An Amine-Functionalized MIL-53 Metalâ^'Organic Fram for CO₂ and CH₄

Journal of the American Chemical Society

131, 6326-6327

DOI: 10.1021/ja900555r

Citation Report

#	Article	IF	Citations
5	[Al₄(OH)₂(OCH₃)₄(H₂Nâ€bdc)₃]â‹……xâ€‰H₂O: A 12â€Connected Porous Metalâ€“Organic Framework with an Unprecedented Aluminumâ€Containing Brick. Angewandte Chemie - International Edition, 2009, 48, 5163-5166.	7.2	260
6	Highly Selective CO₂ Capture in Flexible 3D Coordination Polymer Networks. Angewandte Chemie - International Edition, 2009, 48, 6865-6869.	7.2	364
7	Potential applications of metal-organic frameworks. Coordination Chemistry Reviews, 2009, 253, 3042-3066.	9.5	1,422
8	Natural gas treating by selective adsorption: Material science and chemical engineering interplay. Chemical Engineering Journal, 2009, 155, 553-566.	6.6	386
9	Co-adsorption and Separation of CO₂â^'CH₄ Mixtures in the Highly Flexible MIL-53(Cr) MOF. Journal of the American Chemical Society, 2009, 131, 17490-17499.	6.6	398
10	Modulating Metalâ^'Organic Frameworks To Breathe: A Postsynthetic Covalent Modification Approach. Journal of the American Chemical Society, 2009, 131, 16675-16677.	6.6	216
11	Application of metalâ€“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
12	A Pillared-Layer Coordination Polymer with a Rotatable Pillar Acting as a Molecular Gate for Guest Molecules. Journal of the American Chemical Society, 2009, 131, 12792-12800.	6.6	298
13	An amine-functionalized metal organic framework for preferential CO2 adsorption at low pressures. Chemical Communications, 2009, , 5230.	2.2	390
14	Synthesis and Gas Sorption Properties of a Metal-Azolium Framework (MAF) Material. Inorganic Chemistry, 2009, 48, 9971-9973.	1.9	83
15	Exceptionally High Acetylene Uptake in a Microporous Metalâ^'Organic Framework with Open Metal Sites. Journal of the American Chemical Society, 2009, 131, 12415-12419.	6.6	510
16	Prediction of Breathing and Gate-Opening Transitions Upon Binary Mixture Adsorption in Metalâ^'Organic Frameworks. Journal of the American Chemical Society, 2009, 131, 11329-11331.	6.6	144
17	Hydrogen, Methane and Carbon Dioxide Adsorption in Metal-Organic Framework Materials. Topics in Current Chemistry, 2009, 293, 35-76.	4.0	110
18	Amine-Bearing Mesoporous Silica for CO₂ and H₂S Removal from Natural Gas and Biogas. Langmuir, 2009, 25, 13275-13278.	1.6	166
19	Upgrade of natural gas in rho zeolite-like metalâ€“organic framework and effect of water: a computational study. Energy and Environmental Science, 2009, 2, 1088.	15.6	67
20	Highly efficient separation of carbon dioxide by a metal-organic framework replete with open metal sites. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 20637-20640.	3.3	1,042
21	Synthesis and Crystal Structure of Complexes Copper(II) and Silver(I) with 1,3,4â€Thiadiazoleâ€Based Ligands. Journal of the Chinese Chemical Society, 2010, 57, 992-997.	0.8	7
22	Crystal structure of (2,2'-bipyridine)-(adamantane-1,3-dicarboxylato)- manganese(II) hydrate, Mn(C10H8N2)(C12H14O4) Â· H2O. Zeitschrift Fur Kristallographie - New Crystal Structures, 2010, 225, 483-485.	0.1	3

#	Article	IF	Citations
23	Functionalization in Flexible Porous Solids: Effects on the Pore Opening and the Hostâ^'Guest Interactions. Journal of the American Chemical Society, 2010, 132, 1127-1136.	6.6	445
24	Two Robust Porous Metalâ€"Organic Frameworks Sustained by Distinct Catenation: Selective Gas Sorption and Singleâ€Crystalâ€toâ€Singleâ€Crystal Guest Exchange. Chemistry - an Asian Journal, 2010, 5, 2358-2368.	1.7	54
25	A layered coordination polymer based on an azodibenzoate linker connected to aluminium (MIL-129). CrystEngComm, 2010, 12, 3225.	1.3	18
26	Building MOF bottles around phosphotungstic acid ships: One-pot synthesis of bi-functional polyoxometalate-MIL-101 catalysts. Journal of Catalysis, 2010, 269, 229-241.	3.1	311
27	New Microporous Materials for Acetylene Storage and C₂H₂/CO₂ Separation: Insights from Molecular Simulations. ChemPhysChem, 2010, 11, 2220-2229.	1.0	118
28	Can Metalâ€"Organic Framework Materials Play a Useful Role in Largeâ€Scale Carbon Dioxide Separations?. ChemSusChem, 2010, 3, 879-891.	3.6	556
29	A Microporous Metalâ€"Organic Framework with Immobilized â€"OH Functional Groups within the Pore Surfaces for Selective Gas Sorption. European Journal of Inorganic Chemistry, 2010, 2010, 3745-3749.	1.0	97
30	Silicaâ€"MOF Composites as a Stationary Phase in Liquid Chromatography. European Journal of Inorganic Chemistry, 2010, 2010, 3735-3738.	1.0	120
31	A Flexible Proâ€porous Coordination Polymer: Nonâ€conventional Synthesis and Separation Properties Towards CO₂/CH₄ Mixtures. Chemistry - A European Journal, 2010, 16, 931-937.	1.7	45
32	Highly Selective CO₂ Capture by a Flexible Microporous Metalâ€"Organic Framework (MMOF) Material. Chemistry - A European Journal, 2010, 16, 13951-13954.	1.7	167
36	Metalâ€Organic Framework Membranesâ€"High Potential, Bright Future?. Angewandte Chemie - International Edition, 2010, 49, 1530-1532.	7.2	252
37	Carbon Dioxide Capture: Prospects for New Materials. Angewandte Chemie - International Edition, 2010, 49, 6058-6082.	7.2	3,452
38	Cinchona Alkaloidâ€"Metal Complexes: Noncovalent Porous Materials with Unique Gas Separation Properties. Angewandte Chemie - International Edition, 2010, 49, 7035-7039.	7.2	45
39	In silico screening of zeolite membranes for CO2 capture. Journal of Membrane Science, 2010, 360, 323-333.	4.1	280
40	Microwave enhanced synthesis of MOF-5 and its CO2 capture ability at moderate temperatures across multiple capture and release cycles. Chemical Engineering Journal, 2010, 156, 465-470.	6.6	130
41	Modeling CO2 adsorption on amine-functionalized mesoporous silica: 1. A semi-empirical equilibrium model. Chemical Engineering Journal, 2010, 161, 173-181.	6.6	172
42	Influence of regeneration conditions on the cyclic performance of amine-grafted mesoporous silica for CO2 capture: An experimental and statistical study. Chemical Engineering Science, 2010, 65, 4166-4172.	1.9	71
44	Crystal structure of bis[2-(3,5-dimethylpyrazol-1-yl)ethyl]etherdiisothiocyanatocopper(II), Cu(C14H22N4O)(NCS)2. Zeitschrift Fur Kristallographie - New Crystal Structures, 2010, 225, 429-497.	0.1	0

#	Article	IF	Citations
45	High-connected mesoporous metalâ€“organic framework. Chemical Communications, 2010, 46, 7400.	2.2	106
46	Ethane/Ethene Separation Turned on Its Head: Selective Ethane Adsorption on the Metalâ^'Organic Framework ZIF-7 through a Gate-Opening Mechanism. Journal of the American Chemical Society, 2010, 132, 17704-17706.	6.6	650
47	High-Throughput Aided Synthesis of the Porous Metalâ^'Organic Framework-Type Aluminum Pyromellitate, MIL-121, with Extra Carboxylic Acid Functionalization. Inorganic Chemistry, 2010, 49, 9852-9862.	1.9	139
48	Kleine Poren â€" groÃŸe Wirkung. Nachrichten Aus Der Chemie, 2010, 58, 1003-1007.	0.0	3
49	Coordination polymers based on flexible ditopic carboxylate or nitrogen-donor ligands. CrystEngComm, 2010, 12, 660-670.	1.3	126
50	A Robust Highly Interpenetrated Metalâ^'Organic Framework Constructed from Pentanuclear Clusters for Selective Sorption of Gas Molecules. Inorganic Chemistry, 2010, 49, 8444-8448.	1.9	100
51	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.	2.1	54
52	Stabilization of Amine-Containing CO₂ Adsorbents: Dramatic Effect of Water Vapor. Journal of the American Chemical Society, 2010, 132, 6312-6314.	6.6	531
53	Ring-Opening Reactions within Porous Metalâ^'Organic Frameworks. Inorganic Chemistry, 2010, 49, 6387-6389.	1.9	115
54	Li-modified metalâ€“organic frameworks for CO₂/CH₄separation: a route to achieving high adsorption selectivity. Journal of Materials Chemistry, 2010, 20, 706-714.	6.7	115
55	Enhanced selectivity of CO2 from a ternary gas mixture in an interdigitated porous framework. Chemical Communications, 2010, 46, 4258.	2.2	106
56	Flexibility of Porous Coordination Polymers Strongly Linked to Selective Sorption Mechanism. Chemistry of Materials, 2010, 22, 4129-4131.	3.2	40
57	Self-Diffusion Studies in CuBTC by PFG NMR and MD Simulations. Journal of Physical Chemistry C, 2010, 114, 10527-10534.	1.5	82
58	Assembly of 3D Metal-Organic Framework Based on Heterobimetallic Cu-K Unit and Oxalate Linkage. Synthesis and Reactivity in Inorganic, Metal Organic, and Nano Metal Chemistry, 2010, 40, 237-240.	0.6	2
59	Nonclassical Active Site for Enhanced Gas Sorption in Porous Coordination Polymer. Journal of the American Chemical Society, 2010, 132, 6654-6656.	6.6	300
60	New Metalâ^'Organic Framework with Unimodal 4-Connected Topology Displaying Interpenetration, Self-Catenation, and Second-Order Nonlinear Optical Response. Crystal Growth and Design, 2010, 10, 1489-1491.	1.4	71
61	Silver Coordination Polymers Based on Neutral Trinitrile Ligand: Topology and the Role of Anion. Crystal Growth and Design, 2010, 10, 3964-3976.	1.4	68
62	Mn^{II}-based MIL-53 Analogues: Synthesis Using Neutral Bridging Î¼₂-Ligands and Application in Liquid-Phase Adsorption and Separation of C6â^'C8 Aromatics. Journal of the American Chemical Society, 2010, 132, 3656-3657.	6.6	102

#	Article	IF	Citations
63	Functionalized MOFs for Enhanced CO₂ Capture. Crystal Growth and Design, 2010, 10, 2839-2841.	1.4	258
64	Controlled Multiscale Synthesis of Porous Coordination Polymer in Nano/Micro Regimes. Chemistry of Materials, 2010, 22, 4531-4538.	3.2	459
65	Synthesis and Stability of Tagged UiO-66 Zr-MOFs. Chemistry of Materials, 2010, 22, 6632-6640.	3.2	1,547
66	A pulse chromatographic study of the adsorption properties of the amino-MIL-53 (Al) metalâ€“organic framework. Physical Chemistry Chemical Physics, 2010, 12, 9413.	1.3	69
67	Carbamate complexation by urea-based receptors: studies in solution and the solid state. Organic and Biomolecular Chemistry, 2010, 8, 100-106.	1.5	48
68	A Luminescent Eight-Coordinated 2D Cd(II) Framework Material with Flexible Multi-Carboxylate Ligand. Synthesis and Reactivity in Inorganic, Metal Organic, and Nano Metal Chemistry, 2010, 40, 231-236.	0.6	4
69	Multistep N₂ Breathing in the Metalâ˜Organic Framework Co(1,4-benzenedipyrazolate). Journal of the American Chemical Society, 2010, 132, 13782-13788.	6.6	220
70	A flexible MMOF exhibiting high selectivity for CO2 over N2, CH4 and other small gases. Chemical Communications, 2010, 46, 9152.	2.2	111
72	Architecture of europium complexes with sulfobenzenedicarboxylates. CrystEngComm, 2010, 12, 3145.	1.3	30
73	A new kind CO2/CH4 separation material: open ended nitrogen doped carbon nanotubes formed by direct pyrolysis of metal organic frameworks. Chemical Communications, 2010, 46, 1308.	2.2	60
74	Selective gas adsorption within a five-connected porous metalâ€“organic framework. Journal of Materials Chemistry, 2010, 20, 3984.	6.7	58
75	An ionic porous coordination framework exhibiting high CO₂affinity and CO₂/CH₄selectivity. Chemical Communications, 2011, 47, 926-928.	2.2	111
76	Selective CO2 capture by a 3dâ€“4d coordination polymer material with 1D channel. CrystEngComm, 2011, 13, 6013.	1.3	16
77	Hydrothermal syntheses, crystal structures and magnetic properties of four Mn(ii) and Co(ii) coordination polymers generated from new carboxylate-introduced 1,2,3-triazole ligands. CrystEngComm, 2011, 13, 3868.	1.3	37
78	Size- and Shape-Selective Isostructural Microporous Metalâ€“Organic Frameworks with Different Effective Aperture Sizes. Inorganic Chemistry, 2011, 50, 5044-5053.	1.9	43
79	CO2 capture by hydrocarbonsurfactant liquids. Chemical Communications, 2011, 47, 1033-1035.	2.2	41
80	Liquid Phase Separation of Polyaromatics on [Cu2(BDC)2(dabco)]. Langmuir, 2011, 27, 9083-9087.	1.6	19
81	Control of the charge-transfer interaction between a flexible porous coordination host and aromatic guests by framework isomerism. CrystEngComm, 2011, 13, 3360.	1.3	46

#	Article	IF	Citations
82	Effect of Time, Temperature, and Kinetics on the Hysteretic Adsorptionâ€“Desorption of H₂, Ar, and N₂ in the Metalâ€“Organic Framework Zn₂(bpdc)₂(bpee). Langmuir, 2011, 27, 14169-14179.	1.6	23
83	Amino functionalized zeolitic tetrazolate framework (ZTF) with high capacity for storage of carbon dioxide. Chemical Communications, 2011, 47, 2011-2013.	2.2	218
84	Enhanced CO₂ Binding Affinity of a High-Uptake rht-Type Metalâ€'Organic Framework Decorated with Acylamide Groups. Journal of the American Chemical Society, 2011, 133, 748-751.	6.6	722
87	CO2 selectivity of a 1D microporous adenine-based metalâ€“organic framework synthesised in water. Chemical Communications, 2011, 47, 3389.	2.2	92
88	Functionalizing porous zirconium terephthalate UiO-66(Zr) for natural gas upgrading: a computational exploration. Chemical Communications, 2011, 47, 9603.	2.2	345
89	Palladium Nanoparticles Confined in the Cages of MIL-101: An Efficient Catalyst for the One-Pot Indole Synthesis in Water. ACS Catalysis, 2011, 1, 1604-1612.	5.5	151
90	CO2 capture by solid adsorbents and their applications: current status and new trends. Energy and Environmental Science, 2011, 4, 42-55.	15.6	1,353
91	Chemical tuning of CO2 sorption in robust nanoporous organic polymers. Chemical Science, 2011, 2, 1173.	3.7	532
92	In silico screening of metalâ€“organic frameworks in separation applications. Physical Chemistry Chemical Physics, 2011, 13, 10593.	1.3	300
93	Control of catenation in CuTATB-n metalâ€“organic frameworks by sonochemical synthesis and its effect on CO2 adsorption. Journal of Materials Chemistry, 2011, 21, 3070.	6.7	225
94	Screening Metalâ€“Organic Frameworks by Analysis of Transient Breakthrough of Gas Mixtures in a Fixed Bed Adsorber. Journal of Physical Chemistry C, 2011, 115, 12941-12950.	1.5	197
95	Simultaneous Adsorption of H₂S and CO₂ on Triamine-Grafted Pore-Expanded Mesoporous MCM-41 Silica. Energy & Fuels, 2011, 25, 1310-1315.	2.5	86
96	Complexity behind CO₂ Capture on NH₂-MIL-53(Al). Langmuir, 2011, 27, 3970-3976.	1.6	274
97	A Nine-Connected Mixed-Ligand Nickel-Organic Framework and Its Gas Sorption Properties. Crystal Growth and Design, 2011, 11, 3713-3716.	1.4	54
98	Synthesis, Structure, and Characterization of a Porous Metal-Organic Framework Based on Bimetallic Unit and Flexible Ligand. Synthesis and Reactivity in Inorganic, Metal Organic, and Nano Metal Chemistry, 2011, 41, 479-483.	0.6	2
99	Functionalizing Porous Aromatic Frameworks with Polar Organic Groups for High-Capacity and Selective CO₂ Separation: A Molecular Simulation Study. Langmuir, 2011, 27, 3451-3460.	1.6	124
100	High and selective CO2 uptake, H2 storage and methanol sensing on the amine-decorated 12-connected MOF CAU-1. Energy and Environmental Science, 2011, 4, 4522.	15.6	229
101	Morphology Design of Porous Coordination Polymer Crystals by Coordination Modulation. Journal of the American Chemical Society, 2011, 133, 15506-15513.	6.6	383

#	Article	IF	Citations
102	Novel porous solids for carbon dioxide capture. Journal of Materials Chemistry, 2011, 21, 6447.	6.7	130
103	Fabrication of Isoreticular Metalâ€“Organic Framework Coated Capillary Columns for High-Resolution Gas Chromatographic Separation of Persistent Organic Pollutants. Analytical Chemistry, 2011, 83, 5093-5100.	3.2	129
104	Adsorption and Separation of CO₂/CH₄ on Amorphous Silica Molecular Sieve. Journal of Physical Chemistry C, 2011, 115, 9713-9718.	1.5	44
105	Palladium nanoparticles supported on amino functionalized metal-organic frameworks as highly active catalysts for the Suzukiâ€“Miyaura cross-coupling reaction. Catalysis Communications, 2011, 14, 27-31.	1.6	162
106	Understanding the Thermodynamic and Kinetic Behavior of the CO₂/CH₄ 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.	1.5	166
107	Why hybrid porous solids capture greenhouse gases?. Chemical Society Reviews, 2011, 40, 550-562.	18.7	603
108	Structural Isomerism and Effect of Fluorination on Gas Adsorption in Copper-Tetrazolate Based Metal Organic Frameworks. Chemistry of Materials, 2011, 23, 2908-2916.	3.2	79
109	Unprecedented Tuning of Structures and Gas Sorption Properties of Two 2D Nickel Metalâ^'Organic Frameworks via Altering the Positions of Fluorine Atoms in Azamacrocyclic Ligands. Crystal Growth and Design, 2011, 11, 2020-2025.	1.4	26
110	Evaluating metalâ€“organic frameworks for post-combustion carbon dioxide capture via temperature swing adsorption. Energy and Environmental Science, 2011, 4, 3030.	15.6	901
111	A New Approach to Construct a Doubly Interpenetrated Microporous Metalâ€“Organic Framework of Primitive Cubic Net for Highly Selective Sorption of Small Hydrocarbon Molecules. Chemistry - A European Journal, 2011, 17, 7817-7822.	1.7	137
112	New Functionalized Flexible Al-MIL-53-X (X = -Cl, -Br, -CH₃, -NO₂,) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 347 T Chemistry, 2011, 50, 9518-9526.	1.9	254
113	Superuniform Molecular Nanogate Fabrication on Graphene Sheets of Single Wall Carbon Nanohorns for Selective Molecular Separation of CO2 and CH4. Chemistry Letters, 2011, 40, 1089-1091.	0.7	23
114	Sulfation of metalâ€“organic frameworks: Opportunities for acid catalysis and proton conductivity. Journal of Catalysis, 2011, 281, 177-187.	3.1	269
115	Monoamine-grafted MCM-48: An efficient material for CO2 removal at low partial pressures. Chemical Engineering Journal, 2011, 175, 291-297.	6.6	40
116	Improvement of CO2 adsorption on ZIF-8 crystals modified by enhancing basicity of surface. Chemical Engineering Science, 2011, 66, 4878-4888.	1.9	175
117	Functionalized flexible MOFs as fillers in mixed matrix membranes for highly selective separation of CO2 from CH4 at elevated pressures. Chemical Communications, 2011, 47, 9522.	2.2	340
118	Porous covalent electron-rich organonitridic frameworks as highly selective sorbents for methane and carbon dioxide. Nature Communications, 2011, 2, 401.	5.8	252
119	Soft porous crystal meets TCNQ: charge transfer-type porous coordination polymers. Journal of Materials Chemistry, 2011, 21, 5537.	6.7	54

