Jules Thibault

List of Publications by Year
in descending order

117 papers	3,190 citations	136950 32 h-index	189892 50 g-index
119 all docs	119 docs citations	119 times ranked	2901 citing authors

#	Article	IF	Citations
1	Separation techniques in butanol production: Challenges and developments. Biomass and Bioenergy, 2014, 60, 222-246.	5.7	239
2	On-line prediction of fermentation variables using neural networks. Biotechnology and Bioengineering, 1990, 36, 1041-1048.	3.3	195
3	Dynamic modelling of the activated sludge process: Improving prediction using neural networks. Water Research, 1995, 29, 995-1004.	11.3	144
4	Design of shell-and-tube heat exchangers using multiobjective optimization. International Journal of Heat and Mass Transfer, 2013, 60, 343-354.	4.8	132
5	A neural network methodology for heat transfer data analysis. International Journal of Heat and Mass Transfer, 1991, 34, 2063-2070.	4.8	111
6	Lactobacillus helveticus growth and lactic acid production during pH-controlled batch cultures in whey permeate/yeast extract medium. Part I. multiple factor kinetic analysis. Enzyme and Microbial Technology, 2002, 30, 176-186.	3.2	87
7	Turbulent forced convection heat transfer of non-Newtonian nanofluids. Experimental Thermal and Fluid Science, 2011, 35, 1351-1356.	2.7	84
8	Process modeling with neural networks using small experimental datasets. Computers and Chemical Engineering, 1999, 23, 1167-1176.	3.8	77
9	Direct numerical simulation of interphase heat and mass transfer in multicomponent vapourâ€“liquid flows. International Journal of Heat and Mass Transfer, 2010, 53, 3947-3960.	4.8	64
10	Adsorbent screening for biobutanol separation by adsorption: kinetics, isotherms and competitive effect of other compounds. Adsorption, 2013, 19, 1263-1272.	3.0	63
11	Adaptive neural models for onâ€line prediction in fermentation. Canadian Journal of Chemical Engineering, 1991, 69, 481-487.	1.7	58
12	Multi-objective optimization for chemical processes and controller design: Approximating and classifying the Pareto domain. Computers and Chemical Engineering, 2006, 30, 1155-1168.	3.8	53
13	Power consumption and mass transfer in agitated gasâ€liquid columns: A comparative study. Canadian Journal of Chemical Engineering, 1998, 76, 379-389.	1.7	50
14	Comparison of simple neural networks and nonlinear regression models for descriptive modeling of Lactobacillus helveticus growth in pH-controlled batch cultures. Enzyme and Microbial Technology, 2000, 26, 431-445.	3.2	49
15	Modelling of coagulant dosage in a water treatment plant. Advanced Engineering Informatics, 1997, 11, 401-404.	0.5	48
16	Aureobasidium pullulans batch cultivations based on a factorial design for improving the production and molecular weight of exopolysaccharides. Process Biochemistry, 2007, 42, 820-827.	3.7	45
17	High-Titer Adenovirus Vector Production in 293S Cell Perfusion Culture. Biotechnology Progress, 2004, 20, 858-863.	2.6	44
18	Fourier-transform infrared spectrometry and thermogravimetry of partially converted lignocellulosic materials. Analytical Chemistry, 1987, 59, 2153-2157.	6.5	43

