

Methane Storage in Metal-Organic Frameworks: Current Challenges

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Citation Report

#	ARTICLE	IF	CITATIONS
8	Adsorption of Acetone Vapor by Cu-BTC: An Experimental and Computational Study. <i>Journal of Physical Chemistry C</i> , 2013, 117, 26156-26165.	1.5	30
9	Insights into Multi-Objective Design of Metal-Organic Frameworks. <i>Crystal Growth and Design</i> , 2013, 13, 4208-4212.	1.4	21
10	Methane storage capabilities of diamond analogues. <i>Physical Chemistry Chemical Physics</i> , 2013, 15, 20937.	1.3	10
12	Environmentally-Friendly Designs and Syntheses of Metal-Organic Frameworks (MOFs). <i>ACS Symposium Series</i> , 2014, , 161-183.	0.5	12
13	Porous Lanthanide Metal-Organic Frameworks for Gas Storage and Separation. <i>Structure and Bonding</i> , 2014, , 75-107.	1.0	15
14	Study of HKUST (Copper benzene-1,3,5-tricarboxylate, Cu-BTC MOF)-1 metal organic frameworks for CH ₄ adsorption: An experimental investigation with GCMC (grand canonical Monte-carlo) simulation. <i>Energy</i> , 2014, 76, 419-427.	4.5	93
15	Thermally robust and porous noncovalent organic framework with high affinity for fluorocarbons and CFCs. <i>Nature Communications</i> , 2014, 5, 5131.	5.8	236
16	Lithium inclusion in indium metal-organic frameworks showing increased surface area and hydrogen adsorption. <i>APL Materials</i> , 2014, 2, .	2.2	11
17	Electronic Chemical Potentials of Porous Metal-Organic Frameworks. <i>Journal of the American Chemical Society</i> , 2014, 136, 2703-2706.	6.6	262
18	A new metal-organic framework with ultra-high surface area. <i>Chemical Communications</i> , 2014, 50, 3450.	2.2	178
19	Methane Storage in Metal-Substituted Metal-Organic Frameworks: Thermodynamics, Usable Capacity, and the Impact of Enhanced Binding Sites. <i>Journal of Physical Chemistry C</i> , 2014, 118, 2929-2942.	1.5	43
20	[M ₃ (μ_4 -O)(O ₂ CR) ₆] and related trigonal prisms: versatile molecular building blocks for crystal engineering of metal-organic material platforms. <i>Chemical Science</i> , 2014, 5, 1269-1282.	3.7	124
21	Adsorption Characteristics of Metal-Organic Frameworks Containing Coordinatively Unsaturated Metal Sites: Effect of Metal Cations and Adsorbate Properties. <i>Journal of Physical Chemistry C</i> , 2014, 118, 6847-6855.	1.5	34
22	Metal-organic frameworks based on flexible ligands (FL-MOFs): structures and applications. <i>Chemical Society Reviews</i> , 2014, 43, 5867-5895.	18.7	739
23	High Methane Storage Capacity in Aluminum Metal-Organic Frameworks. <i>Journal of the American Chemical Society</i> , 2014, 136, 5271-5274.	6.6	410
24	A highly porous NbO type metal-organic framework constructed from an expanded tetracarboxylate. <i>Chemical Communications</i> , 2014, 50, 1552.	2.2	44
25	Three Zinc(II) Coordination Polymers Based on Tetrakis(4-pyridyl)cyclobutane and Naphthalenedicarboxylate Linkers: Solvothermal Syntheses, Structures, and Photocatalytic Properties. <i>Crystal Growth and Design</i> , 2014, 14, 240-248.	1.4	135
26	Metal-Cation-Directed <i>de Novo</i> Assembly of a Functionalized Guest Molecule in the Nanospace of a Metal-Organic Framework. <i>Journal of the American Chemical Society</i> , 2014, 136, 1202-1205.	6.6	168

