List of Publications by Year in descending order

Source: https://exaly.com/author-pdf/11305407/publications.pdf

Version: 2024-02-01

275 papers	176,037 citations	135 159 h-index	353 284 g-index
319 all docs	319 docs citations	319 times ranked	53900 citing authors

#	Article	IF	Citations
1	The Chemistry and Applications of Metal-Organic Frameworks. Science, 2013, 341, 1230444.	12.6	12,032
2	Reticular synthesis and the design of new materials. Nature, 2003, 423, 705-714.	27.8	8,374
3	Systematic Design of Pore Size and Functionality in Isoreticular MOFs and Their Application in Methane Storage. Science, 2002, 295, 469-472.	12.6	7,254
4	Introduction to Metalâ€“Organic Frameworks. Chemical Reviews, 2012, 112, 673-674.	47.7	5,980
5	Exceptional chemical and thermal stability of zeolitic imidazolate frameworks. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 10186-10191.	7.1	5,906
6	Porous, Crystalline, Covalent Organic Frameworks. Science, 2005, 310, 1166-1170.	12.6	5,574
7	Modular Chemistry:â€‰ Secondary Building Units as a Basis for the Design of Highly Porous and Robust Metalâ^'Organic Carboxylate Frameworks. Accounts of Chemical Research, 2001, 34, 319-330.	15.6	4,980
8	Hydrogen Storage in Microporous Metal-Organic Frameworks. Science, 2003, 300, 1127-1129.	12.6	4,435
9	High-Throughput Synthesis of Zeolitic Imidazolate Frameworks and Application to CO ₂ Capture. Science, 2008, 319, 939-943.	12.6	3,592
10	Ultrahigh Porosity in Metal-Organic Frameworks. Science, 2010, 329, 424-428.	12.6	3,306
11	A route to high surface area, porosity and inclusion of large molecules in crystals. Nature, 2004, 427, 523-527.	27.8	2,574
12	Metalâ^'Organic Frameworks with Exceptionally High Capacity for Storage of Carbon Dioxide at Room Temperature. Journal of the American Chemical Society, 2005, 127, 17998-17999.	13.7	2,573
13	Metalâ€“organic frameworks: a new class of porous materials. Microporous and Mesoporous Materials, 2004, 73, 3-14.	4.4	2,520
14	Strategies for Hydrogen Storage in Metal-Organic Frameworks. Angewandte Chemie - International Edition, 2005, 44, 4670-4679.	13.8	2,287
15	Synthesis, Structure, and Carbon Dioxide Capture Properties of Zeolitic Imidazolate Frameworks. Accounts of Chemical Research, 2010, 43, 58-67.	15.6	2,268
16	Secondary building units, nets and bonding in the chemistry of metalâ€“organic frameworks. Chemical Society Reviews, 2009, 38, 1257.	38.1	2,243
17	Storage of Hydrogen, Methane, and Carbon Dioxide in Highly Porous Covalent Organic Frameworks for Clean Energy Applications. Journal of the American Chemical Society, 2009, 131, 8875-8883.	13.7	2,208
18	The pervasive chemistry of metalâ€“organic frameworks. Chemical Society Reviews, 2009, 38, 1213.	38.1	2,196