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19	PVT data analysis using neural network models. Industrial & Engineering Chemistry Research, 1993, 32, 970-975.	3.7	43
20	Dynamic data reconciliation: Alternative to Kalman filter. Journal of Process Control, 2006, 16, 485-498.	3.3	42
21	Pool boiling heat transfer performance of Newtonian nanofluids. Heat and Mass Transfer, 2009, 45, 1555-1560.	2.1	42
22	Adsorptive separation and recovery of biobutanol from ABE model solutions. Adsorption, 2015, 21, 185-194.	3.0	41
23	Effect of embedded activated carbon nanoparticles on the performance of polydimethylsiloxane (PDMS) membrane for pervaporation separation of butanol. Journal of Chemical Technology and Biotechnology, 2017, 92, 2901-2911.	3.2	40
24	Continuous lactic acid production in whey permeate/yeast extract medium with immobilized Lactobacillus helveticus in a two-stage process: Model and experiments. Enzyme and Microbial Technology, 2006, 38, 324-337.	3.2	39
25	Production of ethanol bySaccharomyces cerevisiaeunder high-pressure conditions. Biotechnology and Bioengineering, 1987, 30, 74-80.	3.3	38
26	Technical and Economic Considerations for Various Recovery Schemes in Ethanol Production by Fermentation. Industrial & Engineering Chemistry Research, 2008, 47, 6185-6191.	3.7	37
27	Neural network modelling of adsorption isotherms. Adsorption, 2011, 17, 303-309.	3.0	36
28	Improvement of ethanol fermentation under hyperbaric conditions. Biotechnology and Bioengineering, 1989, 33, 471-476.	3.3	35
29	Modeling of the Solids Transportation within an Industrial Rotary Dryer:Â A Simple Model. Industrial & Engineering Chemistry Research, 1996, 35, 2334-2341.	3.7	35
30	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
31	Ethanol Recovery from Fermentation Broth via Carbon Dioxide Stripping and Adsorption. Energy & Fuels, 2010, 24, 4628-4637.	5.1	33
32	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
33	Biobutanol separation from <scp>ABE</scp> model solutions and fermentation broths using a combined adsorptionâ€“gas stripping process. Journal of Chemical Technology and Biotechnology, 2017, 92, 245-251.	3.2	32
34	A new hybrid membrane separation process for enhanced ethanol recovery: Process description and numerical studies. Chemical Engineering Science, 2012, 68, 492-505.	3.8	30
35	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
36	Dynamic Characteristics of Solids Transportation in Rotary Dryers. Drying Technology, 2003, 21, 755-773.	3.1	28

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37	Morphological Characterization and Viability Assessment of Trichoderma reesei by Image Analysis. Biotechnology Progress, 2008, 23, 734-740.	2.6	27
38	FEEDFORWARD NEURAL NETWORKS FOR THE IDENTIFICATION OF DYNAMIC PROCESSES. Chemical Engineering Communications, 1991, 105, 109-128.	2.6	26
39	Simultaneous reinforcement of matrix and fibers for enhancement of mechanical properties of grapheneâ€modified laminated composites. Polymer Composites, 2019, 40, E1732-E1745.	4.6	26
40	Modeling the Mean Residence Time in a Rotary Dryer for Various Types of Solids. Drying Technology, 2010, 28, 1136-1141.	3.1	25
41	The effective sky temperature: an enigmatic concept. Heat and Mass Transfer, 2011, 47, 1171-1180.	2.1	25
42	Neural net-based softsensor for dynamic particle size estimation in grinding circuits. International Journal of Mineral Processing, 1997, 52, 121-135.	2.6	24
43	Electrical conductivity as a tool for analysing fermentation processes for production of cheese starters. International Dairy Journal, 2000, 10, 391-399.	3.0	24
44	A new algorithm using front prediction and NSGA-II for solving two and three-objective optimization problems. Optimization and Engineering, 2015, 16, 713-736.	2.4	24
45	Multicomponent adsorption modeling: isotherms for ABE model solutions using activated carbon F-400. Adsorption, 2016, 22, 357-370.	3.0	24
46	Multicriteria optimization of a high yield pulping process with rough sets. Chemical Engineering Science, 2003, 58, 203-213.	3.8	23
47	Description of butanol aqueous solution transport through commercial PDMS pervaporation membrane using extended Maxwellâ€“Stefan model. Separation Science and Technology, 2018, 53, 1611-1627.	2.5	23
48	Comparison of inâ€situ recovery methods of gas stripping, pervaporation, and vacuum separation by multiâ€objective optimization for producing biobutanol via fermentation process. Canadian Journal of Chemical Engineering, 2015, 93, 986-997.	1.7	22
49	Hydrodynamics and power consumption of a reciprocating plate gasâ€“liquid column. Canadian Journal of Chemical Engineering, 1993, 71, 497-506.	1.7	21
50	Growth of Trichoderma reesei RUT C-30 in stirred tank and reciprocating plate bioreactors. Process Biochemistry, 2009, 44, 1164-1171.	3.7	20
51	Separation of Organic Compounds from ABE Model Solutions via Pervaporation Using Activated Carbon/PDMS Mixed Matrix Membranes. Membranes, 2018, 8, 40.	3.0	20
52	Barrier Properties of PVA/TiO2/MMT Mixed-Matrix Membranes for Food Packaging. Journal of Polymers and the Environment, 2021, 29, 1396-1411.	5.0	20
53	Mixed matrix membranes applications: Development of a resistance-based model. Journal of Membrane Science, 2017, 543, 351-360.	8.2	19
54	Measuring kLa with randomly pulsed dynamic method. Biotechnology and Bioengineering, 1991, 37, 889-893.	3.3	18

