GÃ¼rkan Sin

List of Publications by Year
in descending order

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261 papers	5,620 citations	81900 39 h-index	118850 62 g-index
265 all docs	265 docs citations	265 times ranked	4470 citing authors

#	Article	IF	Citations
1	Group-contribution+ (GC+) based estimation of properties of pure components: Improved property estimation and uncertainty analysis. Fluid Phase Equilibria, 2012, 321, 25-43.	2.5	249
2	Good modeling practice for PAT applications: Propagation of input uncertainty and sensitivity analysis. Biotechnology Progress, 2009, 25, 1043-1053.	2.6	180
3	Multienzyme-Catalyzed Processes: Next-Generation Biocatalysis. Organic Process Research and Development, 2011, 15, 203-212.	2.7	149
4	A review of control strategies for manipulating the feed rate in fed-batch fermentation processes. Journal of Biotechnology, 2017, 245, 34-46.	3.8	136
5	Global sensitivity analysis in wastewater treatment plant model applications: Prioritizing sources of uncertainty. Water Research, 2011, 45, 639-651.	11.3	133
6	Uncertainty analysis in WWTP model applications: A critical discussion using an example from design. Water Research, 2009, 43, 2894-2906.	11.3	132
7	Modelling nitrite in wastewater treatment systems: a discussion of different modelling concepts. Water Science and Technology, 2008, 58, 1155-1171.	2.5	123
8	Stateâ€ofâ€theâ€art and progress in the optimizationâ€based simultaneous design and control for chemical processes. AICHE Journal, 2012, 58, 1640-1659.	3.6	116
9	Application of mechanistic models to fermentation and biocatalysis for next-generation processes. Trends in Biotechnology, 2010, 28, 346-354.	9.3	111
10	A critical comparison of systematic calibration protocols for activated sludge models: A SWOT analysis. Water Research, 2005, 39, 2459-2474.	11.3	108
11	Estimation of Environment-Related Properties of Chemicals for Design of Sustainable Processes: Development of Group-Contribution⁺ (GC⁺) Property Models and Uncertainty Analysis. Journal of Chemical Information and Modeling, 2012, 52, 2823-2839.	5.4	100
12	A new approach for modelling simultaneous storage and growth processes for activated sludge systems under aerobic conditions. Biotechnology and Bioengineering, 2005, 92, 600-613.	3.3	98
13	Multi-criteria evaluation of wastewater treatment plant control strategies under uncertainty. Water Research, 2008, 42, 4485-4497.	11.3	97
14	A COMPREHENSIVE MODEL CALIBRATION PROCEDURE FOR ACTIVATED SLUDGE MODELS. Proceedings of the Water Environment Federation, 2003, 2003, 210-237.	0.0	85
15	Optimal design and operation of an Organic Rankine Cycle (ORC) system driven by solar energy with sensible thermal energy storage. Energy Conversion and Management, 2021, 244, 114494.	9.2	76
16	Transient response of aerobic and anoxic activated sludge activities to sudden substrate concentration changes. Biotechnology and Bioengineering, 2004, 86, 277-290.	3.3	74
17	An efficient approach to automate the manual trial and error calibration of activated sludge models. Biotechnology and Bioengineering, 2008, 100, 516-528.	3.3	72
18	Integrated business and engineering framework for synthesis and design of enterprise-wide processing networks. Computers and Chemical Engineering, 2012, 38, 213-223.	3.8	71

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19	Mechanistic Fermentation Models for Process Design, Monitoring, and Control. Trends in Biotechnology, 2017, 35, 914-924.	9.3	71
20	Integration of process design and controller design for chemical processes using model-based methodology. Computers and Chemical Engineering, 2010, 34, 683-699.	3.8	65
21	Assessing reliability of cellulose hydrolysis models to support biofuel process designâ€"Identifiability and uncertainty analysis. Computers and Chemical Engineering, 2010, 34, 1385-1392.	3.8	65
22	Simple modification to describe the soil water retention curve between saturation and oven dryness. Water Resources Research, 2006, 42, .	4.2	61
