Rajamani Krishna

List of Publications by Year
in descending order

365	36,085	3288	3857
papers	citations	93 h-index	178 g-index

375	375	375	19453
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A thermostable calcium-based metalâ€“organic framework for efficient capture and separation of acetylene from ternary mixture. Separation and Purification Technology, 2024, 329, 125167.	8.1	2
2	Optimizing the cask effect in multicomponent natural gas purification to provide high methane productivity. AICHE Journal, 2024, 70, .	3.6	4
3	Porous materials with suitable pore size and dualâ€functional sites for benchmark oneâ€step ethylene purification. AICHE Journal, 2024, 70, .	3.6	0
4	A stable ultramicroporous Cd(II)-MOF with accessible oxygen sites for efficient separation of light hydrocarbons with high methane production. Separation and Purification Technology, 2024, 334, 125987.	8.1	6
5	Leveraging Diffusion Kinetics to Reverse Propane/Propylene Adsorption in Zeolitic Imidazolate Framework-8. ACS Nano, 2024, 18, 3614-3626.	15.3	3
6	Fundamental Insights into Intracrystalline Diffusional Influences on Mixture Separations in Fixed Bed Adsorbers. , 2024, 1, 53-66.		1
7	Hydrogen bond unlocking-driven pore structure control for shifting multi-component gas separation function. Nature Communications, 2024, 15, .	13.2	5
8	Fine-tuning the pore environment of isoreticular metal-organic frameworks through installing functional sites for boosting C2H6/C2H4 separation. Chemical Engineering Journal, 2024, 485, 149587.	13.0	1
9	Scalable Synthesis of Robust MOF for Challenging Ethylene Purification and Propylene Recovery with Record Productivity. Angewandte Chemie, 2024, 136, .	2.1	0
10	Scalable Synthesis of Robust MOF for Challenging Ethylene Purification and Propylene Recovery with Record Productivity. Angewandte Chemie - International Edition, 2024, 63, .	14.8	2
11	Electroâ€field alignment in a novel metalâ€“organic framework for benchmark separation of ethylene from a ternary gas mixture. AICHE Journal, 2024, 70, .	3.6	0
12	Fundamental insights into the variety of factors that influence water/alcohol membrane permeation selectivity. Journal of Membrane Science, 2024, 698, 122635.	8.3	1
13	A Layered Hydrogen-Bonded Organic Framework with C₃H₆-Preferred Pores for Efficient One-Step Purification of Methanol-to-Olefins (MTO) Products. , 2024, 6, 1388-1395.		1
14	Direct Ethylene Purification from Cracking Gas via a Metalâ€“Organic Framework Through Pore Geometry Fitting. Engineering, 2024, , .	7.3	3
15	Engineering pore limiting diameter of metalâ€“organic frameworks for benchmark separation of mono- and di-branched hexane isomers. Chemical Engineering Journal, 2024, 488, 150833.	13.0	2
16	Fine-regulation of gradient gate-opening in nanoporous crystals for sieving separation of ternary C3 hydrocarbons. Chemical Science, 2024, 15, 6583-6588.	7.8	0
17	Efficient separation of methanol-to-olefins products using a metal-organic framework with supramolecular binding sites. Chemical Engineering Journal, 2024, 493, 152442.	13.0	0
18	Selective krypton uptake through trap confinement, formation of Kr2 dimer, and light response in a photochromic and radiation-resistant thorium-diarylethene-framework. Chemical Engineering Journal, 2023, 451, 139004.	13.0	7

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19	Insights into the thermodynamicâ€“kinetic synergistic separation of propyne/propylene in anion pillared cage MOFs with entropyâ€“enthalpy balanced adsorption sites. Chemical Science, 2023, 14, 298-309.	7.8	22
20	Benchmark single-step ethylene purification from ternary mixtures by a customized fluorinated anion-embedded MOF. Nature Communications, 2023, 14, .	13.2	87
