

# Nanoporous Materials for the Onboard Storage of Natural

Chemical Reviews

117, 1796-1825

DOI: [10.1021/acs.chemrev.6b00505](https://doi.org/10.1021/acs.chemrev.6b00505)

Citation Report

#	ARTICLE	IF	CITATIONS
1	Gas Storage Applications. <i>Crystal Growth and Design</i> , 2017, 17, 3221-3228.	1.4	24
2	Lanthanide-Based Coordination Polymers for the Size-Selective Detection of Nitroaromatics. <i>Crystal Growth and Design</i> , 2017, 17, 3907-3916.	1.4	45
3	A Host Material for Deep-Blue Electrophosphorescence Based on a Cuprous Metal-Organic Framework. <i>Journal of Physical Chemistry C</i> , 2017, 121, 23072-23079.	1.5	16
4	On the microscopic origin of the temperature evolution of isosteric heat for methane adsorption on graphite. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 27105-27115.	1.3	11
5	N <sub>2</sub> Capture Performances of the Hybrid Porous MIL-101(Cr): From Prediction toward Experimental Testing. <i>Journal of Physical Chemistry C</i> , 2017, 121, 22130-22138.	1.5	21
6	Engineering of Pore Geometry for Ultrahigh Capacity Methane Storage in Mesoporous Metal-Organic Frameworks. <i>Journal of the American Chemical Society</i> , 2017, 139, 13300-13303.	6.6	140
7	Room-temperature fabrication of a three-dimensional porous silicon framework inspired by a polymer foaming process. <i>Chemical Communications</i> , 2017, 53, 8858-8861.	2.2	5
8	Cycling and Regeneration of Adsorbed Natural Gas in Microporous Materials. <i>Energy &amp; Fuels</i> , 2017, 31, 14332-14337.	2.5	14
9	Enhancing Higher Hydrocarbons Capture for Natural Gas Upgrading by Tuning van der Waals Interactions in <i>fcu</i> -Type Zr-MOFs. <i>Industrial &amp; Engineering Chemistry Research</i> , 2017, 56, 14633-14641.	1.8	49
10	Diethylenetriamine-mediated self-assembly of three-dimensional hierarchical nanoporous CoP nanoflowers/pristine graphene interconnected networks as efficient electrocatalysts toward hydrogen evolution. <i>Sustainable Energy and Fuels</i> , 2017, 1, 2172-2180.	2.5	35
11	Synthesis and characterization of metalorganic polymers of intrinsic microporosity based on iron(II) clathrochelate. <i>Polymer</i> , 2017, 122, 200-207.	1.8	22
12	Probing Gas Adsorption in Zeolites by Variable-Temperature IR Spectroscopy: An Overview of Current Research. <i>Molecules</i> , 2017, 22, 1557.	1.7	9
13	A Chemical Role for Trichloromethane: Room-Temperature Removal of Coordinated Solvents from Open Metal Sites in the Copper-Based Metal-Organic Frameworks. <i>Inorganic Chemistry</i> , 2018, 57, 5225-5231.	1.9	33
14	A Multifaceted Study of Methane Adsorption in Metal-Organic Frameworks by Using Three Complementary Techniques. <i>Chemistry - A European Journal</i> , 2018, 24, 7866-7881.	1.7	29
15	Expanding the dimensions of metal-organic framework research towards dielectrics. <i>Coordination Chemistry Reviews</i> , 2018, 360, 77-91.	9.5	48
16	Self-assembled 1D infinite inorganic [2]catenane and 2D sheet framework with calix[8]phenylazoimidazole and [4+4]metallomacrocyclic motifs based on silver and ditopic bis(imidazolyl)methane ligands. <i>Journal of Molecular Structure</i> , 2018, 1160, 222-226.	1.8	4
17	A Robust 3D Cage-like Ultramicroporous Network Structure with High Gas Uptake Capacity. <i>Angewandte Chemie</i> , 2018, 130, 3473-3478.	1.6	6
18	Diverse architectures and luminescence properties of three low-dimensional Zn(II)/Cd(II) coordination polymers based on a pyridine-imidazole ligand. <i>Inorganic Chemistry Communication</i> , 2018, 90, 29-33.	1.8	5