23	A Comprehensive Methodology for Development, Parameter Estimation, and Uncertainty Analysis of Group Contribution Based Property Modelsâ€"An Application to the Heat of Combustion. Journal of Chemical & Engineering Data, 2016, 61, 602-613.	1.9	57
24	A framework for model-based optimization of bioprocesses under uncertainty: Lignocellulosic ethanol production case. Computers and Chemical Engineering, 2012, 42, 115-129.	3.8	53
25	Working fluid selection for organic Rankine cycles â€“ Impact of uncertainty of fluid properties. Energy, 2016, 109, 987-997.	8.8	52
26	A Mathematical Model for Simultaneous Saccharification and Co-fermentation (SSCF) of C6 and C5 Sugars. Chinese Journal of Chemical Engineering, 2011, 19, 185-191.	3.5	51
27	Sensitivity analysis of autotrophic N removal by a granule based bioreactor: Influence of mass transfer versus microbial kinetics. Bioresource Technology, 2012, 123, 230-241.	9.6	51
28	Meta-modeling based efficient global sensitivity analysis for wastewater treatment plants â€“ An application to the BSM2 model. Computers and Chemical Engineering, 2019, 127, 233-246.	3.8	50
29	Application of the Morris method for screening the influential parameters of fuzzy controllers applied to wastewater treatment plants. Water Science and Technology, 2011, 63, 2199-2206.	2.5	48
30	Combining multiway principal component analysis (MPCA) and clustering for efficient data mining of historical data sets of SBR processes. Water Science and Technology, 2008, 57, 1659-1666.	2.5	47
31	A method to estimate the enthalpy of formation of organic compounds with chemical accuracy. Fluid Phase Equilibria, 2013, 348, 23-32.	2.5	46
32	Evolution of an ASM2d-like model structure due to operational changes of an SBR process. Water Science and Technology, 2006, 53, 237-245.	2.5	45
33	A calibration methodology and model-based systems analysis for SBRs removing nutrients under limited aeration conditions. Journal of Chemical Technology and Biotechnology, 2006, 81, 679-687.	3.2	45
34	Dynamic model-based evaluation of process configurations for integrated operation of hydrolysis and co-fermentation for bioethanol production from lignocellulose. Bioresource Technology, 2011, 102, 1174-1184.	9.6	45
35	Effect of Market Price Uncertainties on the Design of Optimal Biorefinery Systemsâ€"A Systematic Approach. Industrial & Engineering Chemistry Research, 2014, 53, 6021-6032.	3.7	44
36	Matrix notation for efficient development of firstâ€principles models within PAT applications: Integrated modeling of antibiotic production with Streptomyces coelicolor. Biotechnology and Bioengineering, 2008, 101, 153-171.	3.3	43

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37	Parameter subset selection for the dynamic calibration of activated sludge models (ASMs): experience versus systems analysis. Water Science and Technology, 2007, 56, 107-115.	2.5	42
38	A systematic framework for enterprise-wide optimization: Synthesis and design of processing networks under uncertainty. Computers and Chemical Engineering, 2013, 59, 47-62.	3.8	40
39	Systematic network synthesis and design: Problem formulation, superstructure generation, data management and solution. Computers and Chemical Engineering, 2015, 72, 68-86.	3.8	40
40	Optimal WWTP process selection for treatment of domestic wastewater â€“ A realistic full-scale retrofitting study. Chemical Engineering Journal, 2016, 286, 447-458.	12.7	40
41	Integrated Model for Understanding N₂O Emissions from Wastewater Treatment Plants: A Deep Learning Approach. Environmental Science & Technology, 2021, 55, 2143-2151.	10.0	39
42	Upgrading of lignocellulosic biorefinery to value-added chemicals: Sustainability and economics of bioethanol-derivatives. Biomass and Bioenergy, 2015, 75, 282-300.	5.7	38