21	Highly scalable acid-base resistant Cu-Prussian blue metal-organic framework for C2H2/C2H4, biogas, and flue gas separations. Chemical Engineering Journal, 2023, 460, 141795.	13.0	18
22	Synergistic and Antisynergistic Intracrystalline Diffusional Influences on Mixture Separations in Fixed-Bed Adsorbers. , 2023, 1, 83-93.		12
23	Rational Construction of Ultrahigh Thermal Stable MOF for Efficient Separation of MTO Products and Natural Gas. , 2023, 5, 1091-1099.		30
24	A separation MOF with O/N active sites in nonpolar pore for One-step C2H4 purification from C2H6 or C3H6 mixtures. Chemical Engineering Journal, 2023, 466, 143056.	13.0	12
25	Structural flexibility in cationic metalâ€“organic framework for boosting ReO4â¯ capture. Chemical Engineering Journal, 2023, 466, 143139.	13.0	1
26	Ultramicroporous Metalâ€“Organic Framework with Inert Pore Surfaces for Inversed Separation of Ethylene from C₂ Hydrocarbons Mixtures. ACS Applied Materials & Interfaces, 2023, 15, 23538-23545.	8.3	8
27	Highly Productive C₃H₄/C₃H₆ Trace Separation by a Packing Polymorph of a Layered Hybrid Ultramicroporous Material. Journal of the American Chemical Society, 2023, 145, 11837-11845.	14.6	21
28	Exploiting Adsorption/Diffusion Synergy in MFIâ€Catalyzed Hexane Isomerization Reactor. Chemie-Ingenieur-Technik, 2023, 95, 1794-1799.	0.9	1
29	Immobilization of the Polar Group into an Ultramicroporous Metalâ€“Organic Framework Enabling Benchmark Inverse Selective CO₂/C₂H₂ Separation with Record C₂H₂ Production. Journal of the American Chemical Society, 2023, 145, 13901-13911.	14.6	51
30	Inducedâ€Fitâ€Identification in a Rigid Metalâ€Organic Framework for ppmâ€Level CO₂ Removal and Ultraâ€Pure CO Enrichment. Angewandte Chemie - International Edition, 2023, 62, .	14.8	4
31	Inducedâ€Fitâ€Identification in a Rigid Metalâ€Organic Framework for ppmâ€Level CO₂ Removal and Ultraâ€Pure CO Enrichment. Angewandte Chemie, 2023, 135, .	2.1	0
32	Efficient Xe/Kr separation in fluorinated pillar-caged metal-organic frameworks. Microporous and Mesoporous Materials, 2023, 357, 112631.	4.5	8
33	A robust perylene diimide-based zirconium metalâ€“organic framework for preferential adsorption of ethane over ethylene. Separation and Purification Technology, 2023, 320, 124109.	8.1	8
34	Fine-tuning channel structure and surface chemistry of stable bismuth-organic frameworks for efficient C2H4 purification through reversely trapping CO2 and C2H2. Chemical Engineering Journal, 2023, 471, 144533.	13.0	5
35	Minute and Large-Scale Synthesis of Covalent-Organic Frameworks in Water at Room Temperature by a Two-Step Dissolutionâ€“Precipitation Method. Chemistry of Materials, 2023, 35, 5648-5656.	7.1	6
36	An ethynyl-modified interpenetrated metalâ€“organic framework for highly efficient selective gas adsorption. Dalton Transactions, 2023, 52, 15101-15106.	3.4	1

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37	Customized pore fluorination in a microporous metal-organic framework for efficient ethane/ethylene separation. Separation and Purification Technology, 2023, 327, 124967.	8.1	4
38	Frontispiz: Induceda€Fita€Identification in a Rigid Metala€Organic Framework for ppma€Level CO₂ Removal and Ultraa€Pure CO Enrichment. Angewandte Chemie, 2023, 135, .	2.1	0
39	Frontispiece: Induceda€Fita€Identification in a Rigid Metala€Organic Framework for ppma€Level CO₂ Removal and Ultraa€Pure CO Enrichment. Angewandte Chemie - International Edition, 2023, 62, .	14.8	0
40	Surface engineering on a microporous metala€“organic framework to boost ethane/ethylene separation under humid conditions. Chemical Science, 2023, 14, 11890-11895.	7.8	4
