

Elena Cândida Dos Santos

List of Publications by Citations

Source: <https://exaly.com/author-pdf/982910/elena-candida-dos-santos-publications-by-citations.pdf>

Version: 2024-04-27

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

173
papers

4,361
citations

39
h-index

58
g-index

185
ext. papers

5,457
ext. citations

4.7
avg, IF

6.39
L-index

#	Paper	IF	Citations
173	Optimal design of multi-energy systems with seasonal storage. <i>Applied Energy</i> , 2018 , 219, 408-424	10.7	198
172	Competitive adsorption equilibria of CO ₂ and CH ₄ on a dry coal. <i>Adsorption</i> , 2008 , 14, 539-556	2.6	172
171	Equilibrium theory based design of simulated moving bed processes for a generalized Langmuir isotherm. <i>Journal of Chromatography A</i> , 2006 , 1126, 311-22	4.5	144
170	Design and Optimization of a Combined Cooling/Antisolvent Crystallization Process. <i>Crystal Growth and Design</i> , 2009 , 9, 1124-1136	3.5	132
169	Amyloid Templated Gold Aerogels. <i>Advanced Materials</i> , 2016 , 28, 472-8	24	124
168	Molecular-dynamics simulations of urea nucleation from aqueous solution. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015 , 112, E6-14	11.5	113
167	The Role of Carbon Capture and Utilization, Carbon Capture and Storage, and Biomass to Enable a Net-Zero-CO ₂ Emissions Chemical Industry. <i>Industrial & Engineering Chemistry Research</i> , 2020 , 59, 7033-7045	3.9	104
166	Quantitative Application of in Situ ATR-FTIR and Raman Spectroscopy in Crystallization Processes. <i>Industrial & Engineering Chemistry Research</i> , 2008 , 47, 4870-4882	3.9	98
165	Fixed bed adsorption of CO ₂ /H ₂ mixtures on activated carbon: experiments and modeling. <i>Adsorption</i> , 2012 , 18, 143-161	2.6	97
164	Modeling Nucleation, Growth, and Ostwald Ripening in Crystallization Processes: A Comparison between Population Balance and Kinetic Rate Equation. <i>Crystal Growth and Design</i> , 2013 , 13, 4890-4905	3.5	90
163	A Population Balance Model for Chiral Resolution via Viedma Ripening. <i>Crystal Growth and Design</i> , 2011 , 11, 4611-4622	3.5	84
162	Adsorption of pure carbon dioxide and methane on dry coal from the sulcis coal province (SW Sardinia, Italy). <i>Environmental Progress</i> , 2006 , 25, 355-364		83
161	Pure and binary adsorption of CO ₂ , H ₂ , and N ₂ on activated carbon. <i>Adsorption</i> , 2012 , 18, 49-65	2.6	76
160	Experimental Characterization and Population Balance Modeling of the Polymorph Transformation of L-Glutamic Acid. <i>Crystal Growth and Design</i> , 2009 , 9, 243-252	3.5	74
159	Comparison of Technologies for CO ₂ Capture from Cement Production Part 2: Cost Analysis. <i>Energies</i> , 2019 , 12, 542	3.1	67
158	Robust and optimal design of multi-energy systems with seasonal storage through uncertainty analysis. <i>Applied Energy</i> , 2019 , 238, 1192-1210	10.7	61
157	Rational design of temperature swing adsorption cycles for post-combustion CO ₂ capture. <i>Chemical Engineering Science</i> , 2017 , 158, 381-394	4.4	59