#	Article	IF	Citations
120	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.	1.9	34
121	Experimental and computational approach of understanding the gas adsorption in amino functionalized interpenetrated metal organic frameworks (MOFs). Journal of Materials Chemistry, 2011, 21, 17737.	6.7	54
122	Synthesis and Characterization of an Amino Functionalized MIL-101(Al): Separation and Catalytic Properties. Chemistry of Materials, 2011, 23, 2565-2572.	3.2	479
123	Adsorption of CO2-containing gas mixtures over amine-bearing pore-expanded MCM-41 silica: application for CO2 separation. Adsorption, 2011, 17, 395-401.	1.4	64
124	A novel copper-based MOF material: Synthesis, characterization and adsorption studies. Microporous and Mesoporous Materials, 2011, 142, 62-69.	2.2	53
125	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.	6.6	101
126	Tandem Mass Spectrometry Measurement of the Collision Products of Carbamate Anions Derived from CO₂ Capture Sorbents: Paving the Way for Accurate Quantitation. Journal of the American Society for Mass Spectrometry, 2011, 22, 1420-1431.	1.2	16
127	A chiral interdigitated supramolecular network assembled from single-stranded helical tubes. Acta Crystallographica Section C: Crystal Structure Communications, 2011, 67, m227-m229.	0.4	2
128	The Effect of Methyl Functionalization on Microporous Metalâ€Organic Frameworks' Capacity and Binding Energy for Carbon Dioxide Adsorption. Advanced Functional Materials, 2011, 21, 4754-4762.	7.8	106
129	Pore Surface Tailored SODâ€Type Metalâ€Organic Zeolites. Advanced Materials, 2011, 23, 1268-1271.	11.1	268
130	Thermodynamic Methods and Models to Study Flexible Metalâ€“Organic Frameworks. ChemPhysChem, 2011, 12, 247-258.	1.0	105
131	Tailoring Metalâ€“Organic Frameworks for CO₂ Capture: The Amino Effect. ChemSusChem, 2011, 4, 1281-1290.	3.6	66
135	Selective Removal of Nâ€Heterocyclic Aromatic Contaminants from Fuels by Lewis Acidic Metalâ€“Organic Frameworks. Angewandte Chemie - International Edition, 2011, 50, 4210-4214.	7.2	159
136	Development and Evaluation of Porous Materials for Carbon Dioxide Separation and Capture. Angewandte Chemie - International Edition, 2011, 50, 11586-11596.	7.2	1,025
137	Selective Adsorption of CO₂ from Light Gas Mixtures by Using a Structurally Dynamic Porous Coordination Polymer. Angewandte Chemie - International Edition, 2011, 50, 10888-10892.	7.2	52
138	Enhancing Gas Adsorption and Separation Capacity through Ligand Functionalization of Microporous Metalâ€Organic Framework Structures. Chemistry - A European Journal, 2011, 17, 5101-5109.	1.7	176
139	Selective CO₂ Adsorption by a Triazacyclononaneâ€Bridged Microporous Metalâ€Organic Framework. Chemistry - A European Journal, 2011, 17, 6689-6695.	1.7	42
140	Palladium Nanoparticles Encapsulated in a Metalâ€Organic Framework as Efficient Heterogeneous Catalysts for Direct C2 Arylation of Indoles. Chemistry - A European Journal, 2011, 17, 12706-12712.	1.7	177

#	Article	IF	Citations
141	Carbon dioxide capture-related gas adsorption and separation in metal-organic frameworks. Coordination Chemistry Reviews, 2011, 255, 1791-1823.	9.5	1,805
142	MOFs meet monoliths: Hierarchical structuring metal organic framework catalysts. Applied Catalysis A: General, 2011, 391, 261-267.	2.2	126
143	Thermodynamic analysis of the breathing of amino-functionalized MIL-53(Al) upon CO2 adsorption. Microporous and Mesoporous Materials, 2011, 140, 108-113.	2.2	78
144	Adsorption of CO2 and CH4 on a magnesium-based metal organic framework. Journal of Colloid and Interface Science, 2011, 353, 549-556.	5.0	426
145	Crystal structure of catena-(Î¼4-5-bromoisophthalato)-(Î¼2-1,6- bis(imidazol-1-yl)hexane)cobalt(II), Co(C8H3O4Br)(C12H18N4). Zeitschrift Fur Kristallographie - New Crystal Structures, 2011, 226, .	0.1	2
146	Crystal Engineering of Supramolecular Interaction Based on Different Molecular Synthons. Synthesis and Reactivity in Inorganic, Metal Organic, and Nano Metal Chemistry, 2011, 41, 1293-1298.	0.6	1
147	Synthesis and Characterization of a New Metal-Organic Framework Constructed by Flexible Co-Ligands. Synthesis and Reactivity in Inorganic, Metal Organic, and Nano Metal Chemistry, 2011, 41, 1122-1125.	0.6	1
148	One-Dimensional Helical Homochiral Metal-Organic Framework Built from 2,2â€²-Dihydroxy-1,1â€²-binaphthyl-3,3â€²-dicarboxylic Acid. Polymers, 2011, 3, 1866-1874.	2.0	3
149	Potential Applications of Zeolite Membranes in Reaction Coupling Separation Processes. Materials, 2012, 5, 2101-2136.	1.3	46
150	Two New Metal-Organic Frameworks Based on 5-Bromoisophthalic Acid and 1,3-bi(4-pyridyl)propane: Hydrothermal Syntheses, Structures, and Magnetic Properties. Synthesis and Reactivity in Inorganic, Metal Organic, and Nano Metal Chemistry, 2012, 42, 590-595.	0.6	1
151	Discriminative Separation of Gases by a â€œMolecular Trapdoorâ€•Mechanism in Chabazite Zeolites. Journal of the American Chemical Society, 2012, 134, 19246-19253.	6.6	321
152	Synthesis, characterization and sorption properties of NH2-MIL-47. Physical Chemistry Chemical Physics, 2012, 14, 15562.	1.3	27
153	Multifunctional amino-decorated metalâ€“organic frameworks: nonlinear-optic, ferroelectric, fluorescence sensing and photocatalytic properties. Journal of Materials Chemistry, 2012, 22, 22603.	6.7	142
154	Microporous metalâ€“organic framework containing cages with adjustable portal dimensions for adsorptive CO2 separation. RSC Advances, 2012, 2, 11566.	1.7	4
155	Dynamic porous metalâ€“organic frameworks: synthesis, structure and sorption property. CrystEngComm, 2012, 14, 8569.	1.3	33
156	Direct synthesis of amine-functionalized MIL-101(Cr) nanoparticles and application for CO2 capture. RSC Advances, 2012, 2, 6417.	1.7	209
157	Dimensionality Transformation through Paddlewheel Reconfiguration in a Flexible and Porous Zn-Based Metalâ€“Organic Framework. Journal of the American Chemical Society, 2012, 134, 20466-20478.	6.6	85
158	Amine-Functionalized MIL-53 Metalâ€“Organic Framework in Polyimide Mixed Matrix Membranes for CO₂/CH₄ Separation. Industrial & Engineering Chemistry Research, 2012, 51, 6895-6906.	1.8	187

#	Article	IF	Citations
159	Molecular Simulation of a Znâ€“Triazamacrocyle Metalâ€“Organic Frameworks Family with Extraframework Anions. Journal of Physical Chemistry C, 2012, 116, 2952-2959.	1.5	5
160	Temperature-programmed desorption of CO2 from polyethylenimine-loaded SBA-15 as molecular basket sorbents. Catalysis Today, 2012, 194, 44-52.	2.2	93
161	Electrochemical Reduction of Carbon Dioxide I. Effects of the Electrolyte on the Selectivity and Activity with Sn Electrode. Journal of the Electrochemical Society, 2012, 159, F353-F359.	1.3	198
162	Porous metalâ€“organic framework based on a macrocyclic tetracarboxylate ligand exhibiting selective CO2 uptake. CrystEngComm, 2012, 14, 6115.	1.3	47
163	Amine-templated polymeric Mg formates: crystalline scaffolds exhibiting extensive hydrogen bonding. CrystEngComm, 2012, 14, 4454.	1.3	46
164	High compressibility of a flexible metalâ€“organic framework. RSC Advances, 2012, 2, 5051.	1.7	61
165	Experimental and theoretical investigations on the MMOF selectivity for CO2vs. N2 in flue gas mixtures. Dalton Transactions, 2012, 41, 4232.	1.6	31
166	Selective CO2 adsorption in a metalâ€“organic framework constructed from an organic ligand with flexible joints. Chemical Communications, 2012, 48, 9168.	2.2	59
167	CAU-3: A new family of porous MOFs with a novel Al-based brick: [Al2(OCH3)4(O2C-X-CO2)] (X = aryl). Dalton Transactions, 2012, 41, 4164.	1.6	76
168	Influence of chemical functionalization on the CO2/N2 separation performance of porous graphene membranes. Nanoscale, 2012, 4, 5477.	2.8	193
169	Assembly of Two Porous Cadmium(II) Frameworks: Selective Adsorption and Luminescent Property. Crystal Growth and Design, 2012, 12, 4083-4089.	1.4	54
170	High and selective CO2 capture by two mesoporous acylamide-functionalized rht-type metalâ€“organic frameworks. Chemical Communications, 2012, 48, 7025.	2.2	174
171	Predicting Mixture Coadsorption in Soft Porous Crystals: Experimental and Theoretical Study of CO₂/CH₄ in MIL-53(Al). Langmuir, 2012, 28, 494-498.	1.6	45
172	Chloromethylation as a functionalisation pathway for metalâ€“organic frameworks. CrystEngComm, 2012, 14, 4109.	1.3	47
173	Alkylaminopyridine-Modified Aluminum Aminoterephthalate Metal-Organic Frameworks As Components of Reactive Self-Detoxifying Materials. ACS Applied Materials & Interfaces, 2012, 4, 4595-4602.	4.0	43
174	Interplay of Metal Node and Amine Functionality in NH₂-MIL-53: Modulating Breathing Behavior through Intra-framework Interactions. Langmuir, 2012, 28, 12916-12922.	1.6	98
175	Progress in adsorption-based CO₂capture by metalâ€“organic frameworks. Chemical Society Reviews, 2012, 41, 2308-2322.	18.7	1,205
176	Towards efficient polyoxometalate encapsulation in MIL-100(Cr): influence of synthesis conditions. New Journal of Chemistry, 2012, 36, 977.	1.4	63

#	Article	IF	Citations
177	Grand Canonical Monte Carlo Simulation of Low-Pressure Methane Adsorption in Nanoporous Framework Materials for Sensing Applications. Journal of Physical Chemistry C, 2012, 116, 3492-3502.	1.5	30
178	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
179	Analogous porous metalâ€“organic frameworks: synthesis, stability and application in adsorption. CrystEngComm, 2012, 14, 7099.	1.3	174
180	A microporous, moisture-stable, and amine-functionalized metalâ€“organic framework for highly selective separation of CO₂from CH₄. Chemical Communications, 2012, 48, 1135-1137.	2.2	73
181	Computer-Aided Design of Interpenetrated Tetrahydrofuran-Functionalized 3D Covalent Organic Frameworks for CO₂ Capture. Crystal Growth and Design, 2012, 12, 5349-5356.	1.4	37
182	Soft synthesis of isocyanate-functionalised metalâ€“organic frameworks. Dalton Transactions, 2012, 41, 14236.	1.6	12
183	Improvement of amine-modification with piperazine for the adsorption of CO2. Applied Surface Science, 2012, 258, 3859-3863.	3.1	4
184	Functionalized metal organic framework-polyimide mixed matrix membranes for CO2/CH4 separation. Journal of Membrane Science, 2012, 413-414, 48-61.	4.1	335
185	Synthesis and properties of furan-based imine-linked porous organic frameworks. Polymer Chemistry, 2012, 3, 2346.	1.9	66
186	Cooperative effect of temperature and linker functionality on CO2 capture from industrial gas mixtures in metalâ€“organic frameworks: a combined experimental and molecular simulation study. Physical Chemistry Chemical Physics, 2012, 14, 2317.	1.3	81
187	Aminosilane-Functionalized Cellulosic Polymer for Increased Carbon Dioxide Sorption. Industrial & Engineering Chemistry Research, 2012, 51, 503-514.	1.8	35
188	Metalâ€“organic frameworks in mixed-matrix membranes for gas separation. Dalton Transactions, 2012, 41, 14003.	1.6	442
189	Selective adsorption of carbon dioxide by carbonized porous aromatic framework (PAF). Energy and Environmental Science, 2012, 5, 8370.	15.6	234
190	Practical Approach to Zeolitic Membranes and Coatings: State of the Art, Opportunities, Barriers, and Future Perspectives. Chemistry of Materials, 2012, 24, 2829-2844.	3.2	332
191	Highly Selective Carbon Dioxide Uptake by [Cu(bpy-n)₂(SiF₆)] (bpy-1 =) Tj ETQq0 0 0 rgBT /Overlock 1 3663-3666.	6.6	303
192	Selective carbon dioxide uptake and crystal-to-crystal transformation: porous 3D framework to 1D chain triggered by conformational change of the spacer. CrystEngComm, 2012, 14, 684-690.	1.3	34
193	Structural Diversity and Properties of Coordination Polymers Built from a Rigid Octadentenate Carboxylic Acid. Crystal Growth and Design, 2012, 12, 6158-6164.	1.4	51
194	Highly Selective Sorption and Separation of CO₂ from a Gas Mixture of CO₂ and CH₄ at Room Temperature by a Zeolitic Organicâ€“Inorganic Ionic Crystal and Investigation of the Interaction with CO₂. Journal of Physical Chemistry C, 2012, 116, 16105-16110.	1.5	35

#	Article	IF	Citations
195	CO₂capture and conversion using Mg-MOF-74 prepared by a sonochemical method. Energy and Environmental Science, 2012, 5, 6465-6473.	15.6	463
196	Highly selective CO2 capture of an agw-type metalâ€“organic framework with inserted amides: experimental and theoretical studies. Chemical Communications, 2012, 48, 3058.	2.2	166
197	CO2 recovery from mixtures with nitrogen in a vacuum swing adsorber using metal organic framework adsorbent: A comparative study. International Journal of Greenhouse Gas Control, 2012, 7, 225-229.	2.3	41
198	Amine-functionalized MIL-53(Al) for CO2/N2 separation: Effect of textural properties. Fuel, 2012, 102, 574-579.	3.4	58
199	Ab Initio Parametrized Force Field for the Flexible Metalâ€“Organic Framework MIL-53(Al). Journal of Chemical Theory and Computation, 2012, 8, 3217-3231.	2.3	69
200	Enhanced stability and CO2 affinity of a UiO-66 type metalâ€“organic framework decorated with dimethyl groups. Dalton Transactions, 2012, 41, 9283.	1.6	174
201	Synthesis of copper(ii) coordination polymers and conversion into CuO nanostructures with good photocatalytic, antibacterial and lithium ion battery performances. Journal of Materials Chemistry, 2012, 22, 12609.	6.7	78
202	Post-synthesis functionalization of MIL-101 using diethylenetriamine: a study on adsorption and catalysis. CrystEngComm, 2012, 14, 4142.	1.3	94
203	Amine-Functionalized Metal Organic Framework as a Highly Selective Adsorbent for CO₂ over CO. Journal of Physical Chemistry C, 2012, 116, 19814-19821.	1.5	96
204	NH₂-MIL-53(Al): A High-Contrast Reversible Solid-State Nonlinear Optical Switch. Journal of the American Chemical Society, 2012, 134, 8314-8317.	6.6	144
205	Triple Framework Interpenetration and Immobilization of Open Metal Sites within a Microporous Mixed Metalâ€“Organic Framework for Highly Selective Gas Adsorption. Inorganic Chemistry, 2012, 51, 4947-4953.	1.9	83
206	Tuning the breathing behaviour of MIL-53 by cation mixing. Chemical Communications, 2012, 48, 10237.	2.2	129
207	The unique rht-MOF platform, ideal for pinpointing the functionalization and CO₂adsorption relationship. Chemical Communications, 2012, 48, 1455-1457.	2.2	163
208	Hybrid Zeolitic Imidazolate Frameworks: Controlling Framework Porosity and Functionality by Mixed-Linker Synthesis. Chemistry of Materials, 2012, 24, 1930-1936.	3.2	200
209	Bifunctional Metal Organic Framework Catalysts for Multistep Reactions: MOFâ€Cu(BTC)â€[Pd] Catalyst for Oneâ€Pot Heteroannulation of Acetylenic Compounds. Advanced Synthesis and Catalysis, 2012, 354, 1347-1355.	2.1	100
210	Metalâ€“Organic Frameworks for Separations. Chemical Reviews, 2012, 112, 869-932.	23.0	5,588
211	Carbon Dioxide Capture in Metalâ€“Organic Frameworks. Chemical Reviews, 2012, 112, 724-781.	23.0	5,612
212	Structure and Dynamics of the Functionalized MOF Type UiO-66(Zr): NMR and Dielectric Relaxation Spectroscopies Coupled with DFT Calculations. Chemistry of Materials, 2012, 24, 2168-2177.	3.2	200

#	Article	IF	Citations
213	Electrochemical Synthesis of Some Archetypical Zn²⁺, Cu²⁺, and Al³⁺ Metal Organic Frameworks. Crystal Growth and Design, 2012, 12, 3489-3498.	1.4	406
214	Quantitative Characterization of Breathing upon Adsorption for a Series of Amino-Functionalized MIL-53. Journal of Physical Chemistry C, 2012, 116, 9507-9516.	1.5	34
215	Insertion of Functional Groups into a Nd³⁺ Metalâ€“Organic Framework via Single-Crystal-to-Single-Crystal Coordinating Solvent Exchange. Inorganic Chemistry, 2012, 51, 6308-6314.	1.9	53
216	Thermal post-synthetic modification of Al-MIL-53â€“COOH: systematic investigation of the decarboxylation and condensation reaction. CrystEngComm, 2012, 14, 4119.	1.3	76
217	Hydrogen Selective NH₂â€MILâ€53(Al) MOF Membranes with High Permeability. Advanced Functional Materials, 2012, 22, 3583-3590.	7.8	254
220	Palladium Nanoparticles Supported on Mixedâ€Linker Metalâ€“Organic Frameworks as Highly Active Catalysts for Heck Reactions. ChemPlusChem, 2012, 77, 106-112.	1.3	88
221	Adsorption and Separation of Light Gases on an Aminoâ€Functionalized Metalâ€“Organic Framework: An Adsorption and Inâ€...Situ XRD Study. ChemSusChem, 2012, 5, 740-750.	3.6	115
222	Investigation of the synthesis, activation, and isosteric heats of CO2 adsorption of the isostructural series of metalâ€“organic frameworks M3(BTC)2 (M = Cr, Fe, Ni, Cu, Mo, Ru). Dalton Transactions, 2012, 41, 7931.	1.6	184
223	Sequestering Aromatic Molecules with a Spinâ€Crossover Fe^{II} Microporous Coordination Polymer. Chemistry - A European Journal, 2012, 18, 8013-8018.	1.7	74
224	Effect of the organic functionalization of flexible MOFs on the adsorption of CO2. Journal of Materials Chemistry, 2012, 22, 10266.	6.7	125
225	Nanosize Zr-metal organic framework (UiO-66) for hydrogen and carbon dioxide storage. Chemical Engineering Journal, 2012, 187, 415-420.	6.6	227
226	Efficient carbon dioxide capture over a nitrogen-rich carbon having a hierarchical micro-mesopore structure. Fuel, 2012, 95, 360-364.	3.4	118
227	Water adsorptionâ€“desorption property of stable porous supramolecular assembly composed of discrete tetranuclear iron(III) complex using Ï€â‹¯Ï€ interactions. Inorganica Chimica Acta, 2012, 386, 122-128.	1.2	5
228	Electrocatalytic four-electron reduction of oxygen with Copper (II)-based metal-organic frameworks. Electrochemistry Communications, 2012, 19, 29-31.	2.3	256
229	Adsorption of CO2, CO, CH4 and N2 on a zinc based metal organic framework. Separation and Purification Technology, 2012, 94, 124-130.	3.9	75
230	A comparison of the CO2 capture characteristics of zeolites and metalâ€“organic frameworks. Separation and Purification Technology, 2012, 87, 120-126.	3.9	147
231	Enthalpic effects in the adsorption of alkylaromatics on the metal-organic frameworks MIL-47 and MIL-53. Microporous and Mesoporous Materials, 2012, 157, 82-88.	2.2	33
232	Synthesis and adsorption properties of ZIF-76 isomorphs. Microporous and Mesoporous Materials, 2012, 153, 1-7.	2.2	43

