Yoshiaki Kawajiri

List of Publications by Year
in descending order

82	1,635	279487	344852
papers	citations	23 h-index	36 g-index

83	83	83	1266
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Utilization of operation data for parameter estimation of simulated moving bed chromatography. Journal of Advanced Manufacturing and Processing, 2022, 4, .	1.4	3
2	Process development for advanced simulated moving bed (ASMB) chromatography by parameter refinement using pilot plant experimental data. Separation and Purification Technology, 2022, 281, 119932.	3.9	1
3	Discrepancy quantification between experimental and simulated data of CO2 adsorption isotherm using hierarchical Bayesian estimation. Separation and Purification Technology, 2022, 296, 121371.	3.9	6
4	Reduced building energy consumption by combined indoor CO2 and H2O composition control. Applied Energy, 2022, 322, 119526.	5.1	13
5	Model-based optimization strategies for chromatographic processes: a review. Adsorption, 2021, 27, 1-26.	1.4	13
6	Integration of Material and Process Design for Kinetic Adsorption Separation. Industrial & Engineering Chemistry Research, 2021, 60, 2536-2546.	1.8	6
7	Analysis of energetics and economics of subâ€ambient hybrid <scp>postâ€combustion carbon dioxide</scp> capture. AICHE Journal, 2021, 67, e17403.	1.8	7
8	Uncertainty quantification for chromatography model parameters by Bayesian inference using sequential Monte Carlo method. Chemical Engineering Research and Design, 2021, 175, 223-237.	2.7	14
9	Determination of Kinetic Parameters for CO₂ Methanation (Sabatier Reaction) over Ni/ZrO₂ at a Stoichiometric Feed-Gas Composition under Elevated Pressure. Energy & Fuels, 2021, 35, 20216-20223.	2.5	17
10	How Well Do Approximate Models of Adsorption-Based CO₂ Capture Processes Predict Results of Detailed Process Models?. Industrial & Engineering Chemistry Research, 2020, 59, 7097-7108.	1.8	51
11	Hierarchical Bayesian estimation for adsorption isotherm parameter determination. Chemical Engineering Science, 2020, 214, 115435.	1.9	20
12	Efficient Evaluation of Vacuum Pressure-swing Cycle Performance using Surrogate-based, Multi-objective Optimization Algorithm. Computer Aided Chemical Engineering, 2020, , 1801-1806.	0.3	1
13	Using Site Heterogeneity in Metalâ€“Organic Frameworks with Bimetallic Open Metal Sites for Olefin/Paraffin Separations. ACS Applied Nano Materials, 2020, 3, 5291-5300.	2.4	10
14	Correction to â€œSystems Design and Economic Analysis of Direct Air Capture of CO₂ through Temperature Vacuum Swing Adsorption Using MIL-101(Cr)-PEI-800 and mmen-Mg₂(dobpdc) MOF Adsorbentsâ€• Industrial & Engineering Chemistry Research, 2020, 59, 503-505.	1.8	10
15	Bayesian design of experiments for adsorption isotherm modeling. Computers and Chemical Engineering, 2020, 135, 106774.	2.0	15
16	Adsorption Process Intensification through Structured Packing: A Modeling Study Using Zeolite 13X and a Mixture of Propylene and Propane in Hollow-Fiber and Packed Beds. Industrial & Engineering Chemistry Research, 2019, 58, 5750-5767.	1.8	12
17	Application of critical path method to stochastic processes with historical operation data. Chemical Engineering Research and Design, 2019, 149, 195-208.	2.7	10
18	Aromatics/Alkanes separation: Simulated moving bed process model development by a concurrent approach and its validation in a mini-plant. Separation and Purification Technology, 2019, 215, 410-421.	3.9	8

