

Miroslav Å oÃ³Å¡

List of Publications by Year in descending order

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117
papers

3,333
citations

126708

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times ranked

2586
citing authors

#	ARTICLE	IF	CITATIONS
1	The preparation of mono- and multicomponent nanoparticle aggregates with layer-by-layer structure using emulsion templating method in microfluidics. <i>Chemical Engineering Science</i> , 2022, 247, 117084.	1.9	4
2	Characterization of hydrodynamic stress in ambr250® bioreactor system and its impact on mammalian cell culture. <i>Biochemical Engineering Journal</i> , 2022, 177, 108240.	1.8	7
3	Ambient-temperature porogen-free method for preparation of silica-based macroporous materials. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2022, 634, 128033.	2.3	2
4	Impact of Solvent-Drug Interactions on the Desolvation of a Pharmaceutical Solvate. <i>Journal of Physical Chemistry B</i> , 2022, 126, 503-512.	1.2	2
5	Exploring the polymorphism of sofosbuvir via mechanochemistry: effect of milling jar geometry and material. <i>CrystEngComm</i> , 2022, 24, 2107-2117.	1.3	3
6	The impact of the lamination pressure on the properties of electrospun nanofibrous films. <i>European Journal of Pharmaceutical Sciences</i> , 2022, 173, 106170.	1.9	2
7	Breakage Study of the Urchinlike Crystal Clusters of Ibrutinib. <i>Organic Process Research and Development</i> , 2022, 26, 111-122.	1.3	1
8	Explaining dissolution properties of rivaroxaban cocrystals. <i>International Journal of Pharmaceutics</i> , 2022, 622, 121854.	2.6	5
9	Impact of crystallization conditions and filtration cake washing on the clustering of metformin hydrochloride crystals. <i>Powder Technology</i> , 2022, 405, 117522.	2.1	0
10	Structure-property relations of a unique and systematic dataset of 19 isostructural multicomponent apremilast forms. <i>IUCr</i> , 2022, 9, 508-515.	1.0	0
11	Carboxyethyl-functionalized 3D porous polypyrrole synthesized using a porogen-free method for covalent immobilization of urease. <i>Microporous and Mesoporous Materials</i> , 2021, 311, 110690.	2.2	6
12	Hybrid Approach for Mixing Time Characterization and Scale-Up in Geometrical Nonsimilar Stirred Vessels Equipped with Eccentric Multi-Impeller Systems: An Industrial Perspective. <i>Processes</i> , 2021, 9, 880.	1.3	6
13	Study of the Shear-Thinning Effect between Polymer Nanoparticle Surfaces during Shear-Induced Aggregation. <i>Industrial & Engineering Chemistry Research</i> , 2021, 60, 10654-10665.	1.8	3
14	Low-temperature polymorphs of lacosamide. <i>Journal of Crystal Growth</i> , 2021, 562, 126085.	0.7	3
15	Monitoring of particle sizes distribution during Valsartan precipitation in the presence of nonionic surfactant. <i>International Journal of Pharmaceutics</i> , 2021, 600, 120515.	2.6	4
16	Comparison between two multicomponent drug delivery systems based on PEGylated-poly (l-lactide-co-glycolide) and superparamagnetic nanoparticles: Nanoparticulate versus nanocluster systems. <i>Journal of Drug Delivery Science and Technology</i> , 2021, 64, 102643.	1.4	4
17	Size, shape and surface structure of gold snowflake-like particles tailored by the addition of monovalent and divalent inorganic salts. <i>Surfaces and Interfaces</i> , 2021, 25, 101160.	1.5	1
18	Mechanochemically Induced Polymorphic Transformations of Sofosbuvir. <i>Crystal Growth and Design</i> , 2020, 20, 139-147.	1.4	9