#	Article	IF	Citations
233	Adsorptive separation of CO2/CH4/CO gas mixtures at high pressures. Microporous and Mesoporous Materials, 2012, 156, 217-223.	2.2	80
234	Fluorinated Metalâ€“Organic Frameworks: Advantageous for Higher H₂ and CO₂ Adsorption or Not?. Chemistry - A European Journal, 2012, 18, 688-694.	1.7	101
235	A Microporous Metalâ€“Organic Framework for Highly Selective Separation of Acetylene, Ethylene, and Ethane from Methane at Room Temperature. Chemistry - A European Journal, 2012, 18, 613-619.	1.7	204
236	Competition and Cooperativity in Carbon Dioxide Sorption by Amineâ€Functionalized Metalâ€“Organic Frameworks. Angewandte Chemie - International Edition, 2012, 51, 1826-1829.	7.2	131
237	Enhanced Binding Affinity, Remarkable Selectivity, and High Capacity of CO₂ by Dual Functionalization of a rhtâ€Type Metalâ€“Organic Framework. Angewandte Chemie - International Edition, 2012, 51, 1412-1415.	7.2	430
238	Atomâ€Economic Synthesis of Optically Active Warfarin Anticoagulant over a Chiral MOF Organocatalyst. Advanced Synthesis and Catalysis, 2013, 355, 2538-2543.	2.1	33
239	Designer coordination polymers: dimensional crossover architectures and proton conduction. Chemical Society Reviews, 2013, 42, 6655.	18.7	463
240	Rationally â€œclickedâ€•post-modification of a highly stable metalâ€“organic framework and its high improvement on CO2-selective capture. RSC Advances, 2013, 3, 15566.	1.7	29
241	A Microporous Hydrogen-Bonded Organic Framework: Exceptional Stability and Highly Selective Adsorption of Gas and Liquid. Journal of the American Chemical Society, 2013, 135, 11684-11687.	6.6	316
242	Construction of lanthanide metalâ€“organic frameworks with highly-connected topology based on a tetrapodal linker. CrystEngComm, 2013, 15, 6229.	1.3	27
243	Trapdoors in zeolites. Nature Chemistry, 2013, 5, 89-90.	6.6	43
244	A hybrid zeolitic imidazolate framework membrane by mixed-linker synthesis for efficient CO₂capture. Chemical Communications, 2013, 49, 600-602.	2.2	83
245	Engineering the Optical Response of the Titanium-MIL-125 Metalâ€“Organic Framework through Ligand Functionalization. Journal of the American Chemical Society, 2013, 135, 10942-10945.	6.6	701
246	Experimental and molecular simulation studies of CO2 adsorption on zeolitic imidazolate frameworks: ZIF-8 and amine-modified ZIF-8. Adsorption, 2013, 19, 25-37.	1.4	115
247	Adsorption and Separation of CO₂ on KFI Zeolites: Effect of Cation Type and Si/Al Ratio on Equilibrium and Kinetic Properties. Langmuir, 2013, 29, 4998-5012.	1.6	66
248	Mathematical Modeling and Experimental Breakthrough Curves of Carbon Dioxide Adsorption on Metal Organic Framework CPM-5. Environmental Science & Technology, 2013, 47, 9372-9380.	4.6	32
249	Effects of Solvation on the Framework of a Breathing Copper MOF Employing a Semirigid Linker. Inorganic Chemistry, 2013, 52, 2182-2187.	1.9	24
250	Synthesis of metal-organic frameworks: A mini review. Korean Journal of Chemical Engineering, 2013, 30, 1667-1680.	1.2	487

#	Article	IF	Citations
251	Post-combustion CO2 capture with the HKUST-1 and MIL-101(Cr) metalâ€“organic frameworks: Adsorption, separation and regeneration investigations. Microporous and Mesoporous Materials, 2013, 179, 191-197.	2.2	109
252	Soft Porous Coordination Polymers. , 2013, , 73-102.		1
253	Adsorptive removal of dibenzothiophene from model fuels over one-pot synthesized PTA@MIL-101(Cr) hybrid material. Journal of Hazardous Materials, 2013, 262, 589-597.	6.5	67
254	A robust amino-functionalized titanium(iv) based MOF for improved separation of acid gases. Chemical Communications, 2013, 49, 10082.	2.2	135
255	Combining UV Lithography and an Imprinting Technique for Patterning Metalâ€Organic Frameworks. Advanced Materials, 2013, 25, 4701-4705.	11.1	98
256	Metalâ€“organic frameworks for upgrading biogas via CO2 adsorption to biogas green energy. Chemical Society Reviews, 2013, 42, 9304.	18.7	366
257	Effect of Adsorbent History on Adsorption Characteristics of MIL-53(Al) Metal Organic Framework. Langmuir, 2013, 29, 12162-12167.	1.6	21
258	High adsorption performance polymers modified by small molecules containing functional groups for CO₂separation. RSC Advances, 2013, 3, 50-54.	1.7	10
259	Dynamic desorption of CO2 and CH4 from amino-MIL-53(Al) adsorbent. Adsorption, 2013, 19, 1235-1244.	1.4	28
260	Modulating the packing of [Cu24(isophthalate)24] cuboctahedra in a triazole-containing metalâ€“organic polyhedral framework. Chemical Science, 2013, 4, 1731.	3.7	123
261	Fascinating chemistry or frustrating unpredictability: observations in crystal engineering of metalâ€“organic frameworks. CrystEngComm, 2013, 15, 9249.	1.3	105
262	High Flux Thin Film Nanocomposite Membranes Based on Metalâ€“Organic Frameworks for Organic Solvent Nanofiltration. Journal of the American Chemical Society, 2013, 135, 15201-15208.	6.6	663
263	Remarkable CO2/CH4 selectivity and CO2 adsorption capacity exhibited by polyamine-decorated metalâ€“organic framework adsorbents. Chemical Communications, 2013, 49, 6873.	2.2	120
264	Azide-Functionalized Lanthanide-Based Metalâ€“Organic Frameworks Showing Selective CO₂ Gas Adsorption and Postsynthetic Cavity Expansion. Inorganic Chemistry, 2013, 52, 3588-3590.	1.9	30
265	Sorption and breathing properties of difluorinated MIL-47 and Al-MIL-53 frameworks. Microporous and Mesoporous Materials, 2013, 181, 175-181.	2.2	36
266	The multifaceted dissociation chemistry of anionic aggregates containing functionalised amines and CO2. Chemical Communications, 2013, 49, 10233.	2.2	3
267	Functionalized metalâ€“organic framework MIL-101 for CO2 capture: multi-scale modeling from ab initio calculation and molecular simulation to breakthrough prediction. CrystEngComm, 2013, 15, 10358.	1.3	36
268	Two isostructural amine-functionalized 3D self-penetrating microporous MOFs exhibiting high sorption selectivity for CO2. CrystEngComm, 2013, 15, 2057.	1.3	32

#	Article	IF	Citations
269	Three new solvent-directed 3D lead(ii)â€“MOFs displaying the unique properties of luminescence and selective CO2 sorption. Dalton Transactions, 2013, 42, 13590.	1.6	57
270	Optimization of continuous phase in amino-functionalized metalâ€“organic framework (MIL-53) based co-polyimide mixed matrix membranes for CO2/CH4 separation. RSC Advances, 2013, 3, 24266.	1.7	127
271	Tuning the aspect ratio of NH₂-MIL-53(Al) microneedles and nanorodsvia coordination modulation. CrystEngComm, 2013, 15, 654-657.	1.3	78
272	Discrepant gas adsorption in isostructural heterometallic coordination polymers: strong dependence of metal identity. CrystEngComm, 2013, 15, 78-85.	1.3	33
273	Construction of one pH-independent 3-D pillar-layer lead-organic framework containing tetrazole-1-acetic acid. Inorganic Chemistry Communication, 2013, 27, 22-25.	1.8	22
274	Adsorptive removal of hazardous materials using metal-organic frameworks (MOFs): A review. Journal of Hazardous Materials, 2013, 244-245, 444-456.	6.5	1,140
275	A polar tetrazolyl-carboxyl microporous Zn(ii)â€“MOF: sorption and luminescent properties. Dalton Transactions, 2013, 42, 3653.	1.6	29
276	Enhancement of <scp>CO₂</scp> Adsorption and <scp>CO₂/N₂</scp> Selectivity on <scp>ZIF</scp>â€8 via Postsynthetic Modification. AICHE Journal, 2013, 59, 2195-2206.	1.8	171
277	Enhanced selectivity of CO2 over CH4 in sulphonate-, carboxylate- and iodo-functionalized UiO-66 frameworks. Dalton Transactions, 2013, 42, 4730.	1.6	171
278	Partially fluorinated MIL-47 and Al-MIL-53 frameworks: influence of functionalization on sorption and breathing properties. Physical Chemistry Chemical Physics, 2013, 15, 3552.	1.3	63
279	Highly Selective CO₂ Adsorption Accompanied with Low-Energy Regeneration in a Two-Dimensional Cu(II) Porous Coordination Polymer with Inorganic Fluorinated PF₆^{â€“} Anions. Inorganic Chemistry, 2013, 52, 280-285.	1.9	67
280	New V^{IV}-Based Metalâ€“Organic Framework Having Framework Flexibility and High CO₂ Adsorption Capacity. Inorganic Chemistry, 2013, 52, 113-120.	1.9	68
281	A microporous metalâ€“organic framework containing an exceptional four-connecting 4264topology and a combined effect for highly selective adsorption of CO2over N2. Dalton Transactions, 2013, 42, 50-53.	1.6	12
282	Computational Screening of Functional Groups for Ammonia Capture in Metalâ€“Organic Frameworks. Langmuir, 2013, 29, 1446-1456.	1.6	49
283	Designed Synthesis of Functionalized Twoâ€Đimensional Metalâ€“Organic Frameworks with Preferential CO₂ Capture. ChemPlusChem, 2013, 78, 86-91.	1.3	48
284	High-throughput studies of highly porous Al-based MOFs. Microporous and Mesoporous Materials, 2013, 171, 156-165.	2.2	39
285	Small-angle X-ray scattering documents the growth of metal-organic frameworks. Catalysis Today, 2013, 205, 120-127.	2.2	56
286	Surface modification of a low cost bentonite for post-combustion CO2 capture. Applied Surface Science, 2013, 283, 699-704.	3.1	49

#	Article	IF	Citations
287	A microporous metalâ€“organic framework with butynelene functionality for selective gas sorption. Journal of Solid State Chemistry, 2013, 204, 53-58.	1.4	7
288	Molecular basket sorbents polyethylenimineâ€“SBA-15 for CO2 capture from flue gas: Characterization and sorption properties. Microporous and Mesoporous Materials, 2013, 169, 103-111.	2.2	152
289	Ethylenediamine grafting on a zeolite-like metal organic framework (ZMOF) for CO2 capture. Materials Letters, 2013, 106, 344-347.	1.3	30
290	Ligand Functionalization and Its Effect on CO₂ Adsorption in Microporous Metalâ€“Organic Frameworks. Chemistry - an Asian Journal, 2013, 8, 778-785.	1.7	39
291	Recent Development of Hypercrosslinked Microporous Organic Polymers. Macromolecular Rapid Communications, 2013, 34, 471-484.	2.0	360
292	Porous metalâ€“organic frameworks with high stability and selective sorption for CO2 over N2. Microporous and Mesoporous Materials, 2013, 172, 61-66.	2.2	36
293	CO2reverse selective mixed matrix membranes for H2purification by incorporation of carbonâ€“silica fillers. Journal of Materials Chemistry A, 2013, 1, 945-953.	5.2	31
294	New Zn-Aminotriazolate-Dicarboxylate Frameworks: Synthesis, Structures, and Adsorption Properties. Crystal Growth and Design, 2013, 13, 2118-2123.	1.4	76
295	A Rationally Designed Nitrogen-Rich Metal-Organic Framework and Its Exceptionally High CO2 and H2 Uptake Capability. Scientific Reports, 2013, 3, 1149.	1.6	122
296	Two Isomeric Magnesium Metalâ€“Organic Frameworks with [24-MC-6] Metallacrown Cluster. Crystal Growth and Design, 2013, 13, 1807-1811.	1.4	30
297	Porous NbO-type metalâ€“organic framework with inserted acylamide groups exhibiting highly selective CO2 capture. CrystEngComm, 2013, 15, 3517.	1.3	99
298	MOFâ€Polymer Composite Microcapsules Derived from Pickering Emulsions. Advanced Materials, 2013, 25, 2717-2722.	11.1	198
299	Aldehyde Self-Condensation Catalysis by Aluminum Aminoterephthalate Metalâ€“Organic Frameworks Modified with Aluminum Isopropoxide. Chemistry of Materials, 2013, 25, 1636-1642.	3.2	25
300	Understanding Adsorption of Highly Polar Vapors on Mesoporous MIL-100(Cr) and MIL-101(Cr): Experiments and Molecular Simulations. Journal of Physical Chemistry C, 2013, 117, 7613-7622.	1.5	79
301	A New Supramolecular Coordination Polymer Constructed by Flexible and Rigid Organic Coligands. Synthesis and Reactivity in Inorganic, Metal Organic, and Nano Metal Chemistry, 2013, 43, 861-863.	0.6	3
302	Selective Dynamic CO₂ Separations on Mg-MOF-74 at Low Pressures: A Detailed Comparison with 13X. Journal of Physical Chemistry C, 2013, 117, 9301-9310.	1.5	79
303	Direct Calorimetric Measurement of Enthalpy of Adsorption of Carbon Dioxide on CD-MOF-2, a Green Metalâ€“Organic Framework. Journal of the American Chemical Society, 2013, 135, 6790-6793.	6.6	140
304	Facile and economical synthesis of metalâ€“organic framework MIL-100(Al) gels for high efficiency removal of microcystin-LR. RSC Advances, 2013, 3, 11007.	1.7	62

#	Article	IF	Citations
305	Superior Performance of Copper Based MOF and Aminated Graphite Oxide Composites as CO₂ Adsorbents at Room Temperature. ACS Applied Materials & Interfaces, 2013, 5, 4951-4959.	4.0	93
306	Diffusion of Binary CO₂/CH₄ Mixtures in the MIL-47(V) and MIL-53(Cr) Metalâ€“Organic Framework Type Solids: A Combination of Neutron Scattering Measurements and Molecular Dynamics Simulations. Journal of Physical Chemistry C, 2013, 117, 11275-11284.	1.5	51
307	Comparative Study of the Adsorption Equilibrium of CO₂ on Microporous Commercial Materials at Low Pressures. Industrial & Engineering Chemistry Research, 2013, 52, 6785-6793.	1.8	33
308	On the Thermodynamics of Framework Breathing: A Free Energy Model for Gas Adsorption in MIL-53. Journal of Physical Chemistry C, 2013, 117, 11540-11554.	1.5	61
309	Microporous Polyimides with Uniform Pores for Adsorption and Separation of CO₂ Gas and Organic Vapors. Macromolecules, 2013, 46, 3058-3066.	2.2	181
310	NH2-MIL-53(Al) and NH2-MIL-101(Al) in sulfur-containing copolyimide mixed matrix membranes for gas separation. Separation and Purification Technology, 2013, 111, 72-81.	3.9	164
311	CHAPTER 6. Computational Approach to Chemical Reactivity of MOFs. RSC Catalysis Series, 0, , 209-234.	0.1	3
312	Development of Computational Methodologies for Metalâ€“Organic Frameworks and Their Application in Gas Separations. Chemical Reviews, 2013, 113, 8261-8323.	23.0	448
313	Synthesis, Structures, and Properties of Two Novel Coordination Polymers with a Vâ€shaped Diphosphonate Ligand. Zeitschrift Fur Anorganische Und Allgemeine Chemie, 2013, 639, 1845-1849.	0.6	5
314	Predicting the impact of functionalized ligands on CO2 adsorption in MOFs: A combined DFT and Grand Canonical Monte Carlo study. Microporous and Mesoporous Materials, 2013, 168, 225-238.	2.2	47
315	Ultrahigh Gas Storage both at Low and High Pressures in KOH-Activated Carbonized Porous Aromatic Frameworks. Scientific Reports, 2013, 3, 2420.	1.6	117
316	MOFs for CO₂capture and separation from flue gas mixtures: the effect of multifunctional sites on their adsorption capacity and selectivity. Chemical Communications, 2013, 49, 653-661.	2.2	564
317	Adsorption of Carbon Dioxide by MIL-101(Cr): Regeneration Conditions and Influence of Flue Gas Contaminants. Scientific Reports, 2013, 3, 2916.	1.6	170
318	Amino-functionalized Zr-MOF nanoparticles for adsorption of CO₂and CH₄. International Journal of Smart and Nano Materials, 2013, 4, 72-82.	2.0	114
319	Spin state switching in iron coordination compounds. Beilstein Journal of Organic Chemistry, 2013, 9, 342-391.	1.3	623
321	Dependence of adsorption-induced structural transition on framework structure of porous coordination polymers. Journal of Chemical Physics, 2014, 140, 044707.	1.2	19
324	A Review on Breathing Behaviors of Metal-Organic-Frameworks (MOFs) for Gas Adsorption. Materials, 2014, 7, 3198-3250.	1.3	262
325	Enhanced Uptake and Selectivity of CO₂ Adsorption in a Hydrostable Metalâ€“Organic Frameworks via Incorporating Methylol and Methyl Groups. ACS Applied Materials & Interfaces, 2014, 6, 16932-16940.	4.0	46

#	Article	IF	Citations
326	Molecular Template-Directed Synthesis of Microporous Polymer Networks for Highly Selective CO₂ Capture. ACS Applied Materials & Interfaces, 2014, 6, 20340-20349.	4.0	66
327	Adsorptive characterization of porous solids: Error analysis guides the way. Microporous and Mesoporous Materials, 2014, 200, 199-215.	2.2	134
328	Metal organic frameworks (MOF) as CO2 adsorbents. Russian Journal of Organic Chemistry, 2014, 50, 1551-1555.	0.3	8
329	Equilibrium Adsorption Studies of CO2, CH4, and N2on Amine Functionalized Polystyrene. Separation Science and Technology, 2014, 49, 2376-2388.	1.3	11
330	Microporous Organic Polymers for Carbon Dioxide Capture. Green Chemistry and Sustainable Technology, 2014, , 143-180.	0.4	3
331	Adsorption by Metal-Organic Frameworks. , 2014, , 565-610.		13
332	Extremely enhanced CO2 uptake by HKUST-1 metalâ€“organic framework via a simple chemical treatment. Microporous and Mesoporous Materials, 2014, 183, 69-73.	2.2	122
333	Visualizing MOF Mixed Matrix Membranes at the Nanoscale: Towards Structureâ€Performance Relationships in CO₂/CH₄ Separation Over NH₂â€MILâ€53(Al)@PI. Advanced Functional Materials, 2014, 24, 249-256.	7.8	262
334	Carbon dioxide capturing technologies: a review focusing on metal organic framework materials (MOFs). Environmental Science and Pollution Research, 2014, 21, 5427-5449.	2.7	171
335	Mixed matrix membranes comprising MOFs and porous silicate fillers prepared via spin coating for gas separation. Chemical Engineering Science, 2014, 107, 66-75.	1.9	91
336	Detoxification of chemical warfare agents by CuBTC. Journal of Porous Materials, 2014, 21, 121-126.	1.3	70
337	Approaches for synthesizing breathing MOFs by exploiting dimensional rigidity. Coordination Chemistry Reviews, 2014, 258-259, 119-136.	9.5	162
338	Adsorption Characteristics of Metalâ€“Organic Frameworks Containing Coordinatively Unsaturated Metal Sites: Effect of Metal Cations and Adsorbate Properties. Journal of Physical Chemistry C, 2014, 118, 6847-6855.	1.5	34
339	The Maxwellâ€“Stefan description of mixture diffusion in nanoporous crystalline materials. Microporous and Mesoporous Materials, 2014, 185, 30-50.	2.2	176
340	Porous Materials for Carbon Dioxide Capture. Green Chemistry and Sustainable Technology, 2014, , .	0.4	19
341	Designing new amine functionalized metal-organic frameworks for carbon dioxide/methane separation. Fluid Phase Equilibria, 2014, 362, 342-348.	1.4	15
342	Amine-functionalized metal-organic frameworks for the transesterification of triglycerides. Journal of Materials Chemistry A, 2014, 2, 7205-7213.	5.2	68
343	Ab Initio Study of the Adsorption of CO₂ on Functionalized Benzenes. ChemPhysChem, 2014, 15, 905-911.	1.0	15