41	Using the spreading pressure to inter-relate the characteristics of unary, binary and ternary mixture permeation across microporous membranes. Journal of Membrane Science, 2022, 643, 120049.	8.3	6
42	Highly selective gas separation by two isostructural boron cluster pillared MOFs. Separation and Purification Technology, 2022, 283, 120220.	8.1	36
43	Collaborative pore partition and pore surface fluorination within a metala€“organic framework for high-performance C2H2/CO2 separation. Chemical Engineering Journal, 2022, 432, 134433.	13.0	45
44	Comprehensive Pore Tuning in an Ultrastable Fluorinated Anion Crossa€Linked Cageа€Like MOF for Simultaneous Benchmark Propyne Recovery and Propylene Purification. Angewandte Chemie - International Edition, 2022, 61, .	14.8	67
45	Comprehensive Pore Tuning in an Ultrastable Fluorinated Anion Crossa€Linked Cageа€Like MOF for Simultaneous Benchmark Propyne Recovery and Propylene Purification. Angewandte Chemie, 2022, 134, .	2.1	7
46	Highlighting the Anti-Synergy between Adsorption and Diffusion in Cation-Exchanged Faujasite Zeolites. ACS Omega, 2022, 7, 13050-13056.	3.6	11
47	Metala€“Organic Framework Based Hydrogen-Bonding Nanotrap for Efficient Acetylene Storage and Separation. Journal of the American Chemical Society, 2022, 144, 1681-1689.	14.6	202
48	Titaniuma€Oxo Cluster Assisted Fabrication of a Defecta€Rich Tia€MOF Membrane Showing Versatile Gasa€Separation Performance. Angewandte Chemie, 2022, 134, .	2.1	4
49	Titaniuma€Oxo Cluster Assisted Fabrication of a Defecta€Rich Tia€MOF Membrane Showing Versatile Gasa€Separation Performance. Angewandte Chemie - International Edition, 2022, 61, .	14.8	22
50	Pore-Nanospace Engineering of Mixed-Ligand Metala€“Organic Frameworks for High Adsorption of Hydrofluorocarbons and Hydrochlorofluorocarbons. Chemistry of Materials, 2022, 34, 5116-5124.	7.1	15
51	Two-Dimensional Metala€“Organic Framework with Ultrahigh Water Stability for Separation of Acetylene from Carbon Dioxide and Ethylene. ACS Applied Materials & Interfaces, 2022, 14, 33429-33437.	8.3	31
52	Onea€Step Ethylene Purification from Ternary Mixtures in a Metala€“Organic Framework with Customized Pore Chemistry and Shape. Angewandte Chemie, 2022, 134, .	2.1	5
53	Efficient Separation of Trace SO₂ from SO₂/CO₂/N₂ Mixtures in a Th-Based MOF. Inorganic Chemistry, 2022, 61, 11879-11885.	4.2	13
54	Quasi-Orthogonal Configuration of Propylene within a Scalable Metala€“Organic Framework Enables Its Purification from Quinary Propane Dehydrogenation Byproducts. ACS Central Science, 2022, 8, 1159-1168.	12.3	20

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55	Creating High-Number Defect Sites through a Bimetal Approach in Metalâ€“Organic Frameworks for Boosting Trace SO₂ Removal. Inorganic Chemistry, 2022, 61, 16986-16991.	4.2	5
56	A robust heterometallic ultramicroporous MOF with ultrahigh selectivity for propyne/propylene separation. Journal of Materials Chemistry A, 2021, 9, 2850-2856.	10.5	28
57	High Adsorption Capacity and Selectivity of SO₂ over CO₂ in a Metalâ€“Organic Framework. Inorganic Chemistry, 2021, 60, 4-8.	4.2	27
58	Ultrafine tuning of the pore size in zeolite A for efficient propyne removal from propylene. Chinese Journal of Chemical Engineering, 2021, 37, 217-221.	3.5	7
59	Constructing a robust gigantic drum-like hydrophobic [Co₂₄U₆] nanocage in a metalâ€“organic framework for high-performance SO₂ removal in humid conditions. Journal of Materials Chemistry A, 2021, 9, 4075-4081.	10.5	10
60	Robust 4dâ€“5f Bimetalâ€“Organic Framework for Efficient Removal of Trace SO₂ from SO₂/CO₂ and SO₂/CO₂/N₂ Mixtures. Inorganic Chemistry, 2021, 60, 1310-1314.	4.2	18
61	A Robust Cage-Based Metalâ€“Organic Framework Showing Ultrahigh SO₂ Uptake for Efficient Removal of Trace SO₂ from SO₂/CO₂ and SO₂/CO₂/N₂ Mixtures. Inorganic Chemistry, 2021, 60, 3447-3451.	4.2	25