156	Sorption and swelling of semicrystalline polymers in supercritical CO ₂ . <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2006 , 44, 1531-1546	2.6	58
155	Seasonal energy storage for zero-emissions multi-energy systems via underground hydrogen storage. <i>Renewable and Sustainable Energy Reviews</i> , 2020 , 121, 109629	16.2	58
154	Population Balance Modeling with Size-Dependent Solubility: Ostwald Ripening. <i>Crystal Growth and Design</i> , 2012 , 12, 1489-1500	3.5	57
153	Comparison of Technologies for CO ₂ Capture from Cement Production Part 1: Technical Evaluation. <i>Energies</i> , 2019 , 12, 559	3.1	56
152	Hydrogen production from natural gas and biomethane with carbon capture and storage (CCS) techno-environmental analysis. <i>Sustainable Energy and Fuels</i> , 2020 , 4, 2967-2986	5.8	56
151	Sorption and swelling of poly(DL-lactic acid) and poly(lactic-co-glycolic acid) in supercritical CO ₂ : An experimental and modeling study. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2008 , 46, 483-496	2.6	56
150	Multi-scale modeling of a reactive mixing process in a semibatch stirred tank. <i>Chemical Engineering Science</i> , 2004 , 59, 1767-1781	4.4	55
149	On the potential of phase-change adsorbents for CO capture by temperature swing adsorption. <i>Faraday Discussions</i> , 2016 , 192, 153-179	3.6	54
148	Experimental characterization and multi-scale modeling of mixing in static mixers. <i>Chemical Engineering Science</i> , 2008 , 63, 4135-4149	4.4	51
147	Temperature Swing Adsorption for Postcombustion CO ₂ Capture: Single- and Multicolumn Experiments and Simulations. <i>Industrial & Engineering Chemistry Research</i> , 2016 , 55, 1401-1412	3.9	48
146	Precipitation and Transformation of the Three Polymorphs of d-Mannitol. <i>Industrial & Engineering Chemistry Research</i> , 2010 , 49, 5854-5862	3.9	48
145	Local Equilibrium Theory for the Binary Chromatography of Species Subject to a Generalized Langmuir Isotherm. <i>Industrial & Engineering Chemistry Research</i> , 2006 , 45, 5332-5350	3.9	47
144	Growth Rate Estimation of L-Glutamic Acid from Online Measurements of Multidimensional Particle Size Distributions and Concentration. <i>Industrial & Engineering Chemistry Research</i> , 2014 , 53, 9136-9148	3.9	46
143	Precombustion CO ₂ Capture by Pressure Swing Adsorption (PSA): Comparison of Laboratory PSA Experiments and Simulations. <i>Industrial & Engineering Chemistry Research</i> , 2013 , 52, 8311-8322	3.9	46
142	Slowing the Growth Rate of Ibuprofen Crystals Using the Polymeric Additive Pluronic F127. <i>Crystal Growth and Design</i> , 2011 , 11, 3813-3821	3.5	45
141	Equilibrium theory-based analysis of nonlinear waves in separation processes. <i>Annual Review of Chemical and Biomolecular Engineering</i> , 2013 , 4, 119-41	8.9	44
140	Cycle to cycle optimizing control of simulated moving beds. <i>AIChE Journal</i> , 2008 , 54, 194-208	3.6	43
139	Reliable measurement of near-critical adsorption by gravimetric method. <i>Adsorption</i> , 2006 , 12, 393-403	2.6	43