#	Article	IF	Citations
344	Metalâ€“Organic Frameworks for Air Purification of Toxic Chemicals. Chemical Reviews, 2014, 114, 5695-5727.	23.0	825
345	Porous Inorganic Membranes for CO₂ Capture: Present and Prospects. Chemical Reviews, 2014, 114, 1413-1492.	23.0	481
346	Combinational Synthetic Approaches for Isoreticular and Polymorphic Metalâ€“Organic Frameworks with Tuned Pore Geometries and Surface Properties. Chemistry of Materials, 2014, 26, 1711-1719.	3.2	38
347	Shape and size control and gas adsorption of Ni(II)-doped MOF-5 nano/microcrystals. Microporous and Mesoporous Materials, 2014, 190, 26-31.	2.2	77
348	Site characteristics in metal organic frameworks for gas adsorption. Progress in Surface Science, 2014, 89, 56-79.	3.8	86
349	Dichotomous adsorption behaviour of dyes on an amino-functionalised metalâ€“organic framework, amino-MIL-101(Al). Journal of Materials Chemistry A, 2014, 2, 193-203.	5.2	343
350	Cu(II)â€Based MOF Immobilized on Multiwalled Carbon Nanotubes: Synthesis and Application for Nonenzymatic Detection of Hydrogen Peroxide with High Sensitivity. Electroanalysis, 2014, 26, 2526-2533.	1.5	75
351	CO2 capture by amine-functionalized nanoporous materials: A review. Korean Journal of Chemical Engineering, 2014, 31, 1919-1934.	1.2	148
352	Gas adsorption properties of highly porous metalâ€“organic frameworks containing functionalized naphthalene dicarboxylate linkers. Dalton Transactions, 2014, 43, 18017-18024.	1.6	80
353	A cyano-bridged copper(<scp>ii</scp>)â€“copper(<scp>i</scp>) mixed-valence coordination polymer as a source of copper oxide nanoparticles with catalytic activity in Câ€“N, Câ€“O and Câ€“S cross-coupling reactions. New Journal of Chemistry, 2014, 38, 4267-4274.	1.4	11
354	Variation of CO2 adsorption in isostructural Cd(ii)/Co(ii) based MOFs by anion modulation. CrystEngComm, 2014, 16, 5012.	1.3	32
355	Vanadium metalâ€“organic frameworks: structures and applications. New Journal of Chemistry, 2014, 38, 1853-1867.	1.4	57
356	Interaction of hydrogen and carbon dioxide with sod-type zeolitic imidazolate frameworks: a periodic DFT-D study. CrystEngComm, 2014, 16, 1934.	1.3	44
357	The Thinnest Molecular Separation Sheet by Graphene Gates of Single-Walled Carbon Nanohorns. ACS Nano, 2014, 8, 11313-11319.	7.3	27
358	Structureâ€“property relationships of water adsorption in metalâ€“organic frameworks. New Journal of Chemistry, 2014, 38, 3102-3111.	1.4	252
359	Evaluation of structural transformation in 2D metalâ€“organic frameworks based on a 4,4â€²-sulfonyldibenzoate linker: microwave-assisted solvothermal synthesis, characterization and applications. CrystEngComm, 2014, 16, 9308-9319.	1.3	16
360	Exceptional CO₂Adsorbing Materials under Different Conditions. Chemical Record, 2014, 14, 1134-1148.	2.9	29
361	ZIF-8 micromembranes for gas separation prepared on laser-perforated brass supports. Journal of Materials Chemistry A, 2014, 2, 11177-11184.	5.2	22

#	Article	IF	Citations
362	A spin-canted Ni^{II}₄-based metalâ€“organic framework with gas sorption properties and high adsorptive selectivity for light hydrocarbons. Chemical Communications, 2014, 50, 9161.	2.2	30
363	Superbasicity of silylene derivatives achieved via non-covalent intramolecular cationâ‹¯Ï€ interactions and exploited as molecular containers for CO2. Physical Chemistry Chemical Physics, 2014, 16, 12567.	1.3	19
364	Acidâ€“Base Bifunctional Periodic Mesoporous Metal Phosphonates for Synergistically and Heterogeneously Catalyzing CO2 Conversion. ACS Catalysis, 2014, 4, 3847-3855.	5.5	84
365	High surface area porous carbons produced by steam activation of graphene aerogels. Journal of Materials Chemistry A, 2014, 2, 9891.	5.2	159
366	From Molecules to Materials: Computational Design of Nâ€Containing Porous Aromatic Frameworks for CO₂ Capture. ChemPhysChem, 2014, 15, 1772-1778.	1.0	11
367	High storage capacity and separation selectivity for C₂ hydrocarbons over methane in the metalâ€“organic framework Cuâ€“TDPAT. Journal of Materials Chemistry A, 2014, 2, 15823-15828.	5.2	102
368	Monte Carlo Modeling of Carbon Dioxide Adsorption in Porous Aromatic Frameworks. Langmuir, 2014, 30, 4147-4156.	1.6	19
369	Enhanced selective CO₂ adsorption on polyamine/MIL-101(Cr) composites. Journal of Materials Chemistry A, 2014, 2, 14658-14665.	5.2	121
370	Diffusion of Light Hydrocarbons in the Flexible MIL-53(Cr) Metalâ€“Organic Framework: A Combination of Quasi-Elastic Neutron Scattering Experiments and Molecular Dynamics Simulations. Journal of Physical Chemistry C, 2014, 118, 14471-14477.	1.5	37
371	Effect of nitrogen group on selective separation of CO2/N2 in porous polystyrene. Chemical Engineering Journal, 2014, 256, 390-397.	6.6	26
372	Computational exploration of metalâ€“organic frameworks for CO2/CH4 separation via temperature swing adsorption. Chemical Engineering Science, 2014, 120, 59-66.	1.9	30
373	Distinct Temperature-Dependent CO₂ Sorption of Two Isomeric Metalâ€“Organic Frameworks. Crystal Growth and Design, 2014, 14, 2003-2008.	1.4	31
374	Analysis of High and Selective Uptake of CO₂ in an Oxamideâ€Containing {Cu₂(OOCR)₄}â€Based Metalâ€“Organic Framework. Chemistry - A European Journal, 2014, 20, 7317-7324.	1.7	119
375	Perspective of microporous metalâ€“organic frameworks for CO₂capture and separation. Energy and Environmental Science, 2014, 7, 2868.	15.6	693
376	Highly permeable poly(4-methyl-1-pentyne)/NH₂-MIL 53 (Al) mixed matrix membrane for CO₂/CH₄ separation. RSC Advances, 2014, 4, 36522-36537.	1.7	107
377	CO₂ Desorption Kinetics for Immobilized Polyethylenimine (PEI). Energy & Fuels, 2014, 28, 650-656.	2.5	17
378	Separation of CO2/CH4 and CH4/N2 mixtures using MOF-5 and Cu3(BTC)2. Journal of Energy Chemistry, 2014, 23, 453-460.	7.1	42
379	High valence 3p and transition metal based MOFs. Chemical Society Reviews, 2014, 43, 6097-6115.	18.7	437

#	Article	IF	Citations
380	An N-rich metalâ€“organic framework with an rht topology: high CO2 and C2 hydrocarbons uptake and selective capture from CH4. Chemical Communications, 2014, 50, 5031.	2.2	137
381	Separation of CO 2 /CH 4 and CH 4 /N 2 mixtures by M/DOBDC: A detailed dynamic comparison with MIL-100(Cr) and activated carbon. Microporous and Mesoporous Materials, 2014, 198, 236-246.	2.2	105
382	Improving the Porosity and Catalytic Capacity of a Zinc Paddlewheel Metal-Organic Framework (MOF) through Metal-Ion Metathesis in a Single-Crystal-to-Single-Crystal Fashion. Inorganic Chemistry, 2014, 53, 10649-10653.	1.9	60
383	Carbon Dioxide Adsorption in Amineâ€Functionalized Mixedâ€Ligand Metalâ€“Organic Frameworks of UiOâ€66 Topology. ChemSusChem, 2014, 7, 3382-3388.	3.6	83
384	Kinetic Trapping of D₂ in MIL-53(Al) Observed Using Neutron Scattering. Journal of Physical Chemistry C, 2014, 118, 18197-18206.	1.5	19
385	Effect of Functionalized Groups on Gasâ€Adsorption Properties: Syntheses of Functionalized Microporous Metalâ€“Organic Frameworks and Their High Gasâ€Storage Capacity. Chemistry - A European Journal, 2014, 20, 1341-1348.	1.7	46
386	Highly selective carbon dioxide uptake by a microporous kgm-pillared metalâ€“organic framework with acylamide groups. CrystEngComm, 2014, 16, 5520.	1.3	21
387	Porous coordination polymers based on functionalized Schiff base linkers: enhanced CO₂uptake by pore surface modification. Dalton Transactions, 2014, 43, 2272-2282.	1.6	51
388	Ferrocene in the metalâ€“organic framework MOF-5 studied by homo- and heteronuclear correlation NMR and MD simulation. Microporous and Mesoporous Materials, 2014, 186, 130-136.	2.2	5
389	CO2 adsorption on fine activated carbon in a sound assisted fluidized bed: Effect of sound intensity and frequency, CO2 partial pressure and fluidization velocity. Applied Energy, 2014, 113, 1269-1282.	5.1	58
390	Programming MIL-101Cr for selective and enhanced CO₂adsorption at low pressure by postsynthetic amine functionalization. Dalton Transactions, 2014, 43, 1338-1347.	1.6	69
391	Expanding Pore Size of Al-BDC Metalâ€“Organic Frameworks as a Way to Achieve High Adsorption Selectivity for CO₂/CH₄ Separation. Journal of Physical Chemistry C, 2014, 118, 15630-15639.	1.5	15
392	Molecular simulation of gas adsorption and diffusion in a breathing MOF using a rigid force field. Physical Chemistry Chemical Physics, 2014, 16, 16060-16066.	1.3	31
393	Metalâ€“organic framework membranes: from synthesis to separation application. Chemical Society Reviews, 2014, 43, 6116-6140.	18.7	1,365
394	MOF positioning technology and device fabrication. Chemical Society Reviews, 2014, 43, 5513-5560.	18.7	600
395	M₂(m-dobdc) (M = Mg, Mn, Fe, Co, Ni) Metalâ€“Organic Frameworks Exhibiting Increased Charge Density and Enhanced H₂ Binding at the Open Metal Sites. Journal of the American Chemical Society, 2014, 136, 12119-12129.	6.6	207
396	Zinc(ii) coordination polymers with substituted benzenedicarboxylate and tripodal imidazole ligands: syntheses, structures and properties. CrystEngComm, 2014, 16, 7536.	1.3	59
397	Crystallographic studies of gas sorption in metalâ€“organic frameworks. Acta Crystallographica Section B: Structural Science, Crystal Engineering and Materials, 2014, 70, 404-422.	0.5	79

#	Article	IF	Citations
398	Mixed matrix membranes for gas separation by combination of silica MCM-41 and MOF NH2-MIL-53(Al) in glassy polymers. Microporous and Mesoporous Materials, 2014, 192, 23-28.	2.2	95
399	New molecular basket sorbents for CO2 capture based on mesoporous sponge-like TUD-1. Catalysis Today, 2014, 238, 95-102.	2.2	28
400	Mixed matrix membranes based on NH2-functionalized MIL-type MOFs: Influence of structural and operational parameters on the CO2/CH4 separation performance. Microporous and Mesoporous Materials, 2014, 192, 35-42.	2.2	123
401	Tuning the structure and function of metalâ€“organic frameworks via linker design. Chemical Society Reviews, 2014, 43, 5561-5593.	18.7	1,792
402	Microporous Metalâ€“Organic Frameworks for Gas Separation. Chemistry - an Asian Journal, 2014, 9, 1474-1498.	1.7	183
403	New CO2 separation membranes containing gas-selective Cu-MOFs. Journal of Membrane Science, 2014, 467, 67-72.	4.1	20
404	Sizeâ€•and Shapeâ€Controlled Synthesis of Hexagonal Bipyramidal Crystals and Hollow Selfâ€Assembled Alâ€MOF Spheres. ChemSusChem, 2014, 7, 529-535.	3.6	30
405	A dual functional porous NbO-type metalâ€“organic framework decorated with acylamide groups for selective sorption and catalysis. Inorganic Chemistry Communication, 2014, 46, 226-228.	1.8	19
407	Hydrothermal synthesis of Î±-MnO2/MIL-101(Cr) composite and its bifunctional electrocatalytic activity for oxygen reduction/evolution reactions. Catalysis Communications, 2014, 54, 17-21.	1.6	52
408	Synthesis, structure and properties of three isostructure polymer networks based on mixed ligands. Inorganica Chimica Acta, 2014, 418, 93-98.	1.2	4
409	Microreactor Flow Synthesis of Porous Coordination Polymer Nanoparticles and Characterization of their Adsorption Properties. Journal of the Society of Powder Technology, Japan, 2015, 52, 707-713.	0.0	1
411	Preliminary Design of a Vacuum Pressure Swing Adsorption Process for Natural Gas Upgrading Based on Aminoâ€Functionalized MILâ€53. Chemical Engineering and Technology, 2015, 38, 1183-1194.	0.9	16
412	Exploiting Largeâ€Pore Metalâ€“Organic Frameworks for Separations through Entropic Molecular Mechanisms. ChemPhysChem, 2015, 16, 2046-2067.	1.0	27
413	High CO₂/CH₄ Selectivity of a Flexible Copper(II) Porous Coordination Polymer under Humid Conditions. ChemPlusChem, 2015, 80, 1517-1524.	1.3	19
414	Breath Figure Method for Construction of Honeycomb Films. Membranes, 2015, 5, 399-424.	1.4	62
415	Two New Adenine-Based Co(II) Coordination Polymers: Synthesis, Crystal Structure, Coordination Modes, and Reversible Hydrochromic Behavior. Crystal Growth and Design, 2015, 15, 3182-3189.	1.4	42
416	A facile approach to fabricate porous UMCM-150 nanostructures and their adsorption behavior for methylene blue from aqueous solution. CrystEngComm, 2015, 17, 4825-4831.	1.3	17
417	Design and fabrication of mesoporous heterogeneous basic catalysts. Chemical Society Reviews, 2015, 44, 5092-5147.	18.7	323

#	Article	IF	Citations
418	Flexible Solid Sorbents for CO2 CaptureÂand Separation. , 2015, , 149-176.		2
419	A (3,6)-connected metalâ€“organic framework with high CH₄binding affinity and uptake capacity. CrystEngComm, 2015, 17, 4793-4798.	1.3	18
420	Electrosynthesis of Metalâ€“Organic Frameworks: Challenges and Opportunities. ChemElectroChem, 2015, 2, 462-474.	1.7	199
421	Experimental Evaluation of the Adsorption, Diffusion, and Separation of CH₄/N₂and CH₄/CO₂Mixtures on Al-BDC MOF. Separation Science and Technology, 2015, 50, 874-885.	1.3	18
422	Polyoxometalate-based homochiral metal-organic frameworks for tandem asymmetric transformation of cyclic carbonates from olefins. Nature Communications, 2015, 6, 10007.	5.8	240
423	Control of morphology and size of microporous framework MIL-53(Al) crystals by synthesis procedure. Mendeleev Communications, 2015, 25, 466-467.	0.6	26
424	Enhanced Interfacial Interaction and CO₂ Separation Performance of Mixed Matrix Membrane by Incorporating Polyethylenimine-Decorated Metalâ€“Organic Frameworks. ACS Applied Materials & Interfaces, 2015, 7, 1065-1077.	4.0	162
425	Effect of synthesis solvent on the breathing behavior of MIL-53(Al). Journal of Colloid and Interface Science, 2015, 447, 33-39.	5.0	88
426	Polydopamine-based synthesis of a zeolite imidazolate framework ZIF-100 membrane with high H₂/CO₂ selectivity. Journal of Materials Chemistry A, 2015, 3, 4722-4728.	5.2	103
427	Hysteretic Gas and Vapor Sorption in Flexible Interpenetrated Lanthanide-Based Metalâ€“Organic Frameworks with Coordinated Molecular Gating via Reversible Single-Crystal-to-Single-Crystal Transformation for Enhanced Selectivity. Chemistry of Materials, 2015, 27, 1502-1516.	3.2	76
428	Preparation and catalytically study of metalâ€“organic frameworks of amine/MIL-53 (Al) as a powerful option in the rapid N-formylation condensation in neat conditions. Inorganica Chimica Acta, 2015, 428, 133-137.	1.2	33
429	A stable metalâ€“organic framework with suitable pore sizes and rich uncoordinated nitrogen atoms on the internal surface of micropores for highly efficient CO₂ capture. Journal of Materials Chemistry A, 2015, 3, 7361-7367.	5.2	86
430	Thermodynamic complexity of carbon capture in alkylamine-functionalized metalâ€“organic frameworks. Journal of Materials Chemistry A, 2015, 3, 4248-4254.	5.2	29
431	Four new Al-based microporous metal-organic framework compounds with MIL-53-type structure containing functionalized extended linker molecules. Microporous and Mesoporous Materials, 2015, 216, 13-19.	2.2	34
432	In situ spectroscopy studies of CO₂ adsorption in a dually functionalized microporous metalâ€“organic framework. Journal of Materials Chemistry A, 2015, 3, 4945-4953.	5.2	41
433	A New Design Strategy to Access Zwitterionic Metalâ€“Organic Frameworks from Anionic Viologen Derivates. Inorganic Chemistry, 2015, 54, 1756-1764.	1.9	86
434	Metalâ€“organic frameworks catalyzed Câ€“C and Câ€“heteroatom coupling reactions. Chemical Society Reviews, 2015, 44, 1922-1947.	18.7	348
435	Pulse Chromatographic Studies of Adsorption of CO₂, CH₄, and N₂Using Amine Functionalized Polystyrene Adsorbents. Separation Science and Technology, 2015, 50, 718-728.	1.3	2

#	Article	IF	Citations
436	Conformal and highly adsorptive metalâ€“organic framework thin films via layer-by-layer growth on ALD-coated fiber mats. Journal of Materials Chemistry A, 2015, 3, 1458-1464.	5.2	100
437	Discrete and polymeric cobalt organophosphates: isolation of a 3-D cobalt phosphate framework exhibiting selective CO₂capture. Dalton Transactions, 2015, 44, 5587-5601.	1.6	32
438	Highly enhanced and weakened adsorption properties of two MOFs by water vapor for separation of CO2/CH4 and CO2/N2 binary mixtures. Chemical Engineering Journal, 2015, 270, 385-392.	6.6	115
439	Dual-Functionalized Metalâ€“Organic Frameworks Constructed from Hexatopic Ligand for Selective CO₂ Adsorption. Inorganic Chemistry, 2015, 54, 2310-2314.	1.9	33
440	Moisture-Responsive Hydrogel Impregnated in Porous Polymer Foam as CO₂ Adsorbent in High-Humidity Flue Gas. Industrial & Engineering Chemistry Research, 2015, 54, 7623-7631.	1.8	28
441	Carbon Dioxide Capture by a Metalâ€“Organic Framework with Nitrogen-Rich Channels Based on Rationally Designed Triazole-Functionalized Tetraacid Organic Linker. Inorganic Chemistry, 2015, 54, 6829-6835.	1.9	44
442	CFA-7: an interpenetrated metalâ€“organic framework of the MFU-4 family. Dalton Transactions, 2015, 44, 13060-13070.	1.6	19
443	Unusually Large Band Gap Changes in Breathing Metalâ€“Organic Framework Materials. Journal of Physical Chemistry C, 2015, 119, 16667-16677.	1.5	52
444	Structural Features in Metalâ€“Organic Nanotube Crystals That Influence Stability and Solvent Uptake. Crystal Growth and Design, 2015, 15, 4062-4070.	1.4	27
445	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.	2.2	48
446	Adsorption Equilibrium and Dynamics of Fixed Bed Adsorption of CH₄/N₂ in Binderless Beads of 5A Zeolite. Industrial & Engineering Chemistry Research, 2015, 54, 6390-6399.	1.8	36
447	Highly selective self-condensation of cyclic ketones using MOF-encapsulating phosphotungstic acid for renewable high-density fuel. Green Chemistry, 2015, 17, 4473-4481.	4.6	144
448	Two stable 3D porous metalâ€“organic frameworks with high performance for gas adsorption and separation. Journal of Materials Chemistry A, 2015, 3, 16627-16632.	5.2	92
449	Flexible metal-organic framework compounds: In situ studies for selective CO2 capture. Journal of Alloys and Compounds, 2015, 647, 24-34.	2.8	25
450	Versatile Coreâ€“Shell Nanoparticle@Metalâ€“Organic Framework Nanohybrids: Exploiting Mussel-Inspired Polydopamine for Tailored Structural Integration. ACS Nano, 2015, 9, 6951-6960.	7.3	223
451	Tuning the cavities of zirconium-based MIL-140 frameworks to modulate CO₂adsorption. Chemical Communications, 2015, 51, 11286-11289.	2.2	47
452	Zr-based metalâ€“organic frameworks for specific and size-selective enrichment of phosphopeptides with simultaneous exclusion of proteins. Journal of Materials Chemistry B, 2015, 3, 4242-4248.	2.9	63
453	Quantum-Chemical Characterization of the Properties and Reactivities of Metalâ€“Organic Frameworks. Chemical Reviews, 2015, 115, 6051-6111.	23.0	241