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19	Formation of the First Non-Isostructural Cocrystal of Apremilast Explained. <i>Crystal Growth and Design</i> , 2020, 20, 5785-5795.	1.4	8
20	Testing the flow-through capillary for the study of re-solvation processes in pharmaceutical compounds. <i>Powder Diffraction</i> , 2020, 35, 160-165.	0.4	2
21	Morphology of Shear-Induced Colloidal Aggregates in Porous Media: Consequences for Transport, Deposition, and Re-entrainment. <i>Environmental Science & Technology</i> , 2020, 54, 5813-5821.	4.6	13
22	Temperature modulated polymer nanoparticle bonding: A numerical and experimental study. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2020, 601, 125010.	2.3	3
23	Preparation of carbon-based monolithic CO ₂ adsorbents with hierarchical pore structure. <i>Chemical Engineering Journal</i> , 2020, 388, 124308.	6.6	13
24	COMF: Comprehensive Model-Fitting Method for Simulating Isothermal and Single-Step Solid-State Reactions. <i>Crystals</i> , 2020, 10, 139.	1.0	8
25	Self-assembly of poly(L-lactide-co-glycolide) and magnetic nanoparticles into nanoclusters for controlled drug delivery. <i>European Polymer Journal</i> , 2020, 133, 109795.	2.6	15
26	Multi-scale analysis of amorphous solid dispersions prepared by freeze drying of ibuprofen loaded acrylic polymer nanoparticles. <i>Journal of Drug Delivery Science and Technology</i> , 2019, 53, 101182.	1.4	13
27	Complex methodology for rational design of Apremilast-benzoic acid co-crystallization process. <i>International Journal of Pharmaceutics</i> , 2019, 570, 118639.	2.6	11
28	Urease adsorption immobilization on ionic liquid-like macroporous polymeric support. <i>Journal of Materials Science</i> , 2019, 54, 14884-14896.	1.7	6
29	Numerical Modeling of Viscoelasticity in Particle Suspensions Using the Discrete Element Method. <i>Langmuir</i> , 2019, 35, 12754-12764.	1.6	8
30	Transcriptome and proteome analysis of steady-state in a perfusion CHO cell culture process. <i>Biotechnology and Bioengineering</i> , 2019, 116, 1959-1972.	1.7	11
31	Nitrogen-rich hierarchically porous polyaniline-based adsorbents for carbon dioxide (CO ₂) capture. <i>Chemical Engineering Journal</i> , 2019, 360, 1199-1212.	6.6	46
32	Ibrutinib Polymorphs: Crystallographic Study. <i>Crystal Growth and Design</i> , 2018, 18, 1315-1326.	1.4	23
33	Experimental and CFD physical characterization of animal cell bioreactors: From micro- to production scale. <i>Biochemical Engineering Journal</i> , 2018, 131, 84-94.	1.8	73
34	Proteomic analysis of micro-scale bioreactors as scale-down model for a mAb producing CHO industrial fed-batch platform. <i>Journal of Biotechnology</i> , 2018, 279, 27-36.	1.9	18
35	Synthesis of conductive macroporous composite polymeric materials using porogen-free method. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2018, 557, 137-145.	2.3	7
36	Numerical Study of Soft Colloidal Nanoparticles Interaction in Shear Flow. <i>Langmuir</i> , 2018, 34, 15600-15611.	1.6	7

