

Jules Thibault

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/719330/publications.pdf>

Version: 2024-02-01

117
papers

3,190
citations

136940

32
h-index

189881

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. <i>Biomass and Bioenergy</i> , 2014, 60, 222-246.	5.7	239
2	On-line prediction of fermentation variables using neural networks. <i>Biotechnology and Bioengineering</i> , 1990, 36, 1041-1048.	3.3	195
3	Dynamic modelling of the activated sludge process: Improving prediction using neural networks. <i>Water Research</i> , 1995, 29, 995-1004.	11.3	144
4	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
5	A neural network methodology for heat transfer data analysis. <i>International Journal of Heat and Mass Transfer</i> , 1991, 34, 2063-2070.	4.8	111
6	<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
7	Turbulent forced convection heat transfer of non-Newtonian nanofluids. <i>Experimental Thermal and Fluid Science</i> , 2011, 35, 1351-1356.	2.7	84
8	Process modeling with neural networks using small experimental datasets. <i>Computers and Chemical Engineering</i> , 1999, 23, 1167-1176.	3.8	77
9	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
10	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
11	Adaptive neural models for on-line prediction in fermentation. <i>Canadian Journal of Chemical Engineering</i> , 1991, 69, 481-487.	1.7	58
12	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
13	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
14	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
15	Modelling of coagulant dosage in a water treatment plant. <i>Advanced Engineering Informatics</i> , 1997, 11, 401-404.	0.5	48
16	<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
17	High-Titer Adenovirus Vector Production in 293S Cell Perfusion Culture. <i>Biotechnology Progress</i> , 2004, 20, 858-863.	2.6	44
18	Fourier-transform infrared spectrometry and thermogravimetry of partially converted lignocellulosic materials. <i>Analytical Chemistry</i> , 1987, 59, 2153-2157.	6.5	43

#	ARTICLE	IF	CITATIONS
19	PVT data analysis using neural network models. <i>Industrial & Engineering Chemistry Research</i> , 1993, 32, 970-975.	3.7	43
20	Dynamic data reconciliation: Alternative to Kalman filter. <i>Journal of Process Control</i> , 2006, 16, 485-498.	3.3	42
21	Pool boiling heat transfer performance of Newtonian nanofluids. <i>Heat and Mass Transfer</i> , 2009, 45, 1555-1560.	2.1	42
22	Adsorptive separation and recovery of biobutanol from ABE model solutions. <i>Adsorption</i> , 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. <i>Journal of Chemical Technology and Biotechnology</i> , 2017, 92, 2901-2911.	3.2	40
24	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
25	Production of ethanol by <i>Saccharomyces cerevisiae</i> under high-pressure conditions. <i>Biotechnology and Bioengineering</i> , 1987, 30, 74-80.	3.3	38
26	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
27	Neural network modelling of adsorption isotherms. <i>Adsorption</i> , 2011, 17, 303-309.	3.0	36
28	Improvement of ethanol fermentation under hyperbaric conditions. <i>Biotechnology and Bioengineering</i> , 1989, 33, 471-476.	3.3	35
29	Modeling of the Solids Transportation within an Industrial Rotary Dryer: A Simple Model. <i>Industrial & Engineering Chemistry Research</i> , 1996, 35, 2334-2341.	3.7	35
30	COMPARISON OF NINE THREE-DIMENSIONAL NUMERICAL METHODS FOR THE SOLUTION OF THE HEAT DIFFUSION EQUATION. <i>Numerical Heat Transfer</i> , 1985, 8, 281-298.	0.5	33
31	Ethanol Recovery from Fermentation Broth via Carbon Dioxide Stripping and Adsorption. <i>Energy & Fuels</i> , 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. <i>Journal of Bioscience and Bioengineering</i> , 1991, 71, 356-362.	0.9	32
33	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
34	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
35	The effects of pressure on the growth of <i>Aureobasidium pullulans</i> and the synthesis of pullulan. <i>Applied Microbiology and Biotechnology</i> , 1990, 32, 526.	3.6	29
36	Dynamic Characteristics of Solids Transportation in Rotary Dryers. <i>Drying Technology</i> , 2003, 21, 755-773.	3.1	28