138	Experimental evidence of a delta-shock in nonlinear chromatography. <i>Journal of Chromatography A</i> , 2010 , 1217, 2002-12	4.5	41
137	Temperature Swing Adsorption for the Recovery of the Heavy Component: An Equilibrium-Based Shortcut Model. <i>Industrial & Engineering Chemistry Research</i> , 2015 , 54, 3027-3038	3.9	40
136	On the optimal design of membrane-based gas separation processes. <i>Journal of Membrane Science</i> , 2017 , 526, 118-130	9.6	40
135	Nonclassical Composition Fronts in Nonlinear Chromatography: Delta-Shock. <i>Industrial & Engineering Chemistry Research</i> , 2009 , 48, 7733-7752	3.9	40
134	Experimental assessment of powerfeed chromatography. <i>AIChE Journal</i> , 2004 , 50, 625-632	3.6	39
133	Life cycle assessment of carbon dioxide removal technologies: a critical review. <i>Energy and Environmental Science</i> , 2021 , 14, 1701-1721	35.4	38
132	MCM-41, MOF and UiO-67/MCM-41 adsorbents for pre-combustion CO ₂ capture by PSA: adsorption equilibria. <i>Adsorption</i> , 2012 , 18, 213-227	2.6	37
131	Solar-driven steam-based gasification of sugarcane bagasse in a combined drop-tube and fixed-bed reactor □Thermodynamic, kinetic, and experimental analyses. <i>Biomass and Bioenergy</i> , 2013 , 52, 173-183	5.3	37
130	Continuous precipitation of L-asparagine monohydrate in a micromixer: Estimation of nucleation and growth kinetics. <i>AIChE Journal</i> , 2011 , 57, 942-950	3.6	35
129	Design of Simulated Moving Bed Separations: Generalized Langmuir Isotherm. <i>Industrial & Engineering Chemistry Research</i> , 2006 , 45, 6311-6324	3.9	35
128	A model for enhanced coal bed methane recovery aimed at carbon dioxide storage. <i>Adsorption</i> , 2011 , 17, 889-900	2.6	30
127	Phase Diagram of a Chiral Substance Exhibiting Oiling Out in Cyclohexane. <i>Crystal Growth and Design</i> , 2010 , 10, 4005-4013	3.5	30
126	Electrochemical conversion technologies for optimal design of decentralized multi-energy systems: Modeling framework and technology assessment. <i>Applied Energy</i> , 2018 , 221, 557-575	10.7	29
125	Overcoming time scale and finite size limitations to compute nucleation rates from small scale well tempered metadynamics simulations. <i>Journal of Chemical Physics</i> , 2016 , 145, 211925	3.9	29
124	Formation of solids in ammonia-based CO ₂ capture processes □Identification of criticalities through thermodynamic analysis of the CO ₂ -NH ₃ -H ₂ O system. <i>Chemical Engineering Science</i> , 2015 , 133, 170-180	4.4	27
123	Intermittent Simulated Moving Bed Processes for Chromatographic Three-Fraction Separation. <i>Organic Process Research and Development</i> , 2012 , 16, 311-322	3.9	27
122	Antisolvent Precipitation of PDI 747:□Kinetics of Particle Formation and Growth. <i>Crystal Growth and Design</i> , 2007 , 7, 1653-1661	3.5	27
121	Agglomeration of Needle-like Crystals in Suspension: I. Measurements. <i>Crystal Growth and Design</i> , 2015 , 15, 1923-1933	3.5	25

120	A low-energy chilled ammonia process exploiting controlled solid formation for post-combustion CO capture. <i>Faraday Discussions</i> , 2016 , 192, 59-83	3.6	25
119	Agglomeration of Needle-like Crystals in Suspension. II. Modeling. <i>Crystal Growth and Design</i> , 2015 , 15, 4296-4310	3.5	23
118	On the Effect of Initial Conditions in Viedma Ripening. <i>Crystal Growth and Design</i> , 2014 , 14, 2488-2493	3.5	21
117	An Experimental and Modeling Study of the Adsorption Equilibrium and Dynamics of Water Vapor on Activated Carbon. <i>Industrial & Engineering Chemistry Research</i> , 2015 , 54, 12165-12176	3.9	21
116	Optimizing control of an experimental simulated moving bed unit. <i>AIChE Journal</i> , 2006 , 52, 1481-1494	3.6	21
115	Role of Carbon Capture, Storage, and Utilization to Enable a Net-Zero-CO ₂ -Emissions Aviation Sector. <i>Industrial & Engineering Chemistry Research</i> , 2021 , 60, 6848-6862	3.9	21
114	Population-Based Mathematical Model of Solid-State Deracemization via Temperature Cycles. <i>Crystal Growth and Design</i> , 2018 , 18, 7122-7131	3.5	21
113	Statistical Analysis of Series of Detection Time Measurements for the Estimation of Nucleation Rates. <i>Crystal Growth and Design</i> , 2017 , 17, 5488-5498	3.5	20
112	Estimating speciation of aqueous ammonia solutions of ammonium bicarbonate: application of least squares methods to infrared spectra. <i>Reaction Chemistry and Engineering</i> , 2019 , 4, 1284-1302	4.9	19
111	Modeling water vapor adsorption/desorption cycles. <i>Adsorption</i> , 2014 , 20, 359-371	2.6	19
110	Estimating Crystal Growth Rates Using in situ ATR-FTIR and Raman Spectroscopy in a Calibration-Free Manner. <i>Industrial & Engineering Chemistry Research</i> , 2009 , 48, 10740-10745	3.9	19
109	Design of Simulated-Moving-Bed Chromatography with Enriched Extract Operation (EE-SMB): Langmuir Isotherms. <i>Industrial & Engineering Chemistry Research</i> , 2006 , 45, 6289-6301	3.9	19
108	Assessment of carbon dioxide removal potential via BECCS in a carbon-neutral Europe. <i>Energy and Environmental Science</i> , 2021 , 14, 3086-3097	35.4	19
107	Solid state deracemisation through growth, dissolution and solution-phase racemisation. <i>CrystEngComm</i> , 2013 , 15, 2319	3.3	18
106	Determination of the Dimerization Equilibrium Constants of Omeprazole and Pirkle's Alcohol through Optical-Rotation Measurements. <i>Helvetica Chimica Acta</i> , 2004 , 87, 1917-1926	2	18
105	Enabling low-carbon hydrogen supply chains through use of biomass and carbon capture and storage: A Swiss case study. <i>Applied Energy</i> , 2020 , 275, 115245	10.7	18
104	Novel Adsorption Process for Co-Production of Hydrogen and CO ₂ from a Multicomponent Stream. <i>Industrial & Engineering Chemistry Research</i> , 2019 , 58, 17489-17506	3.9	17
103	Effect of needle-like crystal shape on measured particle size distributions. <i>AIChE Journal</i> , 2016 , 62, 2974-2985	3.2	17