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55	Use of a novel autoassociative neural network for nonlinear steady-state data reconciliation. AICHE Journal, 1997, 43, 1785-1796.	3.6	18
56	Comparison of methods for training grey-box neural network models. Computers and Chemical Engineering, 1999, 23, S561-S564.	3.8	18
57	Economic comparison of a continuous ABE fermentation with and without the integration of an in situ vacuum separation unit. Canadian Journal of Chemical Engineering, 2016, 94, 833-843.	1.7	18
58	Modelling of mixed matrix membranes: Validation of the resistance-based model. Journal of Membrane Science, 2017, 543, 361-369.	8.2	18
59	Optimization of the in situ recovery of butanol from ABE fermentation broth via membrane pervaporation. Chemical Engineering Research and Design, 2019, 150, 49-64.	5.6	16
60	MASS TRANSFER IN A RECIPROCATING PLATE BIOREACTOR. Chemical Engineering Communications, 1994, 127, 169-189.	2.6	15
61	Axial dispersion in a reciprocating plate column. Canadian Journal of Chemical Engineering, 1996, 74, 187-194.	1.7	15
62	Membrane Dephlegmation: A hybrid membrane separation process for efficient ethanol recovery. Journal of Membrane Science, 2011, 381, 226-236.	8.2	15
63	Application of image analysis in the fungal fermentation of <i>Trichoderma reesei</i> RUTâ€C30. Biotechnology Progress, 2011, 27, 1544-1553.	2.6	15
64	Pullulan fermentation using a prototype rotational reciprocating plate impeller. Bioprocess and Biosystems Engineering, 2013, 36, 603-611.	3.4	15
65	STUDY OF HEAT AND MASS TRANSFER DURING IR DRYING OF PAPER. Drying Technology, 1994, 12, 545-575.	3.1	14
66	The effect of the downstream pressure accumulation on the time-lag accuracy for membranes with non-linear isotherms. Journal of Membrane Science, 2016, 511, 119-129.	8.2	14
67	Gas Permeation Model of Mixed-Matrix Membranes with Embedded Impermeable Cuboid Nanoparticles. Membranes, 2020, 10, 422.	3.0	14
68	The validity of the time-lag method for the characterization of mixed-matrix membranes. Journal of Membrane Science, 2021, 618, 118715.	8.2	14
69	Polysaccharide concentration and molecular weight effects on the oxygen mass transfer in a reciprocating plate bioreactor. , 1996, 52, 507-517.		12
70	A Continuous and Pulsatile Flow Circulation System for Evaluation of Cardiovascular Devices. Artificial Organs, 1998, 22, 746-752.	1.9	12
71	Enhanced in situ dynamic method for measuring KLa in fermentation media. Biochemical Engineering Journal, 2009, 47, 48-54.	3.6	12
72	Comparison of multi-component kinetic relations on bubbling fluidized-bed woody biomass fast pyrolysis reactor model performance. Fuel, 2017, 210, 625-638.	6.4	12

