

Separation of CO₂/CH₄ mixtures with the MIL-53(Al) m

Microporous and Mesoporous Materials

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Citation Report

#	ARTICLE	IF	CITATIONS
2	Syntheses and structures of the MOF-type series of metal 1,4,5,8-naphthalenetetracarboxylates $M_2(OH)_2[C_{14}O_8H_4]$ (Al, Ga, In) with infinite trans-connected $M-OH-M$ chains (MIL-122). Solid State Sciences, 2009, 11, 1507-1512.	3.2	56
3	Framework Breathing in the Vapour-Phase Adsorption and Separation of Xylene Isomers with the Metal-Organic Framework MIL-53. Chemistry - A European Journal, 2009, 15, 7724-7731.	3.3	158
4	Co-adsorption and Separation of CO_2 and CH_4 Mixtures in the Highly Flexible MIL-53(Cr) MOF. Journal of the American Chemical Society, 2009, 131, 17490-17499.	13.7	398
5	An Amine-Functionalized MIL-53 Metal-Organic Framework with Large Separation Power for CO_2 and CH_4 . Journal of the American Chemical Society, 2009, 131, 6326-6327.	13.7	926
6	Application of metal-organic frameworks with coordinatively unsaturated metal sites in storage and separation of methane and carbon dioxide. Journal of Materials Chemistry, 2009, 19, 7362.	6.7	633
7	Gas Adsorption Properties of the Chromium-Based Metal Organic Framework MIL-101. Journal of Physical Chemistry C, 2009, 113, 6616-6621.	3.1	226
8	Prediction of Breathing and Gate-Opening Transitions Upon Binary Mixture Adsorption in Metal-Organic Frameworks. Journal of the American Chemical Society, 2009, 131, 11329-11331.	13.7	144
9	Doping of Alkali, Alkaline-Earth, and Transition Metals in Covalent-Organic Frameworks for Enhancing CO_2 Capture by First-Principles Calculations and Molecular Simulations. ACS Nano, 2010, 4, 4225-4237.	14.6	206
10	A layered coordination polymer based on an azodibenzoate linker connected to aluminium (MIL-129). CrystEngComm, 2010, 12, 3225.	2.6	18
11	Can Metal-Organic Framework Materials Play a Useful Role in Large-Scale Carbon Dioxide Separations?. ChemSusChem, 2010, 3, 879-891.	6.8	556
12	Insights on Adsorption Characterization of Metal-Organic Frameworks: A Benchmark Study on the Novel soc-MOF. Microporous and Mesoporous Materials, 2010, 129, 345-353.	4.4	148
13	Computational study of the effect of organic linkers on natural gas upgrading in metal-organic frameworks. Microporous and Mesoporous Materials, 2010, 130, 76-82.	4.4	65
14	Flexible Two-Dimensional Square-Grid Coordination Polymers: Structures and Functions. International Journal of Molecular Sciences, 2010, 11, 3803-3845.	4.1	113
15	The osmotic framework adsorbed solution theory: predicting mixture coadsorption in flexible nanoporous materials. Physical Chemistry Chemical Physics, 2010, 12, 10904.	2.8	76
16	Effect of Dehydration on the Local Structure of Framework Aluminum Atoms in Mixed Linker MIL-53(Al) Materials Studied by Solid-State NMR Spectroscopy. Journal of Physical Chemistry Letters, 2010, 1, 2886-2890.	4.6	54
17	Molecular Simulations and Experimental Studies of CO_2 , CO, and N_2 Adsorption in Metal-Organic Frameworks. Journal of Physical Chemistry C, 2010, 114, 15735-15740.	3.1	169
18	Selective Sorption of Organic Molecules by the Flexible Porous Hybrid Metal-Organic Framework MIL-53(Fe) Controlled by Various Host-Guest Interactions. Chemistry of Materials, 2010, 22, 4237-4245.	6.7	104
19	Support and Size Effects of Activated Hydrotalcites for Precombustion CO_2 Capture. Industrial & Engineering Chemistry Research, 2010, 49, 1229-1235.	3.7	98

#	ARTICLE	IF	CITATIONS
20	Synthesis and Stability of Tagged UiO-66 Zr-MOFs. Chemistry of Materials, 2010, 22, 6632-6640.	6.7	1,547
21	A novel microporous MOF with the capability of selective adsorption of xylenes. Chemical Communications, 2010, 46, 8612.	4.1	111
22	A pulse chromatographic study of the adsorption properties of the amino-MIL-53 (Al) metal-organic framework. Physical Chemistry Chemical Physics, 2010, 12, 9413.	2.8	69
23	Facile shaping of an imidazolate-based MOF on ceramic beads for adsorption and catalytic applications. Chemical Communications, 2010, 46, 7999.	4.1	115
24	Site-Specific CO ₂ Adsorption and Zero Thermal Expansion in an Anisotropic Pore Network. Journal of Physical Chemistry C, 2011, 115, 24915-24919.	3.1	141
27	Metal-organic framework membranes fabricated via reactive seeding. Chemical Communications, 2011, 47, 737-739.	4.1	350
28	Structural Transitions in MIL-53 (Cr): View from Outside and Inside. Langmuir, 2011, 27, 4734-4741.	3.5	143
29	Engineering structured MOF at nano and macroscales for catalysis and separation. Journal of Materials Chemistry, 2011, 21, 7582.	6.7	140
30	Adsorption, Desorption, and Thermodynamic Studies of CO ₂ with High-Amine-Loaded Multiwalled Carbon Nanotubes. Langmuir, 2011, 27, 8090-8098.	3.5	133
31	Adsorption and Separation of CO ₂ /CH ₄ on Amorphous Silica Molecular Sieve. Journal of Physical Chemistry C, 2011, 115, 9713-9718.	3.1	44
32	Understanding the Thermodynamic and Kinetic Behavior of the CO ₂ /CH ₄ Gas Mixture within the Porous Zirconium Terephthalate UiO-66(Zr): A Joint Experimental and Modeling Approach. Journal of Physical Chemistry C, 2011, 115, 13768-13774.	3.1	166
33	Why hybrid porous solids capture greenhouse gases?. Chemical Society Reviews, 2011, 40, 550-562.	38.1	603
34	MOF Shaping and Immobilization. , 2011, , 353-381.		6
35	Rapid and reversible formation of a crystalline hydrate of a metal-organic framework containing a tube of hydrogen-bonded water. Chemical Communications, 2011, 47, 713-715.	4.1	43
36	New Functionalized Flexible Al-MIL-53-X (X = -Cl, -Br, -CH ₃ , -NO ₂), Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 187 T Chemistry, 2011, 50, 9518-9526.	4.0	254
37	Superuniform Molecular Nanogate Fabrication on Graphene Sheets of Single Wall Carbon Nanohorns for Selective Molecular Separation of CO ₂ and CH ₄ . Chemistry Letters, 2011, 40, 1089-1091.	1.3	23
38	MOF-containing mixed-matrix membranes for CO ₂ /CH ₄ and CO ₂ /N ₂ binary gas mixture separations. Separation and Purification Technology, 2011, 81, 31-40.	7.9	364
39	Breathing and Twisting: An Investigation of Framework Deformation and Guest Packing in Single Crystals of a Microporous Vanadium Benzenedicarboxylate. Inorganic Chemistry, 2011, 50, 2028-2036.	4.0	34