62	A stable metalâ€“organic framework with wellâ€matched pore cavity for efficient acetylene separation. AICHE Journal, 2021, 67, e17152.	3.6	24
63	Synergistically enhance confined diffusion by continuum intersecting channels in zeolites. Science Advances, 2021, 7, .	10.9	20
64	A Rodâ€Packing Hydrogenâ€Bonded Organic Framework with Suitable Pore Confinement for Benchmark Ethane/Ethylene Separation. Angewandte Chemie - International Edition, 2021, 60, 10304-10310.	14.8	124
65	A Rodâ€Packing Hydrogenâ€Bonded Organic Framework with Suitable Pore Confinement for Benchmark Ethane/Ethylene Separation. Angewandte Chemie, 2021, 133, 10392-10398.	2.1	30
66	Thermal resistance effect on anomalous diffusion of molecules under confinement. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.6	27
67	Realization of Ethylene Production from Its Quaternary Mixture through Metalâ€“Organic Framework Materials. ACS Applied Materials & Interfaces, 2021, 13, 22514-22520.	8.3	15
68	Optimal Pore Chemistry in an Ultramicroporous Metalâ€“Organic Framework for Benchmark Inverse CO₂/C₂H₂ Separation. Angewandte Chemie, 2021, 133, 17335-17341.	2.1	16
69	Robust metalâ€“organic framework with multiple traps for trace Xe/Kr separation. Science Bulletin, 2021, 66, 1073-1079.	11.1	62
70	How Reliable Is the Ideal Adsorbed Solution Theory for the Estimation of Mixture Separation Selectivities in Microporous Crystalline Adsorbents?. ACS Omega, 2021, 6, 15499-15513.	3.6	26
71	Optimal Pore Chemistry in an Ultramicroporous Metalâ€“Organic Framework for Benchmark Inverse CO₂/C₂H₂ Separation. Angewandte Chemie - International Edition, 2021, 60, 17198-17204.	14.8	109
72	Propane-Trapping Ultramicroporous Metalâ€“Organic Framework in the Low-Pressure Area toward the Purification of Propylene. ACS Applied Materials & Interfaces, 2021, 13, 35990-35996.	8.3	40

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73	Interpenetration Symmetry Control Within Ultramicroporous Robust Boron Cluster Hybrid MOFs for Benchmark Purification of Acetylene from Carbon Dioxide. Angewandte Chemie, 2021, 133, 23047.	2.1	19
74	Interpenetration Symmetry Control Within Ultramicroporous Robust Boron Cluster Hybrid MOFs for Benchmark Purification of Acetylene from Carbon Dioxide. Angewandte Chemie - International Edition, 2021, 60, 22865-22870.	14.8	110
75	A robust metal-organic framework showing two distinct pores for effective separation of xenon and krypton. Microporous and Mesoporous Materials, 2021, 326, 111350.	4.5	8
76	Efficient propyne/propadiene separation by microporous crystalline physiadsorbents. Nature Communications, 2021, 12, 5768.	13.2	29
77	Efficient Purification of Ethylene from C₂ Hydrocarbons with an C₂H₆/C₂H₂-Selective Metalâ€“Organic Framework. ACS Applied Materials & Interfaces, 2021, 13, 962-969.	8.3	76
78	Synthesis of Cu(I) doped mesoporous carbon for selective capture of ethylene from reaction products of oxidative coupling of methane (OCM). Microporous and Mesoporous Materials, 2021, 328, 111488.	4.5	10
79	Separation of propylene from propane and nitrogen by Ag(I)-doped nanoporous carbons obtained from hydrothermally treated lignin. Diamond and Related Materials, 2021, 121, 108750.	4.0	3
80	Constructing redox-active microporous hydrogen-bonded organic framework by imide-functionalization: Photochromism, electrochromism, and selective adsorption of C2H2 over CO2. Chemical Engineering Journal, 2020, 383, 123117.	13.0	68
81	Mixed Metalâ€“Organic Framework with Multiple Binding Sites for Efficient C₂H₂/CO₂Separation. Angewandte Chemie - International Edition, 2020, 59, 4396-4400.	14.8	326