102	Local Equilibrium Theory for the Binary Chromatography of Species Subject to a Generalized Langmuir Isotherm. 2. Wave Interactions and Chromatographic Cycle. <i>Industrial & Engineering Chemistry Research</i> , 2011 , 50, 352-377	3.9	17
101	Crystallization Process Design Using Thermodynamics To Avoid Oiling Out in a Mixture of Vanillin and Water. <i>Crystal Growth and Design</i> , 2014 , 14, 5617-5625	3.5	16
100	Modeling of circulating fluidized beds systems for post-combustion CO ₂ capture via temperature swing adsorption. <i>AIChE Journal</i> , 2018 , 64, 1744-1759	3.6	16
99	Feedback Control for the Size and Shape Evolution of Needle-like Crystals in Suspension. I. Concepts and Simulation Studies. <i>Crystal Growth and Design</i> , 2018 , 18, 4470-4483	3.5	16
98	Influence of Liquid-Liquid Phase Separation on the Crystallization of L-Menthol from Water. <i>Chemical Engineering and Technology</i> , 2017 , 40, 1339-1346	2	15
97	MO-MCS, a Derivative-Free Algorithm for the Multiobjective Optimization of Adsorption Processes. <i>Industrial & Engineering Chemistry Research</i> , 2018 , 57, 9977-9993	3.9	15
96	Three column intermittent simulated moving bed chromatography: 1. Process description and comparative assessment. <i>Journal of Chromatography A</i> , 2014 , 1361, 125-38	4.5	14
95	Three column intermittent simulated moving bed chromatography: 3. Cascade operation for center-cut separations. <i>Journal of Chromatography A</i> , 2015 , 1378, 37-49	4.5	14
94	Phase Diagram of a Chiral Substance Exhibiting Oiling Out. 2. Racemic Compound Forming Ibuprofen in Water. <i>Crystal Growth and Design</i> , 2012 , 12, 5298-5310	3.5	14
93	High Pressure Homogenization as a Novel Approach for the Preparation of Co-Crystals. <i>Crystal Growth and Design</i> , 2013 , 13, 2013-2024	3.5	14
92	Prediction of competitive adsorption on coal by a lattice DFT model. <i>Adsorption</i> , 2010 , 16, 37-46	2.6	14
91	Life Cycle Assessment of Direct Air Carbon Capture and Storage with Low-Carbon Energy Sources. <i>Environmental Science & Technology</i> , 2021 ,	10.3	14
90	Solubility and Growth Kinetics of Ammonium Bicarbonate in Aqueous Solution. <i>Crystal Growth and Design</i> , 2017 , 17, 3048-3054	3.5	13
89	CO ₂ Capture from a Binary CO ₂ /N ₂ and a Ternary CO ₂ /N ₂ /H ₂ Mixture by PSA: Experiments and Predictions. <i>Industrial & Engineering Chemistry Research</i> , 2015 , 54, 6035-6045	3.9	13
88	Equilibrium Theory Analysis of a Binary Chromatographic System Subject to a Mixed Generalized Bi-Langmuir Isotherm. <i>Industrial & Engineering Chemistry Research</i> , 2015 , 54, 11420-11437	3.9	13
87	Perspective on the hydrogen economy as a pathway to reach net-zero CO ₂ emissions in Europe. <i>Energy and Environmental Science</i> ,	35.4	13
86	Tuning the Particle Sizes in Spherical Agglomeration. <i>Crystal Growth and Design</i> , 2018 , 18, 6257-6265	3.5	13
85	Feedback Control for the Size and Shape Evolution of Needle-like Crystals in Suspension. II. Cooling Crystallization Experiments. <i>Crystal Growth and Design</i> , 2018 , 18, 6185-6196	3.5	13