43	Economic Risk Assessment of Early Stage Designs for Glycerol Valorization in Biorefinery Concepts. Industrial & Engineering Chemistry Research, 2016, 55, 6801-6814.	3.7	37
44	Group-contribution based property estimation and uncertainty analysis for flammability-related properties. Journal of Hazardous Materials, 2016, 318, 783-793.	12.4	36
45	Assessing the environmental sustainability of early stage design for bioprocesses under uncertainties: An analysis of glycerol bioconversion. Journal of Cleaner Production, 2016, 139, 1245-1260.	9.3	35
46	The Influence of Experimental Data Quality and Quantity on Parameter Estimation Accuracy. Education for Chemical Engineers, 2006, 1, 139-145.	4.8	34
47	A framework for techno-economic & environmental sustainability analysis by risk assessment for conceptual process evaluation. Biochemical Engineering Journal, 2016, 116, 146-156.	3.6	34
48	Extensions to modeling aerobic carbon degradation using combined respirometricâ€“titrimetric measurements in view of activated sludge model calibration. Water Research, 2007, 41, 3345-3358.	11.3	33
49	Economic risk analysis and critical comparison of optimal biorefinery concepts. Biofuels, Bioproducts and Biorefining, 2016, 10, 435-445.	3.7	33
50	A model-based methodology for simultaneous design and control of a bioethanol production process. Computers and Chemical Engineering, 2010, 34, 2043-2061.	3.8	32
51	Assessment of Full-Scale N₂O Emission Characteristics and Testing of Control Concepts in an Activated Sludge Wastewater Treatment Plant with Alternating Aerobic and Anoxic Phases. Environmental Science & Technology, 2019, 53, 12485-12494.	10.0	32
52	Nitrous oxide production in autotrophic nitrogen removal granular sludge: A modeling study. Biotechnology and Bioengineering, 2019, 116, 1280-1291.	3.3	32
53	Application of a model-based optimisation methodology for nutrient removing SBRs leads to falsification of the model. Water Science and Technology, 2006, 53, 95-103.	2.5	31
54	A biochemically structured model for ethanol fermentation by Kluyveromyces marxianus: A batch fermentation and kinetic study. Bioresource Technology, 2011, 102, 7513-7520.	9.6	31

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55	CFD predicted pH gradients in lactic acid bacteria cultivations. Biotechnology and Bioengineering, 2019, 116, 769-780.	3.3	31
56	Industrial Process Water Treatment and Reuse: A Framework for Synthesis and Design. Industrial & Engineering Chemistry Research, 2014, 53, 5160-5171.	3.7	29
57	A mathematical programming framework for early stage design of wastewater treatment plants. Environmental Modelling and Software, 2015, 64, 164-176.	4.5	29
58	Controlling sewer systems â€“ a critical review based on systems in three EU cities. Urban Water Journal, 2017, 14, 435-442.	2.1	29
59	Understanding N 2 O formation mechanisms through sensitivity analyses using a plant-wide benchmark simulation model. Chemical Engineering Journal, 2017, 317, 935-951.	12.7	29
60	Improving the Morris method for sensitivity analysis by scaling the elementary effects. Computer Aided Chemical Engineering, 2009, 26, 925-930.	0.5	28
61	Application of modeling and simulation tools for the evaluation of biocatalytic processes: A future perspective. Biotechnology Progress, 2009, 25, 1529-1538.	2.6	28
62	A Dynamic Model for Cellulosic Biomass Hydrolysis: a Comprehensive Analysis and Validation of Hydrolysis and Product Inhibition Mechanisms. Applied Biochemistry and Biotechnology, 2014, 172, 2815-2837.	2.9	28
63	A novel fuzzy-logic control strategy minimizing N2O emissions. Water Research, 2017, 123, 479-494.	11.3	28
64	Experiences on dynamic simulation software in chemical engineering education. Education for Chemical Engineers, 2012, 7, e153-e162.	4.8	27
65	Organic carbon recovery modeling for a rotating belt filter and its impact assessment on a plant-wide scale. Chemical Engineering Journal, 2018, 334, 1965-1976.	12.7	27