#	ARTICLE	IF	CITATIONS
40	Synthesis and Characterization of an Amino Functionalized MIL-101(Al): Separation and Catalytic Properties. Chemistry of Materials, 2011, 23, 2565-2572.	6.7	479
41	Methane storage on CPO-27-Ni pellets. Journal of Porous Materials, 2011, 18, 289-296.	2.6	78
42	Exceptional thermal stability and thermodynamic properties of lithium based metal-organic framework. Journal of Thermal Analysis and Calorimetry, 2011, 103, 373-380.	3.6	11
43	A computational study of the effect of doping metals on CO ₂ /CH ₄ separation in metal-organic frameworks. Microporous and Mesoporous Materials, 2011, 143, 66-72.	4.4	24
44	Carbon dioxide adsorption over zeolite-like metal organic frameworks (ZMOFs) having a sod topology: Structure and ion-exchange effect. Chemical Engineering Journal, 2011, 168, 1134-1139.	12.7	101
45	MOF Processing by Electrospinning for Functional Textiles. Advanced Engineering Materials, 2011, 13, 356-360.	3.5	112
46	Metal-Organic Frameworks: A Rapidly Growing Class of Versatile Nanoporous Materials. Advanced Materials, 2011, 23, 249-267.	21.0	1,232
47	Thermodynamic Methods and Models to Study Flexible Metal-Organic Frameworks. ChemPhysChem, 2011, 12, 247-258.	2.1	105
50	Development and Evaluation of Porous Materials for Carbon Dioxide Separation and Capture. Angewandte Chemie - International Edition, 2011, 50, 11586-11596.	13.8	1,025
51	Selective Adsorption of CO ₂ from Light Gas Mixtures by Using a Structurally Dynamic Porous Coordination Polymer. Angewandte Chemie - International Edition, 2011, 50, 10888-10892.	13.8	52
52	Carbon dioxide capture-related gas adsorption and separation in metal-organic frameworks. Coordination Chemistry Reviews, 2011, 255, 1791-1823.	18.8	1,805
53	Flue gas treatment via CO ₂ adsorption. Chemical Engineering Journal, 2011, 171, 760-774.	12.7	476
54	Thermodynamic analysis of the breathing of amino-functionalized MIL-53(Al) upon CO ₂ adsorption. Microporous and Mesoporous Materials, 2011, 140, 108-113.	4.4	78
55	New photocatalysts based on MIL-53 metal-organic frameworks for the decolorization of methylene blue dye. Journal of Hazardous Materials, 2011, 190, 945-951.	12.4	416
56	Microporous metal-organic framework containing cages with adjustable portal dimensions for adsorptive CO ₂ separation. RSC Advances, 2012, 2, 11566.	3.6	4
57	Window effect on CO ₂ /N ₂ selectivity in metal organic framework materials. Chemical Physics Letters, 2012, 552, 136-140.	2.6	4
58	Monte Carlo simulation of carbon monoxide, carbon dioxide and methane adsorption on activated carbon. Molecular Physics, 2012, 110, 1153-1160.	1.7	38
59	Predicting Mixture Coadsorption in Soft Porous Crystals: Experimental and Theoretical Study of CO ₂ /CH ₄ in MIL-53(Al). Langmuir, 2012, 28, 494-498.	3.5	45

#	ARTICLE	IF	CITATIONS
60	Progress in adsorption-based CO ₂ capture by metal-organic frameworks. Chemical Society Reviews, 2012, 41, 2308-2322.	38.1	1,205
61	Mixed gas adsorption of carbon dioxide and methane on a series of isorecticular microporous metal-organic frameworks based on 2-substituted imidazolate-4-amide-5-imidates. Journal of Materials Chemistry, 2012, 22, 10221.	6.7	22
62	Probing the adsorption performance of the hybrid porous MIL-68(Al): a synergic combination of experimental and modelling tools. Journal of Materials Chemistry, 2012, 22, 10210.	6.7	124
63	Separation of CO ₂ -CH ₄ mixtures in the mesoporous MIL-100(Cr) MOF: experimental and modelling approaches. Dalton Transactions, 2012, 41, 4052.	3.3	78
64	Pilot-scale production of mesoporous silica-based adsorbent for CO ₂ capture. Applied Surface Science, 2012, 258, 6943-6951.	6.1	18
65	Bench-scale preparation of Cu ₃ (BTC) ₂ by ethanol reflux: Synthesis optimization and adsorption/catalytic applications. Microporous and Mesoporous Materials, 2012, 161, 48-55.	4.4	74
66	Sorption of carbon dioxide, methane, nitrogen and carbon monoxide on MIL-101(Cr): Volumetric measurements and dynamic adsorption studies. Chemical Engineering Journal, 2012, 195-196, 359-368.	12.7	140
67	Computational Study of Adsorption and Separation of CO ₂ , CH ₄ , and N ₂ by an <i>htr</i> -Type Metal-Organic Framework. Langmuir, 2012, 28, 12122-12133.	3.5	102
68	Vapor-Phase Adsorption and Separation of Ethylbenzene and Styrene on the Metal-Organic Frameworks MIL-47 and MIL-53(Al). Industrial & Engineering Chemistry Research, 2012, 51, 14824-14833.	3.7	45
69	Engineering metal-organic frameworks immobilize gold catalysts for highly efficient one-pot synthesis of propargylamines. Green Chemistry, 2012, 14, 1710.	9.0	101
70	Amine-Functionalized Metal Organic Framework as a Highly Selective Adsorbent for CO ₂ over CO. Journal of Physical Chemistry C, 2012, 116, 19814-19821.	3.1	96
71	Metal-Organic Frameworks for Separations. Chemical Reviews, 2012, 112, 869-932.	47.7	5,588
72	Metal-Organic Frameworks in Biomedicine. Chemical Reviews, 2012, 112, 1232-1268.	47.7	3,593
73	Carbon Dioxide Capture in Metal-Organic Frameworks. Chemical Reviews, 2012, 112, 724-781.	47.7	5,612
74	Synthesis, Structural Characterization, and Catalytic Performance of a Vanadium-Based Metal-Organic Framework (COMOC-3). European Journal of Inorganic Chemistry, 2012, 2012, 2819-2827.	2.0	47
75	Quantitative Characterization of Breathing upon Adsorption for a Series of Amino-Functionalized MIL-53. Journal of Physical Chemistry C, 2012, 116, 9507-9516.	3.1	34
76	Palladium Nanoparticles Supported on Mixed-Linker Metal-Organic Frameworks as Highly Active Catalysts for Heck Reactions. ChemPlusChem, 2012, 77, 106-112.	2.8	88
77	Adsorption and Separation of Light Gases on an Amino-Functionalized Metal-Organic Framework: An Adsorption and <i>In Situ</i> XRD Study. ChemSusChem, 2012, 5, 740-750.	6.8	115