84	Modeling the extra-column volume in a small column setup for bulk gas adsorption. <i>Adsorption</i> , 2012 , 18, 381-393	2.6	12
83	Near-critical adsorption of CO ₂ on 13X zeolite and N ₂ O on silica gel: lack of evidence of critical phenomena. <i>Adsorption</i> , 2008 , 14, 133-141	2.6	12
82	Experimental Characterization and Mathematical Modeling of Breakage of Needle-like Crystals in a Continuous Rotor-Stator Wet Mill. <i>Crystal Growth and Design</i> , 2018 , 18, 5957-5972	3.5	12
81	Effect of Initial Conditions on Solid-State Deracemization via Temperature Cycles: A Model-Based Study. <i>Crystal Growth and Design</i> , 2019 , 19, 6552-6559	3.5	11
80	Feedback Control for the Size and Shape Evolution of Needle-like Crystals in Suspension. III. Wet Milling. <i>Crystal Growth and Design</i> , 2019 , 19, 2845-2861	3.5	11
79	Three-column intermittent simulated moving bed chromatography: 2. Experimental implementation for the separation of Tröger's Base. <i>Journal of Chromatography A</i> , 2014 , 1364, 107-16	4.5	11
78	Solubility of β -carotene in poly-(ϵ -caprolactone) particles produced in colloidal state by Supercritical Fluid Extraction of Emulsions (SFEE). <i>Journal of Supercritical Fluids</i> , 2013 , 84, 105-112	4.2	11
77	Design of Crystallization Processes for the Resolution of Conglomerate-Forming Chiral Compounds Exhibiting Oiling Out. <i>Organic Process Research and Development</i> , 2012 , 16, 294-310	3.9	11
76	Sorption and Swelling of Poly(D,L-lactic acid) and Poly(lactic-co-glycolic acid) in Supercritical CO ₂ . <i>Macromolecular Symposia</i> , 2007 , 259, 197-202	0.8	11
75	Combinatorial Strategy for Studying Biochemical Pathways in Double Emulsion Templated Cell-Sized Compartments. <i>Advanced Materials</i> , 2020 , 32, e2004804	24	11
74	110th Anniversary: Evaluation of CO ₂ -Based and CO ₂ -Free Synthetic Fuel Systems Using a Net-Zero-CO ₂ -Emission Framework. <i>Industrial & Engineering Chemistry Research</i> , 2019 , 58, 19958-19972	3.9	10
73	Growth Kinetics of S-Mandelic Acid in Aqueous Solutions in the Presence of R-Mandelic Acid. <i>Crystal Growth and Design</i> , 2013 , 13, 652-663	3.5	10
72	Optimizing control of simulated moving bed separations of mixtures subject to the generalized Langmuir isotherm. <i>Adsorption</i> , 2008 , 14, 423-432	2.6	10
71	Population Balance Modeling of Growth and Secondary Nucleation by Attrition and Ripening. <i>Crystal Growth and Design</i> , 2020 , 20, 307-319	3.5	10
70	Analysis of direct capture of (CO) ₂ from ambient air via steam-assisted temperature vacuum swing adsorption. <i>Adsorption</i> , 2020 , 26, 1183-1197	2.6	10
69	Hydrogen from wood gasification with CCS: techno-environmental analysis of production and use as transport fuel. <i>Sustainable Energy and Fuels</i> , 2021 , 5, 2602-2621	5.8	10
68	Naphthalene crystal shape prediction from molecular dynamics simulations. <i>CrystEngComm</i> , 2019 , 21, 3280-3288	3.3	9
67	Study of the Preparation of Amorphous Itraconazole Formulations. <i>Crystal Growth and Design</i> , 2015 , 15, 2686-2694	3.5	9

