Ryan P Lively

List of Publications by Year
in descending order

154 papers	11,778 citations	38660 50 h-index	29081 104 g-index
159 all docs	159 docs citations	159 times ranked	9818 citing authors

#	Article	IF	Citations
1	Seven chemical separations to change the world. Nature, 2016, 532, 435-437.	13.7	2,758
2	Unexpected Molecular Sieving Properties of Zeolitic Imidazolate Framework-8. Journal of Physical Chemistry Letters, 2012, 3, 2130-2134.	2.1	530
3	From water to organics in membrane separations. Nature Materials, 2017, 16, 276-279.	13.3	358
4	Defects in Metalâ€“Organic Frameworks: Challenge or Opportunity?. Journal of Physical Chemistry Letters, 2015, 6, 3437-3444.	2.1	290
5	Alcohol and water adsorption in zeolitic imidazolate frameworks. Chemical Communications, 2013, 49, 3245.	2.2	278
6	Exploring the Framework Hydrophobicity and Flexibility of ZIF-8: From Biofuel Recovery to Hydrocarbon Separations. Journal of Physical Chemistry Letters, 2013, 4, 3618-3622.	2.1	277
7	Synthesisâ€“Structureâ€“Property Relationships for Hyperbranched Aminosilica CO₂ Adsorbents. Advanced Functional Materials, 2009, 19, 3821-3832.	7.8	263
8	Zeolitic Imidazolate Frameworks: Nextâ€Generation Materials for Energyâ€Efficient Gas Separations. ChemSusChem, 2014, 7, 3202-3240.	3.6	235
9	SO_x/NO_x Removal from Flue Gas Streams by Solid Adsorbents: A Review of Current Challenges and Future Directions. Energy & Fuels, 2015, 29, 5467-5486.	2.5	213
10	Reverse osmosis molecular differentiation of organic liquids using carbon molecular sieve membranes. Science, 2016, 353, 804-807.	6.0	207
11	Hybrid Zeolitic Imidazolate Frameworks: Controlling Framework Porosity and Functionality by Mixed-Linker Synthesis. Chemistry of Materials, 2012, 24, 1930-1936.	3.2	200
12	The Effect of Multiple Substituents on Sandwich and T-Shaped Ï€â€“Ï€ Interactions. Chemistry - A European Journal, 2006, 12, 3821-3828.	1.7	197
13	Highly Tunable Molecular Sieving and Adsorption Properties of Mixed-Linker Zeolitic Imidazolate Frameworks. Journal of the American Chemical Society, 2015, 137, 4191-4197.	6.6	192
14	Hollow Fiber Adsorbents for CO₂ Removal from Flue Gas. Industrial & Engineering Chemistry Research, 2009, 48, 7314-7324.	1.8	172
15	Adsorption of Water and Ethanol in MFI-Type Zeolites. Langmuir, 2012, 28, 8664-8673.	1.6	161
16	Investigating the Intrinsic Ethanol/Water Separation Capability of ZIF-8: An Adsorption and Diffusion Study. Journal of Physical Chemistry C, 2013, 117, 7214-7225.	1.5	153
17	Water and beyond: Expanding the spectrum of largeâ€scale energy efficient separation processes. AICHE Journal, 2012, 58, 2624-2633.	1.8	151
18	Crystal-Size-Dependent Structural Transitions in Nanoporous Crystals: Adsorption-Induced Transitions in ZIF-8. Journal of Physical Chemistry C, 2014, 118, 20727-20733.	1.5	145

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19	N -Arylâ€“linked spirocyclic polymers for membrane separations of complex hydrocarbon mixtures. Science, 2020, 369, 310-315.	6.0	139
20	Direct CO₂ Capture from Air using Poly(ethylenimine)-Loaded Polymer/Silica Fiber Sorbents. ACS Sustainable Chemistry and Engineering, 2019, 7, 5264-5273.	3.2	131
21	Aminosilane-Grafted Polymer/Silica Hollow Fiber Adsorbents for CO₂ Capture from Flue Gas. ACS Applied Materials & Interfaces, 2013, 5, 3921-3931.	4.0	127
22	Facet-Specific Stability of ZIF-8 in the Presence of Acid Gases Dissolved in Aqueous Solutions. Chemistry of Materials, 2016, 28, 6960-6967.	3.2	127
23	Tunable CO₂ Adsorbents by Mixed-Linker Synthesis and Postsynthetic Modification of Zeolitic Imidazolate Frameworks. Journal of Physical Chemistry C, 2013, 117, 8198-8207.	1.5	123