82	Microporous Metalâ€“Organic Framework with a Completely Reversed Adsorption Relationship for C₂ Hydrocarbons at Room Temperature. ACS Applied Materials & Interfaces, 2020, 12, 6105-6111.	8.3	66
83	Selective Ethane/Ethylene Separation in a Robust Microporous Hydrogen-Bonded Organic Framework. Journal of the American Chemical Society, 2020, 142, 633-640.	14.6	206
84	Metrics for Evaluation and Screening of Metalâ€“Organic Frameworks for Applications in Mixture Separations. ACS Omega, 2020, 5, 16987-17004.	3.6	64
85	Boosting Selective Adsorption of Xe over Kr by Double-Accessible Open-Metal Site in Metalâ€“Organic Framework: Experimental and Theoretical Research. Inorganic Chemistry, 2020, 59, 11793-11800.	4.2	34
86	Water/Alcohol Mixture Adsorption in Hydrophobic Materials: Enhanced Water Ingress Caused by Hydrogen Bonding. ACS Omega, 2020, 5, 28393-28402.	3.6	20
87	Tuning Gateâ€Opening of a Flexible Metalâ€“Organic Framework for Ternary Gas Sieving Separation. Angewandte Chemie - International Edition, 2020, 59, 22756-22762.	14.8	188
88	Tuning Gateâ€Opening of a Flexible Metalâ€“Organic Framework for Ternary Gas Sieving Separation. Angewandte Chemie, 2020, 132, 22944-22950.	2.1	33
89	Using Molecular Simulations for Elucidation of Thermodynamic Nonidealities in Adsorption of CO₂-Containing Mixtures in NaX Zeolite. ACS Omega, 2020, 5, 20535-20542.	3.6	12
90	Using Molecular Simulations to Unravel the Benefits of Characterizing Mixture Permeation in Microporous Membranes in Terms of the Spreading Pressure. ACS Omega, 2020, 5, 32769-32780.	3.6	6

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91	Simultaneous interlayer and intralayer space control in two-dimensional metalâ^'organic frameworks for acetylene/ethylene separation. Nature Communications, 2020, 11, 6259.	13.2	95
92	A Chemically Stable Hofmannâ€Type Metalâ^'Organic Framework with Sandwichâ€Like Binding Sites for Benchmark Acetylene Capture. Advanced Materials, 2020, 32, e1908275.	24.3	253
93	Dependence of zeolite topology on alkane diffusion inside <scp> diverse channels</scp>. AICHE Journal, 2020, 66, e16269.	3.6	24
94	A robust Th-azole framework for highly efficient purification of C2H4 from a C2H4/C2H2/C2H6 mixture. Nature Communications, 2020, 11, 3163.	13.2	215
95	Using transient breakthrough experiments for screening of adsorbents for separation of C2H4/CO2 mixtures. Separation and Purification Technology, 2020, 241, 116706.	8.1	23
96	Separation of ethane-ethylene and propane-propylene by Ag(I) doped and sulfurized microporous carbon. Microporous and Mesoporous Materials, 2020, 299, 110099.	4.5	41
97	Rational Design of Microporous MOFs with Anionic Boron Cluster Functionality and Cooperative Dihydrogen Binding Sites for Highly Selective Capture of Acetylene. Angewandte Chemie, 2020, 132, 17817-17822.	2.1	28
98	Rational Design of Microporous MOFs with Anionic Boron Cluster Functionality and Cooperative Dihydrogen Binding Sites for Highly Selective Capture of Acetylene. Angewandte Chemie - International Edition, 2020, 59, 17664-17669.	14.8	120
99	Highlighting Thermodynamic Coupling Effects in the Immersion Precipitation Process for Formation of Polymeric Membranes. ACS Omega, 2020, 5, 2819-2828.	3.6	1
100	Mixed Metalâ€"Organic Framework with Multiple Binding Sites for Efficient C₂H₂/CO₂Separation. Angewandte Chemie, 2020, 132, 4426-4430.	2.1	46
101	Pore-Space-Partition-Enabled Exceptional Ethane Uptake and Ethane-Selective Ethaneâ€"Ethylene Separation. Journal of the American Chemical Society, 2020, 142, 2222-2227.	14.6	218
102	Understanding How Ligand Functionalization Influences CO₂ and N₂ Adsorption in a Sodalite Metalâ€"Organic Framework. Chemistry of Materials, 2020, 32, 1526-1536.	7.1	19