#	ARTICLE	IF	CITATIONS
78	A Method for Screening the Potential of MOFs as CO ₂ Adsorbents in Pressure Swing Adsorption Processes. ChemSusChem, 2012, 5, 762-776.	6.8	109
79	Effect of the organic functionalization of flexible MOFs on the adsorption of CO ₂ . Journal of Materials Chemistry, 2012, 22, 10266.	6.7	125
80	Theoretical studies of CO ₂ adsorption mechanism on linkers of metal-organic frameworks. Fuel, 2012, 95, 521-527.	6.4	62
81	Synthesis and crystal chemistry of the STA-12 family of metal N,N'-piperazinebis(methylenephosphonate)s and applications of STA-12(Ni) in the separation of gases. Microporous and Mesoporous Materials, 2012, 157, 3-17.	4.4	49
82	Sorption of methane, hydrogen and carbon dioxide on metal-organic framework, iron terephthalate (MOF-235). Journal of Industrial and Engineering Chemistry, 2012, 18, 1149-1152.	5.8	78
83	Adsorption and diffusion properties of xylene isomers and ethylbenzene in metal-organic framework MIL-53(Al). Journal of Porous Materials, 2013, 20, 431-440.	2.6	39
84	Fluid bed adsorption of carbon dioxide on immobilized polyethylenimine (PEI): Kinetic analysis and breakthrough behavior. Chemical Engineering Journal, 2013, 223, 795-805.	12.7	64
85	Effects of pelletization pressure on the physical and chemical properties of the metal-organic frameworks Cu ₃ (BTC) ₂ and UiO-66. Microporous and Mesoporous Materials, 2013, 179, 48-53.	4.4	139
86	CO ₂ /CH ₄ Separation by Adsorption using Nanoporous Metal organic Framework Copper-1,3,5-tricarboxylate Tablet. Chemical Engineering and Technology, 2013, 36, 1231-1239.	1.5	34
87	Dynamic desorption of CO ₂ and CH ₄ from amino-MIL-53(Al) adsorbent. Adsorption, 2013, 19, 1235-1244.	3.0	28
88	High yield 1-L scale synthesis of ZIF-8 via a sonochemical route. Microporous and Mesoporous Materials, 2013, 169, 180-184.	4.4	199
89	Sorption and breathing properties of difluorinated MIL-47 and Al-MIL-53 frameworks. Microporous and Mesoporous Materials, 2013, 181, 175-181.	4.4	36
90	Enhanced selectivity of CO ₂ over CH ₄ in sulphonate-, carboxylate- and iodo-functionalized UiO-66 frameworks. Dalton Transactions, 2013, 42, 4730.	3.3	171
91	Partially fluorinated MIL-47 and Al-MIL-53 frameworks: influence of functionalization on sorption and breathing properties. Physical Chemistry Chemical Physics, 2013, 15, 3552.	2.8	63
92	New V ^{IV} -Based Metal-Organic Framework Having Framework Flexibility and High CO ₂ Adsorption Capacity. Inorganic Chemistry, 2013, 52, 113-120.	4.0	68
93	Supramolecular arrangement of 3,5-bis[methylene(dihydroxyphosphoryl)]benzoic acid and its complex with calcium. Journal of Molecular Structure, 2013, 1048, 172-178.	3.6	4
94	Highly Selective Sorption and Luminescent Sensing of Small Molecules Demonstrated in a Multifunctional Lanthanide Microporous Metal-Organic Framework Containing 1D Honeycomb-Type Channels. Chemistry - A European Journal, 2013, 19, 3358-3365.	3.3	162
95	Experimental Study of CO ₂ , CH ₄ , and Water Vapor Adsorption on a Dimethyl-Functionalized UiO-66 Framework. Journal of Physical Chemistry C, 2013, 117, 7062-7068.	3.1	67

#	ARTICLE	IF	CITATIONS
96	Expanded Porous MOF-505 Analogue Exhibiting Large Hydrogen Storage Capacity and Selective Carbon Dioxide Adsorption. <i>Inorganic Chemistry</i> , 2013, 52, 2823-2829.	4.0	91
97	Spectroscopic Studies of Structural Dynamics Induced by Heating and Hydration: A Case of Calcium-Terephthalate Metal-Organic Framework. <i>Journal of Physical Chemistry C</i> , 2013, 117, 7552-7564.	3.1	64
98	Selective Dynamic CO ₂ Separations on Mg-MOF-74 at Low Pressures: A Detailed Comparison with 13X. <i>Journal of Physical Chemistry C</i> , 2013, 117, 9301-9310.	3.1	79
99	Diffusion of Binary CO ₂ /CH ₄ Mixtures in the MIL-47(V) and MIL-53(Cr) Metal-Organic Framework Type Solids: A Combination of Neutron Scattering Measurements and Molecular Dynamics Simulations. <i>Journal of Physical Chemistry C</i> , 2013, 117, 11275-11284.	3.1	51
100	On the Thermodynamics of Framework Breathing: A Free Energy Model for Gas Adsorption in MIL-53. <i>Journal of Physical Chemistry C</i> , 2013, 117, 11540-11554.	3.1	61
101	Adsorption performance of MCM-41 impregnated with amine for CO ₂ removal. <i>Fuel Processing Technology</i> , 2013, 106, 332-337.	7.2	89
102	Carbon Nanofiber-Supported K ₂ CO ₃ as an Efficient Low-Temperature Regenerable CO ₂ Sorbent for Post-Combustion Capture. <i>Industrial & Engineering Chemistry Research</i> , 2013, 52, 12812-12818.	3.7	18
103	Large-Scale Generation and Screening of Hypothetical Metal-Organic Frameworks for Applications in Gas Storage and Separations. <i>Topics in Current Chemistry</i> , 2013, 345, 257-289.	4.0	8
104	Metal organic frameworks (MOF) as CO ₂ adsorbents. <i>Russian Journal of Organic Chemistry</i> , 2014, 50, 1551-1555.	0.8	8
105	Effect of Modified MIL-53 with Multi-Wall Carbon Nanotubes and Nanofibers on CO ₂ Adsorption. <i>Applied Mechanics and Materials</i> , 0, 625, 870-873.	0.2	21
106	Binary adsorption of CO ₂ /CH ₄ in binderless beads of 13X zeolite. <i>Microporous and Mesoporous Materials</i> , 2014, 187, 100-107.	4.4	67
107	Metal-Organic Frameworks for Air Purification of Toxic Chemicals. <i>Chemical Reviews</i> , 2014, 114, 5695-5727.	47.7	825
108	Metal Organic Framework Catalysis: <i>Quo vadis</i> ?. <i>ACS Catalysis</i> , 2014, 4, 361-378.	11.2	859
109	Site characteristics in metal organic frameworks for gas adsorption. <i>Progress in Surface Science</i> , 2014, 89, 56-79.	8.3	86
110	CO ₂ capture by amine-functionalized nanoporous materials: A review. <i>Korean Journal of Chemical Engineering</i> , 2014, 31, 1919-1934.	2.7	148
111	Synthesis of metal-organic frameworks by continuous flow. <i>Green Chemistry</i> , 2014, 16, 3796-3802.	9.0	137
112	A chromium-based metal organic framework as a potential high performance adsorbent for anaesthetic vapours. <i>RSC Advances</i> , 2014, 4, 49478-49484.	3.6	20
113	The Thinnest Molecular Separation Sheet by Graphene Gates of Single-Walled Carbon Nanohorns. <i>ACS Nano</i> , 2014, 8, 11313-11319.	14.6	27