24	Interactions of SO₂-Containing Acid Gases with ZIF-8: Structural Changes and Mechanistic Investigations. Journal of Physical Chemistry C, 2016, 120, 27221-27229.	1.5	115
25	Design of Aminopolymer Structure to Enhance Performance and Stability of CO₂ Sorbents: Poly(propylenimine) vs Poly(ethylenimine). Journal of the American Chemical Society, 2017, 139, 3627-3630.	6.6	115
26	Vapor Phase Infiltration of Metal Oxides into Nanoporous Polymers for Organic Solvent Separation Membranes. Chemistry of Materials, 2019, 31, 5509-5518.	3.2	109
27	Ethanol and water adsorption in methanol-derived ZIF-71. Chemical Communications, 2011, 47, 8667.	2.2	97
28	Defect-free PIM-1 hollow fiber membranes. Journal of Membrane Science, 2017, 530, 33-41.	4.1	97
29	Enabling Low-Cost CO₂ Capture via Heat Integration. Industrial & Engineering Chemistry Research, 2010, 49, 7550-7562.	1.8	96
30	Targeted gas separations through polymer membrane functionalization. Reactive and Functional Polymers, 2015, 86, 88-110.	2.0	86
31	Molecularly Mixed Composite Membranes for Advanced Separation Processes. Angewandte Chemie - International Edition, 2019, 58, 2638-2643.	7.2	86
32	How Reproducible are Surface Areas Calculated from the BET Equation?. Advanced Materials, 2022, 34, .	11.1	82
33	Post-spinning infusion of poly(ethyleneimine) into polymer/silica hollow fiber sorbents for carbon dioxide capture. Chemical Engineering Journal, 2013, 221, 166-175.	6.6	81
34	Synergistic Effects of Water and SO₂ on Degradation of MIL-125 in the Presence of Acid Gases. Journal of Physical Chemistry C, 2016, 120, 27230-27240.	1.5	79
35	Free-standing ZIF-71/PDMS nanocomposite membranes for the recovery of ethanol and 1-butanol from water through pervaporation. Journal of Membrane Science, 2017, 529, 286-292.	4.1	75
36	Creation of Wellâ€Ðefined â€œMidâ€Sizedâ€•Micropores in Carbon Molecular Sieve Membranes. Angewandte Chemie - International Edition, 2019, 58, 13259-13265.	7.2	75

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37	Effect of Nonsolvent Treatments on the Microstructure of PIM-1. Macromolecules, 2015, 48, 5780-5790.	2.2	74
38	Heat-Treatment of Defective UiO-66 from Modulated Synthesis: Adsorption and Stability Studies. Journal of Physical Chemistry C, 2017, 121, 23471-23479.	1.5	73
39	Oxidativelyâ€Stable Linear Poly(propylenimine)â€Containing Adsorbents for CO₂ Capture from Ultradilute Streams. ChemSusChem, 2018, 11, 2628-2637.	3.6	72
40	A high-flux polyimide hollow fiber membrane to minimize footprint and energy penalty for CO2 recovery from flue gas. Journal of Membrane Science, 2012, 423-424, 302-313.	4.1	67
41	Evaluation of CO2 adsorption dynamics of polymer/silica supported poly(ethylenimine) hollow fiber sorbents in rapid temperature swing adsorption. International Journal of Greenhouse Gas Control, 2014, 21, 61-71.	2.3	62
42	Sub-Ambient Temperature Direct Air Capture of CO₂ using Amine-Impregnated MIL-101(Cr) Enables Ambient Temperature CO₂ Recovery. Jacs Au, 2022, 2, 380-393.	3.6	62
43	Dynamic CO₂ adsorption performance of internally cooled silicaâ€supported poly(ethylenimine) hollow fiber sorbents. AICHE Journal, 2014, 60, 3878-3887.	1.8	61
44	PIM-1 as a Solution-Processable â€œMolecular Basketâ€• for CO₂ Capture from Dilute Sources. ACS Macro Letters, 2015, 4, 1415-1419.	2.3	60
45	TorlonÂ® hollow fiber membranes for organic solvent reverse osmosis separation of complex aromatic hydrocarbon mixtures. AICHE Journal, 2019, 65, e16757.	1.8	60
46	On thermodynamic separation efficiency: Adsorption processes. AICHE Journal, 2016, 62, 3699-3705.	1.8	59