#	Article	IF	Citations
454	Exceptional CO₂ working capacity in a heterodiamine-grafted metalâ€“organic framework. Chemical Science, 2015, 6, 3697-3705.	3.7	127
455	Amide-containing zinc(ii) metalâ€“organic layered networks: a structureâ€“CO2 capture relationship. Inorganic Chemistry Frontiers, 2015, 2, 477-484.	3.0	15
456	Non-covalent Interactions of CO₂ with Functional Groups of Metalâ€“Organic Frameworks from a CCSD(T) Scheme Applicable to Large Systems. Journal of Chemical Theory and Computation, 2015, 11, 1574-1584.	2.3	32
457	Evidence of Amineâ€“CO₂ Interactions in Two Pillaredâ€Layer MOFs Probed by Xâ€ray Crystallography. Chemistry - A European Journal, 2015, 21, 7238-7244.	1.7	36
458	Metalâ^'organic framework composite membranes: Synthesis and separation applications. Chemical Engineering Science, 2015, 135, 232-257.	1.9	208
459	Computational Modeling of bio-MOFs for CO2/CH4 separations. Chemical Engineering Science, 2015, 130, 120-128.	1.9	30
460	Computational Screening of Metal Catecholates for Ammonia Capture in Metalâ€“Organic Frameworks. Industrial & Engineering Chemistry Research, 2015, 54, 3257-3267.	1.8	27
461	Synthesis and characterization of three amino-functionalized metalâ€“organic frameworks based on the 2-aminoterephthalic ligand. Dalton Transactions, 2015, 44, 8190-8197.	1.6	72
462	Selective carbon dioxide adsorption by mixed-ligand porous coordination polymers. CrystEngComm, 2015, 17, 8388-8413.	1.3	50
463	Tuning the target composition of amine-grafted CPO-27-Mg for capture of CO2 under post-combustion and air filtering conditions: a combined experimental and computational study. Dalton Transactions, 2015, 44, 18970-18982.	1.6	26
464	Enhanced Dynamic CO₂ Adsorption Capacity and CO₂/CH₄ Selectivity on Polyethylenimine-Impregnated UiO-66. Industrial & Engineering Chemistry Research, 2015, 54, 11151-11158.	1.8	93
465	Novel catalysts for selective hydrogenation of Câ‰¡C bond based on Pd nanoparticles immobilized in phenylenecarboxylate frameworks (NH2)-MIL-53(Al). Russian Chemical Bulletin, 2015, 64, 284-290.	0.4	10
466	Adsorption-Driven Heat Pumps: The Potential of Metalâ€“Organic Frameworks. Chemical Reviews, 2015, 115, 12205-12250.	23.0	410
467	Targeted capture and pressure/temperature-responsive separation in flexible metalâ€“organic frameworks. Journal of Materials Chemistry A, 2015, 3, 22574-22583.	5.2	30
468	Isoreticular synthesis of 2D MOFs with rotating aryl rings. Inorganic Chemistry Frontiers, 2015, 2, 1001-1005.	3.0	4
469	Effect of polyether amine canopy structure on carbon dioxide uptake of solvent-free nanofluids based on multiwalled carbon nanotubes. Carbon, 2015, 95, 408-418.	5.4	43
470	Preparation of continuous NH2â€“MIL-53 membrane on ammoniated polyvinylidene fluoride hollow fiber for efficient H2 purification. Journal of Membrane Science, 2015, 495, 384-391.	4.1	59
471	Human hair-derived nitrogen and sulfur co-doped porous carbon materials for gas adsorption. RSC Advances, 2015, 5, 73980-73988.	1.7	57

#	Article	IF	Citations
472	Synthesis and post-synthetic modification of amine-, alkyne-, azide- and nitro-functionalized metalâ€“organic frameworks based on DUT-5. Dalton Transactions, 2015, 44, 16802-16809.	1.6	48
473	Porous Materials to Store Clear EnergyÂGasesâ^—. , 2015, , 297-327.		2
474	A Ï€-electron deficient diaminotriazine functionalized MOF for selective sorption of benzene over cyclohexane. Chemical Communications, 2015, 51, 15386-15389.	2.2	64
475	Lead(<scp>ii</scp>) uptake by aluminium based magnetic framework composites (MFCs) in water. Journal of Materials Chemistry A, 2015, 3, 19822-19831.	5.2	141
476	Homodiamine-functionalized metalâ€“organic frameworks with a MOF-74-type extended structure for superior selectivity of CO₂ over N₂. Journal of Materials Chemistry A, 2015, 3, 19177-19185.	5.2	75
477	Effects of amino functionality on uptake of CO2, CH4 and selectivity of CO2/CH4 on titanium based MOFs. Fuel, 2015, 160, 318-327.	3.4	99
478	Adsorption Equilibrium of N₂, CH₄, and CO₂ on MIL-101. Journal of Chemical & Engineering Data, 2015, 60, 2951-2957.	1.0	43
479	Gas transport in metal organic frameworkâ€“polyetherimide mixed matrix membranes: The role of the polyetherimide backbone structure. Polymer, 2015, 81, 87-98.	1.8	18
480	Highly Selective Capture of the Greenhouse Gas CO₂ in Polymers. ACS Sustainable Chemistry and Engineering, 2015, 3, 3077-3085.	3.2	168
481	Metalâ€“Organic Frameworks in Adsorption-Driven Heat Pumps: The Potential of Alcohols as Working Fluids. Langmuir, 2015, 31, 12783-12796.	1.6	123
482	New Al-MOFs Based on Sulfonyldibenzoate Ions: A Rare Example of Intralayer Porosity. Inorganic Chemistry, 2015, 54, 492-501.	1.9	43
483	Selective Hydrogenation of Biomass-Based 5-Hydroxymethylfurfural over Catalyst of Palladium Immobilized on Amine-Functionalized Metalâ€“Organic Frameworks. ACS Catalysis, 2015, 5, 722-733.	5.5	165
484	Hydrophilic pore-blocked metalâ€“organic frameworks: a simple route to a highly selective CH₄/N₂ separation. RSC Advances, 2015, 5, 2749-2755.	1.7	7
485	Adsorption equilibrium of carbon dioxide and nitrogen on the MIL-53(Al) metal organic framework. Separation and Purification Technology, 2015, 141, 150-159.	3.9	52
486	Effect of surface chemistry and textural properties on carbon dioxide uptake in hydrothermally reduced graphene oxide. Carbon, 2015, 82, 590-598.	5.4	73
487	Bivalent metal-based MIL-53 analogues: Synthesis, properties and application. Journal of Solid State Chemistry, 2015, 223, 84-94.	1.4	10
488	Two chelating-amino-functionalized lanthanide metalâ€“organic frameworks for adsorption and catalysis. Dalton Transactions, 2015, 44, 1955-1961.	1.6	34
489	Biomimicry in metalâ€“organic materials. Coordination Chemistry Reviews, 2015, 293-294, 327-356.	9.5	128

#	Article	IF	Citations
490	Enhanced CO₂ adsorption capacity of amine-functionalized MIL-100(Cr) metalâ€“organic frameworks. CrystEngComm, 2015, 17, 430-437.	1.3	60
491	Structure-directing factors when introducing hydrogen bond functionality to metalâ€“organic frameworks. CrystEngComm, 2015, 17, 299-306.	1.3	33
492	Separation of CO 2 /CH 4 mixtures over NH 2 -MIL-53â€”An experimental and modelling study. Chemical Engineering Science, 2015, 124, 96-108.	1.9	28
493	Tuning the functional sites in metalâ€“organic frameworks to modulate CO₂ heats of adsorption. CrystEngComm, 2015, 17, 706-718.	1.3	60
494	Tuning metal sites of DABCO MOF for gas purification at ambient conditions. Microporous and Mesoporous Materials, 2015, 201, 277-285.	2.2	74
495	Methane purification by adsorptive processes on MIL-53(Al). Chemical Engineering Science, 2015, 124, 79-95.	1.9	60
496	A Family of Nitrogen-Enriched Metal Organic Frameworks with CCS Potential. Crystals, 2016, 6, 14.	1.0	12
497	Increased Selectivity in CO₂/CH₄ Separation with Mixedâ€Matrix Membranes of Polysulfone and Mixedâ€MOFs MILâ€101(Cr) and ZIFâ€8. European Journal of Inorganic Chemistry, 2016, 2016, 4363-4367.	1.0	57
498	An In Situ Oneâ€Pot Synthetic Approach towards Multivariate Zirconium MOFs. Angewandte Chemie - International Edition, 2016, 55, 6471-6475.	7.2	119
499	Metal Organic Framework Crystals in Mixedâ€Matrix Membranes: Impact of the Filler Morphology on the Gas Separation Performance. Advanced Functional Materials, 2016, 26, 3154-3163.	7.8	225
500	An In Situ Oneâ€Pot Synthetic Approach towards Multivariate Zirconium MOFs. Angewandte Chemie, 2016, 128, 6581-6585.	1.6	26
501	Synthesis and catalytic study of open metal site metalâ€“organic frameworks of Cu₃(BTC)₂ microbelts in selective organic sulfide oxidation. Applied Organometallic Chemistry, 2016, 30, 954-958.	1.7	40
502	Synthesis, characterization, and CO2 adsorption of three metal-organic frameworks (MOFs): MIL-53, MIL-96, and amino-MIL-53. Polyhedron, 2016, 120, 103-111.	1.0	92
503	Rational design and synthesis of an amino-functionalized hydrogen-bonded network with an ACO zeolite-like topology for gas storage. CrystEngComm, 2016, 18, 5616-5619.	1.3	12
504	Synthesis, Structure, and Selected Properties of Aluminum-, Gallium-, and Indium-Based Metal-Organic Frameworks. , 0, , 105-135.		5
505	Benchmark C2H2/CO2 and CO2/C2H2 Separation by Two Closely Related Hybrid Ultramicroporous Materials. CheM, 2016, 1, 753-765.	5.8	349
506	Crystal-Size Effects on Carbon Dioxide Capture of a Covalently Alkylamine-Tethered Metal-Organic Framework Constructed by a One-Step Self-Assembly. Scientific Reports, 2016, 6, 19337.	1.6	21
507	Mixed matrix membranes prepared from non-dried MOFs for CO₂/CH₄ separations. RSC Advances, 2016, 6, 114505-114512.	1.7	20

#	Article	IF	Citations
508	Flower-like Ni3(NO3)2(OH)4@Zr-metal organic framework (UiO-66) composites as electrode materials for high performance pseudocapacitors. Ionics, 2016, 22, 2545-2551.	1.2	22
509	Porous Nitrogen-Doped Carbon Nanoribbons for High-Performance Gas Adsorbents and Lithium Ion Batteries. Industrial & Engineering Chemistry Research, 2016, 55, 6384-6390.	1.8	28
510	Research trend of metalâ€“organic frameworks: a bibliometric analysis. Scientometrics, 2016, 109, 481-513.	1.6	91
511	Feasibility of CO2 adsorption by solid adsorbents: a review on low-temperature systems. International Journal of Environmental Science and Technology, 2016, 13, 1839-1860.	1.8	171
512	Matrix effect of mixedâ€matrix membrane containing <scp>CO</scp>₂â€selective <scp>MOF</scp>s. Journal of Applied Polymer Science, 2016, 133, .	1.3	26
513	CO2 capture via adsorption in amine-functionalized sorbents. Current Opinion in Chemical Engineering, 2016, 12, 82-90.	3.8	132
514	Experimental and computational investigation of CO2 capture on amine grafted metal-organic framework NH2-MIL-101. Applied Surface Science, 2016, 371, 307-313.	3.1	71
515	Aging of the reaction mixture as a tool to modulate the crystallite size of UiO-66 into the low nanometer range. Chemical Communications, 2016, 52, 6411-6414.	2.2	39
516	Assessing Atmospheric CO₂ Entrapped in Clay Nanotubes using Residual Gas Analyzer. Analytical Chemistry, 2016, 88, 2205-2211.	3.2	22
517	2D metalâ€“organic frameworks: Syntheses, structures, and electrochemical properties. Inorganica Chimica Acta, 2016, 447, 162-167.	1.2	20
518	Synthesis, crystal structure and Thermogravimetry of ortho-phthalic acid bridged coordination polymer of Copper(II). Journal of Chemical Sciences, 2016, 128, 899-904.	0.7	4
519	Mechanism of CO2 adsorption on Mg/DOBDC with elevated CO2 loading. Fuel, 2016, 181, 340-346.	3.4	25
520	A highly stable dimethyl-functionalized Ce(<scp>iv</scp>)-based UiO-66 metalâ€“organic framework material for gas sorption and redox catalysis. CrystEngComm, 2016, 18, 7855-7864.	1.3	80
521	Tuning the adsorption and separation properties of noble gases and N2 in CuBTC by ligand functionalization. RSC Advances, 2016, 6, 91093-91101.	1.7	11
522	Influence of the Amide Groups in the CO₂/N₂ Selectivity of a Series of Isoreticular, Interpenetrated Metalâ€“Organic Frameworks. Crystal Growth and Design, 2016, 16, 6016-6023.	1.4	73
523	Facile electrosynthesis of nano flower like metal-organic framework and its nanocomposite with conjugated polymer as a novel and hybrid electrode material for highly capacitive pseudocapacitors. Journal of Colloid and Interface Science, 2016, 484, 314-319.	5.0	77
524	Crystal structure of poly[(4-aminopyridine-Îº*N*)(*N*,*N*-dimethylformamide-Îº*O*)(Î¼3-pyridine-3,5-dicarboxylato-Îº3*N*:*O*3:*O*5)copper(II)]. Acta Crystallographica Section E: Crystallographic Communications, 2016, 72, 440-443.	0.2	1
525	Separation properties of the MIL-125(Ti) Metal-Organic Framework in high-performance liquid chromatography revealing cis/trans selectivity. Journal of Chromatography A, 2016, 1469, 68-76.	1.8	22

#	Article	IF	Citations
526	Porous Polyrotaxane Coordination Networks Containing Two Distinct Conformers of a Discontinuously Flexible Ligand. Inorganic Chemistry, 2016, 55, 10467-10474.	1.9	11
527	Adsorption Forms of CO₂ on MIL-53(Al) and NH₂-MIL-53(Al) As Revealed by FTIR Spectroscopy. Journal of Physical Chemistry C, 2016, 120, 23584-23595.	1.5	46
528	Basic catalytic performance of amino and acylamide functionalized metal-organic framework in the synthesis of chloropropene carbonate from CO2 under atmospheric pressure. Chemical Research in Chinese Universities, 2016, 32, 838-842.	1.3	1
529	Understanding The Fascinating Origins of CO₂ Adsorption and Dynamics in MOFs. Chemistry of Materials, 2016, 28, 5829-5846.	3.2	66
530	MOFâ€“aminoclay composites for superior CO₂ capture, separation and enhanced catalytic activity in chemical fixation of CO₂. Chemical Communications, 2016, 52, 11378-11381.	2.2	62
531	Postextraction Separation, On-Board Storage, and Catalytic Conversion of Methane in Natural Gas: A Review. Chemical Reviews, 2016, 116, 11436-11499.	23.0	176
532	Polymerâ€“Metal Organic Framework Composite Films as Affinity Layer for Capacitive Sensor Devices. ACS Sensors, 2016, 1, 1188-1192.	4.0	42
533	[Cu₃(BTC)₂]-polyethyleneimine: an efficient MOF composite for effective CO₂separation. RSC Advances, 2016, 6, 93003-93009.	1.7	41
534	Proton-Conductive Metalâ€“Organic Frameworks. Bulletin of the Chemical Society of Japan, 2016, 89, 1-10.	2.0	101
535	A Partially Fluorinated, Water-Stable Cu(II)â€“MOF Derived via Transmetalation: Significant Gas Adsorption with High CO₂ Selectivity and Catalysis of Biginelli Reactions. Inorganic Chemistry, 2016, 55, 7835-7842.	1.9	71
536	Mesoporous carbonâ€“zirconium oxide nanocomposite derived from carbonized metal organic framework: A coating for solid-phase microextraction. Journal of Chromatography A, 2016, 1460, 33-39.	1.8	27
537	Zincâ€Substituted Polyoxotungstate@aminoâ€MILâ€101(Al) â€“ An Efficient Catalyst for the Sustainable Desulfurization of Model and Real Diesels. European Journal of Inorganic Chemistry, 2016, 2016, 5114-5122.	1.0	46
538	Multifunctional Metalâ€“Organic Frameworks with Fluorescent Sensing and Selective Adsorption Properties. Inorganic Chemistry, 2016, 55, 11821-11830.	1.9	103
539	High-Throughput Screening to Investigate the Relationship between the Selectivity and Working Capacity of Porous Materials for Propylene/Propane Adsorptive Separation. Journal of Physical Chemistry C, 2016, 120, 24224-24230.	1.5	37
540	Tuning the Adsorption-Induced Phase Change in the Flexible Metalâ€“Organic Framework Co(bdp). Journal of the American Chemical Society, 2016, 138, 15019-15026.	6.6	123
541	A Twofold Interpenetrated Metalâ€“Organic Framework with High Performance in Selective Separation of C₂H₂/CH₄. ChemPlusChem, 2016, 81, 770-774.	1.3	31
542	Layerâ€byâ€layer assembly of zeolite imidazolate frameworkâ€8 as coating material for capillary electrochromatography. Electrophoresis, 2016, 37, 2175-2180.	1.3	18
543	Enhanced adsorptive desulfurization with flexible metalâ€“organic frameworks in the presence of diethyl ether and water. Chemical Communications, 2016, 52, 8667-8670.	2.2	32

#	Article	IF	Citations
544	Modeling of adsorption behavior of the amine-rich GOPEI aerogel for the removal of As(<scp>iii</scp>) and As(<scp>v</scp>) from aqueous media. RSC Advances, 2016, 6, 56684-56697.	1.7	30
545	N-rich porous carbon with high CO₂ capture capacity derived from polyamine-incorporated metalâ€“organic framework materials. RSC Advances, 2016, 6, 53017-53024.	1.7	24
546	Experimental and computational study of ethane and ethylene adsorption in the MIL-53(Al) metal organic framework. Microporous and Mesoporous Materials, 2016, 230, 154-165.	2.2	37
547	Morphology Control of Metalâ€“Organic Frameworks Based on Paddle-Wheel Units on Ion-Doped Polymer Substrate Using an Interfacial Growth Approach. Langmuir, 2016, 32, 6068-6073.	1.6	26
548	Metal organic frameworks mimicking natural enzymes: a structural and functional analogy. Chemical Society Reviews, 2016, 45, 4127-4170.	18.7	378
549	Supported Au/MIL-53(Al): a reusable green solid catalyst for the three-component coupling reaction of aldehyde, alkyne, and amine. Reaction Kinetics, Mechanisms and Catalysis, 2016, 119, 335-348.	0.8	28
550	<scp>¹³C NMR</scp> Study of <scp>CO₂</scp> Adsorbed in Highly Flexible Porous Metalâ€Organic Frameworks. Bulletin of the Korean Chemical Society, 2016, 37, 588-591.	1.0	8
551	Applications of metal-organic frameworks featuring multi-functional sites. Coordination Chemistry Reviews, 2016, 307, 106-129.	9.5	471
552	Enhancing CO 2 adsorption and separation ability of Zr(IV)-based metalâ€“organic frameworks through ligand functionalization under the guidance of the quantitative structureâ€“property relationship model. Chemical Engineering Journal, 2016, 289, 247-253.	6.6	72
553	Applicability of using CO2 adsorption isotherms to determine BET surface areas of microporous materials. Microporous and Mesoporous Materials, 2016, 224, 294-301.	2.2	112
554	CO₂ capture under humid conditions in NH₂-MIL-53(Al): the influence of the amine functional group. RSC Advances, 2016, 6, 9978-9983.	1.7	40
555	A multifunctional cadmiumâ€“organic framework comprising tricarboxytriphenyl amine: selective gas adsorption, liquid-phase separation and luminescence sensing. RSC Advances, 2016, 6, 1388-1394.	1.7	13
556	Mechanism of water adsorption in the large pore form of the gallium-based MIL-53 metal-organic framework. Microporous and Mesoporous Materials, 2016, 222, 145-152.	2.2	14
557	1-Methyl-3-octylimidazolium tetrafluoroborate/AgO nanoparticles composite membranes for facilitated gas transport. Korean Journal of Chemical Engineering, 2016, 33, 666-668.	1.2	9
558	Amine-functionalized metalâ€“organic frameworks: structure, synthesis and applications. RSC Advances, 2016, 6, 32598-32614.	1.7	169
559	Enhanced Selective CO2 Capture upon Incorporation of Dimethylformamide in the Cobalt Metalâ€“Organic Framework [Co3(OH)2(btca)2]. Energy & Fuels, 2016, 30, 526-530.	2.5	11
560	Facile synthesis of amine-functionalized MIL-53(Al) by ultrasound microwave method and application for CO2 capture. Journal of Porous Materials, 2016, 23, 857-865.	1.3	27
561	An efficient and sensitive fluorescent pH sensor based on amino functional metalâ€“organic frameworks in aqueous environment. Dalton Transactions, 2016, 45, 7078-7084.	1.6	80