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73	ON FINITE-DIFFERENCE SOLUTIONS OF THE HEAT EQUATION IN SPHERICAL COORDINATES. Numerical Heat Transfer, 1987, 12, 457-474.	0.5	11
74	Dynamics And Assessment of Some Control Strategies of a Simulated Industrial Rotary Dryer. Drying Technology, 1997, 15, 477-510.	3.1	11
75	Nickel nanoparticles synthesized by a modified polyol method for the purification of histidine-tagged single-domain antibody ToxA5.1. Journal of Materials Research, 2012, 27, 2884-2890.	2.6	11
76	A new characterization method of membranes with nonlinear sorption isotherm systems based on continuous upstream and downstream time-lag measurements. Journal of Membrane Science, 2017, 542, 91-101.	8.2	11
77	Blood glucose monitor: an alternative off-line method to measure glucose concentration during fermentations with Trichoderma reesei. Biotechnology Letters, 2007, 29, 1075-1080.	2.2	10
78	Multicriteria Optimization of a Highâ€Yield Pulping Process. Canadian Journal of Chemical Engineering, 2002, 80, 897-902.	1.7	10
79	Selection of pareto-optimal solutions for process optimization using rough set method: A new approach. Computers and Chemical Engineering, 2009, 33, 1814-1825.	3.8	10
80	Chemical enhancement in the determination of <i>K_La</i> by the sulfite oxidation method. Canadian Journal of Chemical Engineering, 1990, 68, 324-326.	1.7	9
81	Comparison of experimental designs using neural networks. Canadian Journal of Chemical Engineering, 2009, 87, 965-971.	1.7	9
82	Multi-Objective Optimization of an Ethylene Oxide Reactor. International Journal of Chemical Reactor Engineering, 2011, 9, .	1.1	9
83	Artificial Neural Networks as Metamodels for the Multiobjective Optimization of Biobutanol Production. Applied Sciences (Switzerland), 2018, 8, 961.	2.5	9
84	A THREE-DIMENSIONAL NUMERICAL METHOD BASED ON THE SUPERPOSITION PRINCIPLE. Numerical Heat Transfer, 1984, 7, 127-145.	0.5	8
85	Commercial polyurethanes: The potential influence of auxiliary chemicals on the biodegradation process. Journal of Biomaterials Science, Polymer Edition, 1999, 10, 729-749.	3.5	8
86	Modification of lipid transport through a microporous PTFE membrane wall grafted with poly(ethylene glycol). Colloids and Surfaces B: Biointerfaces, 2002, 25, 205-217.	5.0	8
87	Enhancing Controller Performance via Dynamic Data Reconciliation. Canadian Journal of Chemical Engineering, 2005, 83, 515-526.	1.7	8
88	Ethanol Steam Reforming for Hydrogen Production in Microchannel Reactors: Experimental Design and Optimization. International Journal of Chemical Reactor Engineering, 2013, 11, 9-17.	1.1	8
89	Catalyst design using artificial intelligence: <scp>SO₂</scp> to <scp>SO₃</scp> case study. Canadian Journal of Chemical Engineering, 2020, 98, 2016-2031.	1.7	8
90	Data reconciliation for simulated flotation process. Advanced Engineering Informatics, 1997, 11, 357-364.	0.5	7

