

Gerhard Schembecker

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/7270101/publications.pdf>

Version: 2024-02-01

123
papers

2,647
citations

218381

26
h-index

243296

44
g-index

128
all docs

128
docs citations

128
times ranked

1967
citing authors

#	ARTICLE	IF	CITATIONS
1	Challenges in tracing material flow passing a loss-in-weight feeder in continuous manufacturing processes. <i>International Journal of Pharmaceutics</i> , 2022, 612, 121304.	2.6	8
2	Tracking raw material flow through a continuous direct compression line Part I of II: Residence time distribution modeling and sensitivity analysis enabling increased process yield. <i>International Journal of Pharmaceutics</i> , 2022, 614, 121467.	2.6	4
3	Tracking raw material flow through a continuous direct compression line. Part II of II: Predicting dynamic changes in quality attributes of tablets due to disturbances in raw material properties using an independent residence time distribution model. <i>International Journal of Pharmaceutics</i> , 2022, 615, 121528.	2.6	1
4	Aroma absorption in rapeseed oil using rotating packed bed. <i>Flavour and Fragrance Journal</i> , 2021, 36, 137-147.	1.2	2
5	Aroma absorption in a rotating packed bed with a tailor-made archimedean spiral packing. <i>Chemical Engineering Science</i> , 2021, 231, 116334.	1.9	8
6	Characterization of a Modular Continuous Vacuum Screw Filter for Small-Scale Solid-Liquid Separation of Suspensions. <i>Organic Process Research and Development</i> , 2021, 25, 926-940.	1.3	12
7	Evaluating the potential for optimization of axial back-mixing in continuous pharmaceutical manufacturing. <i>Computers and Chemical Engineering</i> , 2021, 147, 107251.	2.0	10
8	Continuous slug flow crystallization: Impact of design and operating parameters on product quality. <i>Chemical Engineering Research and Design</i> , 2021, 170, 290-303.	2.7	22
9	Extraction on a Robotic Platform with Autonomous Solvent Selection under Economic Evaluation Criteria. <i>Chemical Engineering and Technology</i> , 2021, 44, 1578-1584.	0.9	3
10	Application and evaluation of preselection approaches to decide on the use of equipment modules. <i>Chemical Engineering Research and Design</i> , 2021, 173, 89-107.	2.7	2
11	Quantification and evaluation of operating parameters' effect on suspension behavior for slug flow crystallization. <i>Chemical Engineering Science</i> , 2021, 243, 116771.	1.9	10
12	Simulation of pH level distribution inside a coiled flow inverter for continuous low pH viral inactivation. <i>Biotechnology and Bioengineering</i> , 2020, 117, 429-437.	1.7	4
13	Using design spaces for more accurate cost estimation during early engineering phases. <i>Chemical Engineering Research and Design</i> , 2020, 153, 592-602.	2.7	2
14	Application of rotating packed bed for in-line aroma stripping from cell slurry. <i>Journal of Chemical Technology and Biotechnology</i> , 2020, 95, 2834-2841.	1.6	3
15	Economic evaluation of rotating packed bed use for aroma absorption from bioreactor off-gas. <i>Chemical Engineering and Processing: Process Intensification</i> , 2020, 154, 108011.	1.8	3
16	Side-by-side comparability of batch and continuous downstream for the production of monoclonal antibodies. <i>Biotechnology and Bioengineering</i> , 2020, 117, 1024-1036.	1.7	23
17	Simulation of continuous low pH viral inactivation inside a coiled flow inverter. <i>Biotechnology and Bioengineering</i> , 2020, 117, 1048-1062.	1.7	6
18	Characterization of slug formation towards the performance of air-liquid segmented flow. <i>Chemical Engineering Science</i> , 2019, 207, 1288-1298.	1.9	21