47	Poly(amide-imide)/Silica Supported PEI Hollow Fiber Sorbents for Postcombustion CO₂ Capture by RTSA. ACS Applied Materials & Interfaces, 2014, 6, 19336-19346.	4.0	57
48	Modeling of rapid temperature swing adsorption using hollow fiber sorbents. Chemical Engineering Science, 2014, 113, 62-76.	1.9	57
49	Hollow fiber adsorbents for CO2 capture: Kinetic sorption performance. Chemical Engineering Journal, 2011, 171, 801-810.	6.6	56
50	Probing Metalâ€“Organic Framework Design for Adsorptive Natural Gas Purification. Langmuir, 2018, 34, 8443-8450.	1.6	56
51	An Immobilizedâ€Dirhodium Hollowâ€Fiber Flow Reactor for Scalable and Sustainable Câ^'H Functionalization in Continuous Flow. Angewandte Chemie - International Edition, 2018, 57, 10923-10927.	7.2	52
52	How Well Do Approximate Models of Adsorption-Based CO₂ Capture Processes Predict Results of Detailed Process Models?. Industrial & Engineering Chemistry Research, 2020, 59, 7097-7108.	1.8	51
53	Composite Polymer/Oxide Hollow Fiber Contactors: Versatile and Scalable Flow Reactors for Heterogeneous Catalytic Reactions in Organic Synthesis. Angewandte Chemie - International Edition, 2015, 54, 6470-6474.	7.2	50
54	Enabling Widespread Use of Microporous Materials for Challenging Organic Solvent Separations. Chemistry of Materials, 2017, 29, 9863-9876.	3.2	50

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55	Membranes at the limit. Nature Nanotechnology, 2015, 10, 385-386.	15.6	48
56	CO2 sorption and desorption performance of thermally cycled hollow fiber sorbents. International Journal of Greenhouse Gas Control, 2012, 10, 285-294.	2.3	47
57	Evidence for entropic diffusion selection of xylene isomers in carbon molecular sieve membranes. Journal of Membrane Science, 2018, 564, 404-414.	4.1	45
58	Stability of amine-based hollow fiber CO2 adsorbents in the presence of NO and SO2. Fuel, 2015, 160, 153-164.	3.4	44
59	Enabling Kinetic Light Hydrocarbon Separation via Crystal Size Engineering of ZIF-8. Industrial & Engineering Chemistry Research, 2016, 55, 12467-12476.	1.8	44
60	Establishing upper bounds on CO₂ swing capacity in sub-ambient pressure swing adsorption via molecular simulation of metalâ€“organic frameworks. Journal of Materials Chemistry A, 2017, 5, 12258-12265.	5.2	44
61	Formation Mechanisms and Defect Engineering of Imine-Based Porous Organic Cages. Chemistry of Materials, 2018, 30, 262-272.	3.2	44
62	Tuning the Structures of Metalâ€“Organic Frameworks via a Mixed-Linker Strategy for Ethylene/Ethane Kinetic Separation. Chemistry of Materials, 2020, 32, 3715-3722.	3.2	44
63	Polyethyleneimineâ€Functionalized Polyamide Imide (Torlon) Hollowâ€Fiber Sorbents for Postâ€Combustion CO₂ Capture. ChemSusChem, 2013, 6, 1216-1223.	3.6	42
64	Critical Comparison of Structured Contactors for Adsorption-Based Gas Separations. Annual Review of Chemical and Biomolecular Engineering, 2018, 9, 129-152.	3.3	42
65	Relationship between mixed and pure gas self-diffusion for ethane and ethene in ZIF-8/6FDA-DAM mixed-matrix membrane by pulsed field gradient NMR. Journal of Membrane Science, 2016, 499, 12-19.	4.1	41
66	Thermally moderated hollow fiber sorbent modules in rapidly cycled pressure swing adsorption mode for hydrogen purification. International Journal of Hydrogen Energy, 2012, 37, 15227-15240.	3.8	40
67	Solutionâ€Based 3D Printing of Polymers of Intrinsic Microporosity. Macromolecular Rapid Communications, 2018, 39, e1800274.	2.0	40
68	Research needs targeting direct air capture of carbon dioxide: Material & process performance characteristics under realistic environmental conditions. Korean Journal of Chemical Engineering, 2022, 39, 1-19.	1.2	40