#	Article	IF	Citations
562	Functionalized UiO-66 by Single and Binary (OH)₂ and NO₂ Groups for Uptake of CO₂ and CH₄. Industrial & Engineering Chemistry Research, 2016, 55, 7924-7932.	1.8	61
563	Synthesis and gas adsorption properties of mesoporous silica-NH2-MIL-53(Al)Âcoreâ€“shell spheres. Microporous and Mesoporous Materials, 2016, 225, 116-121.	2.2	28
564	Adsorption, separation, and catalytic properties of densified metal-organic frameworks. Coordination Chemistry Reviews, 2016, 311, 38-52.	9.5	272
565	Selective separation of CO2 and CH4 for biogas upgrading on zeolite NaKA and SAPO-56. Applied Energy, 2016, 162, 613-621.	5.1	102
566	Design of amine-functionalized metalâ€“organic frameworks for CO₂ separation: the more amine, the better?. Chemical Communications, 2016, 52, 974-977.	2.2	76
567	An adsorption study on STA-16(Co). Microporous and Mesoporous Materials, 2016, 222, 169-177.	2.2	2
568	Photoelectrical, photophysical and photocatalytic properties of Al based MOFs: MIL-53(Al) and MIL-53-NH2(Al). Journal of Solid State Chemistry, 2016, 233, 194-198.	1.4	62
569	Hydrothermal crystal growth and Vernier structures of the metal benzenedicarboxylates MIL-47 and MIL-53 containing guest molecules of benzenecarboxylic acid. Journal of Solid State Chemistry, 2016, 236, 230-235.	1.4	9
570	Deducing CO₂motion, adsorption locations and binding strengths in a flexible metalâ€“organic framework without open metal sites. Physical Chemistry Chemical Physics, 2016, 18, 8327-8341.	1.3	56
571	Influence of a porous MOF support on the catalytic performance of Eu-polyoxometalate based materials: desulfurization of a model diesel. Catalysis Science and Technology, 2016, 6, 1515-1522.	2.1	92
572	Finely tuning MOFs towards high-performance post-combustion CO₂ capture materials. Chemical Communications, 2016, 52, 443-452.	2.2	131
573	Effect of the structural constituents of metal organic frameworks onÂcarbon dioxide capture. Microporous and Mesoporous Materials, 2016, 219, 276-305.	2.2	75
574	Soluble Polymers with Intrinsic Porosity for Flue Gas Purification and Natural Gas Upgrading. Advanced Materials, 2017, 29, 1605826.	11.1	40
575	Solvothermal preparation and gas permeability of an IRMOF-3 membrane. Microporous and Mesoporous Materials, 2017, 241, 218-225.	2.2	10
576	On the Structureâ€“Property Relationships of Cationâ€Exchanged ZKâ€5 Zeolites for CO₂ Adsorption. ChemSusChem, 2017, 10, 946-957.	3.6	36
577	Polarizable Force Fields for CO₂ and CH₄ Adsorption in M-MOF-74. Journal of Physical Chemistry C, 2017, 121, 4659-4673.	1.5	87
578	Amine-functionalized (Al) MIL-53/VTECâ„¢ mixed-matrix membranes for H2/CO2 mixture separations at high pressure and high temperature. Journal of Membrane Science, 2017, 530, 201-212.	4.1	26
579	2-Fold Interpenetrating Bifunctional Cd-Metalâ€“Organic Frameworks: Highly Selective Adsorption for CO₂ and Sensitive Luminescent Sensing of Nitro Aromatic 2,4,6-Trinitrophenol. ACS Applied Materials & Interfaces, 2017, 9, 4701-4708.	4.0	113

#	Article	IF	Citations
580	Hypercrosslinked porous polymer materials: design, synthesis, and applications. Chemical Society Reviews, 2017, 46, 3322-3356.	18.7	938
581	CH4/CO2 Mixture Adsorption on a Characterized Activated Carbon. Journal of Chemical & Engineering Data, 2017, 62, 1475-1480.	1.0	11
582	High-Performance Magnetic Activated Carbon from Solid Waste from Lignin Conversion Processes. 1. Their Use As Adsorbents for CO₂. ACS Sustainable Chemistry and Engineering, 2017, 5, 3087-3095.	3.2	52
583	Screening the Effect of Water Vapour on Gas Adsorption Performance: Application to CO₂ Capture from Flue Gas in Metalâ€“Organic Frameworks. ChemSusChem, 2017, 10, 1543-1553.	3.6	89
584	Ni^{II} Coordination to an Alâ€Based Metalâ€“Organic Framework Made from 2â€Aminoterephthalate for Photocatalytic Overall Water Splitting. Angewandte Chemie, 2017, 129, 3082-3086.	1.6	37
585	Ni^{II} Coordination to an Alâ€Based Metalâ€“Organic Framework Made from 2â€Aminoterephthalate for Photocatalytic Overall Water Splitting. Angewandte Chemie - International Edition, 2017, 56, 3036-3040.	7.2	175
586	Gas confinement in compartmentalized coordination polymers for highly selective sorption. Chemical Science, 2017, 8, 3109-3120.	3.7	15
587	Recent advances in the synthesis and applications of metal organic frameworks doped with ionic liquids for CO 2 adsorption. Coordination Chemistry Reviews, 2017, 351, 189-204.	9.5	110
588	Confinement of alcohols to enhance CO₂ capture in MIL-53(Al). RSC Advances, 2017, 7, 24833-24840.	1.7	24
589	Investigation of CO2 capture efficiency and mechanism in 2-methylimidazole-glycol solution. Separation and Purification Technology, 2017, 189, 66-73.	3.9	11
590	Rational Synthesis of Chiral Metalâ€“Organic Frameworks from Preformed Rodlike Secondary Building Units. Inorganic Chemistry, 2017, 56, 6551-6557.	1.9	27
591	Gas Phase Sensing of Alcohols by Metal Organic Frameworkâ€“Polymer Composite Materials. ACS Applied Materials & Interfaces, 2017, 9, 24926-24935.	4.0	51
592	Bottleneck Effect of N,N-Dimethylformamide in InOF-1: Increasing CO₂ Capture in Porous Coordination Polymers. Inorganic Chemistry, 2017, 56, 5863-5872.	1.9	34
593	Metalâ€Organic Frameworks for Carbon Dioxide Capture and Methane Storage. Advanced Energy Materials, 2017, 7, 1601296.	10.2	334
594	Construction of molecule-selective mixed matrix membranes with confined mass transfer structure. Chinese Journal of Chemical Engineering, 2017, 25, 1563-1580.	1.7	27
595	A Flexible Doubly Interpenetrated Metalâ€“Organic Framework with Breathing Behavior and Tunable Gate Opening Effect by Introducing Co²⁺ into Zn₄O Clusters. Inorganic Chemistry, 2017, 56, 6645-6651.	1.9	39
596	Structure stability of HKUST-1 towards water and ethanol and their effect on its CO₂ capture properties. Dalton Transactions, 2017, 46, 9192-9200.	1.6	102
597	Integration of Biomolecules with Metalâ€“Organic Frameworks. Small, 2017, 13, 1700880.	5.2	137

#	Article	IF	Citations
598	Grand Challenges and Future Opportunities for Metalâ€“Organic Frameworks. ACS Central Science, 2017, 3, 554-563.	5.3	311
599	Alternative materials in technologies for Biogas upgrading via CO2 capture. Renewable and Sustainable Energy Reviews, 2017, 79, 1414-1441.	8.2	125
600	Experimental and Computational Investigation of CO 2 Capture on Mix-ligand Metal-organic Framework UiO-66. Energy Procedia, 2017, 105, 4395-4401.	1.8	18
601	Fluorescent sensing and selective adsorption properties of metalâ€“organic frameworks with mixed tricarboxylate and 1H-imidazol-4-yl-containing ligands. Dalton Transactions, 2017, 46, 9022-9029.	1.6	56
602	Functionalised cyclodextrin-based metalâ€“organic frameworks. Chemical Communications, 2017, 53, 7561-7564.	2.2	55
603	Dielectric anomaly and relaxation natures in a Zn-Cr pillarâ^layered metalâ^organic framework with cages and channels. Journal of Solid State Chemistry, 2017, 250, 107-113.	1.4	5
604	Role of Alumina Basicity in CO₂ Uptake in 3â€Aminopropylsilylâ€Grafted Alumina Adsorbents. ChemSusChem, 2017, 10, 2192-2201.	3.6	47
605	Fineâ€Tuning of the Carbon Dioxide Capture Capability of Diamineâ€Grafted Metalâ€“Organic Framework Adsorbents Through Amine Functionalization. ChemSusChem, 2017, 10, 541-550.	3.6	88
606	Two Liâ€“Zn Cluster-Based Metalâ€“Organic Frameworks: Strong H₂/CO₂ Binding and High Selectivity to CO₂. Inorganic Chemistry, 2017, 56, 705-708.	1.9	23
607	Synthesis of zeolitic imidazolate framework-8 particles of controlled sizes, shapes, and gate adsorption characteristics using a central collision-type microreactor. Chemical Engineering Journal, 2017, 313, 724-733.	6.6	72
608	Construction of 3D homochiral metalâ€“organic frameworks (MOFs) of Cd(<scp>ii</scp>): selective CO₂adsorption and catalytic properties for the Knoevenagel and Henry reaction. Inorganic Chemistry Frontiers, 2017, 4, 348-359.	3.0	57
609	New Group 13 MIL-53 Derivates based on 2,5-Thiophenedicarboxylic Acid. Zeitschrift Fur Anorganische Und Allgemeine Chemie, 2017, 643, 1600-1608.	0.6	44
610	Ca-Embedded C₂N: an efficient adsorbent for CO₂ capture. Physical Chemistry Chemical Physics, 2017, 19, 28323-28329.	1.3	25
611	A Permanently Porous Yttriumâ€“Organic Framework Based on an Extended Tridentate Phosphine Containing Linker. Inorganic Chemistry, 2017, 56, 12830-12838.	1.9	20
612	Construction of Pillar-Layer Metalâ€“Organic Frameworks for CO₂ Adsorption under Humid Climate: High Selectivity and Sensitive Detection of Picric Acid in Water. ACS Sustainable Chemistry and Engineering, 2017, 5, 11307-11315.	3.2	74
613	Confining Metalâ€“Organic Framework Nanocrystals within Mesoporous Materials: A General Approach via â€œSolid-Stateâ€•Synthesis. Chemistry of Materials, 2017, 29, 9628-9638.	3.2	39
615	Computational Screening of Functionalized UiO-66 Materials for Selective Contaminant Removal from Air. Journal of Physical Chemistry C, 2017, 121, 20396-20406.	1.5	28
616	Assessing Guestâ€Molecule Diffusion in Heterogeneous Powder Samples of Metalâ€“Organic Frameworks through Pulsedâ€Fieldâ€Gradient (PFG) NMR Spectroscopy. Chemistry - A European Journal, 2017, 23, 13000-13005.	1.7	13

#	Article	IF	Citations
617	Molecular Dynamics Simulations for Loading-Dependent Diffusion of CO₂, SO₂, CH₄, and Their Binary Mixtures in ZIF-10: The Role of Hydrogen Bond. Langmuir, 2017, 33, 11543-11553.	1.6	13
618	ZIF-67 derived cobalt-based nanomaterials for electrocatalysis and nonenzymatic detection of glucose: Difference between the calcination atmosphere of nitrogen and air. Journal of Electroanalytical Chemistry, 2017, 799, 512-518.	1.9	33
619	Diffusion of Carbon Dioxide and Nitrogen in the Smallâ€Pore Titanium Bis(phosphonate) Metalâ€“Organic Framework MILâ€91 (Ti): A Combination of Quasielastic Neutron Scattering Measurements and Molecular Dynamics Simulations. ChemPhysChem, 2017, 18, 2739-2746.	1.0	11
620	Adsorption Forms of CO₂ on MIL-53(Al) and MIL-53(Al)â€“OH_x As Revealed by FTIR Spectroscopy. Journal of Physical Chemistry C, 2017, 121, 18665-18673.	1.5	27
621	Computational screening of functional groups for capture of toxic industrial chemicals in porous materials. Physical Chemistry Chemical Physics, 2017, 19, 31766-31772.	1.3	1
622	Adsorption of carbon dioxide on TEPA-modified TiO₂/titanate composite nanorods. New Journal of Chemistry, 2017, 41, 7870-7885.	1.4	16
623	Tailoring the catalytic activity of metal organic frameworks by tuning the metal center and basic functional sites. New Journal of Chemistry, 2017, 41, 8166-8177.	1.4	34
624	Amine-functionalized MIL-53(Al)-coated stainless steel fiber for efficient solid-phase microextraction of synthetic musks and organochlorine pesticides in water samples. Analytical and Bioanalytical Chemistry, 2017, 409, 5239-5247.	1.9	32
625	Applications of metal-organic frameworks in adsorption/separation processes via hydrogen bonding interactions. Chemical Engineering Journal, 2017, 310, 197-215.	6.6	370
626	Metalâ€“organic framework of amineâ€MILâ€53(Al) as active and reusable liquidâ€phase reaction inductor for multicomponent condensation of Ugiâ€type reactions. Applied Organometallic Chemistry, 2017, 31, e3584.	1.7	20
627	Nanocomposite of p-type conductive polymer/Cu (II)-based metal-organic frameworks as a novel and hybrid electrode material for highly capacitive pseudocapacitors. Ionics, 2017, 23, 131-138.	1.2	56
628	Fabrication of Functionalized MOFs Incorporated Mixed Matrix Hollow Fiber Membrane for Gas Separation. Journal of Chemistry, 2017, 2017, 1-9.	0.9	12
629	Mixed matrix membranes based on amine and non-amine MIL-53(Al) in PebaxÂ® MH-1657 for CO 2 separation. Separation and Purification Technology, 2018, 200, 177-190.	3.9	182
630	Amine-Functionalized Metalâ€“Organic Framework as a New Sorbent for Vortex-Assisted Dispersive Micro-Solid Phase Extraction of Phenol Residues in Water Samples Prior to HPLC Analysis: Experimental and Computational Studies. Chromatographia, 2018, 81, 735-747.	0.7	24
631	High Water Tolerance of a Coreâ€“Shellâ€Structured Zeolite for CO₂ Adsorptive Separation under Wet Conditions. ChemSusChem, 2018, 11, 1756-1760.	3.6	26
632	Non-platinum metal-organic framework based electro-catalyst for promoting oxygen reduction reaction. AIP Conference Proceedings, 2018, , .	0.3	1
633	Environmentally friendly synthesis of flexible MOFs M(NA)₂(M = Zn, Co, Cu, Cd) with large and regenerable ammonia capacity. Journal of Materials Chemistry A, 2018, 6, 9922-9929.	5.2	51
634	Efficient separation of C₂H₂from C₂H₂/CO₂mixtures in an acidâ€“base resistant metalâ€“organic framework. Chemical Communications, 2018, 54, 4846-4849.	2.2	62

#	Article	IF	Citations
635	Naphthyl Substitution-Induced Fine Tuning of Porosity and Gas Uptake Capacity in Microporous Hyper-Cross-Linked Amine Polymers. Macromolecules, 2018, 51, 2923-2931.	2.2	54
636	Influence of Filler Pore Structure and Polymer on the Performance of MOFâ€Based Mixedâ€Matrix Membranes for CO₂ Capture. Chemistry - A European Journal, 2018, 24, 7949-7956.	1.7	44
637	Improving CO₂ Adsorption Capacity and CO₂/CH₄ Selectivity with Amine Functionalization of MIL-100 and MIL-101. Journal of Chemical & Engineering Data, 2018, 63, 1657-1662.	1.0	23
638	Crystal conversion between metal-organic frameworks with different crystal topologies for efficient crystal design on two-dimensional substrates. Journal of Crystal Growth, 2018, 487, 1-7.	0.7	3
639	Nanocomposite of Conjugated Polymer/Nano-Flowers Cu(II) Metal-Organic System with 2-Methylpyridinecarboxaldehyde Isonicotinohydrazide as a Novel and Hybrid Electrode Material for Highly Capacitive Pseudocapacitors. Bulletin of the Chemical Society of Japan, 2018, 91, 617-622.	2.0	52
640	Amine-Functionalized Al-MOF[#]@_y^xSm₂O₃â€“ZnO: A Visible Light-Driven Nanocomposite with Excellent Photocatalytic Activity for the Photo-Degradation of Amoxicillin. Inorganic Chemistry, 2018, 57, 2529-2545.	1.9	79
641	Porous Metalâ€“Organic Frameworks with Chelating Multiamine Sites for Selective Adsorption and Chemical Conversion of Carbon Dioxide. Inorganic Chemistry, 2018, 57, 2695-2704.	1.9	87
642	Robust Bifunctional Lanthanide Cluster Based Metalâ€“Organic Frameworks (MOFs) for Tandem Deacetalizationâ€“Knoevenagel Reaction. Inorganic Chemistry, 2018, 57, 2193-2198.	1.9	162
643	Facile Synthesis of Zeolitic Imidazolate Framework-8 (ZIF-8) Particles Immobilized on Aramid Microfibrils for Wastewater Treatment. Chemistry Letters, 2018, 47, 620-623.	0.7	8
644	Stable Metalâ€“Organic Frameworks: Design, Synthesis, and Applications. Advanced Materials, 2018, 30, e1704303.	11.1	1,740
645	One-pot synthesis of hierarchical-pore metalâ€“organic frameworks for drug delivery and fluorescent imaging. CrystEngComm, 2018, 20, 1087-1093.	1.3	67
646	Extraordinary sensitivity for H₂S and Fe(<scp>iii</scp>) sensing in aqueous medium by Al-MIL-53-N₃metalâ€“organic framework:in vitroandin vivoapplications of H₂S sensing. Dalton Transactions, 2018, 47, 2690-2700.	1.6	53
647	Enhanced CO₂ Adsorption and Selectivity of CO₂/N₂ on Amino-MIL-53(Al) Synthesized by Polar Co-solvents. Energy & Fuels, 2018, 32, 4502-4510.	2.5	39
648	Selective Electrochemical Reduction of Carbon Dioxide Using Cu Based Metal Organic Framework for CO₂ Capture. ACS Applied Materials & Interfaces, 2018, 10, 2480-2489.	4.0	93
649	Hyperexpandable, self-healing macromolecular crystals with integrated polymer networks. Nature, 2018, 557, 86-91.	13.7	130
650	(CH₃)₂NHâ€Assisted Synthesis of Highâ€Purity Niâ€HKUSTâ€1 for the Adsorption of CO₂, CH₄, and N₂. European Journal of Inorganic Chemistry, 2018, 2018, 1047-1052.	1.0	24
651	Ethylenediamine Grafting to Functionalized NH₂â€“UiO-66 Using Green Aza-Michael Addition Reaction to Improve CO₂/CH₄ Adsorption Selectivity. Industrial & Engineering Chemistry Research, 2018, 57, 7030-7039.	1.8	52
652	Synthetic approaches for the incorporation of free amine functionalities in porous coordination polymers for enhanced CO2 sorption. Coordination Chemistry Reviews, 2018, 365, 1-22.	9.5	55

#	Article	IF	Citations
653	Acid-base bifunctional catalyst: Carboxyl ionic liquid immobilized on MIL-101-NH2 for rapid synthesis of propylene carbonate from CO2 and propylene oxide under facile solvent-free conditions. Microporous and Mesoporous Materials, 2018, 267, 84-92.	2.2	59
654	Electrophoretic Nuclei Assembly for Crystallization of Highâ€Performance Membranes on Unmodified Supports. Advanced Functional Materials, 2018, 28, 1707427.	7.8	71
655	Carbon capture and storage (CCS): the way forward. Energy and Environmental Science, 2018, 11, 1062-1176.	15.6	2,378
656	A review on common adsorbents for acid gases removal: Focus on biochar. Renewable and Sustainable Energy Reviews, 2018, 81, 1705-1720.	8.2	159
657	An Aminoâ€Functionalized Metalâ€Organic Framework, Based on a Rare Ba₁₂(COO)₁₈(NO₃)₂ Cluster, for Efficient C₃/C₂/C₁ Separation and Preferential Catalytic Performance. Chemistry - A European Journal, 2018, 24, 2137-2143.	1.7	61
658	Evaluation of electrospun nanofibrous mats as materials for CO 2 capture: A feasibility study on functionalized poly(acrylonitrile) (PAN). Journal of Membrane Science, 2018, 546, 128-138.	4.1	22
659	CO2 photoreduction on hydroxyl-group-rich mesoporous single crystal TiO2. Applied Surface Science, 2018, 427, 603-607.	3.1	27
660	Recyclable ammonia uptake of a MIL series of metal-organic frameworks with high structural stability. Microporous and Mesoporous Materials, 2018, 258, 170-177.	2.2	52
661	Enhancing Van der Waals Interactions of Functionalized UiOâ€66 with Nonâ€polar Adsorbates: The Unique Effect of para Hydroxyl Groups. Chemistry - A European Journal, 2018, 24, 1931-1937.	1.7	7
662	Amine-modified SBA-15(P): A promising adsorbent for CO2 capture. Journal of CO2 Utilization, 2018, 24, 22-33.	3.3	100
663	Controlling the Orientation of Metalâ€“Organic Framework Crystals by an Interfacial Growth Approach Using a Metal Ion-Doped Polymer Substrate. Crystal Growth and Design, 2018, 18, 402-408.	1.4	14
664	Efficient CO2/N2 separation by mixed matrix membrane with amide functionalized porous coordination polymer filler. Chinese Chemical Letters, 2018, 29, 854-856.	4.8	15
665	Removal of hazardous cationic organic dyes from water using nickel-based metal-organic frameworks. Inorganica Chimica Acta, 2018, 471, 203-210.	1.2	54
667	Influence of Functional Groups and Modification Sites of Metal-Organic Frameworks on CO2/CH4 Separation: A Monte Carlo Simulation Study. Chinese Journal of Chemical Physics, 2018, 31, 52-60.	0.6	3
668	Investigation of Ð¡Ðž2 adsorption on amine-functionalized silicas and metal-organic polymers. Russian Chemical Bulletin, 2018, 67, 1595-1600.	0.4	1
669	Inâ€Plane Epitaxial Growth of Highly câ€Oriented NH₂â€MILâ€125(Ti) Membranes with Superior H₂/CO₂ Selectivity. Angewandte Chemie, 2018, 130, 16320-16325.	1.6	44
670	Inâ€Plane Epitaxial Growth of Highly câ€Oriented NH₂â€MILâ€125(Ti) Membranes with Superior H₂/CO₂ Selectivity. Angewandte Chemie - International Edition, 2018, 57, 16088-16093.	7.2	125
671	Amine functionalized activated carbon fibers as effective structured adsorbents for formaldehyde removal. Adsorption, 2018, 24, 725-732.	1.4	37