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19	A Robust 3D Cage-like Ultramicroporous Network Structure with High Gas Uptake Capacity. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 3415-3420.	7.2	40
20	Sorption of CO <sub>2</sub> in a hydrogen-bonded diamondoid network of sulfonylcalix[4]arene. <i>Supramolecular Chemistry</i> , 2018, 30, 540-544.	1.5	4
21	Oil/molten salt interfacial synthesis of hybrid thin carbon nanostructures and their composites. <i>Journal of Materials Chemistry A</i> , 2018, 6, 4988-4996.	5.2	17
22	Diffusion Control in the in Situ Synthesis of Ionic Metal-Organic Frameworks within an Ionic Polymer Matrix. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 3793-3800.	4.0	30
23	Metal coordination and metal activation abilities of commonly unreactive chloromethanes toward metal-organic frameworks. <i>Chemical Communications</i> , 2018, 54, 6458-6471.	2.2	42
24	Methane Hydrate in Confined Spaces: An Alternative Storage System. <i>ChemPhysChem</i> , 2018, 19, 1298-1314.	1.0	59
25	Methane hydrate formation in the confined nanospace of activated carbons in seawater environment. <i>Microporous and Mesoporous Materials</i> , 2018, 255, 220-225.	2.2	37
26	Open and closed forms of the interpenetrated [Cu <sub>2</sub> (Tae)(Bpa) <sub>2</sub> ](NO <sub>3</sub> ) <sub>2</sub> ·nH <sub>2</sub> O: magnetic properties and high pressure CO <sub>2</sub> /CH <sub>4</sub> gas sorption. <i>Dalton Transactions</i> , 2018, 47, 958-970.	1.6	2
28	Renaissance of the Methane Adsorbents. <i>Israel Journal of Chemistry</i> , 2018, 58, 985-994.	1.0	7
30	MOF-GO Hybrid Nanocomposite Adsorbents for Methane Storage. <i>Industrial &amp; Engineering Chemistry Research</i> , 2018, 57, 17470-17479.	1.8	50
31	Optimization of structural and energy characteristics of adsorbents for methane storage. <i>Russian Chemical Bulletin</i> , 2018, 67, 1814-1822.	0.4	21
32	Combined Natural Gas Separation and Storage Based on in Silico Material Screening and Process Optimization. <i>Industrial &amp; Engineering Chemistry Research</i> , 2018, 57, 16727-16750.	1.8	7
33	Spectroscopic characterization of adsorbate confined in small mesopores: Distinction of first surface-adsorbed layer, polymolecular layers, and liquid clusters. <i>Journal of Raman Spectroscopy</i> , 2018, 49, 1945-1952.	1.2	6
34	Porous carbon-based adsorption systems for natural gas (methane) storage. <i>Russian Chemical Reviews</i> , 2018, 87, 950-983.	2.5	48
35	The Effects of Methane Storage Capacity Using Upgraded Activated Carbon by KOH. <i>Applied Sciences (Switzerland)</i> , 2018, 8, 1596.	1.3	24
36	Coordination Network That Reversibly Switches between Two Nonporous Polymorphs and a High Surface Area Porous Phase. <i>Journal of the American Chemical Society</i> , 2018, 140, 15572-15576.	6.6	51
37	Predicting the Features of Methane Adsorption in Large Pore Metal-Organic Frameworks for Energy Storage. <i>Nanomaterials</i> , 2018, 8, 818.	1.9	14
38	Steam Activation of Anthracite Intercalated with Nitric Acid. <i>Solid Fuel Chemistry</i> , 2018, 52, 222-229.	0.2	2