#	Article	IF	Citations
19	Rod Packings and Metalâ^'Organic Frameworks Constructed from Rod-Shaped Secondary Building Units. Journal of the American Chemical Society, 2005, 127, 1504-1518.	13.7	2,186
20	Synthetic Strategies, Structure Patterns, and Emerging Properties in the Chemistry of Modular Porous Solids. Accounts of Chemical Research, 1998, 31, 474-484.	15.6	2,133
21	Reticular Chemistry:â€‰ Occurrence and Taxonomy of Nets and Grammar for the Design of Frameworks. Accounts of Chemical Research, 2005, 38, 176-182.	15.6	2,072
22	Covalent organic frameworks comprising cobalt porphyrins for catalytic CO ₂ reduction in water. Science, 2015, 349, 1208-1213.	12.6	2,046
23	The atom, the molecule, and the covalent organic framework. Science, 2017, 355, .	12.6	2,037
24	Designed Synthesis of 3D Covalent Organic Frameworks. Science, 2007, 316, 268-272.	12.6	2,024
25	Water Adsorption in Porous Metalâ€“Organic Frameworks and Related Materials. Journal of the American Chemical Society, 2014, 136, 4369-4381.	13.7	2,002
26	The Reticular Chemistry Structure Resource (RCSR) Database of, and Symbols for, Crystal Nets. Accounts of Chemical Research, 2008, 41, 1782-1789.	15.6	1,953
27	Deconstructing the Crystal Structures of Metalâ€“Organic Frameworks and Related Materials into Their Underlying Nets. Chemical Reviews, 2012, 112, 675-702.	47.7	1,942
28	Large-Pore Apertures in a Series of Metal-Organic Frameworks. Science, 2012, 336, 1018-1023.	12.6	1,729
29	Effects of Functionalization, Catenation, and Variation of the Metal Oxide and Organic Linking Units on the Low-Pressure Hydrogen Adsorption Properties of Metalâ^'Organic Frameworks. Journal of the American Chemical Society, 2006, 128, 1304-1315.	13.7	1,710
30	Carbon capture and conversion using metalâ€“organic frameworks and MOF-based materials. Chemical Society Reviews, 2019, 48, 2783-2828.	38.1	1,685
31	Multiple Functional Groups of Varying Ratios in Metal-Organic Frameworks. Science, 2010, 327, 846-850.	12.6	1,607
32	Impact of Preparation and Handling on the Hydrogen Storage Properties of Zn₄O(1,4-benzenedicarboxylate)₃ (MOF-5). Journal of the American Chemical Society, 2007, 129, 14176-14177.	13.7	1,498
33	Colossal cages in zeolitic imidazolate frameworks as selective carbon dioxide reservoirs. Nature, 2008, 453, 207-211.	27.8	1,452
34	Chemistry of Covalent Organic Frameworks. Accounts of Chemical Research, 2015, 48, 3053-3063.	15.6	1,333
35	A Crystalline Imine-Linked 3-D Porous Covalent Organic Framework. Journal of the American Chemical Society, 2009, 131, 4570-4571.	13.7	1,299
36	Control of Pore Size and Functionality in Isoreticular Zeolitic Imidazolate Frameworks and their Carbon Dioxide Selective Capture Properties. Journal of the American Chemical Society, 2009, 131, 3875-3877.	13.7	1,297

#	Article	IF	Citations
37	Hydrogen Sorption in Functionalized Metalâ^'Organic Frameworks. Journal of the American Chemical Society, 2004, 126, 5666-5667.	13.7	1,258
38	Water harvesting from air with metal-organic frameworks powered by natural sunlight. Science, 2017, 356, 430-434.	12.6	1,179
39	Exceptional H2Saturation Uptake in Microporous Metalâ^'Organic Frameworks. Journal of the American Chemical Society, 2006, 128, 3494-3495.	13.7	1,172
40	A Microporous Metalâ€"Organic Framework for Gas-Chromatographic Separation of Alkanes. Angewandte Chemie - International Edition, 2006, 45, 1390-1393.	13.8	1,128
41	The chemistry of metalâ€"organic frameworks for CO2 capture, regeneration and conversion. Nature Reviews Materials, 2017, 2, .	48.7	1,075
42	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.	7.1	1,042
43	Topological Analysis of Metalâ€"Organic Frameworks with Polytopic Linkers and/or Multiple Building Units and the Minimal Transitivity Principle. Chemical Reviews, 2014, 114, 1343-1370.	47.7	1,010
44	High H2 Adsorption in a Microporous Metal-Organic Framework with Open Metal Sites. Angewandte Chemie - International Edition, 2005, 44, 4745-4749.	13.8	990
45	Metalâ€"Organic Frameworks for Electrocatalytic Reduction of Carbon Dioxide. Journal of the American Chemical Society, 2015, 137, 14129-14135.	13.7	966
46	Zeolite A imidazolate frameworks. Nature Materials, 2007, 6, 501-506.	27.5	917
47	Single-crystal x-ray diffraction structures of covalent organic frameworks. Science, 2018, 361, 48-52.	12.6	868
48	Room temperature synthesis of metal-organic frameworks: MOF-5, MOF-74, MOF-177, MOF-199, and IRMOF-0. Tetrahedron, 2008, 64, 8553-8557.	1.9	853
49	Reticular Chemistry of Metalâ€"Organic Polyhedra. Angewandte Chemie - International Edition, 2008, 47, 5136-5147.	13.8	849
50	Gas Adsorption Sites in a Large-Pore Metal-Organic Framework. Science, 2005, 309, 1350-1354.	12.6	842
51	Exceptional ammonia uptake by a covalent organic framework. Nature Chemistry, 2010, 2, 235-238.	13.6	829
52	Metal-organic frameworks with high capacity and selectivity for harmful gases. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 11623-11627.	7.1	820
53	Assembly of Metalâ^'Organic Frameworks from Large Organic and Inorganic Secondary Building Units:Â New Examples and Simplifying Principles for Complex Structuresâ–µ. Journal of the American Chemical Society, 2001, 123, 8239-8247.	13.7	789
54	Synthesis, Structure, and Metalation of Two New Highly Porous Zirconium Metalâ€"Organic Frameworks. Inorganic Chemistry, 2012, 51, 6443-6445.	4.0	763

