

Jules Thibault

List of Publications by Year in descending order

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117
papers

3,190
citations

136950

32
h-index

189892

50
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119
all docs

119
docs citations

119
times ranked

2901
citing authors

#	ARTICLE	IF	CITATIONS
1	Pareto domain: an invaluable source of process information. <i>Chemical Product and Process Modeling</i> , 2022, 17, 29-53.	0.9	0
2	A generalized model for the prediction of the permeability of mixed-matrix membranes using impermeable fillers of diverse geometry. <i>Journal of Membrane Science</i> , 2022, 641, 119951.	8.2	3
3	The validity of the time-lag method for the characterization of mixed-matrix membranes. <i>Journal of Membrane Science</i> , 2021, 618, 118715.	8.2	14
4	Barrier Properties of PVA/TiO ₂ /MMT Mixed-Matrix Membranes for Food Packaging. <i>Journal of Polymers and the Environment</i> , 2021, 29, 1396-1411.	5.0	20
5	Modelling the Molecular Permeation through Mixed-Matrix Membranes Incorporating Tubular Fillers. <i>Membranes</i> , 2021, 11, 58.	3.0	3
6	Modelling and Multi-Objective Optimization of the Sulphur Dioxide Oxidation Process. <i>Processes</i> , 2021, 9, 1072.	2.8	2
7	Methodology to Solve the Multi-Objective Optimization of Acrylic Acid Production Using Neural Networks as Meta-Models. <i>Processes</i> , 2020, 8, 1184.	2.8	4
8	Gas Permeation Model of Mixed-Matrix Membranes with Embedded Impermeable Cuboid Nanoparticles. <i>Membranes</i> , 2020, 10, 422.	3.0	14
9	Catalyst design using artificial intelligence: SO_2 to SO_3 case study. <i>Canadian Journal of Chemical Engineering</i> , 2020, 98, 2016-2031.	1.7	8
10	Optimization of the in situ recovery of butanol from ABE fermentation broth via membrane pervaporation. <i>Chemical Engineering Research and Design</i> , 2019, 150, 49-64.	5.6	16
11	Simultaneous reinforcement of matrix and fibers for enhancement of mechanical properties of graphene-modified laminated composites. <i>Polymer Composites</i> , 2019, 40, E1732-E1745.	4.6	26
12	Description of butanol aqueous solution transport through commercial PDMS pervaporation membrane using extended Maxwell-Stefan model. <i>Separation Science and Technology</i> , 2018, 53, 1611-1627.	2.5	23
13	The impact of pH on VLE, pervaporation, and adsorption of butyric acid in dilute solutions. <i>Canadian Journal of Chemical Engineering</i> , 2018, 96, 1576-1584.	1.7	2
14	Artificial Neural Networks as Metamodels for the Multiobjective Optimization of Biobutanol Production. <i>Applied Sciences (Switzerland)</i> , 2018, 8, 961.	2.5	9
15	Separation of Organic Compounds from ABE Model Solutions via Pervaporation Using Activated Carbon/PDMS Mixed Matrix Membranes. <i>Membranes</i> , 2018, 8, 40.	3.0	20
16	Biobutanol separation from ABE model solutions and fermentation broths using a combined adsorption-gas stripping process. <i>Journal of Chemical Technology and Biotechnology</i> , 2017, 92, 245-251.	3.2	32
17	Effect of embedded activated carbon nanoparticles on the performance of polydimethylsiloxane (PDMS) membrane for pervaporation separation of butanol. <i>Journal of Chemical Technology and Biotechnology</i> , 2017, 92, 2901-2911.	3.2	40
18	Net Flow and Rough Sets: Two Methods for Ranking the Pareto Domain. <i>Advances in Process Systems Engineering</i> , 2017, , 199-246.	0.3	4