66	A probabilistic model-based soft sensor to monitor lactic acid bacteria fermentations. Biochemical Engineering Journal, 2018, 135, 49-60.	3.6	26
67	Comparison of the Modeling Approach between Membrane Bioreactor and Conventional Activated Sludge Processes. Water Environment Research, 2009, 81, 432-440.	2.7	25
68	An integrated knowledge-based and optimization tool for the sustainable selection of wastewater treatment process concepts. Environmental Modelling and Software, 2016, 84, 177-192.	4.5	25
69	Design and preliminary operation of a hybrid syngas/solar PV/battery power system for off-grid applications: A case study in Thailand. Chemical Engineering Research and Design, 2018, 131, 346-361.	5.6	25
70	Output uncertainty of dynamic growth models: Effect of uncertain parameter estimates on model reliability. Biochemical Engineering Journal, 2019, 150, 107247.	3.6	25
71	Computer-Aided Modeling Framework for Efficient Model Development, Analysis, and Identification: Combustion and Reactor Modeling. Industrial & Engineering Chemistry Research, 2011, 50, 5253-5265.	3.7	24
72	A generic multi-dimensional model-based system for batch cooling crystallization processes. Computers and Chemical Engineering, 2011, 35, 828-843.	3.8	24

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73	Control of wastewater N2O emissions by balancing the microbial communities using a fuzzy-logic approach. IFAC-PapersOnLine, 2016, 49, 1157-1162.	0.9	24
74	Uncertainty assessment of equations of state with application to an organic Rankine cycle. Molecular Physics, 2017, 115, 1225-1244.	1.7	24
75	Predicting the oxidant demand in full-scale drinking water treatment using an artificial neural network: Uncertainty and sensitivity analysis. Chemical Engineering Research and Design, 2019, 125, 317-327.	5.6	24
76	Influence of selecting secondary settling tank sub-models on the calibration of WWTP models â€“ A global sensitivity analysis using BSM2. Chemical Engineering Journal, 2014, 241, 28-34.	12.7	23
77	Computer-aided modelling template: Concept and application. Computers and Chemical Engineering, 2015, 83, 232-247.	3.8	23
78	Uncertainty and sensitivity analysis of control strategies using the benchmark simulation model No1 (BSM1). Water Science and Technology, 2009, 59, 491-499.	2.5	22
79	Nitrite effect on the phosphorus uptake activity of phosphate accumulating organisms (PAOs) in pilot-scale SBR and MBR reactors. Water S A, 2019, 34, 249.	0.4	22
80	Systematic design of an optimal control system for the SHARON-Anammox process. Journal of Process Control, 2016, 39, 1-10.	3.3	21
81	Design of control framework based on deep reinforcement learning and Monte-Carlo sampling in downstream separation. Computers and Chemical Engineering, 2020, 140, 106910.	3.8	21
82	A systematic approach for fine-tuning of fuzzy controllers applied to WWTPs. Environmental Modelling and Software, 2010, 25, 670-676.	4.5	20
83	Toward a Computer-Aided Synthesis and Design of Biorefinery Networks: Data Collection and Management Using a Generic Modeling Approach. ACS Sustainable Chemistry and Engineering, 2014, 2, 19-29.	6.7	20
84	An integrated qualitative and quantitative modeling framework for computerâ€assisted HAZOP studies. AICHE Journal, 2014, 60, 4150-4173.	3.6	20
85	A methodological approach to the design of optimising control strategies for sewer systems. Environmental Modelling and Software, 2016, 83, 103-115.	4.5	20
86	An integrated framework for plant data-driven process modeling using deep-learning with Monte-Carlo simulations. Computers and Chemical Engineering, 2020, 143, 107071.	3.8	20
87	Comprehensive evaluation of a data driven control strategy: Experimental application to a pharmaceutical crystallization process. Chemical Engineering Research and Design, 2020, 163, 248-261.	5.6	20
88	Model-based evaluation of an on-line control strategy for SBRs based on OUR and ORP measurements. Water Science and Technology, 2006, 53, 161-169.	2.5	19