69	A critical review and commentary on recent progress of additive manufacturing and its impact on membrane technology. Journal of Membrane Science, 2022, 645, 120041.	4.1	38
70	Stability of Zeolitic Imidazolate Frameworks in NO₂. Journal of Physical Chemistry C, 2019, 123, 2336-2346.	1.5	35
71	Molecularly Mixed Composite Membranes: Challenges and Opportunities. Chemistry - A European Journal, 2020, 26, 3464-3473.	1.7	35
72	Enhanced cryogenic CO2 capture using dynamically operated low-cost fiber beds. Chemical Engineering Science, 2012, 71, 97-103.	1.9	34

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73	Cost and Energy Savings Using an Optimal Design of Reverse Osmosis Membrane Pretreatment for Dilute Bioethanol Purification. Industrial & Engineering Chemistry Research, 2013, 52, 11132-11141.	1.8	34
74	Zeolitic Imidazolate Framework Membranes Supported on Macroporous Carbon Hollow Fibers by Fluidic Processing Techniques. Advanced Materials Interfaces, 2017, 4, 1700080.	1.9	34
75	Relationship between long-range diffusion and diffusion in the ZIF-8 and polymer phases of a mixed-matrix membrane by high field NMR diffusometry. Journal of Membrane Science, 2015, 477, 123-130.	4.1	32
76	Exemplar Mixtures for Studying Complex Mixture Effects in Practical Chemical Separations. Jacs Au, 2022, 2, 322-327.	3.6	32
77	Modeling and experimental validation of carbon dioxide sorption on hollow fibers loaded with silica-supported poly(ethylenimine). Chemical Engineering Journal, 2015, 259, 737-751.	6.6	31
78	Engineering Porous Organic Cage Crystals with Increased Acid Gas Resistance. Chemistry - A European Journal, 2016, 22, 10743-10747.	1.7	31
79	CO₂ Sorption Performance of Composite Polymer/Aminosilica Hollow Fiber Sorbents: An Experimental and Modeling Study. Industrial & Engineering Chemistry Research, 2015, 54, 1783-1795.	1.8	30
80	Synthesis of Water-Sensitive Metalâ€“Organic Frameworks within Fiber Sorbent Modules. Industrial & Engineering Chemistry Research, 2017, 56, 5070-5077.	1.8	30
81	Influence of Hydrogen Sulfide Exposure on the Transport and Structural Properties of the Metalâ€“Organic Framework ZIF-8. Journal of Physical Chemistry C, 2018, 122, 7278-7287.	1.5	30
82	Creation of Wellâ€Defined â€œMidâ€Sizedâ€•Micropores in Carbon Molecular Sieve Membranes. Angewandte Chemie, 2019, 131, 13393-13399.	1.6	30
83	Molecularly Mixed Composite Membranes for Advanced Separation Processes. Angewandte Chemie, 2019, 131, 2664-2669.	1.6	29
84	A Selfâ€Consistent Model for Sorption and Transport in Polyimideâ€Derived Carbon Molecular Sieve Gas Separation Membranes. Angewandte Chemie - International Edition, 2020, 59, 20343-20347.	7.2	29
85	Polymer genomeâ€“based prediction of gas permeabilities in polymers. Journal of Polymer Engineering, 2020, 40, 451-457.	0.6	28
86	Formation of Defect-Free Latex Films on Porous Fiber Supports. ACS Applied Materials & Interfaces, 2011, 3, 3568-3582.	4.0	26
87	Bayesian estimation of parametric uncertainties, quantification and reduction using optimal design of experiments for CO2 adsorption on amine sorbents. Computers and Chemical Engineering, 2015, 81, 376-388.	2.0	26
88	Incorporation of Phase Change Materials into Fibers for Sustainable Thermal Energy Storage. Industrial & Engineering Chemistry Research, 2021, 60, 3374-3384.	1.8	25
89	The refinery of today, tomorrow, and the future: A separations perspective. AICHE Journal, 2021, 67, e17286.	1.8	25