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28	Evaluating metal-organic frameworks for natural gas storage. Chemical Science, 2014, 5, 32-51.	3.7	1,038
29	A two dimensional microporous metal-organic framework for selective gas separation. Inorganic Chemistry Communication, 2014, 50, 106-109.	1.8	10
30	Gas adsorption properties of highly porous metal-organic frameworks containing functionalized naphthalene dicarboxylate linkers. Dalton Transactions, 2014, 43, 18017-18024.	1.6	80
31	A highly stable multifunctional three-dimensional microporous framework: excellent selective sorption and visible photoluminescence. Dalton Transactions, 2014, 43, 6811.	1.6	13
32	Bimetallic alloy nanocrystals encapsulated in ZIF-8 for synergistic catalysis of ethylene oxidative degradation. Chemical Communications, 2014, 50, 10115.	2.2	106
33	A unique microporous copper trimesate selenite with high selectivity for CO ₂ . CrystEngComm, 2014, 16, 3483-3486.	1.3	7
34	Effect of pendant isophthalic acid moieties on the adsorption properties of light hydrocarbons in HKUST-1-like tbo-MOFs: application to methane purification and storage. RSC Advances, 2014, 4, 63855-63859.	1.7	37
35	New Zn ²⁺ coordination polymers constructed from acylhydrazidate molecules: synthesis and structural characterization. Dalton Transactions, 2014, 43, 15617-15627.	1.6	17
36	A family of microporous carbons prepared via a simple metal salt carbonization route with high selectivity for exceptional gravimetric and volumetric post-combustion CO ₂ capture. Journal of Materials Chemistry A, 2014, 2, 14696.	5.2	75
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38	Multifunctional metal-organic frameworks constructed from meta-benzenedicarboxylate units. Chemical Society Reviews, 2014, 43, 5618-5656.	18.7	476
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48	Can Metal-Organic Frameworks Attain New DOE Targets for On-Board Methane Storage by Increasing Methane Heat of Adsorption?. <i>Journal of Physical Chemistry C</i> , 2014, 118, 19833-19841.	1.5	36
49	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. <i>Microporous and Mesoporous Materials</i> , 2014, 198, 236-246.	2.2	105
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53	<i>In Silico</i> Design of Three-Dimensional Porous Covalent Organic Frameworks via Known Synthesis Routes and Commercially Available Species. <i>Journal of Physical Chemistry C</i> , 2014, 118, 23790-23802.	1.5	40
54	Porous Metal-Organic Frameworks for Gas Storage and Separation: What, How, and Why?. <i>Journal of Physical Chemistry Letters</i> , 2014, 5, 3468-3479.	2.1	505
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56	Band gap modulation of functionalized metal-organic frameworks. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 23646-23653.	1.3	83
57	Methane Adsorption in Metal-Organic Frameworks Containing Nanographene Linkers: A Computational Study. <i>Journal of Physical Chemistry C</i> , 2014, 118, 15573-15580.	1.5	17
58	Defect Creation by Linker Fragmentation in Metal-Organic Frameworks and Its Effects on Gas Uptake Properties. <i>Inorganic Chemistry</i> , 2014, 53, 6914-6919.	1.9	118
59	A Porous Metal-Organic Framework with Dynamic Pyrimidine Groups Exhibiting Record High Methane Storage Working Capacity. <i>Journal of the American Chemical Society</i> , 2014, 136, 6207-6210.	6.6	311
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69	Photoswitchable Adsorption in Metal-Organic Frameworks Based on Polar Guest-Host Interactions. <i>ChemPhysChem</i> , 2015, 16, 3779-3783.	1.0	74
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78	MOF Functionalization via Solvent-Assisted Ligand Incorporation: Phosphonates vs Carboxylates. <i>Inorganic Chemistry</i> , 2015, 54, 2185-2192.	1.9	177
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121	Critical Factors Driving the High Volumetric Uptake of Methane in Cu ₃ (btc) ₂ . <i>Journal of the American Chemical Society</i> , 2015, 137, 10816-10825.	6.6	73
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123	MOF Crystal Chemistry Paving the Way to Gas Storage Needs: Aluminum-Based <i>soc</i> -MOF for CH ₄ , O ₂ , and CO ₂ Storage. <i>Journal of the American Chemical Society</i> , 2015, 137, 13308-13318.	6.6	632
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146	A Metal-Organic Framework with a Pore Size/Shape Suitable for Strong Binding and Close Packing of Methane. <i>Angewandte Chemie</i> , 2016, 128, 4752-4756.	1.6	27
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