#	ARTICLE	IF	CITATIONS
37	Morphological Characterization and Viability Assessment of <i>Trichoderma reesei</i> by Image Analysis. <i>Biotechnology Progress</i> , 2008, 23, 734-740.	2.6	27
38	FEEDFORWARD NEURAL NETWORKS FOR THE IDENTIFICATION OF DYNAMIC PROCESSES. <i>Chemical Engineering Communications</i> , 1991, 105, 109-128.	2.6	26
39	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
40	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
41	The effective sky temperature: an enigmatic concept. <i>Heat and Mass Transfer</i> , 2011, 47, 1171-1180.	2.1	25
42	Neural net-based softsensor for dynamic particle size estimation in grinding circuits. <i>International Journal of Mineral Processing</i> , 1997, 52, 121-135.	2.6	24
43	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
44	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
45	Multicomponent adsorption modeling: isotherms for ABE model solutions using activated carbon F-400. <i>Adsorption</i> , 2016, 22, 357-370.	3.0	24
46	Multicriteria optimization of a high yield pulping process with rough sets. <i>Chemical Engineering Science</i> , 2003, 58, 203-213.	3.8	23
47	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
48	Comparison of <i>in situ</i> 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
49	Hydrodynamics and power consumption of a reciprocating plate gas-liquid column. <i>Canadian Journal of Chemical Engineering</i> , 1993, 71, 497-506.	1.7	21
50	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
51	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
52	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
53	Mixed matrix membranes applications: Development of a resistance-based model. <i>Journal of Membrane Science</i> , 2017, 543, 351-360.	8.2	19
54	Measuring kLa with randomly pulsed dynamic method. <i>Biotechnology and Bioengineering</i> , 1991, 37, 889-893.	3.3	18

#	ARTICLE	IF	CITATIONS
55	Use of a novel autoassociative neural network for nonlinear steady-state data reconciliation. <i>AIChE Journal</i> , 1997, 43, 1785-1796.	3.6	18
56	Comparison of methods for training grey-box neural network models. <i>Computers and Chemical Engineering</i> , 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. <i>Canadian Journal of Chemical Engineering</i> , 2016, 94, 833-843.	1.7	18
58	Modelling of mixed matrix membranes: Validation of the resistance-based model. <i>Journal of Membrane Science</i> , 2017, 543, 361-369.	8.2	18
59	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
60	MASS TRANSFER IN A RECIPROCATING PLATE BIOREACTOR. <i>Chemical Engineering Communications</i> , 1994, 127, 169-189.	2.6	15
61	Axial dispersion in a reciprocating plate column. <i>Canadian Journal of Chemical Engineering</i> , 1996, 74, 187-194.	1.7	15
62	Membrane Dephlegmation: A hybrid membrane separation process for efficient ethanol recovery. <i>Journal of Membrane Science</i> , 2011, 381, 226-236.	8.2	15
63	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
64	Pullulan fermentation using a prototype rotational reciprocating plate impeller. <i>Bioprocess and Biosystems Engineering</i> , 2013, 36, 603-611.	3.4	15
65	STUDY OF HEAT AND MASS TRANSFER DURING IR DRYING OF PAPER. <i>Drying Technology</i> , 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. <i>Journal of Membrane Science</i> , 2016, 511, 119-129.	8.2	14
67	Gas Permeation Model of Mixed-Matrix Membranes with Embedded Impermeable Cuboid Nanoparticles. <i>Membranes</i> , 2020, 10, 422.	3.0	14
68	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
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. <i>Artificial Organs</i> , 1998, 22, 746-752.	1.9	12
71	Enhanced in situ dynamic method for measuring K_La in fermentation media. <i>Biochemical Engineering Journal</i> , 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. <i>Fuel</i> , 2017, 210, 625-638.	6.4	12

#	ARTICLE	IF	CITATIONS
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 <i>Trichoderma reesei</i> . Biotechnology Letters, 2007, 29, 1075-1080.	2.2	10
78	Multicriteria Optimization of a High-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 $K_{L/a}$ 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: SO_2 to SO_3 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

#	ARTICLE	IF	CITATIONS
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

#	ARTICLE	IF	CITATIONS
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