103	Elucidation of Selectivity Reversals for Binary Mixture Adsorption in Microporous Adsorbents. ACS Omega, 2020, 5, 9031-9040.	3.6	17
104	An Ultramicroporous Metalâ€"Organic Framework for High Sieving Separation of Propylene from Propane. Journal of the American Chemical Society, 2020, 142, 17795-17801.	14.6	203
105	A multifunctional double walled zirconium metalâ€"organic framework: high performance for CO₂ adsorption and separation and detecting explosives in the aqueous phase. Journal of Materials Chemistry A, 2020, 8, 17106-17112.	10.5	25
106	Thermodynamically Consistent Methodology for Estimation of Diffusivities of Mixtures of Guest Molecules in Microporous Materials. ACS Omega, 2019, 4, 13520-13529.	3.6	13
107	Maxwell-Stefan modelling of mixture desorption kinetics in microporous crystalline materials. Separation and Purification Technology, 2019, 229, 115790.	8.1	5
108	Enhanced Gas Uptake in a Microporous Metalâ€"Organic Framework via a Sorbate Induced-Fit Mechanism. Journal of the American Chemical Society, 2019, 141, 17703-17712.	14.6	158

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109	Enhancing C₂H₂/C₂H₄ separation by incorporating low-content sodium in covalent organic frameworks. Inorganic Chemistry Frontiers, 2019, 6, 2921-2926.	6.0	24
110	Highlighting Thermodynamic Coupling Effects in Alcohol/Water Pervaporation across Polymeric Membranes. ACS Omega, 2019, 4, 15255-15264.	3.6	8
111	A metalâ€“organic framework with suitable pore size and dual functionalities for highly efficient post-combustion CO₂ capture. Journal of Materials Chemistry A, 2019, 7, 3128-3134.	10.5	137
112	Elucidating Traffic Junction Effects in MFI Zeolite Using Kinetic Monte Carlo Simulations. ACS Omega, 2019, 4, 10761-10766.	3.6	5
113	Highlighting non-idealities in C2H4/CO2 mixture adsorption in 5A zeolite. Separation and Purification Technology, 2019, 227, 115730.	8.1	20
114	Thermodynamic Insights into the Characteristics of Unary and Mixture Permeances in Microporous Membranes. ACS Omega, 2019, 4, 9512-9521.	3.6	10
115	Dual Strategic Approach to Prepare Defluorinated Triazole-Embedded Covalent Triazine Frameworks with High Gas Uptake Performance. Chemistry of Materials, 2019, 31, 3929-3940.	7.1	37
116	Robust Microporous Metalâ€“Organic Frameworks for Highly Efficient and Simultaneous Removal of Propyne and Propadiene from Propylene. Angewandte Chemie, 2019, 131, 10315-10320.	2.1	16
117	Induced Fit of C₂H₂ in a Flexible MOF Through Cooperative Action of Open Metal Sites. Angewandte Chemie, 2019, 131, 8603-8607.	2.1	52
118	Robust Microporous Metalâ€“Organic Frameworks for Highly Efficient and Simultaneous Removal of Propyne and Propadiene from Propylene. Angewandte Chemie - International Edition, 2019, 58, 10209-10214.	14.8	71
119	Induced Fit of C₂H₂ in a Flexible MOF Through Cooperative Action of Open Metal Sites. Angewandte Chemie - International Edition, 2019, 58, 8515-8519.	14.8	217
120	Water-Stable Europium 1,3,6,8-Tetrakis(4-carboxylphenyl)pyrene Framework for Efficient C₂H₂/CO₂ Separation. Inorganic Chemistry, 2019, 58, 5089-5095.	4.2	76
121	Pore Space Partition within a Metalâ€“Organic Framework for Highly Efficient C₂H₂/CO₂ Separation. Journal of the American Chemical Society, 2019, 141, 4130-4136.	14.6	365
122	Highlighting the Influence of Thermodynamic Coupling on Kinetic Separations with Microporous Crystalline Materials. ACS Omega, 2019, 4, 3409-3419.	3.6	15
123	Microporous Metalâ€“Organic Framework with Dual Functionalities for Efficient Separation of Acetylene from Light Hydrocarbon Mixtures. ACS Sustainable Chemistry and Engineering, 2019, 7, 4897-4902.	6.9	71
124	Elucidation and characterization of entropy effects in mixture separations with micro-porous crystalline adsorbents. Separation and Purification Technology, 2019, 215, 227-241.	8.1	21