#	ARTICLE	IF	CITATIONS
114	Preferential Solvation of Metastable Phases Relevant to Topological Control Within the Synthesis of Metal-Organic Frameworks. <i>Inorganic Chemistry</i> , 2014, 53, 8930-8940.	4.0	16
115	Adsorption and Separation of Carbon Dioxide Using MIL-53(Al) Metal-Organic Framework. <i>Industrial & Engineering Chemistry Research</i> , 2014, 53, 19747-19753.	3.7	35
116	N-doped porous graphene for carbon dioxide separation: a molecular dynamics study. <i>Science Bulletin</i> , 2014, 59, 3919-3925.	1.7	8
117	Evaluating methane storage targets: from powder samples to onboard storage systems. <i>Adsorption</i> , 2014, 20, 769-776.	3.0	30
118	Computational exploration of metal-organic frameworks for CO ₂ /CH ₄ separation via temperature swing adsorption. <i>Chemical Engineering Science</i> , 2014, 120, 59-66.	3.8	30
119	The Potential Applications of Nanoporous Materials for the Adsorption, Separation, and Catalytic Conversion of Carbon Dioxide. <i>Advanced Energy Materials</i> , 2014, 4, 1301873.	19.5	165
120	Separation of CO ₂ /CH ₄ and CH ₄ /N ₂ mixtures using MOF-5 and Cu ₃ (BTC) ₂ . <i>Journal of Energy Chemistry</i> , 2014, 23, 453-460.	12.9	42
121	Expanding Pore Size of Al-BDC Metal-Organic Frameworks as a Way to Achieve High Adsorption Selectivity for CO ₂ /CH ₄ Separation. <i>Journal of Physical Chemistry C</i> , 2014, 118, 15630-15639.	3.1	15
122	Performance and plasticization behavior of polymer-MOF membranes for gas separation at elevated pressures. <i>Journal of Membrane Science</i> , 2014, 470, 166-177.	8.2	201
123	Hydrogen separation and purification with poly (4-methyl-1-pentyne)/MIL 53 mixed matrix membrane based on reverse selectivity. <i>International Journal of Hydrogen Energy</i> , 2014, 39, 7897-7909.	7.1	53
124	Experiments and simulations on separating a CO ₂ /CH ₄ mixture using K-KFI at low and high pressures. <i>Microporous and Mesoporous Materials</i> , 2014, 184, 21-27.	4.4	34
125	MIL-53 frameworks in mixed-matrix membranes. <i>Microporous and Mesoporous Materials</i> , 2014, 196, 165-174.	4.4	106
126	Fabrication and characterization of Matrimid/MIL-53 mixed matrix membrane for CO ₂ /CH ₄ separation. <i>Chemical Engineering Research and Design</i> , 2014, 92, 2439-2448.	5.6	137
127	Microporous Metal-Organic Frameworks for Gas Separation. <i>Chemistry - an Asian Journal</i> , 2014, 9, 1474-1498.	3.3	183
128	Preliminary Design of a Vacuum Pressure Swing Adsorption Process for Natural Gas Upgrading Based on Amino-Functionalized MIL-53. <i>Chemical Engineering and Technology</i> , 2015, 38, 1183-1194.	1.5	16
129	Turning Redundant Ligands into Treasure: A New Strategy for Constructing MIL-53(Al)@Nanoscale TiO ₂ Layers. <i>Chemistry - A European Journal</i> , 2015, 21, 17485-17490.	3.3	13
130	Simulation of Binary CO ₂ /CH ₄ Mixture Breakthrough Profiles in MIL-53 (Al). <i>Journal of Nanomaterials</i> , 2015, 2015, 1-15.	2.7	13
131	Investigating adsorption of organic compounds in metal-organic framework MIL-53. <i>Canadian Journal of Chemistry</i> , 2015, 93, 960-969.	1.1	15

#	ARTICLE	IF	CITATIONS
132	Flexible Solid Sorbents for CO ₂ Capture and Separation. , 2015, , 149-176.		2
133	Comparison of different solid adsorbents for the removal of mobile pesticides from aqueous solutions. Adsorption, 2015, 21, 243-254.	3.0	37
134	A more efficient way to shape metal-organic framework (MOF) powder materials for hydrogen storage applications. International Journal of Hydrogen Energy, 2015, 40, 4617-4622.	7.1	132
135	Experimental Evaluation of the Adsorption, Diffusion, and Separation of CH ₄ /N ₂ and CH ₄ /CO ₂ Mixtures on Al-BDC MOF. Separation Science and Technology, 2015, 50, 874-885.	2.5	18
136	Hierarchical MOF-xerogel monolith composites from embedding MIL-100(Fe,Cr) and MIL-101(Cr) in resorcinol-formaldehyde xerogels for water adsorption applications. Microporous and Mesoporous Materials, 2015, 215, 143-153.	4.4	93
137	Methodologies for evaluation of metal-organic frameworks in separation applications. RSC Advances, 2015, 5, 52269-52295.	3.6	139
138	Low-cost mesoporous adsorbents amines-impregnated for CO ₂ capture. Adsorption, 2015, 21, 597-609.	3.0	20
139	Mechanically and chemically robust ZIF-8 monoliths with high volumetric adsorption capacity. Journal of Materials Chemistry A, 2015, 3, 2999-3005.	10.3	104
140	In situ synthesis of amide-imidate-imidazolate ligand and formation of metal-organic frameworks: Application for gas storage. Microporous and Mesoporous Materials, 2015, 216, 2-12.	4.4	10
141	Metal-organic frameworks catalyzed C-C and C-heteroatom coupling reactions. Chemical Society Reviews, 2015, 44, 1922-1947.	38.1	348
142	Adsorptive absorption: A preliminary experimental and modeling study on CO ₂ solubility. Chemical Engineering Science, 2015, 127, 260-268.	3.8	35
143	Potential theory for gate adsorption on soft porous crystals. Molecular Simulation, 2015, 41, 1329-1338.	2.0	6
144	A new mesoporous amine-TiO ₂ based pre-combustion CO ₂ capture technology. Applied Energy, 2015, 147, 214-223.	10.1	41
145	Removal of the CO ₂ from flue gas utilizing hybrid composite adsorbent MIL-53(Al)/GNP metal-organic framework. Microporous and Mesoporous Materials, 2015, 218, 144-152.	4.4	48
146	Adsorption Equilibrium and Dynamics of Fixed Bed Adsorption of CH ₄ /N ₂ in Binderless Beads of 5A Zeolite. Industrial & Engineering Chemistry Research, 2015, 54, 6390-6399.	3.7	36
147	Adsorption and Separation of Small Hydrocarbons on the Flexible, Vanadium-Containing MOF, COMOC-2. Langmuir, 2015, 31, 5063-5070.	3.5	34
148	Enhanced CO ₂ /CH ₄ separation properties of asymmetric mixed matrix membrane by incorporating nano-porous ZSM-5 and MIL-53 particles into Matrimid® 5218. Journal of Natural Gas Science and Engineering, 2015, 25, 88-102.	4.4	93
149	Photoinduced Postsynthetic Polymerization of a Metal-Organic Framework toward a Flexible Stand-Alone Membrane. Angewandte Chemie - International Edition, 2015, 54, 4259-4263.	13.8	235