89	A computer-aided framework for development, identification and management of physiologically-based pharmacokinetic models. Computers and Chemical Engineering, 2014, 71, 677-698.	3.8	19
90	Multiscale modeling of poly(lactic acid) production: From reaction conditions to rheology of polymer melt. Chemical Engineering Journal, 2018, 336, 361-375.	12.7	19

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91	Dynamic Plantwide Modeling, Uncertainty, and Sensitivity Analysis of a Pharmaceutical Upstream Synthesis: Ibuprofen Case Study. Industrial & Engineering Chemistry Research, 2018, 57, 10026-10037.	3.7	19
92	Activated sludge models at the crossroad of artificial intelligenceâ€"A perspective on advancing process modeling. Npj Clean Water, 2021, 4, .	8.0	19
93	Dynamic model development and validation for a nitrifying moving bed biofilter: Effect of temperature and influent load on the performance. Process Biochemistry, 2008, 43, 384-397.	3.7	18
94	Dynamic modeling and validation of a lignocellulosic enzymatic hydrolysis process â€“ A demonstration scale study. Bioresource Technology, 2013, 150, 393-403.	9.6	18
95	Aeration control by monitoring the microbiological activity using fuzzy logic diagnosis and control. Application to a complete autotrophic nitrogen removal reactor. Journal of Process Control, 2015, 30, 22-33.	3.3	18
96	Optimal Design and Planning of Glycerol-Based Biorefinery Supply Chains under Uncertainty. Industrial & Engineering Chemistry Research, 2017, 56, 11870-11893.	3.7	18
97	Multivariate Principal Component Analysis and Case-Based Reasoning for monitoring, fault detection and diagnosis in a WWTP. Water Science and Technology, 2011, 64, 1661-1667.	2.5	17
98	An operational protocol for facilitating start-up of single-stage autotrophic nitrogen-removing reactors based on process stoichiometry. Water Science and Technology, 2013, 68, 514-521.	2.5	17
99	Dynamic modeling and validation of a biomass hydrothermal pretreatment processâ€"a demonstration scale study. AIChE Journal, 2015, 61, 4235-4250.	3.6	17
100	A novel modelâ€based control strategy for aerobic filamentous fungal fedâ€batch fermentation processes. Biotechnology and Bioengineering, 2017, 114, 1459-1468.	3.3	16
101	Impact of granule size distribution on nitrous oxide production in autotrophic nitrogen removal granular reactor. Science of the Total Environment, 2019, 689, 700-708.	8.0	16
102	Towards Digitalization in Bio-Manufacturing Operations: A Survey on Application of Big Data and Digital Twin Concepts in Denmark. Frontiers in Chemical Engineering, 2021, 3, .	2.7	16
103	A systematic framework for design of process monitoring and control (PAT) systems for crystallization processes. Computers and Chemical Engineering, 2013, 54, 8-23.	3.8	15
104	Significance of settling model structures and parameter subsets in modelling WWTPs under wet-weather flow and filamentous bulking conditions. Water Research, 2014, 63, 209-221.	11.3	15
105	Application of a mechanistic model as a tool for onâ€line monitoring of pilot scale filamentous fungal fermentation processesâ€"The importance of evaporation effects. Biotechnology and Bioengineering, 2017, 114, 589-599.	3.3	15
106	Stochastic simulation-based superstructure optimization framework for process synthesis and design under uncertainty. Computers and Chemical Engineering, 2020, 143, 107118.	3.8	15
107	Model-based optimisation of the biological performance of a sidestream MBR. Water Science and Technology, 2007, 56, 135-143.	2.5	14
108	The Solvent Selection framework. Computer Aided Chemical Engineering, 2012, 30, 762-766.	0.5	14

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109	Regulatory control analysis and design for sewer systems. Environmental Modelling and Software, 2015, 66, 153-166.	4.5	14
110	A compartment model for risk-based monitoring of lactic acid bacteria cultivations. Biochemical Engineering Journal, 2019, 151, 107293.	3.6	14