#	Article	IF	Citations
55	Covalent Organic Frameworks as Exceptional Hydrogen Storage Materials. Journal of the American Chemical Society, 2008, 130, 11580-11581.	13.7	746
56	Structures of Metalâ€“Organic Frameworks with Rod Secondary Building Units. Chemical Reviews, 2016, 116, 12466-12535.	47.7	732
57	Crystalline Covalent Organic Frameworks with Hydrazone Linkages. Journal of the American Chemical Society, 2011, 133, 11478-11481.	13.7	731
58	Tailored Porous Materials. Chemistry of Materials, 1999, 11, 2633-2656.	6.7	714
59	Reticular Synthesis of Microporous and Mesoporous 2D Covalent Organic Frameworks. Journal of the American Chemical Society, 2007, 129, 12914-12915.	13.7	682
60	Design of New Materials for Methane Storage. Langmuir, 2004, 20, 2683-2689.	3.5	663
61	Supercapacitors of Nanocrystalline Metalâ€“Organic Frameworks. ACS Nano, 2014, 8, 7451-7457.	14.6	660
62	Covalent Organic Frameworks with High Charge Carrier Mobility. Chemistry of Materials, 2011, 23, 4094-4097.	6.7	659
63	Crystals as Molecules: Postsynthesis Covalent Functionalization of Zeolitic Imidazolate Frameworks. Journal of the American Chemical Society, 2008, 130, 12626-12627.	13.7	655
64	New Porous Crystals of Extended Metal-Catecholates. Chemistry of Materials, 2012, 24, 3511-3513.	6.7	618
65	Design, Synthesis, Structure, and Gas (N2, Ar, CO2, CH4, and H2) Sorption Properties of Porous Metal-Organic Tetrahedral and Heterocuboidal Polyhedra. Journal of the American Chemical Society, 2005, 127, 7110-7118.	13.7	579
66	Metalâ€“Organic Frameworks from Edible Natural Products. Angewandte Chemie - International Edition, 2010, 49, 8630-8634.	13.8	568
67	The role of reticular chemistry in the design of CO2 reduction catalysts. Nature Materials, 2018, 17, 301-307.	27.5	552
68	Independent verification of the saturation hydrogen uptake in MOF-177 and establishment of a benchmark for hydrogen adsorption in metalâ€“organic frameworks. Journal of Materials Chemistry, 2007, 17, 3197.	6.7	536
69	Secondary building units as the turning point in the development of the reticular chemistry of MOFs. Science Advances, 2018, 4, eaat9180.	10.3	533
70	Metal Insertion in a Microporous Metalâ^'Organic Framework Lined with 2,2â€²-Bipyridine. Journal of the American Chemical Society, 2010, 132, 14382-14384.	13.7	514
71	A two-dimensional zeolitic imidazolate framework with a cushion-shaped cavity for CO2 adsorption. Chemical Communications, 2013, 49, 9500.	4.1	514
72	Plasmon-Enhanced Photocatalytic CO₂ Conversion within Metalâ€“Organic Frameworks under Visible Light. Journal of the American Chemical Society, 2017, 139, 356-362.	13.7	511