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91	Lipid uptake in expanded polytetrafluoroethylene vascular grafts. Journal of Vascular Surgery, 1998, 28, 527-534.	1.1	7
92	Lipid uptake across the wall of an expanded polytetrafluoroethylene vascular graft. , 1999, 48, 660-668.		7
93	Evaluation of Simple Control Strategies for Rotary Dryers. Drying Technology, 2004, 22, 947-962.	3.1	7
94	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
95	Impact of model structure on the performance of dynamic data reconciliation. Computers and Chemical Engineering, 2007, 31, 127-135.	3.8	6
96	Design of a novel Couette flow bioreactor to study the growth of fungal microorganism. Journal of Biotechnology, 2010, 145, 264-272.	3.8	6
97	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
98	Multiobjective Optimization of an Industrial Styrene Reactor Using the Dual Population Evolutionary Algorithm (DPEA). International Journal of Chemical Reactor Engineering, 2012, 10, .	1.1	5
99	Novel methodology for assessing a ranked Pareto domain: Drift group analysis. Chemical Engineering Science, 2006, 61, 1312-1320.	3.8	4
100	Autoassociative neural networks for robust dynamic data reconciliation. AICHE Journal, 2007, 53, 438-448.	3.6	4
101	Evaluation of Oxygen Mass Transfer in Aspergillus niger Fermentation Using Data Reconciliation. Biotechnology Progress, 2008, 20, 239-247.	2.6	4
102	Parametric study for counterâ€current vapourâ€"liquid freeâ€surface flow in a narrow channel. Canadian Journal of Chemical Engineering, 2011, 89, 647-654.	1.7	4
103	Net Flow and Rough Sets: Two Methods for Ranking the Pareto Domain. Advances in Process Systems Engineering, 2017, , 199-246.	0.3	4
104	Methodology to Solve the Multi-Objective Optimization of Acrylic Acid Production Using Neural Networks as Meta-Models. Processes, 2020, 8, 1184.	2.8	4
105	New Impeller for Viscous Fermentation: Power Input and Mass Transfer Coefficient Correlations. Industrial & Engineering Chemistry Research, 2011, 50, 3510-3516.	3.7	3
106	Pipeline optimization using a novel hybrid algorithm combining front projection and the non-dominated sorting genetic algorithm-II (FP-NSGA-II). , 2013, , .		3
107	Modelling the Molecular Permeation through Mixed-Matrix Membranes Incorporating Tubular Fillers. Membranes, 2021, 11, 58.	3.0	3
108	A generalized model for the prediction of the permeability of mixed-matrix membranes using impermeable fillers of diverse geometry. Journal of Membrane Science, 2022, 641, 119951.	8.2	3

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109	Simultaneous Measurement Bias Correction and Dynamic Data Reconciliation. Canadian Journal of Chemical Engineering, 2007, 85, 111-117.	1.7	2
110	The impact of pH on VLE, pervaporation, and adsorption of butyric acid in dilute solutions. Canadian Journal of Chemical Engineering, 2018, 96, 1576-1584.	1.7	2
111	Modelling and Multi-Objective Optimization of the Sulphur Dioxide Oxidation Process. Processes, 2021, 9, 1072.	2.8	2
112	Net Flow and Rough Sets: Two Methods for Ranking the Pareto Domain. Advances in Process Systems Engineering, 2008, , 189-236.	0.3	2
113	ANALYTICAL TEMPERATURE DISTRIBUTION FOR MULTIDIMENSIONAL BODIES EXPOSED TO A CONSTANT SURFACE HEAT FLUX. Chemical Engineering Communications, 1987, 51, 141-151.	2.6	1
114	Wood Pulp as Model Fluid to Mimic the Oxygen Mass Transfer in <i>Aspergillus Niger</i> Fermentation. Canadian Journal of Chemical Engineering, 2004, 82, 1081-1088.	1.7	1
115	Hidden treasures in some simple engineering problems. Education for Chemical Engineers, 2010, 5, e40-e44.	4.8	1
116	Lipid uptake across the wall of an expanded polytetrafluoroethylene vascular graft. Journal of Biomedical Materials Research Part B, 1999, 48, 660-668.	3.1	1
117	Pareto domain: an invaluable source of process information. Chemical Product and Process Modeling, 2022, 17, 29-53.	0.9	0