111	Development of an integrated network for waste-to-energy and central utility systems considering air pollutant emissions pinch analysis. Journal of Cleaner Production, 2020, 252, 119746.	9.3	14
112	Unravelling the environmental and economic impacts of innovative technologies for the enhancement of biogas production and sludge management in wastewater systems. Journal of Environmental Management, 2020, 270, 110965.	7.8	14
113	Systematic model development for partial nitrification of landfill leachate in a SBR. Water Science and Technology, 2010, 61, 2199-2210.	2.5	13
114	Development of novel control strategies for single-stage autotrophic nitrogen removal: A process oriented approach. Computers and Chemical Engineering, 2014, 66, 71-81.	3.8	13
115	Functional unfold principal component regression methodology for analysis of industrial batch process data. AICHE Journal, 2016, 62, 1986-1994.	3.6	13
116	Supply Chain Optimization of Integrated Glycerol Biorefinery: GlyThink Model Development and Application. Industrial & Engineering Chemistry Research, 2017, 56, 6711-6727.	3.7	13
117	The Monte Carlo driven and machine learning enhanced process simulator. Computers and Chemical Engineering, 2019, 125, 324-338.	3.8	13
118	First principles pharmacokinetic modeling: A quantitative study on Cyclosporin. Computers and Chemical Engineering, 2013, 54, 97-110.	3.8	12
119	Calibration and validation of a model describing complete autotrophic nitrogen removal in a granular <scp>SBR</scp> system. Journal of Chemical Technology and Biotechnology, 2013, 88, 2007-2015.	3.2	12
120	Systematic design of membership functions for fuzzy-logic control: A case study on one-stage partial nitritation/anammox treatment systems. Water Research, 2016, 102, 346-361.	11.3	12
121	Modeling a production scale milk drying process: parameter estimation, uncertainty and sensitivity analysis. Chemical Engineering Science, 2016, 152, 301-310.	3.8	12
122	Uncertainty analysis of the CPA and a quadrupolar CPA equation of state â€“ With emphasis on CO2. Fluid Phase Equilibria, 2016, 414, 29-47.	2.5	12
123	Calibration of the comprehensive NDHA-N2O dynamics model for nitrifier-enriched biomass using targeted respirometric assays. Water Research, 2017, 126, 29-39.	11.3	12
124	Reverse Engineering of Working Fluid Selection for Industrial Heat Pump Based on Monte Carlo Sampling and Uncertainty Analysis. Industrial & Engineering Chemistry Research, 2018, 57, 13463-13477.	3.7	12
125	Computer-aided molecular product-process design under property uncertainties â€“ A Monte Carlo based optimization strategy. Computers and Chemical Engineering, 2019, 122, 247-257.	3.8	12
126	Modeling of Polyhydroxyalkanoate Synthesis from Biogas by Methylocystis hirsuta. ACS Sustainable Chemistry and Engineering, 2020, 8, 3906-3912.	6.7	12

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127	Uncertainty and sensitivity analysis of filtration models for non-Fickian transport and hyperexponential deposition. Chemical Engineering Journal, 2011, 168, 635-648.	12.7	11
128	A simulation based engineering method to support HAZOP studies. Computer Aided Chemical Engineering, 2012, , 1271-1275.	0.5	11
129	Applying Mechanistic Models in Bioprocess Development. Advances in Biochemical Engineering/Biotechnology, 2012, 132, 137-166.	1.1	11
130	A generic methodology for the optimisation of sewer systems using stochastic programming and self-optimizing control. Journal of Environmental Management, 2015, 155, 193-203.	7.8	11
131	A novel control strategy for single-stage autotrophic nitrogen removal in SBR. Chemical Engineering Journal, 2015, 260, 64-73.	12.7	11
132	Scale-up Modeling of a Pharmaceutical Crystallization Process via Compartmentalization Approach. Computer Aided Chemical Engineering, 2018, 44, 181-186.	0.5	11