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39	Metal-Organic Framework Hybrid Materials and Their Applications. <i>Crystals</i> , 2018, 8, 325.	1.0	58
40	Storage of CO <sub>2</sub> into Porous Coordination Polymer Controlled by Molecular Rotor Dynamics. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 8687-8690.	7.2	64
41	Recyclable switching between nonporous and porous phases of a square lattice (<math>sq</math>) topology coordination network. <i>Chemical Communications</i> , 2018, 54, 7042-7045.	2.2	37
42	Dual-metal zeolitic imidazolate frameworks and their derived nanoporous carbons for multiple environmental and electrochemical applications. <i>Chemical Engineering Journal</i> , 2018, 351, 641-649.	6.6	49
43	From synthesis to applications: Metal-organic frameworks for an environmentally sustainable future. <i>Current Opinion in Green and Sustainable Chemistry</i> , 2018, 12, 47-56.	3.2	33
44	Effect of rheological properties of mesophase pitch and coal mixtures on pore development in activated carbon discs with high compressive strength. <i>Fuel Processing Technology</i> , 2018, 177, 219-227.	3.7	19
45	Photoacoustic Sensing of Trapped Fluids in Nanoporous Thin Films: Device Engineering and Sensing Scheme. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 27947-27954.	4.0	21
46	Ag-Based Coordination Polymers Based on Metalloligands and Their Catalytic Performance in Multicomponent A <sup>3</sup> -Coupling Reactions. <i>Crystal Growth and Design</i> , 2018, 18, 5501-5511.	1.4	25
47	First principles Monte Carlo simulations of unary and binary adsorption: CO <sub>2</sub> , N <sub>2</sub> , and H <sub>2</sub> O in Mg-MOF-74. <i>Chemical Communications</i> , 2018, 54, 10816-10819.	2.2	31
48	Storage of CO <sub>2</sub> into Porous Coordination Polymer Controlled by Molecular Rotor Dynamics. <i>Angewandte Chemie</i> , 2018, 130, 8823-8826.	1.6	18
49	Assessing the Potential of Biochars Prepared by Steam-Assisted Slow Pyrolysis for CO <sub>2</sub> Adsorption and Separation. <i>Energy &amp; Fuels</i> , 2018, 32, 10218-10227.	2.5	64
50	In Silico Design of 2D and 3D Covalent Organic Frameworks for Methane Storage Applications. <i>Chemistry of Materials</i> , 2018, 30, 5069-5086.	3.2	101
51	Solvent-free vacuum growth of oriented HKUST-1 thin films. <i>Journal of Materials Chemistry A</i> , 2019, 7, 19396-19406.	5.2	54
52	High-capacity methane storage in flexible alkane-linked porous aromatic network polymers. <i>Nature Energy</i> , 2019, 4, 604-611.	19.8	110
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55	Thermal Engineering of Metal-Organic Frameworks for Adsorption Applications: A Molecular Simulation Perspective. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 38697-38707.	4.0	56
56	Metal-organic framework structures: adsorbents for natural gas storage. <i>Russian Chemical Reviews</i> , 2019, 88, 925-978.	2.5	57

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58	Tuning the Gate-Opening Pressure in a Switching pcu Coordination Network, X <sub>5</sub> Zn, by Pillar-Ligand Substitution. Angewandte Chemie - International Edition, 2019, 58, 18212-18217.	7.2	55
59	Electrical Properties of Nanostructured MgAl <sub>2</sub> O <sub>4</sub> Ceramics in Adsorption-Desorption Cycles. , 2019, , .		0
60	A Reversible Phase Transition of 2D Coordination Layers by H <sup>+</sup> ™Cu(II) Interactions in a Coordination Polymer. Molecules, 2019, 24, 3204.	1.7	7
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79	Quantum Dynamics of H <sub>2</sub> and D <sub>2</sub> Confined in Hydrate Structures as a Function of Pressure and Temperature. <i>Journal of Physical Chemistry C</i> , 2019, 123, 1888-1903.	1.5	12
80	A microporous metal-organic framework with naphthalene diimide groups for high methane storage. <i>Dalton Transactions</i> , 2020, 49, 3658-3661.	1.6	31
81	A novel model for natural gas storage on carbon nanotubes. <i>Applied Nanoscience (Switzerland)</i> , 2020, 10, 1115-1129.	1.6	2
82	Time-dependent solid-state molecular motion and colour tuning of host-guest systems by organic solvents. <i>Nature Communications</i> , 2020, 11, 77.	5.8	51
83	Predictable and targeted activation of biomass to carbons with high surface area density and enhanced methane storage capacity. <i>Energy and Environmental Science</i> , 2020, 13, 2967-2978.	15.6	55
84	Adsorption Accumulation of Liquefied Natural Gas Vapors. <i>Protection of Metals and Physical Chemistry of Surfaces</i> , 2020, 56, 897-903.	0.3	8
85	Thermodynamic Behaviors of Adsorbed Methane Storage Systems Based on Nanoporous Carbon Adsorbents Prepared from Coconut Shells. <i>Nanomaterials</i> , 2020, 10, 2243.	1.9	19
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91	<i>In Vivo</i> Enzyme Entrapment in a Protein Crystal. <i>Journal of the American Chemical Society</i> , 2020, 142, 9879-9883.	6.6	39
92	Adsorption equilibrium and the effect of honeycomb heat exchanging device on charge/discharge characteristic of methane on MIL-101(Cr) and activated carbon. <i>Chinese Journal of Chemical Engineering</i> , 2020, 28, 1964-1972.	1.7	6
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94	Combustible ice mimicking behavior of hydrogen-bonded organic framework at ambient condition. <i>Nature Communications</i> , 2020, 11, 3124.	5.8	30
95	Arylboronic Acids and their Myriad of Applications Beyond Organic Synthesis. <i>European Journal of Organic Chemistry</i> , 2020, 2020, 4841-4877.	1.2	34