#	ARTICLE	IF	CITATIONS
151	Gas adsorption in shaped zeolitic imidazolate framework-8. Chinese Journal of Chemical Engineering, 2015, 23, 1275-1282.	3.5	18
152	Targeted capture and pressure/temperature-responsive separation in flexible metal-organic frameworks. Journal of Materials Chemistry A, 2015, 3, 22574-22583.	10.3	30
153	Adsorption equilibrium of carbon dioxide and nitrogen on the MIL-53(Al) metal organic framework. Separation and Purification Technology, 2015, 141, 150-159.	7.9	52
154	Pilot-scale synthesis of a zirconium-benzenedicarboxylate UiO-66 for CO ₂ adsorption and catalysis. Catalysis Today, 2015, 245, 54-60.	4.4	76
155	Bivalent metal-based MIL-53 analogues: Synthesis, properties and application. Journal of Solid State Chemistry, 2015, 223, 84-94.	2.9	10
156	Adsorption and diffusion of H ₂ , N ₂ , CO, CH ₄ and CO ₂ in UTSA-16 metal-organic framework extrudates. Chemical Engineering Science, 2015, 124, 159-169.	3.8	83
157	Methane purification by adsorptive processes on MIL-53(Al). Chemical Engineering Science, 2015, 124, 79-95.	3.8	60
158	An efficient recipe for formulation of metal-organic Frameworks. Chemical Engineering Science, 2015, 124, 154-158.	3.8	52
159	Luminescent Metal-Organic Framework Mixed-Matrix Membranes from Lanthanide Metal-Organic Frameworks in Polysulfone and Matrimid. European Journal of Inorganic Chemistry, 2016, 2016, 4408-4415.	2.0	16
160	An In Situ One-Pot Synthetic Approach towards Multivariate Zirconium MOFs. Angewandte Chemie - International Edition, 2016, 55, 6471-6475.	13.8	119
161	An In Situ One-Pot Synthetic Approach towards Multivariate Zirconium MOFs. Angewandte Chemie, 2016, 128, 6581-6585.	2.0	26
162	Adsorption microcalorimetry of small molecules on various metal-organic frameworks. Journal of Thermal Analysis and Calorimetry, 2016, 126, 1747-1755.	3.6	1
163	High performance CO ₂ filtration and sequestration by using bromomethyl benzene linked microporous networks. RSC Advances, 2016, 6, 66324-66335.	3.6	6
164	A Solvent-Free Hot-Pressing Method for Preparing Metal-Organic Framework Coatings. Angewandte Chemie - International Edition, 2016, 55, 3419-3423.	13.8	201
165	Granulation and Shaping of Metal-Organic Frameworks. , 0, , 551-572.		5
166	Research trend of metal-organic frameworks: a bibliometric analysis. Scientometrics, 2016, 109, 481-513.	3.0	91
167	Finding and Evaluating of Adequate Adsorbents for the Adsorption of CO ₂ from Humid Gas Streams. ChemistrySelect, 2016, 1, 2834-2841.	1.5	3
168	Development of a Simulation Model for the Vacuum Pressure Swing Adsorption Process To Sequester Carbon Dioxide from Coalbed Methane. Industrial & Engineering Chemistry Research, 2016, 55, 1013-1023.	3.7	8

#	ARTICLE	IF	CITATIONS
169	Postextraction Separation, On-Board Storage, and Catalytic Conversion of Methane in Natural Gas: A Review. <i>Chemical Reviews</i> , 2016, 116, 11436-11499.	47.7	176
170	Observing the Effects of Shaping on Gas Adsorption in Metal-Organic Frameworks. <i>European Journal of Inorganic Chemistry</i> , 2016, 2016, 4416-4423.	2.0	40
171	Application of poly (amide-b-ethylene oxide)/zeolitic imidazolate framework nanocomposite membrane in gas separation. <i>Iranian Polymer Journal (English Edition)</i> , 2016, 25, 977-990.	2.4	8
172	HKUST-1 silica aerogel composites: novel materials for the separation of saturated and unsaturated hydrocarbons by conventional liquid chromatography. <i>RSC Advances</i> , 2016, 6, 62501-62507.	3.6	34
173	Experimental and computational study of ethane and ethylene adsorption in the MIL-53(Al) metal organic framework. <i>Microporous and Mesoporous Materials</i> , 2016, 230, 154-165.	4.4	37
174	Dynamic Performance of Biomass-Based Carbons for CO ₂ /CH ₄ Separation. Approximation to a Pressure Swing Adsorption Process for Biogas Upgrading. <i>Energy & Fuels</i> , 2016, 30, 5005-5015.	5.1	53
175	A Solvent-Free Hot-Pressing Method for Preparing Metal-Organic Framework Coatings. <i>Angewandte Chemie</i> , 2016, 128, 3480-3484.	2.0	22
176	A lanthanide metal-organic framework (MOF-76) for adsorbing dyes and fluorescence detecting aromatic pollutants. <i>RSC Advances</i> , 2016, 6, 11570-11576.	3.6	114
177	Synthesis and structural characterization of a flexible metal organic framework <i>Sciences</i> , 2016, 52, 1-9.	3.2	9
178	Do adsorbent screening metrics predict process performance? A process optimisation based study for post-combustion capture of CO ₂ . <i>International Journal of Greenhouse Gas Control</i> , 2016, 46, 76-85.	4.6	123
179	MIL-91(Ti), a small pore metal-organic framework which fulfils several criteria: an upscaled green synthesis, excellent water stability, high CO ₂ selectivity and fast CO ₂ transport. <i>Journal of Materials Chemistry A</i> , 2016, 4, 1383-1389.	10.3	82
180	Adsorption, separation, and catalytic properties of densified metal-organic frameworks. <i>Coordination Chemistry Reviews</i> , 2016, 311, 38-52.	18.8	272
181	Adsorption performance indicators for the CO ₂ /CH ₄ separation: Application to biomass-based activated carbons. <i>Fuel Processing Technology</i> , 2016, 142, 361-369.	7.2	81
182	Selective separation of CO ₂ and CH ₄ for biogas upgrading on zeolite NaKA and SAPO-56. <i>Applied Energy</i> , 2016, 162, 613-621.	10.1	102
183	Prospects of monolithic MIL-MOF@poly(NIPAM)HIPE composites as water sorption materials. <i>Microporous and Mesoporous Materials</i> , 2016, 220, 258-269.	4.4	60
184	Gas confinement in compartmentalized coordination polymers for highly selective sorption. <i>Chemical Science</i> , 2017, 8, 3109-3120.	7.4	15
185	CO ₂ Capture and Separations Using MOFs: Computational and Experimental Studies. <i>Chemical Reviews</i> , 2017, 117, 9674-9754.	47.7	837
186	New synthetic routes towards MOF production at scale. <i>Chemical Society Reviews</i> , 2017, 46, 3453-3480.	38.1	649