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19	Comparison of multi-component kinetic relations on bubbling fluidized-bed woody biomass fast pyrolysis reactor model performance. <i>Fuel</i> , 2017, 210, 625-638.	6.4	12
20	Mixed matrix membranes applications: Development of a resistance-based model. <i>Journal of Membrane Science</i> , 2017, 543, 351-360.	8.2	19
21	A new characterization method of membranes with nonlinear sorption isotherm systems based on continuous upstream and downstream time-lag measurements. <i>Journal of Membrane Science</i> , 2017, 542, 91-101.	8.2	11
22	Modelling of mixed matrix membranes: Validation of the resistance-based model. <i>Journal of Membrane Science</i> , 2017, 543, 361-369.	8.2	18
23	The effect of the downstream pressure accumulation on the time-lag accuracy for membranes with non-linear isotherms. <i>Journal of Membrane Science</i> , 2016, 511, 119-129.	8.2	14
24	Economic comparison of a continuous ABE fermentation with and without the integration of an in situ vacuum separation unit. <i>Canadian Journal of Chemical Engineering</i> , 2016, 94, 833-843.	1.7	18
25	Multicomponent adsorption modeling: isotherms for ABE model solutions using activated carbon F-400. <i>Adsorption</i> , 2016, 22, 357-370.	3.0	24
26	Comparison of in-situ recovery methods of gas stripping, pervaporation, and vacuum separation by multi-objective optimization for producing biobutanol via fermentation process. <i>Canadian Journal of Chemical Engineering</i> , 2015, 93, 986-997.	1.7	22
27	Adsorptive separation and recovery of biobutanol from ABE model solutions. <i>Adsorption</i> , 2015, 21, 185-194.	3.0	41
28	A new algorithm using front prediction and NSGA-II for solving two and three-objective optimization problems. <i>Optimization and Engineering</i> , 2015, 16, 713-736.	2.4	24
29	Separation techniques in butanol production: Challenges and developments. <i>Biomass and Bioenergy</i> , 2014, 60, 222-246.	5.7	239
30	Pullulan fermentation using a prototype rotational reciprocating plate impeller. <i>Bioprocess and Biosystems Engineering</i> , 2013, 36, 603-611.	3.4	15
31	Adsorbent screening for biobutanol separation by adsorption: kinetics, isotherms and competitive effect of other compounds. <i>Adsorption</i> , 2013, 19, 1263-1272.	3.0	63
32	Design of shell-and-tube heat exchangers using multiobjective optimization. <i>International Journal of Heat and Mass Transfer</i> , 2013, 60, 343-354.	4.8	132
33	Pipeline optimization using a novel hybrid algorithm combining front projection and the non-dominated sorting genetic algorithm-II (FP-NSGA-II). , 2013, , .		3
34	Ethanol Steam Reforming for Hydrogen Production in Microchannel Reactors: Experimental Design and Optimization. <i>International Journal of Chemical Reactor Engineering</i> , 2013, 11, 9-17.	1.1	8
35	Multiobjective Optimization of an Industrial Styrene Reactor Using the Dual Population Evolutionary Algorithm (DPEA). <i>International Journal of Chemical Reactor Engineering</i> , 2012, 10, .	1.1	5
36	Nickel nanoparticles synthesized by a modified polyol method for the purification of histidine-tagged single-domain antibody ToxA5.1. <i>Journal of Materials Research</i> , 2012, 27, 2884-2890.	2.6	11