#	Article	IF	Citations
73	Metalâ€“Organic Frameworks for Water Harvesting from Air. Advanced Materials, 2018, 30, e1704304.	21.0	500
74	Control of Vertex Geometry, Structure Dimensionality, Functionality, and Pore Metrics in the Reticular Synthesis of Crystalline Metalâ˜Organic Frameworks and Polyhedra. Journal of the American Chemical Society, 2008, 130, 11650-11661.	13.7	498
75	Understanding Inflections and Steps in Carbon Dioxide Adsorption Isotherms in Metal-Organic Frameworks. Journal of the American Chemical Society, 2008, 130, 406-407.	13.7	485
76	BrÃ¸nsted Acidity in Metalâ€“Organic Frameworks. Chemical Reviews, 2015, 115, 6966-6997.	47.7	477
77	A Multiunit Catalyst with Synergistic Stability and Reactivity: A Polyoxometalateâ€“Metal Organic Framework for Aerobic Decontamination. Journal of the American Chemical Society, 2011, 133, 16839-16846.	13.7	475
78	â€œHeterogeneity within Orderâ€•in Metalâ€“Organic Frameworks. Angewandte Chemie - International Edition, 2015, 54, 3417-3430.	13.8	465
79	Superacidity in Sulfated Metalâ€“Organic Framework-808. Journal of the American Chemical Society, 2014, 136, 12844-12847.	13.7	457
80	Reticular Electronic Tuning of Porphyrin Active Sites in Covalent Organic Frameworks for Electrocatalytic Carbon Dioxide Reduction. Journal of the American Chemical Society, 2018, 140, 1116-1122.	13.7	457
81	A Microporous Lanthanide-Organic Framework. Angewandte Chemie - International Edition, 1999, 38, 2590-2594.	13.8	452
82	Weaving of organic threads into a crystalline covalent organic framework. Science, 2016, 351, 365-369.	12.6	427
83	Three-periodic nets and tilings: regular and quasiregular nets. Acta Crystallographica Section A: Foundations and Advances, 2003, 59, 22-27.	0.3	425
84	Mapping of Functional Groups in Metal-Organic Frameworks. Science, 2013, 341, 882-885.	12.6	411
85	High Methane Storage Capacity in Aluminum Metalâ€“Organic Frameworks. Journal of the American Chemical Society, 2014, 136, 5271-5274.	13.7	410
86	Practical water production from desert air. Science Advances, 2018, 4, eaat3198.	10.3	406
87	Adsorption-based atmospheric water harvesting device for arid climates. Nature Communications, 2018, 9, 1191.	12.8	401
88	MOF water harvesters. Nature Nanotechnology, 2020, 15, 348-355.	31.5	400
89	Synthesis and Characterization of Metalâ€“Organic Framework-74 Containing 2, 4, 6, 8, and 10 Different Metals. Inorganic Chemistry, 2014, 53, 5881-5883.	4.0	397
90	Single-Crystal Structure of a Covalent Organic Framework. Journal of the American Chemical Society, 2013, 135, 16336-16339.	13.7	392