#	ARTICLE	IF	CITATIONS
19	Continuous viral filtration for the production of monoclonal antibodies. <i>Chemical Engineering Research and Design</i> , 2019, 152, 336-347.	2.7	17
20	Bioprocess optimization for purification of chimeric VLP displaying BVDV E2 antigens produced in yeast <i>Hansenula polymorpha</i> . <i>Journal of Biotechnology</i> , 2019, 306, 203-212.	1.9	11
21	Display of malaria transmission-blocking antigens on chimeric duck hepatitis B virus-derived virus-like particles produced in <i>Hansenula polymorpha</i> . <i>PLoS ONE</i> , 2019, 14, e0221394.	1.1	14
22	Generation of an equipment module database – A maximum coverage problem. <i>Chemical Engineering Research and Design</i> , 2019, 148, 164-168.	2.7	5
23	Recovery of Natural \pm -Ionone from Fermentation Broth. <i>Journal of Agricultural and Food Chemistry</i> , 2019, 67, 13412-13419.	2.4	12
24	Mass Transfer of Proteins in Aqueous Two-Phase Systems. <i>Scientific Reports</i> , 2019, 9, 3692.	1.6	15
25	Selection of equipment modules for a flexible modular production plant by a multi-objective evolutionary algorithm. <i>Computers and Chemical Engineering</i> , 2019, 123, 196-221.	2.0	22
26	Comparison of capacity expansion strategies for chemical production plants. <i>Chemical Engineering Research and Design</i> , 2019, 143, 56-78.	2.7	4
27	Shape-independent particle classification for discrimination of single crystals and agglomerates. <i>Powder Technology</i> , 2019, 345, 425-437.	2.1	31
28	Virus study for continuous low pH viral inactivation inside a coiled flow inverter. <i>Biotechnology and Bioengineering</i> , 2019, 116, 857-869.	1.7	28
29	Techniques for the recovery of volatile aroma compounds from biochemical broth: A review. <i>Flavour and Fragrance Journal</i> , 2018, 33, 203-216.	1.2	23
30	Analysis of Crystal Size Dispersion Effects in a Continuous Coiled Tubular Crystallizer: Experiments and Modeling. <i>Crystal Growth and Design</i> , 2018, 18, 1459-1473.	1.4	49
31	Growth Rate Measurements of Organic Crystals in a Cone-Shaped Fluidized-Bed Cell. <i>Chemical Engineering and Technology</i> , 2018, 41, 1165-1172.	0.9	12
32	Enhanced Product Quality Control through Separation of Crystallization Phenomena in a Four-Stage MSMR Cascade. <i>Crystal Growth and Design</i> , 2018, 18, 7323-7334.	1.4	20
33	Multistage Processing of Tunable Aqueous Polymer Phase Impregnated Resins (TAPPiR®). <i>Chemical Engineering and Technology</i> , 2018, 41, 1324-1330.	0.9	2
34	Approach for the characterization of industrial process tasks as basis for the generation and application of an equipment module database. <i>Chemical Engineering Science</i> , 2018, 191, 42-55.	1.9	4
35	Cooling Crystallization: Does Gassing Compete with Seeding?. <i>Crystal Growth and Design</i> , 2018, 18, 4906-4910.	1.4	12
36	A general approach to module-based plant design. <i>Chemical Engineering Research and Design</i> , 2018, 137, 125-140.	2.7	30

#	ARTICLE	IF	CITATIONS
37	Establishment of a yeast-based VLP platform for antigen presentation. <i>Microbial Cell Factories</i> , 2018, 17, 17.	1.9	49
38	Induced nucleation by gassing and its monitoring for the design and operation of an MSMPR cascade. <i>Chemical Engineering Science</i> , 2018, 192, 840-849.	1.9	23
39	Gassing Crystallization at Different Scales: Potential to Control Nucleation and Product Properties. <i>Crystal Growth and Design</i> , 2017, 17, 1028-1035.	1.4	11
40	Clarification of a monoclonal antibody with cationic polyelectrolytes: Analysis of influencing parameters. <i>Biochemical Engineering Journal</i> , 2017, 122, 60-70.	1.8	3
41	Design of equipment modules for flexibility. <i>Chemical Engineering Science</i> , 2017, 168, 271-288.	1.9	22
42	Generation of an equipment module database for heat exchangers by cluster analysis of industrial applications. <i>Chemical Engineering Science</i> , 2017, 167, 278-287.	1.9	16
43	Framework to decide for a volume flexible chemical plant during early phases of plant design. <i>Chemical Engineering Research and Design</i> , 2017, 128, 85-95.	2.7	6
44	Lead time estimation for modular production plants. <i>Chemical Engineering Research and Design</i> , 2017, 128, 96-106.	2.7	8
45	Variable selection and training set design for particle classification using a linear and a non-linear classifier. <i>Chemical Engineering Science</i> , 2017, 173, 131-144.	1.9	26
46	Potential of gassing crystallization to control the agglomeration degree of crystalline products. <i>Powder Technology</i> , 2017, 320, 386-396.	2.1	25
47	Framework to decide for an expansion strategy of a small scale continuously operated modular multi-product plant. <i>Chemical Engineering and Processing: Process Intensification</i> , 2017, 113, 74-85.	1.8	4
48	Modules in process industry – A life cycle definition. <i>Chemical Engineering and Processing: Process Intensification</i> , 2017, 111, 115-126.	1.8	37
49	Fixed capital investment estimation for modular production plants. <i>Chemical Engineering Science</i> , 2017, 158, 395-410.	1.9	21
50	Production Rate-Dependent Key Performance Indicators for a Systematic Design of Biochemical Downstream Processes. <i>Chemical Engineering and Technology</i> , 2016, 39, 354-364.	0.9	11
51	Continuous viral inactivation at low pH value in antibody manufacturing. <i>Chemical Engineering and Processing: Process Intensification</i> , 2016, 102, 88-101.	1.8	58
52	Efficient conversion of pretreated brewer's spent grain and wheat bran by submerged cultivation of <i>Hericium erinaceus</i> . <i>Bioresource Technology</i> , 2016, 222, 123-129.	4.8	19
53	Methodology for evaluating modular production concepts. <i>Chemical Engineering Science</i> , 2016, 155, 153-166.	1.9	11
54	Simultaneous optimization of scheduling, equipment dimensions and operating conditions of sequential multi-purpose batch plants. <i>Computers and Chemical Engineering</i> , 2016, 94, 157-179.	2.0	5