90	Diffusion of water and ethanol in silicalite crystals synthesized in fluoride media. Microporous and Mesoporous Materials, 2013, 170, 259-265.	2.2	24

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91	Uncertainty quantification via bayesian inference using sequential monte carlo methods for CO₂ adsorption process. AIChE Journal, 2016, 62, 3352-3368.	1.8	24
92	Purification of 2,5-Dimethylfuran from n-Butanol Using Defect-Engineered Metalâ€“Organic Frameworks. ACS Sustainable Chemistry and Engineering, 2018, 6, 7931-7939.	3.2	24
93	Molecular blends of methylated-poly(ethylenimine) and amorphous porous organic cages for SO₂ adsorption. Journal of Materials Chemistry A, 2018, 6, 22043-22052.	5.2	24
94	Evaluation of particle filtration efficiency of commercially available materials for homemade face mask usage. Aerosol Science and Technology, 2021, 55, 930-942.	1.5	24
95	Poly(ethyleneimine) infused and functionalized TorlonÂ®-silica hollow fiber sorbents for post-combustion CO2 capture. Polymer, 2014, 55, 1341-1346.	1.8	23
96	Relationship between ethane and ethylene diffusion inside ZIF-11 crystals confined in polymers to form mixed-matrix membranes. Journal of Membrane Science, 2020, 593, 117440.	4.1	23
97	Defining Targets for Adsorbent Material Performance to Enable Viable BECCS Processes. Jacs Au, 2021, 1, 795-806.	3.6	23
98	Microscopic diffusion of pure and mixed methane and carbon dioxide in ZIF-11 by high field diffusion NMR. Microporous and Mesoporous Materials, 2017, 248, 158-163.	2.2	22
99	Framework for predicting the fractionation of complex liquid feeds via polymer membranes. Journal of Membrane Science, 2021, 640, 119767.	4.1	21
100	Sub-ambient air separation via Li+ exchanged zeolite. Microporous and Mesoporous Materials, 2018, 256, 140-146.	2.2	20
101	Streamlined Fabrication of Asymmetric Carbon Molecular Sieve Hollow Fiber Membranes. ACS Applied Polymer Materials, 2019, 1, 1960-1964.	2.0	20
102	Reactionâ€“Diffusion Transport Model to Predict Precursor Uptake and Spatial Distribution in Vapor-Phase Infiltration Processes. Chemistry of Materials, 2021, 33, 5210-5222.	3.2	19
103	Direct dual layer spinning of aminosilica/<scp>T</scp>orlon^{Â®} hollow fiber sorbents with a lumen layer for CO₂ separation by rapid temperature swing adsorption. Journal of Applied Polymer Science, 2015, 132, .	1.3	18
104	Ethylene diffusion in crystals of zeolitic imidazole Framework-11 embedded in polymers to form mixed-matrix membranes. Microporous and Mesoporous Materials, 2019, 274, 163-170.	2.2	17
105	Effect of Crystal Size on Framework Defects and Water Uptake in Fluoride Mediated Silicalite-1. Chemistry of Materials, 2014, 26, 4368-4376.	3.2	16
106	Propylene Enrichment via Kinetic Vacuum Pressure Swing Adsorption Using ZIF-8 Fiber Sorbents. ACS Applied Materials & Interfaces, 2018, 10, 36323-36331.	4.0	16
107	Sorption and Transport of Vapors in ZIF-11: Adsorption, Diffusion, and Linker Flexibility. Journal of Physical Chemistry C, 2019, , .	1.5	16
108	Humid Ethylene/Ethane Separation on Ethylene-Selective Materials. Industrial & Engineering Chemistry Research, 2021, 60, 9940-9947.	1.8	16

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109	Microporous polymers with cascaded cavities for controlled transport of small gas molecules. Science Advances, 2021, 7, eabi9062.	4.7	16
110	Organic solvent reverse osmosis using CuAAC-crosslinked molecularly-mixed composite membranes. Journal of Membrane Science, 2021, 638, 119700.	4.1	16
111	High-Temperature Activation of Zeolite-Loaded Fiber Sorbents. Industrial & Engineering Chemistry Research, 2018, 57, 11757-11766.	1.8	15