#	ARTICLE	IF	CITATIONS
187	Critical review of existing nanomaterial adsorbents to capture carbon dioxide and methane. Science of the Total Environment, 2017, 595, 51-62.	8.0	133
188	Polydimethylsiloxane/postmodified MIL-53 composite layer coated on asymmetric hollow fiber membrane for improving gas separation performance. Journal of Applied Polymer Science, 2017, 134, .	2.6	7
189	Separation characteristics as a selection criteria of CO ₂ adsorbents. Journal of CO ₂ Utilization, 2017, 17, 69-79.	6.8	24
190	Computational Screening of Functionalized UiO-66 Materials for Selective Contaminant Removal from Air. Journal of Physical Chemistry C, 2017, 121, 20396-20406.	3.1	28
191	Study of the scale-up, formulation, ageing and ammonia adsorption capacity of MIL-100(Fe), Cu-BTC and CPO-27(Ni) for use in respiratory protection filters. Faraday Discussions, 2017, 201, 113-125.	3.2	34
192	Findung und Charakterisierung von Adsorbentien zur CO ₂ -Adsorption aus feuchten Gasströmen. Chemie-Ingenieur-Technik, 2017, 89, 289-302.	0.8	1
193	Preparation of HKUST-1@silica aerogel composite for continuous flow catalysis. Journal of Sol-Gel Science and Technology, 2017, 84, 446-452.	2.4	23
194	Predicting the Breakthrough Performance of α -Gating Adsorbents Using Osmotic Framework-Adsorbed Solution Theory. Langmuir, 2017, 33, 11670-11678.	3.5	19
195	Using Artificial Neural Network and Ideal Adsorbed Solution Theory for Predicting the CO ₂ /CH ₄ Selectivities of Metal-Organic Frameworks: A Comparative Study. Industrial & Engineering Chemistry Research, 2017, 56, 14610-14622.	3.7	30
196	Influence of Metal-Organic Framework Porosity on Hydrogen Generation from Nanoconfined Ammonia Borane. Journal of Physical Chemistry C, 2017, 121, 27369-27378.	3.1	40
197	A MIL-101(Cr) and Graphene Oxide Composite for Methane-Rich Stream Treatment. Energy & Fuels, 2017, 31, 8792-8802.	5.1	21
198	Extremely permeable porous graphene with high H ₂ /CO ₂ separation ability achieved by graphene surface rejection. Physical Chemistry Chemical Physics, 2017, 19, 18201-18207.	2.8	10
199	Water-resistant porous coordination polymers for gas separation. Coordination Chemistry Reviews, 2017, 332, 48-74.	18.8	331
200	Amine tethered pore-expanded MCM-41: A promising adsorbent for CO ₂ capture. Chemical Engineering Journal, 2017, 308, 827-839.	12.7	79
201	Hot-Pressing Method To Prepare Imidazole-Based Zn(II) Metal-Organic Complexes Coatings for Highly Efficient Air Filtration. ACS Applied Materials & Interfaces, 2018, 10, 9744-9755.	8.0	39
202	Statistical mechanics of binary mixture adsorption in metal-organic frameworks in the osmotic ensemble. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2018, 376, 20170151.	3.4	12
203	Theoretical Model and Numerical Simulation of Adsorption and Deformation in Flexible Metal-Organic Frameworks. Journal of Physical Chemistry C, 2018, 122, 9465-9473.	3.1	13
204	Amino acid modified montmorillonite clays as sustainable materials for carbon dioxide adsorption and separation. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2018, 544, 105-110.	4.7	31

#	ARTICLE	IF	CITATIONS
205	Microporous Lead-Organic Framework for Selective CO ₂ Adsorption and Heterogeneous Catalysis. <i>Inorganic Chemistry</i> , 2018, 57, 1774-1786.	4.0	31
206	Shape engineering of metal-organic frameworks. <i>Polyhedron</i> , 2018, 145, 1-15.	2.2	172
207	Performance Comparison of Metal-Organic Framework Extrudates and Commercial Zeolite for Ethylene/Ethane Separation. <i>Industrial & Engineering Chemistry Research</i> , 2018, 57, 1645-1654.	3.7	45
208	Database for CO ₂ Separation Performances of MOFs Based on Computational Materials Screening. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 17257-17268.	8.0	129
209	Study of synthesis parameters of MIL-53(Al) using experimental design methodology for CO ₂ /CH ₄ separation. <i>Adsorption Science and Technology</i> , 2018, 36, 247-269.	3.2	17
210	Thermodynamics and kinetics of CH ₄ /CO ₂ binary mixture separation by metal-organic frameworks from isotope exchange and adsorption break-through. <i>Microporous and Mesoporous Materials</i> , 2018, 263, 165-172.	4.4	21
211	Biomimetic preparation of hybrid membranes with ultra-high loading of pristine metal-organic frameworks grown on silk nanofibers for hazard collection in water. <i>Journal of Materials Chemistry A</i> , 2018, 6, 3402-3413.	10.3	120
212	Present and future of MOF research in the field of adsorption and molecular separation. <i>Current Opinion in Chemical Engineering</i> , 2018, 20, 132-142.	7.8	152
213	Electronic structure, pore size distribution, and sorption characterization of an unusual MOF, {[Ni(dpbz)][Ni(CN) ₄]} _n , dpbz = 1,4-bis(4-pyridyl)benzene. <i>Journal of Applied Physics</i> , 2018, 123, 245105.	2.5	9
214	Harnessing Filler Materials for Enhancing Biogas Separation Membranes. <i>Chemical Reviews</i> , 2018, 118, 8655-8769.	47.7	239
215	Shaping of ultrahigh-loading MOF pellet with a strongly anti-tearing binder for gas separation and storage. <i>Chemical Engineering Journal</i> , 2018, 354, 1075-1082.	12.7	114
216	Binderless shaped metal-organic framework particles: Impact on carbon dioxide adsorption. <i>Microporous and Mesoporous Materials</i> , 2019, 275, 111-121.	4.4	36
217	Optimizing purity and recovery of hydrogen from syngas by equalized pressure swing adsorption using palm kernel shell activated carbon adsorbent. <i>AIP Conference Proceedings</i> , 2019, , .	0.4	4
218	Application of metal-organic frameworks in VPSA technology for CO ₂ capture. <i>Fuel</i> , 2019, 255, 115773.	6.4	12
219	Formation of Metal-Organic Frameworks on a Metal Ion-Doped Polymer Substrate: In-Depth Time-Course Analysis Using Scanning Electron Microscopy. <i>Langmuir</i> , 2019, 35, 10390-10396.	3.5	6
220	Functional Composite Adsorbents of High Packing Density Based on Metal-Organic Framework Structures for Methane Accumulation. <i>Protection of Metals and Physical Chemistry of Surfaces</i> , 2019, 55, 826-832.	1.1	7
221	Shaping of Flexible Metal-Organic Frameworks: Combining Macroscopic Stability and Framework Flexibility. <i>European Journal of Inorganic Chemistry</i> , 2019, 2019, 4700-4709.	2.0	41
222	Metal-organic framework structures: adsorbents for natural gas storage. <i>Russian Chemical Reviews</i> , 2019, 88, 925-978.	6.5	57