133	A process synthesis tool for WWTP â€“ An application to design sustainable energy recovery facilities. Chemical Engineering Research and Design, 2020, 156, 353-370.	5.6	11
134	Comprehensive sensitivity analysis and process risk assessment of large scale pharmaceutical crystallization processes. Computers and Chemical Engineering, 2020, 135, 106746.	3.8	11
135	Discussion of â€œAssessing Parameter Identifiability of Activated Sludge Model Number 1â€•by Pedro Afonso and Maria da ConceiÃ§Ã£o Cunha. Journal of Environmental Engineering, ASCE, 2004, 130, 110-112.	1.4	10
136	Modified calibration protocol evaluated in a model-based testing of SBR flexibility. Bioprocess and Biosystems Engineering, 2011, 34, 205-214.	3.4	10
137	Uncertainty estimation in deep learningâ€based property models: Graph neural networks applied to the critical properties. AICHE Journal, 2022, 68, .	3.6	10
138	Introducing mechanistic models in Process Analytical Technology education. Biotechnology Journal, 2009, 4, 593-599.	3.5	9
139	A new extant respirometric assay to estimate intrinsic growth parameters applied to study plasmid metabolic burden. Biotechnology and Bioengineering, 2010, 105, 141-149.	3.3	9
140	Model-based plantwide optimization of large scale lignocellulosic bioethanol plants. Biochemical Engineering Journal, 2017, 124, 13-25.	3.6	9
141	Editorial: Applications of Monte Carlo Method in Chemical, Biochemical and Environmental Engineering. Frontiers in Energy Research, 2020, 8, .	2.3	9
142	Synergistic optimization framework for the process synthesis and design of biorefineries. Frontiers of Chemical Science and Engineering, 2022, 16, 251-273.	4.4	9
143	Synthesis and Design of Processing Networks. Computer Aided Chemical Engineering, 2012, , 467-471.	0.5	9
144	Evaluation of the impacts of model-based operation of SBRs on activated sludge microbial community. Water Science and Technology, 2006, 54, 157-166.	2.5	8

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145	Introducing uncertainty analysis of nucleation and crystal growth models in Process Analytical Technology (PAT) system design of crystallization processes. European Journal of Pharmaceutics and Biopharmaceutics, 2013, 85, 911-929.	4.3	8
146	Use of continuous lactose fermentation for ethanol production by Kluveromyces marxianus for verification and extension of a biochemically structured model. Bioresource Technology, 2013, 130, 703-709.	9.6	8
147	pH variation and influence in an autotrophic nitrogen removing biofilm system using an efficient numerical solution strategy. Water Science and Technology, 2013, 67, 2608-2615.	2.5	8
148	Validation of a functional model for integration of safety into process system design. Computer Aided Chemical Engineering, 2015, 37, 293-298.	0.5	8
149	Optimal Design of Algae Biorefinery Processing Networks for the production of Protein, Ethanol and Biodiesel. Computer Aided Chemical Engineering, 2015, , 1151-1156.	0.5	8
150	Superstructure Optimization of Oleochemical Processes with Surrogate Models. Computer Aided Chemical Engineering, 2018, , 277-282.	0.5	8
151	Dynamic model validation and advanced polymer control for rotating belt filtration as primary treatment of domestic wastewaters. Chemical Engineering Science, 2020, 217, 115510.	3.8	8
152	Plant-wide assessment of alternative activated sludge configurations for biological nutrient removal under uncertain influent characteristics. Science of the Total Environment, 2022, 822, 153678.	8.0	8
153	Sustainable Process Design under uncertainty analysis: targeting environmental indicators. Computer Aided Chemical Engineering, 2015, 37, 2579-2584.	0.5	7
154	Uncertainty in the prediction of the thermophysical behavior of new halogenated working fluids. Fluid Phase Equilibria, 2019, 485, 220-233.	2.5	7
155	Solubility Prediction of Different Forms of Pharmaceuticals in Single and Mixed Solvents Using Symmetric Electrolyte Nonrandom Two-Liquid Segment Activity Coefficient Model. Industrial & Engineering Chemistry Research, 2019, 58, 4267-4276.	3.7	7