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19	Design for dynamic operation - A review and new perspectives for an increasingly dynamic plant operating environment. Computers and Chemical Engineering, 2019, 128, 329-339.	2.0	24
20	Process integration for simulated moving bed reactor for the production of glycol ether acetate. Chemical Engineering and Processing: Process Intensification, 2019, 140, 1-10.	1.8	6
21	Experimental evaluation of simulated moving bed reactor for transesterification reaction synthesis of glycol ether ester. Adsorption, 2019, 25, 795-807.	1.4	8
22	Development of Phase-Change-Based Thermally Modulated Fiber Sorbents. Industrial & Engineering Chemistry Research, 2019, 58, 5768-5776.	1.8	14
23	Transesterification of propylene glycol methyl ether by reactive simulated moving bed chromatography using homogeneous catalyst. Adsorption, 2018, 24, 309-324.	1.4	3
24	Design for dynamic operation â€“ A review and new perspectives for a dynamic manufacturing environment. Computer Aided Chemical Engineering, 2018, 44, 43-52.	0.3	0
25	Direct Air Capture of CO 2 in Enclosed Environments: Design under Uncertainty and Techno-Economic Analysis. Computer Aided Chemical Engineering, 2018, 44, 2179-2184.	0.3	8
26	Unification of an empirical and a physically-based approach to crystallization monitoring. , 2018, , .		2
27	Optimal Design of Integrated SMB-Crystallization Hybrid Separation Process Using a Binary Solvent. Organic Process Research and Development, 2017, 21, 31-43.	1.3	11
28	Using MC plots for control of paracetamol crystallization. Chemical Engineering Science, 2017, 164, 344-360.	1.9	14
29	A concurrent approach for process design and multicomponent adsorption modeling with local isotherms. Chemical Engineering Science, 2017, 171, 426-439.	1.9	6
30	Modeling of Nucleation and Growth Kinetics for Unseeded Batch Cooling Crystallization. Industrial & Engineering Chemistry Research, 2017, 56, 4060-4073.	1.8	47
31	Systems Design and Economic Analysis of Direct Air Capture of CO₂ through Temperature Vacuum Swing Adsorption Using MIL-101(Cr)-PEI-800 and mmen-Mg₂(dobpdc) MOF Adsorbents. Industrial & Engineering Chemistry Research, 2017, 56, 750-764.	1.8	161
32	Uncertainty quantification via bayesian inference using sequential monte carlo methods for CO₂ adsorption process. AICHE Journal, 2016, 62, 3352-3368.	1.8	24
33	Model-based design and experimental validation of simulated moving bed reactor for production of glycol ether ester. Chemical Engineering Journal, 2016, 301, 188-199.	6.6	19
34	Transesterification of propylene glycol methyl ether in chromatographic reactors using anion exchange resin as a catalyst. Journal of Chromatography A, 2016, 1466, 84-95.	1.8	17
35	Data-Driven Modeling and Dynamic Programming Applied to Batch Cooling Crystallization. Industrial & Engineering Chemistry Research, 2016, 55, 1361-1372.	1.8	31
36	Critical limitations on the efficiency of two-step thermochemical cycles. Solar Energy, 2016, 123, 57-73.	2.9	59

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37	Optimization of two-stage cooling profile in unseeded batch crystallizationâˆ—â€—Financial support from C. J. â€œPeteâ€•Silas Chair, Georgia Research Alliance, Air Products, and the Consortium for Risk Evaluation with Stakeholder Participation (CRESP) is gratefully appreciated.. IFAC-PapersOnLine, 2015, 48, 297-302.	0.5	6
38	Full Superstructure for Multiobjective Optimization of Multicolumn Chromatography for Ternary Separations. Chemical Engineering and Technology, 2015, 38, 1677-1682.	0.9	10
39	Reaction Kinetics of Concentrated-Acid Hydrolysis for Cellulose and Hemicellulose and Effect of Crystallinity. BioResources, 2015, 11, .	0.5	18
40	Optimization and Technoeconomic Analysis of Rapid Temperature Swing Adsorption Process for Carbon Capture from Coal-Fired Power Plant. Computer Aided Chemical Engineering, 2015, 36, 253-278.	0.3	3
41	Combining ATR-FTIR and FBRM for feedback on crystal size. , 2015, , .		3
42	Feedback Control of Multicomponent Salt Crystallization. Crystal Growth and Design, 2015, 15, 305-317.	1.4	12
43	CO₂ Sorption Performance of Composite Polymer/Aminosilica Hollow Fiber Sorbents: An Experimental and Modeling Study. Industrial & Engineering Chemistry Research, 2015, 54, 1783-1795.	1.8	30
44	Bayesian estimation of parametric uncertainties, quantification and reduction using optimal design of experiments for CO2 adsorption on amine sorbents. Computers and Chemical Engineering, 2015, 81, 376-388.	2.0	26
45	Massâ€“count plots for crystal size control. Chemical Engineering Science, 2015, 137, 338-351.	1.9	14
46	A new solar fuels reactor concept based on a liquid metal heat transfer fluid: Reactor design and efficiency estimation. Solar Energy, 2015, 122, 547-561.	2.9	23
47	Modeling and experimental validation of carbon dioxide sorption on hollow fibers loaded with silica-supported poly(ethylenimine). Chemical Engineering Journal, 2015, 259, 737-751.	6.6	31
48	Conversion improvement for catalytic synthesis of propylene glycol methyl ether acetate by reactive chromatography: Experiments and parameter estimation. Chemical Engineering Journal, 2015, 259, 397-409.	6.6	15
49	Dynamic Modelling and Optimal Design of the Solid-Phase Reactive Chromatographic Separation System for Biomass Saccharification via Acid Hydrolysis. Computer Aided Chemical Engineering, 2015, 37, 929-934.	0.3	0
50	Bayesian Estimation, Uncertainty Propagation and Design of Experiments for CO2 Adsorption on Amine Sorbents. Computer Aided Chemical Engineering, 2014, 34, 345-350.	0.3	3
51	Optimization and heat integration of hollow fiber based thermal swing adsorption process for CO2 capture from flue gas. Computer Aided Chemical Engineering, 2014, , 633-638.	0.3	1
52	Evaluation of tertiary pyridine resin for the separation of lanthanides by simulated movingâ€bed chromatography. Journal of Separation Science, 2014, 37, 2892-2899.	1.3	1
53	Experimental Validation of Optimized Model-Based Startup Acceleration Strategies for Simulated Moving Bed Chromatography. Industrial & Engineering Chemistry Research, 2014, 53, 12063-12076.	1.8	7
54	Systematic optimization and experimental validation of ternary simulated moving bed chromatography systems. Journal of Chromatography A, 2014, 1356, 82-95.	1.8	19