66	Novel Adsorption Process for Co-Production of Hydrogen and CO ₂ from a Multicomponent Stream Part 2: Application to Steam Methane Reforming and Autothermal Reforming Gases. <i>Industrial & Engineering Chemistry Research</i> , 2020 , 59, 10093-10109	3.9	9
65	An Alternative Approach to Estimate Solute Concentration: Exploiting the Information Embedded in the Solid Phase. <i>Journal of Physical Chemistry Letters</i> , 2018 , 9, 4210-4214	6.4	9
64	Feedback Control for the Size and Shape Evolution of Needle-like Crystals in Suspension. IV. Modeling and Control of Dissolution. <i>Crystal Growth and Design</i> , 2019 , 19, 4029-4043	3.5	9
63	Adsorption for efficient low carbon hydrogen production: part 1 Adsorption equilibrium and breakthrough studies for H ₂ /CO ₂ /CH ₄ on zeolite 13X. <i>Adsorption</i> , 2021 , 27, 541-558	2.6	9
62	Manipulation of Particle Morphology by Crystallization, Milling, and Heating Cycles: Experimental Characterization. <i>Industrial & Engineering Chemistry Research</i> , 2018 ,	3.9	9
61	Estimation of the Growth and the Dissolution Kinetics of Ammonium Bicarbonate in Aqueous Ammonia Solutions from Batch Crystallization Experiments. <i>Crystal Growth and Design</i> , 2019 , 19, 5907-5922	3.5	8
60	A Stochastic Population Balance Equation Model for Nucleation and Growth of Crystals with Multiple Polymorphs. <i>Crystal Growth and Design</i> , 2019 , 19, 4698-4709	3.5	8
59	Multi-Objective Path Planning for Single Crystal Size and Shape Modification. <i>Crystal Growth and Design</i> , 2017 , 17, 4873-4886	3.5	8
58	1,3,5-tris(4-bromophenyl)-benzene Nucleation: From Dimers to Needle-like Clusters. <i>Crystal Growth and Design</i> , 2017 , 17, 4137-4143	3.5	7
57	Study of Secondary Nucleation by Attrition of Potassium Alum Crystals Suspended in Different Solvents. <i>Crystal Growth and Design</i> , 2020 , 20, 2570-2577	3.5	7
56	Process Synthesis, Modeling and Optimization of Continuous Cooling Crystallization with Heat Integration Application to the Chilled Ammonia CO ₂ Capture Process. <i>Industrial & Engineering Chemistry Research</i> , 2018 , 57, 11712-11727	3.9	7
55	Prediction of non-isothermal ternary gas-phase breakthrough experiments based on binary data. <i>Adsorption</i> , 2014 , 20, 493-510	2.6	7
54	Performance Analysis and Model-Free Design of Deracemization via Temperature Cycles. <i>Organic Process Research and Development</i> , 2020 , 24, 1515-1522	3.9	7
53	Postcombustion CO ₂ Capture: A Comparative Techno-Economic Assessment of Three Technologies Using a Solvent, an Adsorbent, and a Membrane. <i>ACS Engineering Au</i> ,		7
52	MO-MCS: An Efficient Multi-objective Optimization Algorithm for the Optimization of Temperature/Pressure Swing Adsorption Cycles. <i>Computer Aided Chemical Engineering</i> , 2016 , 38, 1467-1472	0.6	7
51	Growth Kinetics of Synthetic Hydromagnesite at 90 °C. <i>Crystal Growth and Design</i> , 2017 , 17, 317-327	3.5	6
50	On the optimal design of forward osmosis desalination systems with NH ₃ /CO ₂ /H ₂ O solutions. <i>Environmental Science: Water Research and Technology</i> , 2017 , 3, 811-829	4.2	6
49	A MILP model for the design of multi-energy systems with long-term energy storage. <i>Computer Aided Chemical Engineering</i> , 2017 , 40, 2437-2442	0.6	6