156	Puncture of an import gasoline pipelineâ€"Spray effects may evaporate more fuel than a Buncefield-type tank overfill event. Chemical Engineering Research and Design, 2019, 122, 33-47.	5.6	7
157	Dynamic Simulation of Natural Gas Transmission Pipeline Systems through Autoregressive Neural Networks. Industrial & Engineering Chemistry Research, 2021, 60, 9851-9859.	3.7	7
158	Application of computer-aided multi-scale modelling framework - Aerosol case study. Computer Aided Chemical Engineering, 2011, 29, 16-20.	0.5	7
159	Model development for the optimization of operational conditions of the pretreatment of wheat straw. Chemical Engineering Journal, 2022, 430, 133106.	12.7	7
160	Control of Process Operations and Monitoring of Product Qualities through Generic Model-based in Batch Cooling Crystallization. Computer Aided Chemical Engineering, 2010, 28, 613-618.	0.5	6
161	Control assessment for heat integrated systems. An industrial case study for ethanol recovery. Chemical Engineering and Processing: Process Intensification, 2013, 67, 60-70.	3.6	6
162	A Framework for the Modelling of Biphasic Reacting Systems. Computer Aided Chemical Engineering, 2014, 34, 249-254.	0.5	6

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163	Extending the benchmark simulation model nÂ°2 with processes for nitrous oxide production and side-stream nitrogen removal. Computer Aided Chemical Engineering, 2015, 37, 2477-2482.	0.5	6
164	Global sensitivity analysis of computer-aided molecular design problem for the development of novel working fluids for power cycles. Computer Aided Chemical Engineering, 2016, 38, 283-288.	0.5	6
165	Monte Carlo Based Framework to Support HAZOP Study. Computer Aided Chemical Engineering, 2017, 40, 2233-2238.	0.5	6
166	Landâ€use planning risk estimates for a chemical industrial park in China â€“ A longitudinal study. Process Safety Progress, 2018, 37, 124-133.	1.0	6
167	Computer-Aided Template for Model Reuse, Development and Maintenance. Computer Aided Chemical Engineering, 2014, , 817-822.	0.5	6
168	A framework for model-based optimization of bioprocesses under uncertainty. Computer Aided Chemical Engineering, 2011, , 1455-1459.	0.5	5
169	Systematic Multi-Scale Model Development Strategy for the Fragrance Spraying Process and Transport. Chemical Engineering and Technology, 2012, 35, 1381-1391.	1.5	5
170	Modelling and L<inf>1</inf> adaptive control of pH in bioethanol enzymatic process. , 2013, , .		5
171	Superstructure Development and Optimization under Uncertainty for Design and Retrofit of Municipal Wastewater Treatment Plants. Computer Aided Chemical Engineering, 2014, , 37-42.	0.5	5
172	Systematic framework development for the construction of surrogate models for wastewater treatment plants. Computer Aided Chemical Engineering, 2018, 44, 1909-1914.	0.5	5
173	From property uncertainties to process simulation uncertainties â€“ Monte Carlo methods in SimSci PRO/II process simulator. Computer Aided Chemical Engineering, 2018, , 1489-1494.	0.5	5
174	A water treatment case study for quantifying model performance with multilevel flow modeling. Nuclear Engineering and Technology, 2018, 50, 532-541.	2.3	5
175	Comprehensive development, uncertainty and sensitivity analysis of a model for the hydrolysis of rapeseed oil. Computers and Chemical Engineering, 2020, 133, 106631.	3.8	5
176	Identification of behavioural model input data sets for WWTP uncertainty analysis. Water Science and Technology, 2020, 81, 1558-1568.	2.5	5
177	Comparison of Group-Contribution and Machine Learning-based Property Prediction Models with Uncertainty Quantification. Computer Aided Chemical Engineering, 2021, 50, 755-760.	0.5	5
178	Model-Based Evaluation of a Data-Driven Control Strategy: Application to Ibuprofen Crystallization. Processes, 2021, 9, 653.	2.8	5
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