#	ARTICLE	IF	CITATIONS
55	Influence of Gassing Crystallization Parameters on Induction Time and Crystal Size Distribution. <i>Crystal Growth and Design</i> , 2016, 16, 6797-6803.	1.4	25
56	Automation of Solubility Measurements on a Robotic Platform. <i>Chemical Engineering and Technology</i> , 2016, 39, 1049-1057.	0.9	6
57	Synthesis of batch heat exchanger networks utilizing a match ranking matrix. <i>Applied Thermal Engineering</i> , 2016, 100, 78-83.	3.0	3
58	Modeling the Quasi-Equilibrium of Multistage Phytoextractions. <i>Industrial & Engineering Chemistry Research</i> , 2016, 55, 1808-1812.	1.8	1
59	Design of Median Crystal Diameter Using Gassing Crystallization and Different Process Concepts. <i>Crystal Growth and Design</i> , 2016, 16, 1320-1328.	1.4	25
60	Cost evaluation of antibody production processes in different operation modes. <i>Chemical Engineering Science</i> , 2016, 141, 63-74.	1.9	94
61	Knowledge-Based Conceptual Synthesis of Industrial-Scale Downstream Processes for Biochemical Products. <i>Chemical Engineering and Technology</i> , 2015, 38, 537-546.	0.9	4
62	Determining the solute-solid interactions in phytoextraction. <i>Chemical Engineering Science</i> , 2015, 134, 287-296.	1.9	7
63	Erinacine C: A novel approach to produce the secondary metabolite by submerged cultivation of <i>Hericium erinaceus</i> . <i>Fungal Biology</i> , 2015, 119, 1334-1344.	1.1	9
64	Investigation, comparison and design of chambers used in centrifugal partition chromatography on the basis of flow pattern and separation experiments. <i>Journal of Chromatography A</i> , 2015, 1390, 39-49.	1.8	26
65	Role of bubble size for the performance of continuous foam fractionation in stripping mode. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2015, 473, 85-94.	2.3	34
66	Selection and Use of Poly Ethylene Glycol and Phosphate Based Aqueous Two-Phase Systems for the Separation of Proteins by Centrifugal Partition Chromatography. <i>Journal of Liquid Chromatography and Related Technologies</i> , 2015, 38, 929-941.	0.5	10
67	Agglomeration degree distribution as quality criterion to evaluate crystalline products. <i>Chemical Engineering Science</i> , 2015, 133, 157-169.	1.9	31
68	Developing the biofacility of the future based on continuous processing and single-use technology. <i>Journal of Biotechnology</i> , 2015, 213, 120-130.	1.9	146
69	Real option framework for equipment wise expansion of modular plants applied to the design of a continuous multiproduct plant. <i>Chemical Engineering Research and Design</i> , 2015, 93, 511-521.	2.7	21
70	Multivariate risk analysis of an intensified modular hydroformylation process. <i>Chemical Engineering and Processing: Process Intensification</i> , 2015, 95, 124-134.	1.8	6
71	The influence of impurity proteins on the precipitation of a monoclonal antibody with an anionic polyelectrolyte. <i>Separation and Purification Technology</i> , 2015, 146, 252-260.	3.9	6
72	Enzymatic hydrolysis in an aqueous organic two-phase system using centrifugal partition chromatography. <i>Journal of Chromatography A</i> , 2015, 1391, 72-79.	1.8	15