48	Absence of experimental evidence of a delta-shock in the system phenetole and 4-tert-butylphenol on Zorbax 300SB-C18. <i>Journal of Chromatography A</i> , 2015 , 1425, 116-28	4.5	6
47	Equilibrium theory analysis of liquid chromatography with non-constant velocity. <i>Journal of Chromatography A</i> , 2014 , 1373, 131-40	4.5	6
46	Near-stoichiometric O2 binding on metal centers in Co(salen) nanoparticles. <i>AIChE Journal</i> , 2009 , 55, 1040-1045	3.6	5
45	Secondary Nucleation by Interparticle Energies. I. Thermodynamics. <i>Crystal Growth and Design</i> ,	3.5	5
44	Modeling for optimal operation of PEM fuel cells and electrolyzers 2016 ,		5
43	Postcombustion CO2 Capture from Wet Flue Gas by Temperature Swing Adsorption. <i>Industrial & Engineering Chemistry Research</i> , 2018 ,	3.9	5
42	Characterization of shapes and volumes of droplets generated in PDMS T-junctions to study nucleation. <i>Chemical Engineering Research and Design</i> , 2018 , 138, 444-457	5.5	5
41	Advanced configurations for post-combustion CO2 capture processes using an aqueous ammonia solution as absorbent. <i>Separation and Purification Technology</i> , 2021 , 274, 118959	8.3	5
40	Statistical Analysis and Nucleation Parameter Estimation from Nucleation Experiments in Flowing Microdroplets. <i>Crystal Growth and Design</i> , 2019 , 19, 6159-6174	3.5	4
39	Two-Phase Flow in Liquid Chromatography, Part 2: Modeling. <i>Industrial & Engineering Chemistry Research</i> , 2018 , 57, 3292-3307	3.9	4
38	Description of Adsorption in Liquid Chromatography under Nonideal Conditions. <i>Langmuir</i> , 2018 , 34, 5655-5671	4	4
37	Interconversion and chromatographic separation of carbohydrate stereoisomers on polystyrene-divinylbenzene resins. <i>Journal of Chromatography A</i> , 2017 , 1517, 54-65	4.5	4
36	Optimizing control of an experimental simulated moving bed unit. <i>AIChE Journal</i> , 2006 , 52, 1481	3.6	4
35	Secondary Nucleation by Interparticle Energies. II. Kinetics.. <i>Crystal Growth and Design</i> , 2022 , 22, 74-86	3.5	4
34	Optimization of low-carbon multi-energy systems with seasonal geothermal energy storage: The Energy Grid of ETH Zurich. <i>Energy Conversion and Management: X</i> , 2020 , 8, 100052	2.5	4
33	Adsorption for efficient low carbon hydrogen production: part 2 Cyclic experiments and model predictions. <i>Adsorption</i> , 2021 , 27, 559-575	2.6	4
32	Solubility Prediction of Organic Molecules with Molecular Dynamics Simulations. <i>Crystal Growth and Design</i> , 2021 , 21, 5198-5205	3.5	4
31	Two-Phase Flow in Liquid Chromatography, Part 1: Experimental Investigation and Theoretical Description. <i>Industrial & Engineering Chemistry Research</i> , 2018 , 57, 3274-3291	3.9	3