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37	An environmentally benign methodology to elaborating polymer nanocomposites with tunable properties using core-shell nanoparticles and cellulose nanocrystals. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2018, 553, 169-179.	2.3	4
38	Breakup of Individual Colloidal Aggregates in Turbulent Flow Investigated by 3D Particle Tracking Velocimetry. , 2018, , 83-95.		2
39	Effects of Coalescence on Shear-Induced Gelation of Colloids. <i>Langmuir</i> , 2017, 33, 1180-1188.	1.6	4
40	Modulation and modeling of monoclonal antibody N-glycosylation in mammalian cell perfusion reactors. <i>Biotechnology and Bioengineering</i> , 2017, 114, 1978-1990.	1.7	72
41	First Crystal Structures of Pharmaceutical Ibrutinib: Systematic Solvate Screening and Characterization. <i>Crystal Growth and Design</i> , 2017, 17, 3116-3127.	1.4	49
42	Slip on a particle surface as the possible origin of shear thinning in non-Brownian suspensions. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 5979-5984.	1.3	17
43	Intracellular CHO Cell Metabolite Profiling Reveals Steady-State Dependent Metabolic Fingerprints in Perfusion Culture. <i>Biotechnology Progress</i> , 2017, 33, 879-890.	1.3	44
44	Isotope labeling to determine the dynamics of metabolic response in CHO cell perfusion bioreactors using MALDI-TOF-MS. <i>Biotechnology Progress</i> , 2017, 33, 1630-1639.	1.3	28
45	Glycosylation flux analysis reveals dynamic changes of intracellular glycosylation flux distribution in Chinese hamster ovary fed-batch cultures. <i>Metabolic Engineering</i> , 2017, 43, 9-20.	3.6	42
46	Process performance and product quality in an integrated continuous antibody production process. <i>Biotechnology and Bioengineering</i> , 2017, 114, 298-307.	1.7	115
47	Robust factor selection in early cell culture process development for the production of a biosimilar monoclonal antibody. <i>Biotechnology Progress</i> , 2017, 33, 181-191.	1.3	33
48	Probing Coagulation and Fouling in Colloidal Dispersions with Viscosity Measurements: In Silico Proof of Concept. <i>Advances in Polymer Science</i> , 2017, , 161-182.	0.4	1
49	Controlling the time evolution of mAb N-glycosylation, Part I: Microbioreactor experiments. <i>Biotechnology Progress</i> , 2016, 32, 1123-1134.	1.3	43
50	Viscosity and drop size evolution during suspension polymerization. <i>AIChE Journal</i> , 2016, 62, 4229-4239.	1.8	5
51	Controlling the time evolution of mAb N-glycosylation -Part II: Model-based predictions. <i>Biotechnology Progress</i> , 2016, 32, 1135-1148.	1.3	53
52	Pilot-scale verification of maximum tolerable hydrodynamic stress for mammalian cell culture. <i>Applied Microbiology and Biotechnology</i> , 2016, 100, 3489-3498.	1.7	24
53	High-throughput profiling of nucleotides and nucleotide sugars to evaluate their impact on antibody N-glycosylation. <i>Journal of Biotechnology</i> , 2016, 229, 3-12.	1.9	35
54	CHO cell proteome characterization for the continuous manufacturing of monoclonal antibodies. <i>New Biotechnology</i> , 2016, 33, S42.	2.4	0

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55	Utilizing the Discrete Element Method for the Modeling of Viscosity in Concentrated Suspensions. <i>Langmuir</i> , 2016, 32, 8451-8460.	1.6	24
56	Formation of multi-compartmental particles by controlled aggregation of liposomes. <i>Powder Technology</i> , 2016, 295, 115-121.	2.1	11
57	Characterization and comparison of ATF and TFF in stirred bioreactors for continuous mammalian cell culture processes. <i>Biochemical Engineering Journal</i> , 2016, 110, 17-26.	1.8	126
58	Microarray-based MALDI-TOF mass spectrometry enables monitoring of monoclonal antibody production in batch and perfusion cell cultures. <i>Methods</i> , 2016, 104, 33-40.	1.9	25
59	Breakup of Finite-Size Colloidal Aggregates in Turbulent Flow Investigated by Three-Dimensional (3D) Particle Tracking Velocimetry. <i>Langmuir</i> , 2016, 32, 55-65.	1.6	32
60	Shear-Induced Reactive Gelation. <i>Langmuir</i> , 2015, 31, 12727-12735.	1.6	13
61	Characterization of liquid-liquid dispersions with variable viscosity by coupled computational fluid dynamics and population balances. <i>AIChE Journal</i> , 2015, 61, 2403-2414.	1.8	25
62	Fingerprint detection and process prediction by multivariate analysis of fed-batch monoclonal antibody cell culture data. <i>Biotechnology Progress</i> , 2015, 31, 1633-1644.	1.3	37
63	High-throughput nucleoside phosphate monitoring in mammalian cell fed-batch cultivation using quantitative matrix-assisted laser desorption/ionization time-of-flight mass spectrometry. <i>Biotechnology Journal</i> , 2015, 10, 190-198.	1.8	13
64	Insights into pH-induced metabolic switch by flux balance analysis. <i>Biotechnology Progress</i> , 2015, 31, 347-357.	1.3	46
65	Experimental determination of maximum effective hydrodynamic stress in multiphase flow using shear sensitive aggregates. <i>AIChE Journal</i> , 2015, 61, 1735-1744.	1.8	36
66	Determination of the maximum operating range of hydrodynamic stress in mammalian cell culture. <i>Journal of Biotechnology</i> , 2015, 194, 100-109.	1.9	62
67	Application of polymeric macroporous supports for temperature-responsive chromatography of pharmaceuticals. <i>Journal of Chromatography A</i> , 2015, 1407, 90-99.	1.8	16
68	Analysis of site-specific N-glycan remodeling in the endoplasmic reticulum and the Golgi. <i>Glycobiology</i> , 2015, 25, 1335-1349.	1.3	60
69	Size and Structure of Clusters Formed by Shear Induced Coagulation: Modeling by Discrete Element Method. <i>Langmuir</i> , 2015, 31, 7727-7737.	1.6	32
70	An unstructured model of metabolic and temperature dependent cell cycle arrest in hybridoma batch and fed-batch cultures. <i>Biochemical Engineering Journal</i> , 2015, 93, 260-273.	1.8	14
71	Perfusive ion-exchange chromatographic materials with high capacity. <i>Journal of Chromatography A</i> , 2014, 1374, 180-188.	1.8	30
72	Experimental Characterization of Breakage Rate of Colloidal Aggregates in Axisymmetric Extensional Flow. <i>Langmuir</i> , 2014, 30, 14385-14395.	1.6	35