#	ARTICLE	IF	CITATIONS
73	Heterologous fermentation of a diterpene from <i>Alternaria brassicicola</i> . <i>Mycology</i> , 2014, 5, 207-219.	2.0	7
74	Information Technologies for Innovative Process and Plant Design. <i>Chemie-Ingenieur-Technik</i> , 2014, 86, 966-981.	0.4	39
75	Capacity Flexibility of Chemical Plants. <i>Chemical Engineering and Technology</i> , 2014, 37, 332-342.	0.9	23
76	Intensified hydroformylation as an example for flexible intermediates production. <i>Chemical Engineering and Processing: Process Intensification</i> , 2014, 85, 1-9.	1.8	12
77	A framework for the modeling and optimization of process superstructures under uncertainty. <i>Chemical Engineering Science</i> , 2014, 115, 225-237.	1.9	24
78	Tunable aqueous polymer-phase impregnated resins-technology – A novel approach to aqueous two-phase extraction. <i>Journal of Chromatography A</i> , 2014, 1329, 38-44.	1.8	15
79	Heat integration in batch processes including heat streams with time dependent temperature progression. <i>Applied Thermal Engineering</i> , 2014, 70, 321-327.	3.0	11
80	Molecular Interaction of Amino Acids with Acidic Zeolite BEA: The Effect of Water. <i>Journal of Physical Chemistry C</i> , 2014, 118, 5810-5819.	1.5	13
81	A Model to Characterize and Predict Fugitive Emissions from Flange Joints. <i>Chemical Engineering and Technology</i> , 2014, 37, 1205-1210.	0.9	3
82	Identification of parameter interactions influencing the precipitation of a monoclonal antibody with anionic polyelectrolytes. <i>Separation and Purification Technology</i> , 2014, 127, 165-173.	3.9	6
83	INOSIM Bio - new approaches for bioprocess simulation and optimization. <i>Computer Aided Chemical Engineering</i> , 2013, 32, 865-870.	0.3	0
84	Molecular interactions of alcohols with zeolite BEA and MOR frameworks. <i>Journal of Molecular Modeling</i> , 2013, 19, 5611-5624.	0.8	6
85	Modeling induced nucleation processes during batch cooling crystallization: A sequential parameter determination procedure. <i>Computers and Chemical Engineering</i> , 2013, 52, 216-229.	2.0	54
86	Amino-Acid Adsorption in MFI-Type Zeolites Enabled by the pH-Dependent Ability to Displace Water. <i>Journal of Physical Chemistry C</i> , 2013, 117, 18927-18935.	1.5	18
87	Selection of operating parameters on the basis of hydrodynamics in centrifugal partition chromatography for the purification of nybomycin derivatives. <i>Journal of Chromatography A</i> , 2013, 1274, 54-64.	1.8	32
88	Research on industrial biotechnology within the CLIB-Graduate Cluster – Part III. <i>Journal of Biotechnology</i> , 2013, 167, 73-74.	1.9	0
89	Model-based conceptual design and optimization tool support for the early stage development of chemical processes under uncertainty. <i>Computers and Chemical Engineering</i> , 2013, 59, 63-73.	2.0	23
90	A Fully Automated Adsorption and Desorption Method for Resin and Solvent Screening. <i>Chemical Engineering and Technology</i> , 2013, 36, 1157-1164.	0.9	8