30	Occurrence of a delta-shock in non-linear chromatography. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2007 , 7, 2040073-2040074	0.2	3
29	Characterizing Ensembles of Platelike Particles via Machine Learning. <i>Industrial & Engineering Chemistry Research</i> , 2021 , 60, 473-483	3.9	3
28	A methodology for the heuristic optimization of solvent-based CO ₂ capture processes when applied to new flue gas compositions: A case study of the Chilled Ammonia Process for capture in cement plants. <i>Chemical Engineering Science: X</i> , 2020 , 8, 100074	1.1	3
27	Optimizing the Yield of a Pure Enantiomer by Integrating Chiral SMB Chromatography and Racemization. Part 1: Experiments. <i>Industrial & Engineering Chemistry Research</i> , 2021 , 60, 10710-10739	3.9	3
26	Rigorous rate-based model for CO ₂ capture via monoethanolamine-based solutions: effect of kinetic models, mass transfer, and holdup correlations on prediction accuracy. <i>Separation Science and Technology</i> , 2021 , 56, 1491-1509	2.5	3
25	A Time-series-based approach for robust design of multi-energy systems with energy storage. <i>Computer Aided Chemical Engineering</i> , 2018 , 43, 525-530	0.6	2
24	Characterization of a vibromixer: Experimental and modelling study of mixing in a batch reactor. <i>Chemical Engineering Research and Design</i> , 2018 , 137, 534-543	5.5	2
23	Solid-State Deracemization via Temperature Cycles in Continuous Operation: Model-Based Process Design.. <i>Crystal Growth and Design</i> , 2022 , 22, 1846-1856	3.5	2
22	IDENTIFICATION AND PREDICTIVE CONTROL OF A SIMULATED MOVING BED PROCESS 2003 ,		2
21	Deracemization via Periodic and Non-periodic Temperature Cycles: Rationalization and Experimental Validation of a Simplified Process Design Approach. <i>Organic Process Research and Development</i> , 2021 , 25, 2551-2565	3.9	2
20	A Stochastic Shelf-Scale Modeling Framework for the Freezing Stage in Freeze-Drying Processes. <i>International Journal of Pharmaceutics</i> , 2021 , 121276	6.5	2
19	Optimizing the Yield of a Pure Enantiomer by Integrating Chiral SMB Chromatography and Racemization. Part 2: Theory. <i>Industrial & Engineering Chemistry Research</i> , 2021 , 60, 10720-10735	3.9	2
18	Fully amorphous atactic and isotactic block copolymers and their self-assembly into nano- and microscopic vesicles. <i>Polymer Chemistry</i> , 2021 , 12, 5377-5389	4.9	2
17	Giant Polymer Compartments for Confined Reactions. <i>Chemistry</i> , 2020 , 2, 470-489	2.1	1
16	Estimation of the Growth and Dissolution Kinetics of Ammonium Bicarbonate in Aqueous Ammonia Solutions from Batch Crystallization Experiments. 2. The Effect of Sulfate Impurity. <i>Crystal Growth and Design</i> , 2020 , 20, 948-963	3.5	1
15	ATR-FTIR Spectroscopy 2012 , 81-91		1
14	Multi-rate optimizing control of simulated moving beds 2008 ,		1
13	Techno-economic assessment of post-combustion CO ₂ capture using aqueous piperazine at different flue gas compositions and flowrates via a general optimization methodology. <i>International Journal of Greenhouse Gas Control</i> , 2022 , 114, 103587	4.2	1

12	Crystallization-Induced Deracemization: Experiments and Modeling.. <i>Crystal Growth and Design</i> , 2022 , 22, 1427-1436	3.5	1
11	A Selective Dissolution Process Featuring a Classification Device for the Removal of Fines in Crystallization. <i>Industrial & Engineering Chemistry Research</i> , 2021 , 60, 614-628	3.9	1
10	Density and Viscosity of Aqueous (Ammonia + Carbon Dioxide) Solutions at Atmospheric Pressure and Temperatures between 278.15 and 318.15 K. <i>Journal of Chemical & Engineering Data</i> , 2021 , 66, 1787-1801	2.8	1
9	Nucleation 2018 , 261-283		1
8	Focused Beam Reflectance Measurement 21-28		1
7	Accounting for the Presence of Molecular Clusters in Modeling and Interpreting Nucleation and Growth.. <i>Crystal Growth and Design</i> , 2022 , 22, 661-672	3.5	1
6	Crystallization Process Modeling 2018 , 285-304		0
5	Carbon dioxide capture, transport and storage supply chains: Optimal economic and environmental performance of infrastructure rollout. <i>International Journal of Greenhouse Gas Control</i> , 2022 , 117, 103633	4.2	0
4	Theoretical Evaluation of Two-Phase Flow in a Chromatographic Reactor. <i>Industrial & Engineering Chemistry Research</i> , 2018 , 57, 5639-5652	3.9	
3	On-line optimizing control of the intermittent simulated moving bed process. <i>Adsorption</i> , 2014 , 20, 109-119		1
2	Correction to "Two-Phase Flow in Liquid Chromatography, Part 1: Experimental Investigation and Theoretical Description" <i>Industrial & Engineering Chemistry Research</i> , 2018 , 57, 5195-5195	3.9	
1	A two-step carbon pricing scheme enabling a net-zero and net-negative CO ₂ -emissions world. <i>Climatic Change</i> , 2022 , 171, 1	4.5	