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73	Macroporous Polymer Particles via Reactive Gelation under Shear: Effect of Primary Particle Properties and Operating Parameters. <i>Langmuir</i> , 2014, 30, 13970-13978.	1.6	13
74	Synthesis of Hetero-nanoclusters: The Case of Polymerâ€™Magnetite Systems. <i>Langmuir</i> , 2014, 30, 2266-2273.	1.6	9
75	Evaluating the impact of cell culture process parameters on monoclonal antibody N-glycosylation. <i>Journal of Biotechnology</i> , 2014, 188, 88-96.	1.9	98
76	Synthesis of Macroporous Polymer Particles Using Reactive Gelation under Shear. <i>Langmuir</i> , 2014, 30, 6946-6953.	1.6	20
77	Adaptation for survival: Phenotype and transcriptome response of CHO cells to elevated stress induced by agitation and sparging. <i>Journal of Biotechnology</i> , 2014, 189, 94-103.	1.9	39
78	Flow-Induced Aggregation and Breakup of Particle Clusters Controlled by Surface Nanoroughness. <i>Langmuir</i> , 2013, 29, 14386-14395.	1.6	24
79	Determination of maximum turbulent energy dissipation rate generated by a rushton impeller through large eddy simulation. <i>AIChE Journal</i> , 2013, 59, 3642-3658.	1.8	55
80	Assessment of gel formation in colloidal dispersions during mixing in turbulent jets. <i>AIChE Journal</i> , 2013, 59, 4567-4581.	1.8	3
81	Shear-stability and gelation of inverse latexes. <i>Soft Matter</i> , 2013, 9, 10866.	1.2	9
82	Development of a Scale-Down Model of hydrodynamic stress to study the performance of an industrial CHO cell line under simulated production scale bioreactor conditions. <i>Journal of Biotechnology</i> , 2013, 164, 41-49.	1.9	81
83	Description of N-linked glycosylation as a function of different operating parameters via mathematical modelling. <i>New Biotechnology</i> , 2012, 29, S216.	2.4	0
84	Kinetics of the hydrolytic degradation of poly(lactic acid). <i>Polymer Degradation and Stability</i> , 2012, 97, 2460-2466.	2.7	122
85	Investigation of process parameters and their effect on cell metabolism and N-linked glycosylation. <i>New Biotechnology</i> , 2012, 29, S103.	2.4	0
86	Experimental and Modeling Study of Breakage and Restructuring of Open and Dense Colloidal Aggregates. <i>Langmuir</i> , 2011, 27, 5739-5752.	1.6	77
87	Quantification of a Single Aggregate Inner Porosity and Pore Accessibility Using Hard X-ray Phase-Contrast Nanotomography. <i>Langmuir</i> , 2011, 27, 12788-12791.	1.6	12
88	Minimizing hydrodynamic stress in mammalian cell culture through the lobed Taylorâ€™Couette bioreactor. <i>Biotechnology Journal</i> , 2011, 6, 1504-1515.	1.8	33
89	Effect of flow field heterogeneity in coagulators on aggregate size and structure. <i>AIChE Journal</i> , 2010, 56, 2573-2587.	1.8	21
90	Structure and Kinetics of Shear Aggregation in Turbulent Flows. I. Early Stage of Aggregation. <i>Langmuir</i> , 2010, 26, 13142-13152.	1.6	18