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37	A new hybrid membrane separation process for enhanced ethanol recovery: Process description and numerical studies. <i>Chemical Engineering Science</i> , 2012, 68, 492-505.	3.8	30
38	New Impeller for Viscous Fermentation: Power Input and Mass Transfer Coefficient Correlations. <i>Industrial & Engineering Chemistry Research</i> , 2011, 50, 3510-3516.	3.7	3
39	Membrane Dephlegmation: A hybrid membrane separation process for efficient ethanol recovery. <i>Journal of Membrane Science</i> , 2011, 381, 226-236.	8.2	15
40	Neural network modelling of adsorption isotherms. <i>Adsorption</i> , 2011, 17, 303-309.	3.0	36
41	The effective sky temperature: an enigmatic concept. <i>Heat and Mass Transfer</i> , 2011, 47, 1171-1180.	2.1	25
42	Parametric study for counter-current vapour-liquid free-surface flow in a narrow channel. <i>Canadian Journal of Chemical Engineering</i> , 2011, 89, 647-654.	1.7	4
43	Application of image analysis in the fungal fermentation of <i>Trichoderma reesei</i> RUT-30. <i>Biotechnology Progress</i> , 2011, 27, 1544-1553.	2.6	15
44	Turbulent forced convection heat transfer of non-Newtonian nanofluids. <i>Experimental Thermal and Fluid Science</i> , 2011, 35, 1351-1356.	2.7	84
45	Multi-Objective Optimization of an Ethylene Oxide Reactor. <i>International Journal of Chemical Reactor Engineering</i> , 2011, 9, .	1.1	9
46	Design of a novel Couette flow bioreactor to study the growth of fungal microorganism. <i>Journal of Biotechnology</i> , 2010, 145, 264-272.	3.8	6
47	Direct numerical simulation of interphase heat and mass transfer in multicomponent vapour-liquid flows. <i>International Journal of Heat and Mass Transfer</i> , 2010, 53, 3947-3960.	4.8	64
48	Hidden treasures in some simple engineering problems. <i>Education for Chemical Engineers</i> , 2010, 5, e40-e44.	4.8	1
49	Ethanol Recovery from Fermentation Broth via Carbon Dioxide Stripping and Adsorption. <i>Energy & Fuels</i> , 2010, 24, 4628-4637.	5.1	33
50	Modeling the Mean Residence Time in a Rotary Dryer for Various Types of Solids. <i>Drying Technology</i> , 2010, 28, 1136-1141.	3.1	25
51	Comparison of experimental designs using neural networks. <i>Canadian Journal of Chemical Engineering</i> , 2009, 87, 965-971.	1.7	9
52	Pool boiling heat transfer performance of Newtonian nanofluids. <i>Heat and Mass Transfer</i> , 2009, 45, 1555-1560.	2.1	42
53	Growth of <i>Trichoderma reesei</i> RUT C-30 in stirred tank and reciprocating plate bioreactors. <i>Process Biochemistry</i> , 2009, 44, 1164-1171.	3.7	20
54	Selection of pareto-optimal solutions for process optimization using rough set method: A new approach. <i>Computers and Chemical Engineering</i> , 2009, 33, 1814-1825.	3.8	10

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55	Enhanced in situ dynamic method for measuring KLa in fermentation media. <i>Biochemical Engineering Journal</i> , 2009, 47, 48-54.	3.6	12
56	Evaluation of Oxygen Mass Transfer in <i>Aspergillus niger</i> Fermentation Using Data Reconciliation. <i>Biotechnology Progress</i> , 2008, 20, 239-247.	2.6	4
57	Morphological Characterization and Viability Assessment of <i>Trichoderma reesei</i> by Image Analysis. <i>Biotechnology Progress</i> , 2008, 23, 734-740.	2.6	27
58	Technical and Economic Considerations for Various Recovery Schemes in Ethanol Production by Fermentation. <i>Industrial & Engineering Chemistry Research</i> , 2008, 47, 6185-6191.	3.7	37
59	Net Flow and Rough Sets: Two Methods for Ranking the Pareto Domain. <i>Advances in Process Systems Engineering</i> , 2008, , 189-236.	0.3	2
60	Autoassociative neural networks for robust dynamic data reconciliation. <i>AIChE Journal</i> , 2007, 53, 438-448.	3.6	4
61	Impact of model structure on the performance of dynamic data reconciliation. <i>Computers and Chemical Engineering</i> , 2007, 31, 127-135.	3.8	6
62	<i>Aureobasidium pullulans</i> batch cultivations based on a factorial design for improving the production and molecular weight of exopolysaccharides. <i>Process Biochemistry</i> , 2007, 42, 820-827.	3.7	45
63	Blood glucose monitor: an alternative off-line method to measure glucose concentration during fermentations with <i>Trichoderma reesei</i> . <i>Biotechnology Letters</i> , 2007, 29, 1075-1080.	2.2	10
64	Simultaneous Measurement Bias Correction and Dynamic Data Reconciliation. <i>Canadian Journal of Chemical Engineering</i> , 2007, 85, 111-117.	1.7	2
65	Continuous lactic acid production in whey permeate/yeast extract medium with immobilized <i>Lactobacillus helveticus</i> in a two-stage process: Model and experiments. <i>Enzyme and Microbial Technology</i> , 2006, 38, 324-337.	3.2	39
66	Novel methodology for assessing a ranked Pareto domain: Drift group analysis. <i>Chemical Engineering Science</i> , 2006, 61, 1312-1320.	3.8	4
67	Multi-objective optimization for chemical processes and controller design: Approximating and classifying the Pareto domain. <i>Computers and Chemical Engineering</i> , 2006, 30, 1155-1168.	3.8	53
68	Dynamic data reconciliation: Alternative to Kalman filter. <i>Journal of Process Control</i> , 2006, 16, 485-498.	3.3	42
69	Enhancing Controller Performance via Dynamic Data Reconciliation. <i>Canadian Journal of Chemical Engineering</i> , 2005, 83, 515-526.	1.7	8
70	Evaluation of Simple Control Strategies for Rotary Dryers. <i>Drying Technology</i> , 2004, 22, 947-962.	3.1	7
71	High-Titer Adenovirus Vector Production in 293S Cell Perfusion Culture. <i>Biotechnology Progress</i> , 2004, 20, 858-863.	2.6	44
72	Wood Pulp as Model Fluid to Mimic the Oxygen Mass Transfer in <i>Aspergillus Niger</i> Fermentation. <i>Canadian Journal of Chemical Engineering</i> , 2004, 82, 1081-1088.	1.7	1