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100	Primary Adsorption Sites of Light Alkanes in Multivariate UiO-66 at Room Temperature as Revealed by Solid-State NMR. <i>Journal of Physical Chemistry C</i> , 2020, 124, 3738-3746.	1.5	12
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102	Anion-regulated selective growth ultrafine copper templates in carbon nanosheets network toward highly efficient gas capture. <i>Journal of Colloid and Interface Science</i> , 2020, 564, 296-302.	5.0	17
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104	Impact of Chemical Features on Methane Adsorption by Porous Materials at Varying Pressures. <i>Journal of Physical Chemistry C</i> , 2020, 124, 4534-4544.	1.5	29
105	Polyphenylene networks containing triptycene units: Promising porous materials for CO <sub>2</sub> , CH <sub>4</sub> , and H <sub>2</sub> adsorption. <i>Microporous and Mesoporous Materials</i> , 2020, 303, 110256.	2.2	13
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110	More Sustainable Chemical Activation Strategies for the Production of Porous Carbons. <i>ChemSusChem</i> , 2021, 14, 94-117.	3.6	137
111	Gas Storage in Porous Molecular Materials. <i>Chemistry - A European Journal</i> , 2021, 27, 4531-4547.	1.7	30
112	Probing adsorbent heterogeneity using Toth isotherms. <i>Journal of Materials Chemistry A</i> , 2021, 9, 944-962.	5.2	12
113	Recent advances in the design of metal-organic frameworks for methane storage and delivery. <i>Journal of Porous Materials</i> , 2021, 28, 213-230.	1.3	13

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114	Monolithic metal-organic frameworks for carbon dioxide separation. <i>Faraday Discussions</i> , 2021, 231, 51-65.	1.6	12
115	Gas hydrates in confined space of nanoporous materials: new frontier in gas storage technology. <i>Nanoscale</i> , 2021, 13, 7447-7470.	2.8	28
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124	Multiscale analysis of the hydrate based carbon capture from gas mixtures containing carbon dioxide. <i>Scientific Reports</i> , 2021, 11, 9197.	1.6	9
125	Machine learning assisted rediscovery of methane storage and separation in porous carbon from material literature. <i>Fuel</i> , 2021, 290, 120080.	3.4	11
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130	Kinetics and enthalpies of methane adsorption in microporous materials AX-21, MIL-101 (Cr) and TE7. <i>Chemical Engineering Research and Design</i> , 2021, 169, 153-164.	2.7	9
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133	Have Covalent Organic Framework Films Revealed Their Full Potential?. <i>Crystals</i> , 2021, 11, 762.	1.0	2
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135	Adsorption of Semiflexible Polymers in Cylindrical Tubes. <i>Langmuir</i> , 2021, 37, 11759-11770.	1.6	0
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141	Nanoporous naphthalene diimide surface enhances humidity and ammonia sensing at room temperature. <i>Sensors and Actuators B: Chemical</i> , 2022, 351, 130972.	4.0	25
142	Failure-Experiment-Supported Optimization of Poorly Reproducible Synthetic Conditions for Novel Lanthanide Metal-Organic Frameworks with Two-Dimensional Secondary Building Units**. <i>Chemistry - A European Journal</i> , 2021, 27, 16347-16353.	1.7	6
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145	Efficient N <sub>2</sub> /CH <sub>4</sub> separation in a stable metal-organic framework with high density of open Cr sites. <i>Separation and Purification Technology</i> , 2022, 281, 119951.	3.9	13
146	Thermodynamics of Methane Adsorption in a Microporous Carbon Adsorbent Prepared From Polymer Composition. <i>Protection of Metals and Physical Chemistry of Surfaces</i> , 2021, 57, 883-889.	0.3	3
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149	Materials informatics-guided superior electrocatalyst: A case of pyrolysis-free single-atom coordinated with N-graphene nanomesh. <i>Nano Energy</i> , 2022, 94, 106868.	8.2	31
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