#	Article	IF	Citations
672	A Versatile Anionic Cd(II)-Based Metalâ€“Organic Framework for CO₂ Capture and Nitroaromatic Explosives Detection. Crystal Growth and Design, 2018, 18, 7088-7093.	1.4	21
673	Solid-State NMR Investigations of Carbon Dioxide Gas in Metalâ€“Organic Frameworks: Insights into Molecular Motion and Adsorptive Behavior. Chemical Reviews, 2018, 118, 10033-10048.	23.0	93
674	MOFsâ€Based Heterogeneous Catalysts: New Opportunities for Energyâ€Related CO₂ Conversion. Advanced Energy Materials, 2018, 8, 1801587.	10.2	158
675	A Free Tetrazolyl Decorated Metalâ€“Organic Framework Exhibiting High and Selective CO₂ Adsorption. Inorganic Chemistry, 2018, 57, 14018-14022.	1.9	31
676	Microporous mixed-metal mixed-ligand metal organic framework for selective CO₂ capture. CrystEngComm, 2018, 20, 6088-6093.	1.3	9
677	From fundamentals to applications: a toolbox for robust and multifunctional MOF materials. Chemical Society Reviews, 2018, 47, 8611-8638.	18.7	994
679	Nanoporous highly crosslinked polymer networks with covalently bonded amines for CO2 capture. Polymer, 2018, 154, 55-61.	1.8	21
680	Nanosheets of Nonlayered Aluminum Metalâ€“Organic Frameworks through a Surfactantâ€Assisted Method. Advanced Materials, 2018, 30, e1707234.	11.1	117
681	CO2 adsorption performance of functionalized metal-organic frameworks of varying topologies by molecular simulations. Chemical Engineering Science, 2018, 189, 65-74.	1.9	22
682	Syntheses, crystal structures, adsorption properties and visible photocatalytic activities of highly stable Pb-based coordination polymers constructed by 2-(2-carboxyphenyl)imidazo(4,5-f)-(1,10)phenanthroline and bridging linkers. Dalton Transactions, 2018, 47, 7761-7775.	1.6	28
683	Carbon dioxide capture in MOFs: The effect of ligand functionalization. Polyhedron, 2018, 154, 236-251.	1.0	65
684	Near-Perfect CO₂/CH₄ Selectivity Achieved through Reversible Guest Templating in the Flexible Metalâ€“Organic Framework Co(bdp). Journal of the American Chemical Society, 2018, 140, 10324-10331.	6.6	136
685	Synthesis chemistry of metal-organic frameworks for CO 2 capture and conversion for sustainable energy future. Renewable and Sustainable Energy Reviews, 2018, 92, 570-607.	8.2	89
687	Visualizing Structural Transformation and Guest Binding in a Flexible Metalâ€“Organic Framework under High Pressure and Room Temperature. ACS Central Science, 2018, 4, 1194-1200.	5.3	46
688	Harnessing Filler Materials for Enhancing Biogas Separation Membranes. Chemical Reviews, 2018, 118, 8655-8769.	23.0	239
689	Dual-emissive ratiometric fluorescent probe based on Eu3+/C-dots@MOF hybrids for the biomarker diaminotoluene sensing. Sensors and Actuators B: Chemical, 2018, 272, 510-517.	4.0	95
690	Highly efficient separation of methane from nitrogen on a squarateâ€based metalâ€organic framework. AICHE Journal, 2018, 64, 3681-3689.	1.8	94
691	Improved MOF nanoparticle recovery and purification using crosslinked PVDF membranes. Chemical Communications, 2018, 54, 7370-7373.	2.2	15

#	Article	IF	Citations
692	Two interpenetrated metalâ€“organic frameworks with a slim ethynyl-based ligand: designed for selective gas adsorption and structural tuning. CrystEngComm, 2018, 20, 6018-6025.	1.3	29
693	Lockâ€andâ€Key and Shapeâ€Memory Effects in an Unconventional Synthetic Path to Magnesium Metalâ€“Organic Frameworks. Angewandte Chemie - International Edition, 2019, 58, 11757-11762.	7.2	56
694	MILâ€53(Al) as a Versatile Platform for Ionicâ€Liquid/MOF Composites to Enhance CO₂ Selectivity over CH₄ and N₂. Chemistry - an Asian Journal, 2019, 14, 3655-3667.	1.7	44
695	Metal-Assisted Salphen Organic Frameworks (MaSOFs) with Trinuclear Metal Units for Synergic Gas Sorption. Chemistry of Materials, 2019, 31, 6210-6223.	3.2	15
696	New Doubly Interpenetrated MOF with [Zn₄O] Clusters and Its Doped Isomorphic MOF: Sensing, Dye, and Gas Adsorption Capacity. Crystal Growth and Design, 2019, 19, 6774-6783.	1.4	52
697	Novel amine functionalized metal organic framework synthesis for enhanced carbon dioxide capture. Materials Research Express, 2019, 6, 105539.	0.8	23
698	Lockâ€andâ€Key and Shapeâ€Memory Effects in an Unconventional Synthetic Path to Magnesium Metalâ€“Organic Frameworks. Angewandte Chemie, 2019, 131, 11883-11888.	1.6	10
699	Synthesis and characterization of iso-reticular metal-organic Framework-3 (IRMOF-3) for CO2/CH4 adsorption: Impact of post-synthetic aminomethyl propanol (AMP) functionalization. Journal of Natural Gas Science and Engineering, 2019, 72, 103014.	2.1	32
700	Waterâ€stable Adenineâ€based MOFs with Polar Pores for Selective CO 2 Capture. Chemistry - an Asian Journal, 2019, 14, 3736-3741.	1.7	23
701	Shaping of Flexible Metalâ€Organic Frameworks: Combining Macroscopic Stability and Framework Flexibility. European Journal of Inorganic Chemistry, 2019, 2019, 4700-4709.	1.0	41
702	Hybrid monoliths with metal-organic frameworks in spin columns for extraction of non-steroidal drugs prior to their quantitation by reversed-phase HPLC. Mikrochimica Acta, 2019, 186, 759.	2.5	11
703	Homochiral MOFâ€“Polymer Mixed Matrix Membranes for Efficient Separation of Chiral Molecules. Angewandte Chemie, 2019, 131, 17084-17091.	1.6	31
704	Homochiral MOFâ€“Polymer Mixed Matrix Membranes for Efficient Separation of Chiral Molecules. Angewandte Chemie - International Edition, 2019, 58, 16928-16935.	7.2	141
705	Exploring the Acid Gas Sorption Properties of Oxidatively Degraded Supported Amine Sorbents. Energy & Fuels, 2019, 33, 1372-1382.	2.5	5
706	Linker functionalized metal-organic frameworks. Coordination Chemistry Reviews, 2019, 399, 213023.	9.5	170
707	Discovering Inherent Characteristics of Polyethylenimine-Functionalized Porous Materials for CO₂ Capture. ACS Applied Materials & Interfaces, 2019, 11, 36515-36524.	4.0	31
708	Devising Chemically Robust and Cationic Ni(II)â€“MOF with Nitrogen-Rich Micropores for Moisture-Tolerant CO₂ Capture: Highly Regenerative and Ultrafast Colorimetric Sensor for TNP and Multiple Oxoâ€“Anions in Water with Theoretical Revelation. ACS Applied Materials & Interfaces, 2019, 11, 40134-40150.	4.0	97
709	Powerful combination of MOFs and C3N4 for enhanced photocatalytic performance. Applied Catalysis B: Environmental, 2019, 247, 24-48.	10.8	309

#	Article	IF	Citations
710	STA-27, a porous Lewis acidic scandium MOF with an unexpected topology type prepared with 2,3,5,6-tetrakis(4-carboxyphenyl)pyrazine. Journal of Materials Chemistry A, 2019, 7, 5685-5701.	5.2	22
711	Co(II)-based Metalâ€“Organic Frameworks and Their Application in Gas Sorption and Solvatochromism. Crystal Growth and Design, 2019, 19, 1640-1648.	1.4	25
712	Sub-stoichiometric 2D covalent organic frameworks from tri- and tetratopic linkers. Nature Communications, 2019, 10, 2689.	5.8	83
713	Stability of amine-functionalized CO₂ adsorbents: a multifaceted puzzle. Chemical Society Reviews, 2019, 48, 3320-3405.	18.7	260
714	Stable fluorinated 3D isoreticular nanotubular triazole MOFs: synthesis, characterization and CO2 separation. Journal of Porous Materials, 2019, 26, 1573-1579.	1.3	2
715	A zinc(ii) metalâ€“organic framework with high affinity for CO2 based on triazole and tetrazolyl benzene carboxylic acid. CrystEngComm, 2019, 21, 3679-3685.	1.3	9
716	Pore structure regulation and carbon dioxide adsorption capacity improvement on porous BN fibers: Effects of high-temperature treatments in gaseous ambient. Chemical Engineering Journal, 2019, 373, 616-623.	6.6	33
717	Carbon capture and conversion using metalâ€“organic frameworks and MOF-based materials. Chemical Society Reviews, 2019, 48, 2783-2828.	18.7	1,685
718	Evolution of acid and basic sites in UiO-66 and UiO-66-NH2 metal-organic frameworks: FTIR study by probe molecules. Microporous and Mesoporous Materials, 2019, 281, 110-122.	2.2	115
719	Solventâ€Induced Control over Breathing Behavior in Flexible Metalâ€“Organic Frameworks for Naturalâ€Gas Delivery. Angewandte Chemie, 2019, 131, 8157-8161.	1.6	27
720	Solventâ€Induced Control over Breathing Behavior in Flexible Metalâ€“Organic Frameworks for Naturalâ€Gas Delivery. Angewandte Chemie - International Edition, 2019, 58, 8073-8077.	7.2	132
721	Effect of TiO2 loading on the morphology and CO2/CH4 separation performance of PEBAX-based membranes. Frontiers of Chemical Science and Engineering, 2019, 13, 517-530.	2.3	21
722	On the water stability of ionic liquids/Cu-BTC composites: an experimental study. Journal of Nanoparticle Research, 2019, 21, 1.	0.8	11
723	Preparation of metalâ€“organic frameworks with bimetallic linkers and corresponding properties. New Journal of Chemistry, 2019, 43, 7243-7250.	1.4	10
724	Adsorption Equilibrium and Kinetics of Nitrogen, Methane and Carbon Dioxide Gases onto ZIF-8, Cu_{10%}/ZIF-8, and Cu_{30%}/ZIF-8. Industrial & Engineering Chemistry Research, 2019, 58, 6653-6661.	1.8	19
725	Increasing Volumetric CO 2 Uptake of Hypercrosslinked Polymers through Composite Formation. Macromolecular Materials and Engineering, 2019, 304, 1800780.	1.7	3
727	An amino-functionalized metalâ€“organic framework nanosheet array as a battery-type electrode for an advanced supercapattery. Dalton Transactions, 2019, 48, 17163-17168.	1.6	40
728	Silica-Supported Immobilized Amine for CO2 Capture Processes: Molecular Insight by In Situ Infrared Spectroscopy. , 2019, , 121-142.		3

#	Article	IF	Citations
729	Data-driven design of metalâ€“organic frameworks for wet flue gas CO2 capture. Nature, 2019, 576, 253-256.	13.7	438
730	Improvements to the production of ZIF-94; a case study in MOF scale-up. Green Chemistry, 2019, 21, 5665-5670.	4.6	23
731	Improving MOF stability: approaches and applications. Chemical Science, 2019, 10, 10209-10230.	3.7	855
732	Cation exchange modification of clinoptilolite â€“thermodynamic effects on adsorption separations of carbon dioxide, methane, and nitrogen. Microporous and Mesoporous Materials, 2019, 274, 327-341.	2.2	43
733	Functionalized MIL-68(In) for the photocatalytic treatment of Cr(VI)-containing simulation wastewater: Electronic effects of ligand substitution. Applied Surface Science, 2019, 464, 396-403.	3.1	60
734	Incorporation of metalâ€organic framework aminoâ€modified MILâ€101 into glycidyl methacrylate monoliths for nano LC separation. Journal of Separation Science, 2019, 42, 834-842.	1.3	22
735	Screening and Design of Covalent Organic Framework Membranes for CO₂/CH₄ Separation. ACS Sustainable Chemistry and Engineering, 2019, 7, 1220-1227.	3.2	90
736	A highly efficient MIL-101(Cr)â€“Grapheneâ€“molybdenum oxide nano composite for selective oxidation of hydrogen sulfide into elemental sulfur. Journal of Industrial and Engineering Chemistry, 2019, 71, 308-317.	2.9	13
737	Partial and Complete Substitution of the 1,4-Benzenedicarboxylate Linker in UiO-66 with 1,4-Naphthalenedicarboxylate: Synthesis, Characterization, and H₂-Adsorption Properties. Inorganic Chemistry, 2019, 58, 1607-1620.	1.9	42
738	Diffusion of Water and Carbon Dioxide and Mixtures Thereof in Mg-MOF-74. Journal of Physical Chemistry C, 2019, 123, 8212-8220.	1.5	19
739	Nanoporous Polymer Microspheres with Nitrile and Amidoxime Functionalities for Gas Capture and Precious Metal Recovery from E-Waste. ACS Sustainable Chemistry and Engineering, 2019, 7, 123-128.	3.2	29
740	Amino-functional ZIF-8 nanocrystals by microemulsion based mixed linker strategy and the enhanced CO2/N2 separation. Separation and Purification Technology, 2020, 236, 116209.	3.9	65
741	Synthesis and effect of metalâ€“organic frame works on CO₂ adsorption capacity at various pressures: A contemplating review. Energy and Environment, 2020, 31, 367-388.	2.7	29
742	Ethylenediamine-functionalized metal organic frameworks MIL-100(Cr) for efficient CO2/N2O separation. Separation and Purification Technology, 2020, 235, 116219.	3.9	27
743	Application of QD-MOF composites for photocatalysis: Energy production and environmental remediation. Coordination Chemistry Reviews, 2020, 403, 213097.	9.5	233
744	Selective separation of carbon dioxide from biogas mixture using mesoporous ceria and zirconium hydroxide. Adsorption, 2020, 26, 51-59.	1.4	4
745	Construction of a bifunctional Zn(<scp>ii</scp>)â€“organic framework containing a basic amine functionality for selective capture and room temperature fixation of CO₂. Inorganic Chemistry Frontiers, 2020, 7, 72-81.	3.0	46
746	Conversion from Heterometallic to Homometallic Metalâ€“Organic Frameworks. Chemistry - A European Journal, 2020, 26, 11767-11775.	1.7	3

#	Article	IF	Citations
747	Tuning the interpenetration of metalâ€“organic frameworks through changing ligand functionality: effect on gas adsorption properties. CrystEngComm, 2020, 22, 506-514.	1.3	22
748	Influence of post-synthetic graphene oxide (GO) functionalization on the selective CO2/CH4 adsorption behavior of MOF-200 at different temperatures; an experimental and adsorption isotherms study. Microporous and Mesoporous Materials, 2020, 296, 110002.	2.2	73
749	A computational study to design zeolite-templated carbon materials with high performance for CO2/N2 separation. Microporous and Mesoporous Materials, 2020, 295, 109947.	2.2	12
750	Pseudoâ€Gated Adsorption with Negligible Volume Change Evoked by Halogenâ€Bond Interaction in the Nanospace of MOFs. Chemistry - A European Journal, 2020, 26, 2148-2153.	1.7	21
751	Porous Metalâ€“Organic Frameworks for Carbon Dioxide Adsorption and Separation at Low Pressure. ACS Sustainable Chemistry and Engineering, 2020, 8, 15378-15404.	3.2	81
752	Diammonium-Pillared MOPS with Dynamic CO2 Selectivity. Cell Reports Physical Science, 2020, 1, 100210.	2.8	7
753	Porous and Nonporous Coordination Polymers Induced by Pseudohalide Ions for Luminescence and Gas Sorption. Inorganic Chemistry, 2020, 59, 15987-15999.	1.9	18
754	Fabrication of a new heterogeneous tungstate-based on the amino-functionalized metal-organic framework as an efficient catalyst towards sonochemical oxidation of alcohols under green condition. Journal of Organometallic Chemistry, 2020, 925, 121483.	0.8	9
755	Disclosing the microscopic mechanism and adsorption properties of CO₂ capture in N-isopropylethylenediamine appended M₂(dobpdc) series. Physical Chemistry Chemical Physics, 2020, 22, 24614-24623.	1.3	13
756	Methane separation from diluted mixtures by fixed bed adsorption using MOFs: Model validation and parametric studies. Separation and Purification Technology, 2020, 251, 117374.	3.9	10
757	Design of New Materials Based on Functionalization of Cu-BTC for Adsorption and Separation of CH4 and CO2: GCMC and MD Simulations Study. Russian Journal of Physical Chemistry A, 2020, 94, 1415-1421.	0.1	4
758	Recent advances in aluminium-based metal-organic frameworks (MOF) and its membrane applications. Journal of Membrane Science, 2020, 615, 118493.	4.1	88
759	Experimental and modeling study of CO2 separation by modified Pebax 1657 TFC membranes. Korean Journal of Chemical Engineering, 2020, 37, 2020-2040.	1.2	2
760	Anisotropic Dynamics and Mechanics of Macromolecular Crystals Containing Lattice-Patterned Polymer Networks. Journal of the American Chemical Society, 2020, 142, 19402-19410.	6.6	8
761	Inorganic nanocrystal-dynamic porous polymer assemblies with effective energy transfer for sensitive diagnosis of urine copper. Chemical Science, 2020, 11, 12187-12193.	3.7	8
762	Acid-Modulated Synthesis of High Surface Area Amine-Functionalized MIL-101(Cr) Nanoparticles for CO₂ Separations. Industrial & Engineering Chemistry Research, 2020, 59, 18139-18150.	1.8	18
763	Computational Material Screening Using Artificial Neural Networks for Adsorption Gas Separation. Journal of Physical Chemistry C, 2020, 124, 21446-21460.	1.5	16
764	Temperature dependence of adsorption hysteresis in flexible metal organic frameworks. Communications Chemistry, 2020, 3, .	2.0	20

#	Article	IF	Citations
765	Flexible Adsorbents at High Pressure: Observations and Correlation of ZIF-7 Stepped Sorption Isotherms for Nitrogen, Argon, and Other Gases. Langmuir, 2020, 36, 14967-14977.	1.6	10
766	Structural variety of aluminium and gallium coordination polymers based on bis-pyridylethylene: from molecular complexes to ionic networks. CrystEngComm, 2020, 22, 4531-4543.	1.3	6
767	Size-controlled Synthesis of Zeolitic Imidazolate Framework-67 (ZIF-67) Using Electrospray in Liquid Phase. Chemistry Letters, 2020, 49, 875-878.	0.7	2
768	Dimensional selective syntheses of metalâ€“organic frameworks using mixed organic ligands. Inorganica Chimica Acta, 2020, 513, 119739.	1.2	2
769	Structural diversity and applications of Ce(III)-based coordination polymers. Coordination Chemistry Reviews, 2020, 419, 213392.	9.5	16
770	Acidâ€“Base Interaction Enhancing Oxygen Tolerance in Electrocatalytic Carbon Dioxide Reduction. Angewandte Chemie - International Edition, 2020, 59, 10918-10923.	7.2	40
771	Acidâ€“Base Interaction Enhancing Oxygen Tolerance in Electrocatalytic Carbon Dioxide Reduction. Angewandte Chemie, 2020, 132, 11010-11015.	1.6	6
773	MOF-Based Membranes for Gas Separations. Chemical Reviews, 2020, 120, 8161-8266.	23.0	755
774	Stimuli-responsive structural changes in metalâ€“organic frameworks. Chemical Communications, 2020, 56, 9416-9432.	2.2	50
775	Extension of BET theory to CO2 adsorption isotherms for ultra-microporosity of covalent organic polymers. SN Applied Sciences, 2020, 2, 1.	1.5	44
776	Evaluation of Metalâ€“Organic Frameworks as Potential Adsorbents for Solar Cooling Applications. Applied System Innovation, 2020, 3, 26.	2.7	10
777	Targeted removal of aluminium and copper in Li-ion battery waste solutions by selective precipitation as valuable porous materials. Materials Letters, 2020, 268, 127564.	1.3	6
778	Robust Heterometallic Tb^{III}/Mn^{II}â€“Organic Framework for CO₂/CH₄ Separation and I₂ Adsorption. ACS Applied Nano Materials, 2020, 3, 2680-2686.	2.4	28
779	Molecular Insight into Fluorocarbon Adsorption in Pore Expanded Metalâ€“Organic Framework Analogs. Journal of the American Chemical Society, 2020, 142, 3002-3012.	6.6	44
780	Data Mining for Binary Separation Materials in Published Adsorption Isotherms. Chemistry of Materials, 2020, 32, 982-991.	3.2	16
781	Synthesis, characterization, and CO2 adsorption properties of metalâ€“organic framework NH2â€“MILâ€“101(V). Materials Letters, 2020, 264, 127402.	1.3	17
782	Control of gate adsorption characteristics of flexible metal-organic frameworks by crystal defect. Microporous and Mesoporous Materials, 2020, 302, 110215.	2.2	11
783	UiO-66 and UiO-66-NH2 based sensors: Dielectric and FTIR investigations on the effect of CO2 adsorption. Microporous and Mesoporous Materials, 2020, 302, 110227.	2.2	52