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73	Multicriteria optimization of a high yield pulping process with rough sets. <i>Chemical Engineering Science</i> , 2003, 58, 203-213.	3.8	23
74	Dynamic Characteristics of Solids Transportation in Rotary Dryers. <i>Drying Technology</i> , 2003, 21, 755-773.	3.1	28
75	Modification of lipid transport through a microporous PTFE membrane wall grafted with poly(ethylene glycol). <i>Colloids and Surfaces B: Biointerfaces</i> , 2002, 25, 205-217.	5.0	8
76	<i>Lactobacillus helveticus</i> growth and lactic acid production during pH-controlled batch cultures in whey permeate/yeast extract medium. Part I. multiple factor kinetic analysis. <i>Enzyme and Microbial Technology</i> , 2002, 30, 176-186.	3.2	87
77	Multicriteria Optimization of a High Yield Pulp Process. <i>Canadian Journal of Chemical Engineering</i> , 2002, 80, 897-902.	1.7	10
78	Comparison of simple neural networks and nonlinear regression models for descriptive modeling of <i>Lactobacillus helveticus</i> growth in pH-controlled batch cultures. <i>Enzyme and Microbial Technology</i> , 2000, 26, 431-445.	3.2	49
79	Electrical conductivity as a tool for analysing fermentation processes for production of cheese starters. <i>International Dairy Journal</i> , 2000, 10, 391-399.	3.0	24
80	Commercial polyurethanes: The potential influence of auxiliary chemicals on the biodegradation process. <i>Journal of Biomaterials Science, Polymer Edition</i> , 1999, 10, 729-749.	3.5	8
81	Process modeling with neural networks using small experimental datasets. <i>Computers and Chemical Engineering</i> , 1999, 23, 1167-1176.	3.8	77
82	Comparison of methods for training grey-box neural network models. <i>Computers and Chemical Engineering</i> , 1999, 23, S561-S564.	3.8	18
83	Lipid uptake across the wall of an expanded polytetrafluoroethylene vascular graft. , 1999, 48, 660-668.		7
84	Lipid uptake across the wall of an expanded polytetrafluoroethylene vascular graft. <i>Journal of Biomedical Materials Research Part B</i> , 1999, 48, 660-668.	3.1	1
85	Power consumption and mass transfer in agitated gas-liquid columns: A comparative study. <i>Canadian Journal of Chemical Engineering</i> , 1998, 76, 379-389.	1.7	50
86	A Continuous and Pulsatile Flow Circulation System for Evaluation of Cardiovascular Devices. <i>Artificial Organs</i> , 1998, 22, 746-752.	1.9	12
87	Lipid uptake in expanded polytetrafluoroethylene vascular grafts. <i>Journal of Vascular Surgery</i> , 1998, 28, 527-534.	1.1	7
88	Dynamics And Assessment of Some Control Strategies of a Simulated Industrial Rotary Dryer. <i>Drying Technology</i> , 1997, 15, 477-510.	3.1	11
89	Modelling of coagulant dosage in a water treatment plant. <i>Advanced Engineering Informatics</i> , 1997, 11, 401-404.	0.5	48
90	Data reconciliation for simulated flotation process. <i>Advanced Engineering Informatics</i> , 1997, 11, 357-364.	0.5	7

