
131	Optimal operation of alloy material in solidification processes with inverse heat transfer. International Communications in Heat and Mass Transfer, 2010, 37, 711-716.	2.9	10
132	Systematic determination of intrinsic reaction parameters in enzyme immobilizates. Chemical Engineering Science, 2010, 65, 2491-2499.	1.9	14
133	Targeted QSPR for the prediction of the laminar burning velocity of biofuels. Computers and Chemical Engineering, 2010, 34, 1507-1514.	2.0	16
134	Dynamic optimization of the load change of a large-scale chemical plant by adaptive single shooting. Computers and Chemical Engineering, 2010, 34, 1873-1889.	2.0	23
135	Towards an integrated design of biofuels and their production pathways. Computers and Chemical Engineering, 2010, 34, 1909-1918.	2.0	55
136	OntoCAPE. RWTHedition, 2010, , .	0.6	34
137	Separation of butanol from acetone-butanol-ethanol fermentation by a hybrid extraction-distillation process. Computer Aided Chemical Engineering, 2010, 28, 7-12.	0.3	15
138	On Computing Solutions to the Continuous Time Constrained Linear Quadratic Regulator \$ \$. IEEE Transactions on Automatic Control, 2010, 55, 2192-2198.	3.6	25
139	Nonlinear distributed dynamic optimization based on first order sensitivities. , 2010, , .		11
140	An ontology-based environment for effective collaborative and concurrent process engineering. , 2010, , .		5
141	Towards Integrated Product and Process Design for Biofuels. Computer Aided Chemical Engineering, 2010, 28, 709-714.	0.3	0
142	Estimation of local nucleate boiling heat flux using a three-dimensional transient heat conduction model. Inverse Problems in Science and Engineering, 2010, 18, 279-294.	1.2	12
143	Optimal Experimental Design for Discriminating Numerous Model Candidates: The AWDC Criterion. Industrial & Engineering Chemistry Research, 2010, 49, 913-919.	1.8	28
144	Reply to â€œSome Observations on the Paper â€œOptimal Experimental Design for Discriminating Numerous Model Candidatesâ€The AWDC Criterionâ€™â€•. Industrial & Engineering Chemistry Research, 2010, 49, 9563-9564.	1.8	0

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145	Continuous and Discrete Composite Adjoints for the Hessian of the Lagrangian in Shooting Algorithms for Dynamic Optimization. <i>SIAM Journal of Scientific Computing</i> , 2010, 31, 4675-4695.	1.3	33
146	Input-constrained closed-loop systems with grazing bifurcations in optimal robust design. , 2010, , .		1
147	Related Work on Ontologies for Engineering Applications. <i>RWTHedition</i> , 2010, , 369-390.	0.6	1
148	Continuous Reformulation of MINLP Problems. , 2010, , 83-92.		5
149	Wissensbasierte Integration von Anlagenplanungsdaten. <i>Atp Magazin</i> , 2010, 52, 48.	0.3	2
150	Evolutionary Improvement and Validation through Applications. <i>RWTHedition</i> , 2010, , 391-423.	0.6	0
151	Meta Model. <i>RWTHedition</i> , 2010, , 57-108.	0.6	0
152	Chemical Process Systems. <i>RWTHedition</i> , 2010, , 241-321.	0.6	2
153	Scientific Background. <i>RWTHedition</i> , 2010, , 11-33.	0.6	0
154	An Extensible Modeling Language for the Representation of Work Processes in the Chemical and Process Industries. <i>Lecture Notes in Computer Science</i> , 2010, , 655-682.	1.0	0
155	Data Compression, Process Optimization, Aerodynamics: A Tour Through the Scales. , 2010, , 39-72.		0
156	A Semantic Information Model for Data Integration Across the Chemical Process Design Process. <i>Computer Aided Chemical Engineering</i> , 2009, , 2025-2030.	0.3	1
157	Design of Heat-Integrated Distillation Processes Using Shortcut Methods and Rigorous Optimization. <i>Computer Aided Chemical Engineering</i> , 2009, 27, 993-998.	0.3	7
158	Model-based control of MF/UF filtration processes: pilot plant implementation and results. <i>Water Science and Technology</i> , 2009, 59, 1713-1720.	1.2	16
159	Efficient solution of a three-dimensional inverse heat conduction problem in pool boiling. <i>Inverse Problems</i> , 2009, 25, 095006.	1.0	17
160	Incremental identification of fluid multi-phase reaction systems. <i>AIChE Journal</i> , 2009, 55, 1009-1022.	1.8	22
161	Aufklärung ligninhaltiger Biomasse in ionischen Flüssigkeiten. <i>Chemie-Ingenieur-Technik</i> , 2009, 81, 1213-1213.	0.4	0
162	An algorithm for multivariate function estimation based on hierarchically refined sparse grids. <i>Computing and Visualization in Science</i> , 2009, 12, 137-153.	1.2	4

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163	Estimation of particle size distributions from focused beam reflectance measurements based on an optical model. <i>Chemical Engineering Science</i> , 2009, 64, 984-1000.	1.9	47
164	Direct determination of the concentration dependence of diffusivities using combined model-based Raman and NMR experiments. <i>Fluid Phase Equilibria</i> , 2009, 277, 96-106.	1.4	14
165	Prediction of multicomponent mutual diffusion in liquids: Model discrimination using NMR data. <i>Fluid Phase Equilibria</i> , 2009, 278, 27-35.	1.4	27
166	Neighboring-extremal updates for nonlinear model-predictive control and dynamic real-time optimization. <i>Journal of Process Control</i> , 2009, 19, 1277-1288.	1.7	68
167	Perspectives for process systems engineering – Personal views from academia and industry. <i>Computers and Chemical Engineering</i> , 2009, 33, 536-550.	2.0	161
168	An ontological conceptualization of multiscale models. <i>Computers and Chemical Engineering</i> , 2009, 33, 822-837.	2.0	61
169	OntoCAPE – A (re)usable ontology for computer-aided process engineering. <i>Computers and Chemical Engineering</i> , 2009, 33, 1546-1556.	2.0	95
170	Incremental single shooting – A robust method for the estimation of parameters in dynamical systems. <i>Computers and Chemical Engineering</i> , 2009, 33, 1298-1305.	2.0	18
171	Efficient Optimization-Based Design of Distillation Processes for Homogeneous Azeotropic Mixtures. <i>Industrial &amp; Engineering Chemistry Research</i> , 2009, 48, 6749-6764.	1.8	96
172	Process Analysis by Means of Focused Beam Reflectance Measurements. <i>Industrial &amp; Engineering Chemistry Research</i> , 2009, 48, 2936-2946.	1.8	39
173	Incremental Global Parameter Estimation in Dynamical Systems. <i>Industrial &amp; Engineering Chemistry Research</i> , 2009, 48, 5489-5497.	1.8	20
174	Reaction networks – A rapid screening method. <i>Computer Aided Chemical Engineering</i> , 2009, 26, 243-248.	0.3	7
175	A New Process Noise Covariance Matrix Tuning Algorithm for Kalman Based State Estimators. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2009, 42, 572-577.	0.4	5
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