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55	Simulated moving bed chromatography designs for lanthanide and actinide separations using Reillex HPQâ„¢ resin. Separation and Purification Technology, 2014, 136, 50-57.	3.9	6
56	Solid-Phase Reactive Chromatographic Separation System: Optimization-Based Design and Its Potential Application to Biomass Saccharification via Acid Hydrolysis. Industrial & Engineering Chemistry Research, 2014, 53, 15946-15961.	1.8	3
57	Optimization of reactive simulated moving bed systems with modulation of feed concentration for production of glycol ether ester. Journal of Chromatography A, 2014, 1360, 196-208.	1.8	20
58	Application of an Empirical FBRM Model to Estimate Crystal Size Distributions in Batch Crystallization. Crystal Growth and Design, 2014, 14, 607-616.	1.4	39
59	Robust multicomponent IR-to-concentration model regression. Chemical Engineering Science, 2014, 116, 77-90.	1.9	14
60	Multi-column chromatographic process development using simulated moving bed superstructure and simultaneous optimization â€“ Model correction framework. Chemical Engineering Science, 2014, 116, 428-441.	1.9	26
61	Modeling of rapid temperature swing adsorption using hollow fiber sorbents. Chemical Engineering Science, 2014, 113, 62-76.	1.9	57
62	Predictionâ€“correction method for optimization of simulated moving bed chromatography. AICHE Journal, 2013, 59, 736-746.	1.8	26
63	Development of an empirical method relating crystal size distributions and FBRM measurements. Chemical Engineering Science, 2013, 89, 142-151.	1.9	37
64	Simultaneous modeling and optimization of nonlinear simulated moving bed chromatography by the predictionâ€“correction method. Journal of Chromatography A, 2013, 1280, 51-63.	1.8	24
65	Cost and Energy Savings Using an Optimal Design of Reverse Osmosis Membrane Pretreatment for Dilute Bioethanol Purification. Industrial & Engineering Chemistry Research, 2013, 52, 11132-11141.	1.8	34
66	Thermally moderated hollow fiber sorbent modules in rapidly cycled pressure swing adsorption mode for hydrogen purification. International Journal of Hydrogen Energy, 2012, 37, 15227-15240.	3.8	40
67	Optimal Process Configurations of Bioethanol Dehydration for Different Ethanol Inlet Concentrations and Throughputs. Computer Aided Chemical Engineering, 2012, , 425-429.	0.3	0
68	Comparison of various ternary simulated moving bed separation schemes by multi-objective optimization. Journal of Chromatography A, 2012, 1238, 105-113.	1.8	45
69	Optimizing the separation of gaseous enantiomers byÂsimulatedÂmoving bed and pressure swing adsorption. Adsorption, 2011, 17, 159-170.	1.4	11
70	Optimization of startup and shutdown operation of simulated moving bed chromatographic processes. Journal of Chromatography A, 2011, 1218, 3876-3889.	1.8	12
71	Optimization of simulated moving bed chromatography with fractionation and feedback incorporating an enrichment step. Computer Aided Chemical Engineering, 2011, 29, 818-822.	0.3	0
72	Optimal startup operation of simulated moving bed chromatographic processes. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 43, 733-738.	0.4	1

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73	Optimization of simulated moving bed chromatography with fractionation and feedback: Part I. Fractionation of one outlet. Journal of Chromatography A, 2010, 1217, 5337-5348.	1.8	19
74	Optimization of simulated moving bed chromatography with fractionation and feedback: Part II. Fractionation of both outlets. Journal of Chromatography A, 2010, 1217, 5349-5357.	1.8	22
75	Interactive Multiobjective Optimization of Superstructure SMB Processes. Lecture Notes in Economics and Mathematical Systems, 2009, , 221-230.	0.3	2
76	Comparison of configurations of a four-column simulated moving bed process by multi-objective optimization. Adsorption, 2008, 14, 433-442.	1.4	17
77	Large scale optimization strategies for zone configuration of simulated moving beds. Computers and Chemical Engineering, 2008, 32, 135-144.	2.0	20
78	Chapter 1 Large-scale optimization strategies for zone configuration of simulated moving beds. Computer Aided Chemical Engineering, 2006, 21, 131-136.	0.3	7
79	Nonlinear Programming Superstructure for Optimal Dynamic Operations of Simulated Moving Bed Processes. Industrial & Engineering Chemistry Research, 2006, 45, 8503-8513.	1.8	72
80	Large scale nonlinear optimization for asymmetric operation and design of Simulated Moving Beds. Journal of Chromatography A, 2006, 1133, 226-240.	1.8	40
81	Optimization strategies for simulated moving bed and PowerFeed processes. AICHE Journal, 2006, 52, 1343-1350.	1.8	147
82	Linearizing Control of CSTR and Its Robust Stabilization by H.INF., Controller.. Journal of Chemical Engineering of Japan, 1998, 31, 780-786.	0.3	1