#	ARTICLE	IF	CITATIONS
91	Preparative purification of rebaudioside A from aqueous extracts using chromatography: a process idea. <i>Journal Fur Verbraucherschutz Und Lebensmittelsicherheit</i> , 2012, 7, 295-303.	0.5	12
92	Investigation of structural changes of Î²-casein and lysozyme at the gasâ€“liquid interface during foam fractionation. <i>Journal of Biotechnology</i> , 2012, 161, 138-146.	1.9	27
93	Knowledge Based Design of Piping and Instrumentation Diagrams. <i>Chemie-Ingenieur-Technik</i> , 2012, 84, 747-761.	0.4	14
94	Die 50â€“Idee: Modularisierung im Planungsprozess. <i>Chemie-Ingenieur-Technik</i> , 2012, 84, 581-587.	0.4	24
95	Die 50â€“Idee: vom Produkt zur Produktionsanlage in der halben Zeit. <i>Chemie-Ingenieur-Technik</i> , 2012, 84, 563-563.	0.4	5
96	Fast and isocratic HPLC-method for steviol glycosides analysis from <i>Stevia rebaudiana</i> leaves. <i>Journal Fur Verbraucherschutz Und Lebensmittelsicherheit</i> , 2012, 7, 147-154.	0.5	51
97	Low-cost small scale processing technologies for production applications in various environmentsâ€“Mass produced factories. <i>Chemical Engineering and Processing: Process Intensification</i> , 2012, 51, 32-52.	1.8	76
98	Small scale, modular and continuous: A new approach in plant design. <i>Chemical Engineering and Processing: Process Intensification</i> , 2012, 52, 140-150.	1.8	92
99	Modeling pH and Solubilities in Aqueous Multisolute Amino Acid Solutions. <i>Industrial & Engineering Chemistry Research</i> , 2011, 50, 3503-3509.	1.8	45
100	Multiphase flow modeling in centrifugal partition chromatography. <i>Journal of Chromatography A</i> , 2011, 1218, 6092-6101.	1.8	21
101	Influence of physical properties and operating parameters on hydrodynamics in Centrifugal Partition Chromatography. <i>Journal of Chromatography A</i> , 2011, 1218, 5401-5413.	1.8	39
102	Die 50â€“Idee: Vom Produkt zur Produktionsanlage in der halben Zeit. <i>Chemie-Ingenieur-Technik</i> , 2010, 82, 2031-2031.	0.4	7
103	A model to predict fugitive VOC emissions from liquid charged flange joints with graphite gaskets. <i>Chemical Engineering Journal</i> , 2010, 159, 11-16.	6.6	8
104	Sonocrystallization and crystallization with gassing of adipic acid. <i>Chemical Engineering Science</i> , 2010, 65, 1016-1027.	1.9	78
105	Comparison of process concepts for preparative chromatography. <i>Chemical Engineering Science</i> , 2010, 65, 5373-5381.	1.9	20
106	Measurement and Modeling Solubility of Aqueous Multisolute Amino-Acid Solutions. <i>Industrial & Engineering Chemistry Research</i> , 2010, 49, 1395-1401.	1.8	69
107	Modeling ultrasound-induced nucleation during cooling crystallization. <i>Chemical Engineering Science</i> , 2009, 64, 1635-1642.	1.9	65
108	Scaling-up recycling chromatography. <i>Chemical Engineering Science</i> , 2009, 64, 4068-4080.	1.9	16

#	ARTICLE	IF	CITATIONS
109	Experimental study of the effect of bubbles on nucleation during batch cooling crystallization. Chemical Engineering Science, 2009, 64, 4155-4163.	1.9	101
110	Fugitive Emissions from Liquid-Charged Flange Joints: A Comparison of Laboratory and Field Data. Environmental Science & Technology, 2009, 43, 4498-4502.	4.6	3
111	Towards an optimized crystallization with ultrasound: Effect of solvent properties and ultrasonic process parameters. Journal of Crystal Growth, 2008, 310, 4177-4184.	0.7	68
112	Synthesis of reactive separation processes. , 2006, , 7-94.		3
113	Generic model framework for the synthesis of structured reactive separation processes. Computer Aided Chemical Engineering, 2006, , 1075-1081.	0.3	1
114	Selection of reference components in reaction invariants. Chemical Engineering Science, 2005, 60, 7168-7171.	1.9	9
115	Structuring of reactive distillation columns for non-ideal mixtures using MINLP-techniques. Computer Aided Chemical Engineering, 2004, 18, 493-498.	0.3	5
116	Process synthesis for reactive separations. Chemical Engineering and Processing: Process Intensification, 2003, 42, 179-189.	1.8	83
117	Reactor selection and design for heterogeneous reaction systems. Computer Aided Chemical Engineering, 2001, 9, 357-362.	0.3	0
118	Investigations on the Synthesis of Methyl Acetate in a Heterogeneous Reactive Distillation Process. Chemical Engineering and Technology, 1998, 21, 393.	0.9	82
119	Heuristic-numeric design of separation processes for azeotropic mixtures. Computers and Chemical Engineering, 1997, 21, S231-S236.	2.0	6
120	Auswahl von Daten und Berechnungsmethoden für Reinstoffe und Gemische mit Hilfe eines heuristischnumerischen Beratungssystems. Chemie-Ingenieur-Technik, 1996, 68, 1307-1311.	0.4	3
121	READPERT – development, selection and design of chemical reactors. Chemical Engineering and Processing: Process Intensification, 1995, 34, 317-322.	1.8	22
122	AZEOPERT - A heuristic-numeric system for the prediction of azeotrope formation. Computers and Chemical Engineering, 1995, 19, 253-258.	2.0	5
123	Development of an Automated Adsorbent Selection Strategy for Liquid-Phase Adsorption. Chemical Engineering and Technology, 0, , .	0.9	0