112	Anomalous Relationship between Molecular Size and Diffusivity of Ethane and Ethylene inside Crystals of Zeolitic Imidazolate Framework-11. Journal of Physical Chemistry C, 2019, 123, 16813-16822.	1.5	15
113	Analysis and utilization of cryogenic sorption isotherms for high free volume glassy polymers. Polymer, 2019, 170, 157-167.	1.8	15
114	Hollow fiber-supported designer ionic liquid sponges for post-combustion CO2 scrubbing. Polymer, 2012, 53, 5806-5815.	1.8	14
115	Anthropogenic <scp>CO₂</scp> as a feedstock for the production of algalâ€based biofuels. Biofuels, Bioproducts and Biorefining, 2015, 9, 72-81.	1.9	14
116	An Immobilizedâ€Dirhodium Hollowâ€Fiber Flow Reactor for Scalable and Sustainable Câ^'H Functionalization in Continuous Flow. Angewandte Chemie, 2018, 130, 11089-11093.	1.6	14
117	Development of Phase-Change-Based Thermally Modulated Fiber Sorbents. Industrial & Engineering Chemistry Research, 2019, 58, 5768-5776.	1.8	14
118	Zeolite-like performance for xylene isomer purification using polymer-derived carbon membranes. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	14
119	Scalable Formation of Diamine-Appended Metalâ€“Organic Framework Hollow Fiber Sorbents for Postcombustion CO₂ Capture. Jacs Au, 2022, 2, 1350-1358.	3.6	14
120	Separation and Purification of Furans from n-Butanol by Zeolitic Imidazole Frameworks: Multicomponent Adsorption Behavior and Simulated Moving Bed Process Design. ACS Sustainable Chemistry and Engineering, 2019, 7, 16560-16568.	3.2	13
121	Controlling wettability, wet strength, and fluid transport selectivity of nanopaper with atomic layer deposited (ALD) sub-nanometer metal oxide coatings. Nanoscale Advances, 2020, 2, 356-367.	2.2	13
122	A model for the separation of complex liquid mixtures with glassy polymer membranes: A thermodynamic perspective. Journal of Membrane Science, 2022, 647, 120316.	4.1	13
123	Aminosilane-Functionalized Hollow Fiber Sorbents for Post-Combustion CO₂ Capture. Industrial & Engineering Chemistry Research, 2013, 52, 8928-8935.	1.8	12
124	Fiber Adsorbents for Odorant Removal from Pipeline Grade Natural Gas. Industrial & Engineering Chemistry Research, 2014, 53, 7113-7120.	1.8	12
125	A guide to solutionâ€based additive manufacturing of polymeric structures: Ink design, porosity manipulation, and printing strategy. Journal of Advanced Manufacturing and Processing, 2020, 2, .	1.4	12
126	Flux Equations for Osmotically Moderated Sorptionâ€“Diffusion Transport in Rigid Microporous Membranes. Industrial & Engineering Chemistry Research, 2020, 59, 5412-5423.	1.8	12

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127	Perspective - the need and prospects for negative emission technologies - direct air capture through the lens of current sorption process development. Korean Journal of Chemical Engineering, 2021, 38, 2375-2380.	1.2	12
128	A new approach of ionic liquid containing polymer sorbents for post-combustion CO2 scrubbing. Polymer, 2012, 53, 891-894.	1.8	11
129	Accelerating Solvent Selection for Type II Porous Liquids. Journal of the American Chemical Society, 2022, 144, 4071-4079.	6.6	11
130	Co-transport of water and p-xylene through carbon molecular sieve membranes. Journal of Membrane Science, 2022, 654, 120495.	4.1	11
131	A Selfâ€Consistent Model for Sorption and Transport in Polyimideâ€Derived Carbon Molecular Sieve Gas Separation Membranes. Angewandte Chemie, 2020, 132, 20523-20527.	1.6	10
132	Theoretically Self-Consistent Nonequilibrium Thermodynamics of Glassy Polymer Theory for the Solubility of Vapors and Liquids in Glassy Polymers. Industrial & Engineering Chemistry Research, 2021, 60, 13377-13387.	1.8	10