125	Diffusing uphill with James Clerk Maxwell and Josef Stefan. Chemical Engineering Science, 2019, 195, 851-880.	4.0	34
126	Newly designed 1,2,3-triazole functionalized covalent triazine frameworks with exceptionally high uptake capacity for both CO₂ and H₂. Journal of Materials Chemistry A, 2019, 7, 1055-1068.	10.5	59

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127	Preparation of benzodiimidazole-containing covalent triazine frameworks for enhanced selective CO2 capture and separation. Microporous and Mesoporous Materials, 2019, 276, 213-222.	4.5	16
128	Dynamic Adsorption of CO₂/N₂ on Cation-Exchanged Chabazite SSZ-13: A Breakthrough Analysis. ACS Applied Materials & Interfaces, 2018, 10, 14287-14291.	8.3	33
129	Adjusting the proportions of extra-framework K+ and Cs+ cations to construct a â€œmolecular gateâ€•on ZK-5 for CO2 removal. Microporous and Mesoporous Materials, 2018, 268, 50-57.	4.5	19
130	The Maxwellâ€“Stefan description of mixture permeation across nanoporous graphene membranes. Chemical Engineering Research and Design, 2018, 133, 316-325.	5.7	16
131	Guest-dependent pressure induced gate-opening effect enables effective separation of propene and propane in a flexible MOF. Chemical Engineering Journal, 2018, 346, 489-496.	13.0	89
132	Beyond Crystal Engineering: Significant Enhancement of C₂H₂/CO₂ Separation by Constructing Composite Material. Inorganic Chemistry, 2018, 57, 3679-3682.	4.2	36
133	Highlighting the origins and consequences of thermodynamic non-idealities in mixture separations using zeolites and metal-organic frameworks. Microporous and Mesoporous Materials, 2018, 267, 274-292.	4.5	29
134	Using Molecular Dynamics simulations for elucidation of molecular traffic in ordered crystalline microporous materials. Microporous and Mesoporous Materials, 2018, 258, 151-169.	4.5	17
135	A Maxwell-Stefan-Glueckauf description of transient mixture uptake in microporous adsorbents. Separation and Purification Technology, 2018, 191, 392-399.	8.1	19
136	Methodologies for screening and selection of crystalline microporous materials in mixture separations. Separation and Purification Technology, 2018, 194, 281-300.	8.1	95
137	Alkane/alkene mixture diffusion in silicalite-1 studied by MAS PFG NMR. Microporous and Mesoporous Materials, 2018, 257, 128-134.	4.5	23
138	MIL-100Cr with open Cr sites for a record N₂O capture. Chemical Communications, 2018, 54, 14061-14064.	4.2	45
139	Occupancy Dependency of Maxwellâ€“Stefan Diffusivities in Ordered Crystalline Microporous Materials. ACS Omega, 2018, 3, 15743-15753.	3.6	16
140	Enhancing CO₂ Adsorption and Separation Properties of Aluminophosphate Zeolites by Isomorphous Heteroatom Substitutions. ACS Applied Materials & Interfaces, 2018, 10, 43570-43577.	8.3	30
141	A Metalâ€“Organic Framework with Suitable Pore Size and Specific Functional Sites for the Removal of Trace Propyne from Propylene. Angewandte Chemie - International Edition, 2018, 57, 15183-15188.	14.8	137
142	A Metalâ€“Organic Framework with Suitable Pore Size and Specific Functional Sites for the Removal of Trace Propyne from Propylene. Angewandte Chemie, 2018, 130, 15403-15408.	2.1	118
143	Molecular Sieving of Ethane from Ethylene through the Molecular Crossâ€Section Size Differentiation in Gallateâ€based Metalâ€“Organic Frameworks. Angewandte Chemie, 2018, 130, 16252-16257.	2.1	75
144	Molecular Sieving of Ethane from Ethylene through the Molecular Crossâ€Section Size Differentiation in Gallateâ€based Metalâ€“Organic Frameworks. Angewandte Chemie - International Edition, 2018, 57, 16020-16025.	14.8	215

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