#	ARTICLE	IF	CITATIONS
223	Membrane-Coated UiO-66 MOF Adsorbents. Industrial & Engineering Chemistry Research, 2019, 58, 1352-1362.	3.7	17
224	Powerful combination of MOFs and C ₃ N ₄ for enhanced photocatalytic performance. Applied Catalysis B: Environmental, 2019, 247, 24-48.	20.2	309
225	Intermediate states approach for adsorption studies in flexible metal-organic frameworks. Physical Chemistry Chemical Physics, 2019, 21, 3294-3303.	2.8	13
226	A systematic evaluation of UiO-66 metal organic framework for CO ₂ /N ₂ separation. Separation and Purification Technology, 2019, 224, 85-94.	7.9	52
227	Shaping metal-organic framework (MOF) powder materials for CO ₂ capture applications—a thermogravimetric study. Journal of Thermal Analysis and Calorimetry, 2019, 138, 4139-4144.	3.6	26
228	A zinc(ii) metal-organic framework with high affinity for CO ₂ based on triazole and tetrazolyl benzene carboxylic acid. CrystEngComm, 2019, 21, 3679-3685.	2.6	9
229	Predictions of Stepped Isotherms in Breathing Adsorbents by the Rigid Adsorbent Lattice Fluid. Journal of Physical Chemistry C, 2019, 123, 14517-14529.	3.1	8
230	Water sorption properties of functionalized MIL-101(Cr)-X (X=NH ₂ , -SO ₃ H, H, -CH ₃ , -F) based composites as thermochemical heat storage materials. Microporous and Mesoporous Materials, 2019, 285, 129-136.	4.4	41
231	CO ₂ Storage on Metal-Organic Frameworks. Green Energy and Technology, 2019, , 331-358.	0.6	1
232	Nanoporous Materials for Gas Storage. Green Energy and Technology, 2019, , .	0.6	14
233	Superior activity and selectivity of multifunctional catalyst Pd-DTP@ZIF-8 in one pot synthesis of 3-phenyl propyl benzoate. Inorganica Chimica Acta, 2019, 490, 282-293.	2.4	8
234	Impacts of Metal-Organic Frameworks on Structure and Performance of Polyamide Thin-Film Nanocomposite Membranes. ACS Applied Materials & Interfaces, 2019, 11, 13724-13734.	8.0	100
235	Shaping of metal-organic frameworks into mechanically stable monoliths with poly(vinyl alcohol) by phase separation technique. Microporous and Mesoporous Materials, 2019, 280, 277-287.	4.4	28
236	Thermodynamic Modeling of the Selective Adsorption of Carbon Dioxide over Methane in the Mechanically Constrained Breathing MIL-53(Cr). Advanced Theory and Simulations, 2019, 2, 1900124.	2.8	3
237	Unveiled the Source of the Structural Instability of HKUST-1 Powders upon Mechanical Compaction: Definition of a Fully Preserving Tableting Method. Journal of Physical Chemistry C, 2019, 123, 1730-1741.	3.1	15
238	CO ₂ Capture in Metal-Organic Framework Adsorbents: An Engineering Perspective. Advanced Sustainable Systems, 2019, 3, 1800080.	5.3	217
239	Flowability improvement of soft metal-organic framework particles by wet granulation. Microporous and Mesoporous Materials, 2020, 293, 109785.	4.4	8
240	A comparative study of the physical and chemical properties of pelletized HKUST-1, ZIF-8, ZIF-67 and UiO-66 powders. Heliyon, 2020, 6, e04883.	3.2	18

#	ARTICLE	IF	CITATIONS
241	Transport properties in porous coordination polymers. Coordination Chemistry Reviews, 2020, 421, 213447.	18.8	63
242	Extrusion and Characterization of High Si/Al Ratio ZSM-5 Using Silica Binder. Energies, 2020, 13, 1201.	3.1	8
243	Global Climate Change: Resilient and Smart Agriculture. , 2020, , .		17
244	Bentâ€Butâ€Notâ€Broken: Reactive Metalâ€Organic Framework Composites from Elastomeric Phaseâ€Inverted Polymers. Advanced Functional Materials, 2020, 30, 2005517.	14.9	14
245	Structural variety of aluminium and gallium coordination polymers based on bis-pyridylethylene: from molecular complexes to ionic networks. CrystEngComm, 2020, 22, 4531-4543.	2.6	6
246	Densification-Induced Structure Changes in Basolite MOFs: Effect on Low-Pressure CH ₄ Adsorption. Nanomaterials, 2020, 10, 1089.	4.1	14
247	Hierarchically porous monolithic MOFs: An ongoing challenge for industrial-scale effluent treatment. Chemical Engineering Journal, 2020, 393, 124765.	12.7	75
248	A Review of Porous Adsorbents for the Separation of Nitrogen from Natural Gas. Industrial & Engineering Chemistry Research, 2020, 59, 13355-13369.	3.7	46
249	Adsorption of methane and nitrogen on Basolite MOFs: Equilibrium and kinetic studies. Microporous and Mesoporous Materials, 2020, 298, 110048.	4.4	21
250	Stimulus-responsive adsorbent materials for CO ₂ capture and separation. Journal of Materials Chemistry A, 2020, 8, 10519-10533.	10.3	39
251	Shaping the Future of Fuel: Monolithic Metalâ€Organic Frameworks for High-Density Gas Storage. Journal of the American Chemical Society, 2020, 142, 8541-8549.	13.7	182
252	Shaping of gallate-based metal-organic frameworks for adsorption separation of ethylene from acetylene and ethane. Journal of Colloid and Interface Science, 2021, 581, 177-184.	9.4	18
253	Striking CO ₂ capture and CO ₂ /N ₂ separation by Mn/Al bimetallic MIL-53. Polyhedron, 2021, 193, 114898.	2.2	5
254	Selective CO ₂ Sorption Using Compartmentalized Coordination Polymers with Discrete Voids**. Chemistry - A European Journal, 2021, 27, 4653-4659.	3.3	5
255	Perfluorooctane sulfonate removal by metal-organic frameworks (MOFs): Insights into the effect and mechanism of metal nodes and organic ligands. Chemical Engineering Journal, 2021, 406, 126852.	12.7	40
256	Metalâ€organic frameworks (MOFs) beyond crystallinity: amorphous MOFs, MOF liquids and MOF glasses. Journal of Materials Chemistry A, 2021, 9, 10562-10611.	10.3	250
257	From metalâ€organic framework powders to shaped solids: recent developments and challenges. Materials Advances, 2021, 2, 7139-7186.	5.4	50
258	Metalâ€organic framework. Interface Science and Technology, 2021, , 279-387.	3.3	13