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91	Neural net-based softsensor for dynamic particle size estimation in grinding circuits. International Journal of Mineral Processing, 1997, 52, 121-135.	2.6	24
92	Use of a novel autoassociative neural network for nonlinear steady-state data reconciliation. AIChE Journal, 1997, 43, 1785-1796.	3.6	18
93	Modeling of the Solids Transportation within an Industrial Rotary Dryer: A Simple Model. Industrial & Engineering Chemistry Research, 1996, 35, 2334-2341.	3.7	35
94	Axial dispersion in a reciprocating plate column. Canadian Journal of Chemical Engineering, 1996, 74, 187-194.	1.7	15
95	Polysaccharide concentration and molecular weight effects on the oxygen mass transfer in a reciprocating plate bioreactor. , 1996, 52, 507-517.		12
96	Dynamic modelling of the activated sludge process: Improving prediction using neural networks. Water Research, 1995, 29, 995-1004.	11.3	144
97	MASS TRANSFER IN A RECIPROCATING PLATE BIOREACTOR. Chemical Engineering Communications, 1994, 127, 169-189.	2.6	15
98	STUDY OF HEAT AND MASS TRANSFER DURING IR DRYING OF PAPER. Drying Technology, 1994, 12, 545-575.	3.1	14
99	Hydrodynamics and power consumption of a reciprocating plate gas-liquid column. Canadian Journal of Chemical Engineering, 1993, 71, 497-506.	1.7	21
100	PVT data analysis using neural network models. Industrial & Engineering Chemistry Research, 1993, 32, 970-975.	3.7	43
101	Comparison of prediction performances between models obtained by the group method of data handling and neural networks for the alcoholic fermentation rate in enology. Journal of Bioscience and Bioengineering, 1991, 71, 356-362.	0.9	32
102	Adaptive neural models for on-line prediction in fermentation. Canadian Journal of Chemical Engineering, 1991, 69, 481-487.	1.7	58
103	A neural network methodology for heat transfer data analysis. International Journal of Heat and Mass Transfer, 1991, 34, 2063-2070.	4.8	111
104	Measuring kLa with randomly pulsed dynamic method. Biotechnology and Bioengineering, 1991, 37, 889-893.	3.3	18
105	FEEDFORWARD NEURAL NETWORKS FOR THE IDENTIFICATION OF DYNAMIC PROCESSES. Chemical Engineering Communications, 1991, 105, 109-128.	2.6	26
106	Chemical enhancement in the determination of K_L by the sulfite oxidation method. Canadian Journal of Chemical Engineering, 1990, 68, 324-326.	1.7	9
107	The effects of pressure on the growth of Aureobasidium pullulans and the synthesis of pullulan. Applied Microbiology and Biotechnology, 1990, 32, 526.	3.6	29
108	On-line prediction of fermentation variables using neural networks. Biotechnology and Bioengineering, 1990, 36, 1041-1048.	3.3	195

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109	ON THE METHODS FOR THE DETERMINATION OF THE OXYGEN TRANSFER COEFFICIENT IN MECHANICALLY AGITATED VESSELS. Chemical Engineering Communications, 1990, 94, 35-51.	2.6	5
110	Improvement of ethanol fermentation under hyperbaric conditions. Biotechnology and Bioengineering, 1989, 33, 471-476.	3.3	35
111	ANALYTICAL TEMPERATURE DISTRIBUTION FOR MULTIDIMENSIONAL BODIES EXPOSED TO A CONSTANT SURFACE HEAT FLUX. Chemical Engineering Communications, 1987, 51, 141-151.	2.6	1
112	ON FINITE-DIFFERENCE SOLUTIONS OF THE HEAT EQUATION IN SPHERICAL COORDINATES. Numerical Heat Transfer, 1987, 12, 457-474.	0.5	11
113	Fourier-transform infrared spectrometry and thermogravimetry of partially converted lignocellulosic materials. Analytical Chemistry, 1987, 59, 2153-2157.	6.5	43
114	Production of ethanol by <i>Saccharomyces cerevisiae</i> under high-pressure conditions. Biotechnology and Bioengineering, 1987, 30, 74-80.	3.3	38
115	COMPARISON OF NINE THREE-DIMENSIONAL NUMERICAL METHODS FOR THE SOLUTION OF THE HEAT DIFFUSION EQUATION. Numerical Heat Transfer, 1985, 8, 281-298.	0.5	33
116	A THREE-DIMENSIONAL NUMERICAL METHOD BASED ON THE SUPERPOSITION PRINCIPLE. Numerical Heat Transfer, 1984, 7, 127-145.	0.5	8
117	A heat flux meter to determine the local boiling heat flux density during a quenching experiment. International Journal of Heat and Mass Transfer, 1979, 22, 177-184.	4.8	6