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91	Aggregate Breakup in a Contracting Nozzle. <i>Langmuir</i> , 2010, 26, 10-18.	1.6	73
92	Breakup of dense colloidal aggregates under hydrodynamic stresses. <i>Physical Review E</i> , 2009, 79, 061401.	0.8	92
93	Dependence of initial cluster aggregation kinetics on shear rate for particles of different sizes under turbulence. <i>AICHE Journal</i> , 2009, 55, 3076-3087.	1.8	18
94	Induction of mammalian cell death by simple shear and extensional flows. <i>Biotechnology and Bioengineering</i> , 2009, 104, 360-370.	1.7	83
95	Role of Counterion Association in Colloidal Stability. <i>Langmuir</i> , 2009, 25, 2696-2702.	1.6	55
96	Generation and Geometrical Analysis of Dense Clusters with Variable Fractal Dimension. <i>Journal of Physical Chemistry B</i> , 2009, 113, 10587-10599.	1.2	75
97	Interpretation of Light Scattering and Turbidity Measurements in Aggregated Systems: Effect of Intra-Cluster Multiple-Light Scattering. <i>Journal of Physical Chemistry B</i> , 2009, 113, 14962-14970.	1.2	35
98	Effect of shear rate on aggregate size and morphology investigated under turbulent conditions in stirred tank. <i>Journal of Colloid and Interface Science</i> , 2008, 319, 577-589.	5.0	142
99	Dependence of Aggregate Strength, Structure, and Light Scattering Properties on Primary Particle Size under Turbulent Conditions in Stirred Tank. <i>Langmuir</i> , 2008, 24, 3070-3081.	1.6	73
100	Effect of Solid Volume Fraction on Aggregation and Breakage in Colloidal Suspensions in Batch and Continuous Stirred Tanks. <i>Langmuir</i> , 2007, 23, 1664-1673.	1.6	50
101	Master Curves for Aggregation and Gelation: Effects of Cluster Structure and Polydispersity. <i>Industrial & Engineering Chemistry Research</i> , 2007, 46, 1709-1720.	1.8	11
102	Taylor-Couette unit with a lobed inner cylinder cross section. <i>AICHE Journal</i> , 2007, 53, 1109-1120.	1.8	20
103	Characterisation of porous media by the virtual capillary condensation method. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2007, 300, 11-20.	2.3	27
104	Percolation models of adsorption-desorption equilibria and kinetics for systems with hysteresis. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2007, 300, 191-203.	2.3	12
105	Population balance modeling of aggregation and breakage in turbulent Taylor-Couette flow. <i>Journal of Colloid and Interface Science</i> , 2007, 307, 433-446.	5.0	44
106	Sizing Polydisperse Dispersions by Focused Beam Reflectance and Small Angle Static Light Scattering. <i>Particle and Particle Systems Characterization</i> , 2006, 23, 438-447.	1.2	10
107	Effects of mixing on aggregation and gelation of nanoparticles. <i>Chemical Engineering and Processing: Process Intensification</i> , 2006, 45, 936-943.	1.8	15
108	Investigation of aggregation, breakage and restructuring kinetics of colloidal dispersions in turbulent flows by population balance modeling and static light scattering. <i>Chemical Engineering Science</i> , 2006, 61, 2349-2363.	1.9	63

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109	Effect of Fluid Dynamics on Particle Size Distribution in Particulate Processes. Chemical Engineering and Technology, 2006, 29, 191-199.	0.9	27
110	Role of turbulent shear rate distribution in aggregation and breakage processes. AIChE Journal, 2006, 52, 158-173.	1.8	74
111	Initial growth kinetics and structure of colloidal aggregates in a turbulent coagulator. Powder Technology, 2005, 156, 226-234.	2.1	28
112	Design and simulation of a distillation column for separation of dichloropropane from a multicomponent mixture. Chemical Engineering and Processing: Process Intensification, 2003, 42, 273-284.	1.8	6
113	Comparison of computer simulation of reactive distillation using aspen plus and hysys software. Chemical Engineering and Processing: Process Intensification, 2002, 41, 413-418.	1.8	33
114	Design and simulation of a reactor for the chlorination of acetone in gaseous phase. Chemical Engineering Science, 2001, 56, 627-632.	1.9	3
115	On the modeling of PSA cycles with hysteresis-dependent isotherms. Chemical Engineering Science, 2000, 55, 431-440.	1.9	28
116	Unified network model for adsorption-desorption in systems with hysteresis. AIChE Journal, 1999, 45, 735-750.	1.8	21
117	Characterization and Insights into the Formation of New Multicomponent Solid Forms of Sofosbuvir. Crystal Growth and Design, 0, , .	1.4	2