#	ARTICLE	IF	CITATIONS
259	Synthesis of MIL-53(Fe) Metal-Organic Framework Material and Its Application as a Catalyst for Fenton-Type Oxidation of Organic Pollutants. <i>Advances in Materials Science and Engineering</i> , 2021, 2021, 1-13.	1.8	11
260	A stable and efficient La-doped MIL-53(Al)/ZnO photocatalyst for sulfamethazine degradation. <i>Journal of Rare Earths</i> , 2022, 40, 595-604.	4.8	9
261	Recent advances in the synthesis of monolithic metal-organic frameworks. <i>Science China Materials</i> , 2021, 64, 1305-1319.	6.3	77
262	Synthesis and Sulfonation of an Aluminum-Based Metal-Organic Framework with Microwave Method and Using for the Esterification of Oleic Acid. <i>Journal of Inorganic and Organometallic Polymers and Materials</i> , 2021, 31, 4033-4049.	3.7	9
263	Slacking of Gate Adsorption Behavior on Metal-Organic Frameworks under an External Force. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 30213-30223.	8.0	10
264	Scale-up of immobilized amine sorbent pellets for landfill gas upgrading, using benchtop and pilot equipment. <i>Powder Technology</i> , 2022, 395, 243-254.	4.2	3
265	Multi-objective genetic algorithm optimization with an artificial neural network for CO ₂ /CH ₄ adsorption prediction in metal-organic framework. <i>Thermal Science and Engineering Progress</i> , 2021, 25, 100967.	2.7	14
266	Cyclic olefin copolymer (COC)-metal organic framework (MOF) mixed matrix membranes (MMMs) for H ₂ /CO ₂ separation. <i>Journal of Natural Gas Science and Engineering</i> , 2021, 95, 104155.	4.4	4
267	Biogas upgrading to fuel grade methane using pressure swing adsorption: Parametric sensitivity analysis on an industrial scale. <i>Fuel</i> , 2022, 308, 121986.	6.4	28
268	Large-scale synthesis and Shaping of Metal-Organic Frameworks. , 2021, , 33-54.		2
269	Metal-Organic Frameworks (MOFs) for CO ₂ Capture. <i>Green Chemistry and Sustainable Technology</i> , 2014, , 79-113.	0.7	2
270	A Collection of More than 900 Gas Mixture Adsorption Experiments in Porous Materials from Literature Meta-Analysis. <i>Industrial & Engineering Chemistry Research</i> , 2021, 60, 639-651.	3.7	48
271	Studies on the adsorption behavior of CO ₂ -CH ₄ mixtures using activated carbon. <i>Brazilian Journal of Chemical Engineering</i> , 2013, 30, 939-951.	1.3	60
272	A review on metal organic frameworks (MOFs) modified membrane for remediation of water pollution. <i>Environmental Engineering Research</i> , 0, , .	2.5	6
273	Nanotechnology for Mitigation of Global Warming Impacts. , 2020, , 315-336.		1
274	Surface modification of thin-film nanocomposite forward osmosis membrane with super-hydrophilic MIL-53 (Al) for doxycycline removal as an emerging contaminant and membrane antifouling property enhancement. <i>Chemical Engineering Journal</i> , 2022, 431, 133469.	12.7	33
275	Encapsulation of a Volatile Biomolecule (Hexanal) in Cyclodextrin Metal-Organic Frameworks for Slow Release and Its Effect on Preservation of Mangoes. <i>ACS Food Science & Technology</i> , 2021, 1, 1936-1944.	2.7	11
276	Structural resolution and mechanistic insight into hydrogen adsorption in flexible ZIF-7. <i>Chemical Science</i> , 2021, 12, 15620-15631.	7.4	18

#	ARTICLE	IF	CITATIONS
277	Shaping of ZIF-8 and MIL-53(Al) adsorbents for CH ₄ /N ₂ separation. Microporous and Mesoporous Materials, 2022, 331, 111648.	4.4	14
278	Biomethane upgrading to transportation fuel quality using spent coffee for carbon dioxide capture in pressure swing adsorption. Journal of Environmental Chemical Engineering, 2022, 10, 107169.	6.7	22
279	Optimization of the adsorption and removal of Sb(III) by MIL-53(Fe)/GO using response surface methodology. RSC Advances, 2022, 12, 4101-4112.	3.6	7
280	Shaping of Metal-Organic Frameworks: A Review. Energy & Fuels, 2022, 36, 2927-2944.	5.1	56
281	Tuning the High-Pressure Phase Behaviour of Highly Compressible Zeolitic Imidazolate Frameworks: From Discontinuous to Continuous Pore Closure by Linker Substitution. Angewandte Chemie, 0, , .	2.0	0
282	Syngas generation for methanol synthesis: oxy-steam gasification route using agro-residue as fuel. Biomass Conversion and Biorefinery, 2022, 12, 1803-1818.	4.6	14
283	Tuning the High-Pressure Phase Behaviour of Highly Compressible Zeolitic Imidazolate Frameworks: From Discontinuous to Continuous Pore Closure by Linker Substitution. Angewandte Chemie - International Edition, 2022, 61, .	13.8	12
284	Ni nanocatalysts supported on MIL-53(Al) for DCPD hydrogenation. RSC Advances, 2022, 12, 9044-9050.	3.6	4
285	Metal organic framework/polyelectrolyte composites for water vapor sorption applications. Dalton Transactions, 2022, , .	3.3	2
286	Optimized Scalable Synthesis and Granulation of Mil-88b(Fe) Mof for Efficient Arsenate Removal. SSRN Electronic Journal, 0, , .	0.4	0
287	Binding Materials for MOF Monolith Shaping Processes: A Review towards Real Life Application. Energies, 2022, 15, 1489.	3.1	6
288	Identifying the Gate-Opening Mechanism in the Flexible Metal-Organic Framework UTSA-300. Inorganic Chemistry, 2022, 61, 5025-5032.	4.0	9
289	Re-generable and re-synthesisable micro-structured MIL-53 Rachig Rings for ibuprofen removal. Journal of Environmental Chemical Engineering, 2022, 10, 107432.	6.7	4
290	Fabrication of metal-organic framework architectures with macroscopic size: A review. Coordination Chemistry Reviews, 2022, 462, 214520.	18.8	26
292	Analytical application of MIL-53 (Al) for the extraction of pesticides from fruit juices following their preconcentration through dispersive liquid-liquid microextraction. Talanta Open, 2022, 5, 100121.	3.7	7
293	An aluminum-based MOF and its amine form as novel biological active materials for antioxidant, DNA cleavage, antimicrobial, and biofilm inhibition activities. Materials Today Sustainability, 2022, 19, 100204.	4.1	7
294	A dual purpose aluminum-based metal organic framework for the removal of chloramphenicol from wastewater. Chemosphere, 2022, 308, 136411.	8.2	7
295	Optimized scalable synthesis and granulation of MIL-88B(Fe) for efficient arsenate removal. Journal of Environmental Chemical Engineering, 2022, 10, 108556.	6.7	3

#	ARTICLE	IF	CITATIONS
314	Facile shaping of flexible MIL-53(Al) for effective separation of propylene over propane. Chemical Engineering Journal, 2024, 480, 147872.	12.7	0
315	Shaping Methods of Metal-Organic Frameworks for Natural Gas Storage. , 0, 73, 36-42.		0
316	The impact of trace amounts of CO ₂ on the high-pressure adsorption of CH ₄ on 5A zeolite. Microporous and Mesoporous Materials, 2024, 369, 112948.	4.4	0
317	Aniline-Naphthylamine Copolymer Integrated with Aluminum Terephthalate-Based Metal Organic Framework for Efficient Hydrogen Evolution From Seawater. Journal of Materials Engineering and Performance, 0, , .	2.5	0
318	Role of metal-organic framework in hydrogen gas storage: A critical review. International Journal of Hydrogen Energy, 2024, 59, 1434-1458.	7.1	0
319	Bridging the Adsorption Data and Adsorption Process by Introducing a Polynomial Structure To Accurately Describe IUPAC Isotherms, Stepwise Isotherms, and Stepwise Breakthrough Curves. Langmuir, 2024, 40, 4132-4141.	3.5	0