#	Article	IF	Citations
784	Surfactant-assisted synthesis of nanocrystalline zeolitic imidazolate framework 8 and 67 for adsorptive removal of perfluorooctane sulfonate from aqueous solution. Catalysis Today, 2020, 352, 220-226.	2.2	24
785	MOFs-induced high-amphiphilicity in hierarchical 3D reduced graphene oxide-based hydrogel. Applied Surface Science, 2021, 540, 148303.	3.1	11
786	Investigation of the microstructure on the nanoporous carbon based capacitive performance. Microporous and Mesoporous Materials, 2021, 310, 110629.	2.2	6
787	Selective CO 2 Sorption Using Compartmentalized Coordination Polymers with Discrete Voids**. Chemistry - A European Journal, 2021, 27, 4653-4659.	1.7	5
788	Solvothermal growth of Mg-MOF-74 films on carboxylic functionalized silicon substrate using acrylic acid. Surfaces and Interfaces, 2021, 22, 100845.	1.5	13
789	Power of Infrared and Raman Spectroscopies to Characterize Metal-Organic Frameworks and Investigate Their Interaction with Guest Molecules. Chemical Reviews, 2021, 121, 1286-1424.	23.0	349
790	Construction of an Asymmetric Porphyrinic Zirconium Metalâ€“Organic Framework through Ionic Postchiral Modification. Inorganic Chemistry, 2021, 60, 206-218.	1.9	21
791	Adsorption Site Selective Occupation Strategy within a Metalâ€“Organic Framework for Highly Efficient Sieving Acetylene from Carbon Dioxide. Angewandte Chemie, 2021, 133, 4620-4624.	1.6	33
792	Adsorption Site Selective Occupation Strategy within a Metalâ€“Organic Framework for Highly Efficient Sieving Acetylene from Carbon Dioxide. Angewandte Chemie - International Edition, 2021, 60, 4570-4574.	7.2	117
793	Advanced applications of green materials for gas separation and storage. , 2021, , 681-703.		1
794	Understanding the opportunities of metalâ€“organic frameworks (MOFs) for CO₂capture and gas-phase CO₂conversion processes: a comprehensive overview. Reaction Chemistry and Engineering, 2021, 6, 787-814.	1.9	31
795	Metal-Organic Frameworks for Environmental Applications. Engineering Materials, 2021, , 1-39.	0.3	0
796	Functional green-based nanomaterials towards sustainable carbon capture and sequestration. , 2021, , 125-177.		4
797	Carbon capture Using Metalâ€“Organic Frameworks. , 2021, , 155-204.		1
798	Cobalt-Based Metalâ€“Organic Frameworks for Adsorption of CO₂ and C₂ Hydrocarbons: Effect of Auxiliary Ligands with Different Functional Groups. Inorganic Chemistry, 2021, 60, 2563-2572.	1.9	5
799	Zeolite membrane reactors: from preparation to application in heterogeneous catalytic reactions. Reaction Chemistry and Engineering, 2021, 6, 401-417.	1.9	23
800	Metalâ€“organic framework. Interface Science and Technology, 2021, , 279-387.	1.6	13
801	A Temporarily Pore-Openable Porous Coordination Polymer for Guest Adsorption/Desorption. Inorganic Chemistry, 2021, 60, 4531-4538.	1.9	10

#	Article	IF	Citations
802	Robust metal-organic frameworks for dry and wet biogas upgrading. Applied Materials Today, 2021, 22, 100933.	2.3	13
803	Proton conductive metal sulfonate frameworks. Coordination Chemistry Reviews, 2021, 431, 213747.	9.5	63
804	Synthesis and Applications of Stable Iron-Based Metalâ€“Organic Framework Materials. Crystal Growth and Design, 2021, 21, 3100-3122.	1.4	34
805	Porous organic frameworks for carbon dioxide capture and storage. Journal of Environmental Chemical Engineering, 2021, 9, 105090.	3.3	23
806	Improvement efficiency of the of poly (ether-block-amide) -Cellulose acetate (Pebax-CA) blend by the addition of nanoparticles (MIL-53 and NH2-MIL-53): A molecular dynamics study. Journal of Polymer Research, 2021, 28, 1.	1.2	27
807	Circularly polarized luminescence of agglomerate emitters. Aggregate, 2021, 2, e48.	5.2	81
808	An advancement in the synthesis of nano Pd@magnetic amine-Functionalized UiO-66-NH2 catalyst for cyanation and O-arylation reactions. Scientific Reports, 2021, 11, 11387.	1.6	19
809	Understanding the Effect of Water on CO₂ Adsorption. Chemical Reviews, 2021, 121, 7280-7345.	23.0	194
810	METAL-ORGANIC FRAMEWORK: A SMART REPLACEMENT FOR CONVENTIONAL NANOFILLERS FOR THE ENHANCEMENT OF MECHANICAL PROPERTIES AND THERMAL STABILITY OF SBR NANOCOMPOSITE. Rubber Chemistry and Technology, 2021, 94, 515-532.	0.6	3
811	Pressure-Induced Loss of Long-Range Structural Order in MFM-300(Al): An X-ray Diffraction and Raman Spectroscopic Study. Journal of Physical Chemistry C, 2021, 125, 15472-15478.	1.5	1
812	Hybrid ultrafiltration membranes based on PES and MOFs @ carbon quantum dots for improving anti-fouling performance. Separation and Purification Technology, 2021, 266, 118586.	3.9	31
813	Selective adsorption of CO2/N2 promoted by polar ligand functional groups of metalâ€“organic frameworks. Journal of Porous Materials, 2022, 29, 63-71.	1.3	9
814	Breaking the trade-off between selectivity and adsorption capacity for gas separation. CheM, 2021, 7, 3085-3098.	5.8	68
815	CO2 capture by ethanolamines functionalized resins: amination and kinetics of adsorption in a fixed bed. Adsorption, 2021, 27, 1237-1250.	1.4	2
816	C2s/C1 hydrocarbon separation: The major step towards natural gas purification by metal-organic frameworks (MOFs). Coordination Chemistry Reviews, 2021, 442, 213998.	9.5	64
817	Ag-exchanged mesoporous chromium terephthalate with sulfonate for removing radioactive methyl iodide at extremely low concentrations in humid environments. Journal of Hazardous Materials, 2021, 417, 125904.	6.5	13
818	Novel Lanthanide(III) Porphyrin-Based Metalâ€“Organic Frameworks: Structure, Gas Adsorption, and Magnetic Properties. ACS Omega, 2021, 6, 24637-24649.	1.6	7
819	Breathing Effect via Solvent Inclusions on the Linker Rotational Dynamics of Functionalized MILâ€53. Chemistry - A European Journal, 2021, 27, 14711-14720.	1.7	9

#	Article	IF	Citations
820	Insights into Paraben Adsorption by Metalâ€“Organic Frameworks for Analytical Applications. ACS Applied Materials & Interfaces, 2021, 13, 45639-45650.	4.0	9
821	Mixed matrix membranes based on NH2-MIL-53 (Al) and 6FDA-ODA polyimide for CO2 separation: Effect of the processing route on improving MOF-polymer interfacial interaction. Separation and Purification Technology, 2021, 270, 118786.	3.9	35
822	Highly efficient and bifunctional Cd(II)-Organic Framework platform towards Pb(II), Cr(VI) detection and Cr(VI) photoreduction. Journal of Solid State Chemistry, 2021, 302, 122416.	1.4	12
823	Improving the performance of metal-organic frameworks for thermo-catalytic CO2 conversion: Strategies and perspectives. Chinese Journal of Catalysis, 2021, 42, 1903-1920.	6.9	45
824	A review for Metal-Organic Frameworks (MOFs) utilization in capture and conversion of carbon dioxide into valuable products. Journal of CO2 Utilization, 2021, 53, 101715.	3.3	58
825	Construction of MOF-shell porous materials and performance studies in the selective adsorption and separation of benzene pollutants. Dalton Transactions, 2021, 50, 9076-9087.	1.6	8
826	Carbon dioxide adsorption based on porous materials. RSC Advances, 2021, 11, 12658-12681.	1.7	109
827	Revisiting the MIL-101 metalâ€“organic framework: design, synthesis, modifications, advances, and recent applications. Journal of Materials Chemistry A, 2021, 9, 22159-22217.	5.2	100
828	CO2 Capture Using Solid Sorbents. , 2015, , 1-56.		2
829	Organic Porous Polymer Materials: Design, Preparation, and Applications. Engineering Materials and Processes, 2017, , 71-150.	0.2	1
830	Metal-Organic Frameworks (MOFs) for CO2 Capture. Green Chemistry and Sustainable Technology, 2014, , 79-113.	0.4	2
831	Feasibility of CO2 adsorption by solid adsorbents: a review on low-temperature systems. , 2016, 13, 1839.		1
832	Unique design of superior metal-organic framework for removal of toxic chemicals in humid environment via direct functionalization of the metal nodes. Journal of Hazardous Materials, 2020, 398, 122857.	6.5	28
833	Tailoring the breathing behavior of functionalized MIL-53(Al,M)-NH2 materials by using the mixed-metal concept. Microporous and Mesoporous Materials, 2020, 308, 110329.	2.2	15
834	Recent progress and remaining challenges in post-combustion CO2 capture using metal-organic frameworks (MOFs). Progress in Energy and Combustion Science, 2020, 80, 100849.	15.8	235
835	Formation Mechanism of Ammonium Carbamate for CO₂ Uptake in N,Nâ€²-Dimethylethylenediamine Grafted M₂(dobpdc). Langmuir, 2020, 36, 14104-14112.	1.6	9
836	Metalâ€“Organic Framework (MOF)-based CO2 Adsorbents. Inorganic Materials Series, 2018, , 153-205.	0.5	1
837	Molecular Modeling of Gas Separation in Metalâ€“Organic Frameworks. , 2015, , 295-337.		1

#	Article	IF	Citations
838	Enhanced Carbon Dioxide Adsorption on Post-Synthetically Modified Metal-Organic Frameworks. Bulletin of the Korean Chemical Society, 2011, 32, 2705-2710.	1.0	11
839	Capability of CO₂on Metal-Organic Frameworks-Based Porous Adsorbents and Their Challenges to Pressure Swing Adsorption Applications. Clean Technology, 2013, 19, 370-378.	0.1	5
840	Sorption-enhanced mixed-gas transport in amine functionalized polymers of intrinsic microporosity (PIMs). Journal of Materials Chemistry A, 2021, 9, 23631-23642.	5.2	21
841	Freestanding Metal Organic Frameworkâ€Based Multifunctional Membranes Fabricated via Pseudomorphic Replication toward Liquidâ€•and Gasâ€Hazards Abatement. Advanced Materials Interfaces, 2021, 8, 2101178.	1.9	3
842	Molecular Assembly of Nickel(II) Dithiocarbamate Complexes Derived from Amino Acids. Transactions of the Materials Research Society of Japan, 2011, 36, 509-512.	0.2	0
843	The Application of Metal-Organic Frameworks to CO2 Capture. , 2013, , 233-257.		1
844	CO2Adsorption in Metal-organic Frameworks. Korean Chemical Engineering Research, 2013, 51, 171-180.	0.2	1
845	CO2 Capture Using Solid Sorbents. , 2017, , 2349-2404.		0
846	Metal-Organic Frameworks Characterization via Inverse Pulse Gas Chromatography. Applied Sciences (Switzerland), 2021, 11, 10243.	1.3	8
848	Advanced Strategies in Metalâ€Organic Frameworks for CO₂ Capture and Separation. Chemical Record, 2022, 22, .	2.9	42
849	A novel Zn-based-MOF for efficient CO2 adsorption and conversion under mild conditions. Catalysis Today, 2022, 390-391, 230-236.	2.2	10
850	Low temperature heat capacity and thermodynamic functions of Al-MIL-53-X metal-organic frameworks. Chemical Thermodynamics and Thermal Analysis, 2022, 5, 100027.	0.7	1
851	A pore matching amine-functionalized strategy for efficient CO2 physisorption with low energy penalty. Chemical Engineering Journal, 2022, 432, 134403.	6.6	21
852	Realizing electrochemical transformation of a metalâ€“organic framework precatalyst into a metal hydroxideâ€“oxy(hydroxide) active catalyst during alkaline water oxidation. Journal of Materials Chemistry A, 2022, 10, 3843-3868.	5.2	44
853	para-Aminobenzoic acid-capped hematite as an efficient nanocatalyst for solvent-free CO₂ fixation under atmospheric pressure. Dalton Transactions, 2022, 51, 1918-1926.	1.6	13
854	Biomass/Biochar carbon materials for CO2 capture and sequestration by cyclic adsorption processes: A review and prospects for future directions. Journal of CO2 Utilization, 2022, 57, 101890.	3.3	82
855	MIL series of metal organic frameworks (MOFs) as novel adsorbents for heavy metals in water: A review. Journal of Hazardous Materials, 2022, 429, 128271.	6.5	105
856	Understanding the ZIF-L to ZIF-8 transformation from fundamentals to fully costed kilogram-scale production. Communications Chemistry, 2022, 5, .	2.0	45

#	Article	IF	Citations
857	Flexible metalâ€“organic frameworks for gas storage and separation. Dalton Transactions, 2022, 51, 4608-4618.	1.6	66
859	Pebax-Based Membrane Filled with Photo-Responsive Azo@Nh2-Mil-53 Nanoparticles for Efficient So2/N2 Separation. SSRN Electronic Journal, 0, , .	0.4	0
860	Flexible Metalâ€“Organic Frameworks as CO₂ Adsorbents en Route to Energyâ€Efficient Carbon Capture. Small Structures, 2022, 3, .	6.9	15
861	Identifying the Gate-Opening Mechanism in the Flexible Metalâ€“Organic Framework UTSA-300. Inorganic Chemistry, 2022, 61, 5025-5032.	1.9	9
862	Amine-Functionalized Metal-Organic Frameworks: from Synthetic Design to Scrutiny in Application. Coordination Chemistry Reviews, 2022, 459, 214445.	9.5	47
863	Single atomic Cu-Anchored 2D covalent organic framework as a nanoreactor for CO2 capture and in-situ conversion: A computational study. Chemical Engineering Science, 2022, 253, 117536.	1.9	5
864	Application of nanosecond laser to a direct and rapid growth of Cu-BTC metal-organic framework thin films on copper substrate. Surfaces and Interfaces, 2022, 30, 101904.	1.5	3
865	A metal-organic framework based on Co(II) and 3-aminoisonicotinate showing specific and reversible colourimetric response to solvent exchange with variable magnet behaviour. Materials Today Chemistry, 2022, 24, 100794.	1.7	6
866	Manipulating Pore Topology and Functionality to Promote Fluorocarbon-Based Adsorption Cooling. Accounts of Chemical Research, 2022, 55, 649-659.	7.6	9
867	Heterogeneous catalytic decomposition of hydrogen peroxide utilizing a Fe(<scp>iii</scp>)-based metalâ€“organic framework as an efficient and persistent nanozyme. Materials Advances, 2022, 3, 4262-4267.	2.6	6
870	Methane storage in flexible and dynamical metalâ€“organic frameworks. Chemical Physics Reviews, 2022, 3, .	2.6	7
871	Pebax-based membrane filled with photo-responsive Azo@NH2-MIL-53 nanoparticles for efficient SO2/N2 separation. Separation and Purification Technology, 2022, 296, 121363.	3.9	6
872	Materials from waste plastics for CO₂capture and utilisation. Green Chemistry, 2022, 24, 6086-6099.	4.6	27
874	Size- and ion-selective adsorption of organic dyes from aqueous solutions using functionalized UiO-66 frameworks. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2022, 651, 129749.	2.3	17
875	Correlation between Structure and Dynamics of Co2 Confined in Mg-Mof-74 and the Role of Inter-Crystalline Space: A Molecular Dynamics Simulation Study. SSRN Electronic Journal, 0, , .	0.4	0
876	Amino-grafting pre-functionalization of terephthalic acid by impulse dielectric-barrier discharge (DBD) plasma for amino-based Metal-Organic Frameworks (MOFs). Materials Chemistry and Physics, 2022, 290, 126629.	2.0	4
877	A charge-decorated porous framework with polar pores and open O donor sites for CO₂/CH₄ and C₂H₂/C₂H₄ separations. Dalton Transactions, 2022, 51, 13419-13425.	1.6	0
878	A cooperative adsorbent for the switch-like capture of carbon dioxide from crude natural gas. Chemical Science, 2022, 13, 11772-11784.	3.7	6

#	Article	IF	Citations
879	A critical review on the synthesis of NH2-MIL-53(Al) based materials for detection and removal of hazardous pollutants. Environmental Research, 2023, 216, 114422.	3.7	9
880	Networkâ€Nanostructured ZIFâ€8 to Enable Percolation for Enhanced Gas Transport. Advanced Functional Materials, 2022, 32, .	7.8	16
881	Computational Investigation of the Interaction of Multifunctionalized Porous Aromatic Frameworks with SO₂. Journal of Physical Chemistry C, 2022, 126, 16306-16314.	1.5	2
882	Boosting Ethane/Ethylene Separation by MOFs through the Aminoâ€Functionalization of Pores. Angewandte Chemie - International Edition, 2022, 61, .	7.2	79
883	Boosting Ethane/Ethylene Separation by MOFs through the Aminoâ€Functionalization of Pores. Angewandte Chemie, 0, , .	1.6	5
884	Solubility measurement and correlation of 2-aminoterephthalic acid in eight alcoholic solvents at different temperatures. Journal of Chemical Thermodynamics, 2023, 177, 106948.	1.0	6
885	Recent progress in metal-organic frameworks (MOFs) for CO2 capture at different pressures. Journal of Environmental Chemical Engineering, 2022, 10, 108930.	3.3	28
886	The review of different dimensionalities based pristine metal organic frameworks for supercapacitor application. Journal of Energy Storage, 2022, 56, 105700.	3.9	13
887	Correlation between structure and dynamics of CO2 confined in Mg-MOF-74 and the role of inter-crystalline space: A molecular dynamics simulation study. Applied Surface Science, 2023, 612, 155909.	3.1	5
888	Assessment of Acid Gas Adsorption Selectivities in MIL-125-NH₂. Journal of Physical Chemistry C, 2022, 126, 21414-21425.	1.5	0
889	An Amine-Functionalized Ultramicroporous Metalâ€“Organic Framework for Postcombustion CO₂ Capture. ACS Applied Materials & Interfaces, 2022, 14, 56707-56714.	4.0	7
890	The Properties of Microwave-Assisted Synthesis of Metalâ€“Organic Frameworks and Their Applications. Nanomaterials, 2023, 13, 352.	1.9	28
891	Selective adsorption of volatile organic compounds in metal-organic frameworks (MOFs). Coordination Chemistry Reviews, 2023, 485, 215119.	9.5	24
892	A generalizable strategy based on the rule of â€œlike dissolves likeâ€•to construct porous liquids with low viscosity for CO2 capture. Nano Research, 2023, 16, 10369-10380.	5.8	11
893	Kinetics of Guest-Induced Structural Transitions in Metalâ€“Organic-Framework MIL-53(Al)-NH₂ Probed by High-Pressure Nuclear Magnetic Resonance. Journal of Physical Chemistry Letters, 2023, 14, 3391-3396.	2.1	1
894	IRMOF-3 nanosheet-filled glass fiber membranes for efficient separation of hydrogen and carbon dioxide. Separation and Purification Technology, 2023, 318, 123908.	3.9	2
900	Microporous metal-organic framework materials for efficient capture and separation of greenhouse gases. Science China Chemistry, 2023, 66, 2181-2203.	4.2	3
910	Preparation and applications of water-based porous coordination network. , 2024, , 227-256.		0

#	Article	IF	Citations
912	Pore engineering of metalâ€“organic frameworks for boosting low-pressure CO₂ capture. Journal of Materials Chemistry A, 2023, 11, 25784-25802.	5.2	0
916	Efficient SF₆ capture and separation in robust gallium- and vanadium-based metalâ€“organic frameworks. Journal of Materials Chemistry A, 2023, 11, 26435-26441.	5.2	0