133	Polymeric Fiber Sorbents Embedded with Porous Organic Cages. ACS Applied Materials & Interfaces, 2021, 13, 47118-47126.	4.0	9
134	Manufacturing Nanoporous Materials for Energy-Efficient Separations. , 2020, , 33-81.		8
135	Direct Structural Evidence of Molecular Packing Effects of Xylene Isomers Adsorbed in BIF-20. Crystal Growth and Design, 2018, 18, 2890-2898.	1.4	7
136	CO₂ Capture Using PIM-1 Hollow Fiber Sorbents with Enhanced Performance by PEI Infusion. Industrial & Engineering Chemistry Research, 2021, 60, 12709-12718.	1.8	7
137	Vapor-Phase-Infiltrated AlO_x/PIM-1 â€œHybrid Scaffoldsâ€•as Solution-Processable Amine Supports for CO₂ Adsorption. ACS Applied Polymer Materials, 2021, 3, 4460-4469.	2.0	7
138	Analysis of energetics and economics of subâ€ambient hybrid <scp>postâ€combustion carbon dioxide</scp> capture. AICHE Journal, 2021, 67, e17403.	1.8	7
139	Quantifying diffusion of organic liquids in a MOF component of MOF/Polymer mixed-matrix membranes by high field NMR. Journal of Membrane Science, 2021, 640, 119786.	4.1	7
140	In Silico Prediction of Structural Properties of a Racemic Porous Organic Cage Crystal. Journal of Physical Chemistry C, 2019, 123, 1720-1729.	1.5	6
141	Potentials and challenges of high-field PFG NMR diffusion studies with sorbates in nanoporous media. Adsorption, 2021, 27, 485-501.	1.4	6
142	PIM hybrids and derivatives: how to make a good thing better. Current Opinion in Chemical Engineering, 2022, 35, 100750.	3.8	6
143	Tailoring the Structure of Carbon Molecular Sieves Derived from an Aromatic Polyamide. Industrial & Engineering Chemistry Research, 0, , .	1.8	6
144	Bayesian optimization of functional output in inverse problems. Optimization and Engineering, 2021, 22, 2553-2574.	1.3	5

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145	Matching Analysis of Mixed Matrix Membranes for Organic Solvent Reverse Osmosis. Industrial & Engineering Chemistry Research, 2022, 61, 3395-3411.	1.8	5
146	Dry Glass Reference Perturbation Theory Predictions of the Temperature and Pressure Dependent Separations of Complex Liquid Mixtures Using SBAD-1 Glassy Polymer Membranes. Membranes, 2022, 12, 705.	1.4	5
147	Optimization and Technoeconomic Analysis of Rapid Temperature Swing Adsorption Process for Carbon Capture from Coal-Fired Power Plant. Computer Aided Chemical Engineering, 2015, 36, 253-278.	0.3	3
148	Separation and Purification of 2,5-Dimethylfuran: Process Design and Comparative Technoeconomic and Sustainability Evaluation of Simulated Moving Bed Adsorption and Conventional Distillation. ACS Sustainable Chemistry and Engineering, 2020, 8, 12482-12492.	3.2	3
149	Thought Experiment on Using Renewable Electricity to Provide Transportation Services. Energy & Fuels, 2021, 35, 13281-13290.	2.5	3
150	The role of skin layer defects in organic solvent reverse osmosis membranes. , 2021, 1, 100004.		3
151	Tuning Material Properties of Porous Organic Cage CC3 with Postsynthetic Dynamic Covalent Chemistry. European Journal of Organic Chemistry, 2022, 2022, e202101507.	1.2	2
152	Optimization and heat integration of hollow fiber based thermal swing adsorption process for CO2 capture from flue gas. Computer Aided Chemical Engineering, 2014, , 633-638.	0.3	1
153	Titelbild: Creation of Wellâ€Ðefined â€œMidâ€Šizedâ€•Micropores in Carbon Molecular Sieve Membranes (Angew. Chem. 38/2019). Angewandte Chemie, 2019, 131, 13297-13297.	1.6	1
154	Self-diffusion of mixed xylene isomers in ZIF-71 crystals dispersed in a polymer to form a hybrid membrane. Microporous and Mesoporous Materials, 2022, , 111960.	2.2	1