#	Article	IF	Citations
91	Cu2[o-Br-C6H3(CO2)2]2(H2O)2Â·(DMF)8(H2O)2:â€‰ A Framework Deliberately Designed To Have the NbO Structure Type. Journal of the American Chemical Society, 2002, 124, 376-377.	13.7	383
92	Definitive Molecular Level Characterization of Defects in UiOâ€66 Crystals. Angewandte Chemie - International Edition, 2015, 54, 11162-11167.	13.8	376
93	The role of metalâ€“organic frameworks in a carbon-neutral energy cycle. Nature Energy, 2016, 1, .	39.5	374
94	Chemical Conversion of Linkages in Covalent Organic Frameworks. Journal of the American Chemical Society, 2016, 138, 15519-15522.	13.7	373
95	The Chemistry of CO₂ Capture in an Amine-Functionalized Metalâ€“Organic Framework under Dry and Humid Conditions. Journal of the American Chemical Society, 2017, 139, 12125-12128.	13.7	371
96	Copper Nanocrystals Encapsulated in Zr-based Metalâ€“Organic Frameworks for Highly Selective CO₂ Hydrogenation to Methanol. Nano Letters, 2016, 16, 7645-7649.	9.1	370
97	Metalâ€“Organic Frameworks with Precisely Designed Interior for Carbon Dioxide Capture in the Presence of Water. Journal of the American Chemical Society, 2014, 136, 8863-8866.	13.7	369
98	Highly Active and Stable Single-Atom Cu Catalysts Supported by a Metalâ€“Organic Framework. Journal of the American Chemical Society, 2019, 141, 5201-5210.	13.7	361
99	Docking in Metal-Organic Frameworks. Science, 2009, 325, 855-859.	12.6	360
100	Geometric requirements and examples of important structures in the assembly of square building blocks. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 4900-4904.	7.1	353
101	Reticular Synthesis of Covalent Organic Borosilicate Frameworks. Journal of the American Chemical Society, 2008, 130, 11872-11873.	13.7	352
102	Strong and Reversible Binding of Carbon Dioxide in a Green Metalâ€“Organic Framework. Journal of the American Chemical Society, 2011, 133, 15312-15315.	13.7	346
103	Rapid Cycling and Exceptional Yield in a Metal-Organic Framework Water Harvester. ACS Central Science, 2019, 5, 1699-1706.	11.3	340
104	Introduction of Functionality, Selection of Topology, and Enhancement of Gas Adsorption in Multivariate Metalâ€“Organic Framework-177. Journal of the American Chemical Society, 2015, 137, 2641-2650.	13.7	339
105	Porous Crystalline Olefin-Linked Covalent Organic Frameworks. Journal of the American Chemical Society, 2019, 141, 6848-6852.	13.7	333
106	Covalent Chemistry beyond Molecules. Journal of the American Chemical Society, 2016, 138, 3255-3265.	13.7	328
107	Isoreticular Expansion of Metalâ€“Organic Frameworks with Triangular and Square Building Units and the Lowest Calculated Density for Porous Crystals. Inorganic Chemistry, 2011, 50, 9147-9152.	4.0	322
108	A Combined Experimentalâ˜Computational Investigation of Carbon Dioxide Capture in a Series of Isoreticular Zeolitic Imidazolate Frameworks. Journal of the American Chemical Society, 2010, 132, 11006-11008.	13.7	303

#	Article	IF	Citations
109	Bioinspired Metalâ€“Organic Framework Catalysts for Selective Methane Oxidation to Methanol. Journal of the American Chemical Society, 2018, 140, 18208-18216.	13.7	301
110	Tunable electrical conductivity in oriented thin films of tetrathiafulvalene-based covalent organic framework. Chemical Science, 2014, 5, 4693-4700.	7.4	295
111	Infinite Secondary Building Units and Forbidden Catenation in Metal-Organic Frameworks The National Science Foundation support to M.O'K. (DMR- 9804817) and O.M.Y. (DMR-9980469) is gratefully acknowledged.. Angewandte Chemie - International Edition, 2002, 41, 284.	13.8	293
112	Crystalline Dioxin-Linked Covalent Organic Frameworks from Irreversible Reactions. Journal of the American Chemical Society, 2018, 140, 12715-12719.	13.7	289
113	Characterization of H2Binding Sites in Prototypical Metalâ^'Organic Frameworks by Inelastic Neutron Scattering. Journal of the American Chemical Society, 2005, 127, 14904-14910.	13.7	285
114	Evolution of water structures in metal-organic frameworks for improved atmospheric water harvesting. Science, 2021, 374, 454-459.	12.6	281
115	Chemical Environment Control and Enhanced Catalytic Performance of Platinum Nanoparticles Embedded in Nanocrystalline Metalâ€“Organic Frameworks. Journal of the American Chemical Society, 2015, 137, 7810-7816.	13.7	278
116	Metal-Organic Frameworks Based on Trigonal Prismatic Building Blocks and the New â€œacsâ€•Topology. Inorganic Chemistry, 2005, 44, 2998-3000.	4.0	276
117	Three-Dimensional Metal-Catecholate Frameworks and Their Ultrahigh Proton Conductivity. Journal of the American Chemical Society, 2015, 137, 15394-15397.	13.7	274
118	Advances in the chemistry of metalâ€“organic frameworks. CrystEngComm, 2002, 4, 401-404.	2.6	271
119	Isoreticular Metalation of Metalâ^'Organic Frameworks. Journal of the American Chemical Society, 2009, 131, 9492-9493.	13.7	266
120	Reticular Chemistryâ€”Construction, Properties, and Precision Reactions of Frameworks. Journal of the American Chemical Society, 2016, 138, 15507-15509.	13.7	265
121	Coordinative alignment of molecules in chiral metal-organic frameworks. Science, 2016, 353, 808-811.	12.6	262
122	A Titaniumâ€“Organic Framework as an Exemplar of Combining the Chemistry of Metalâ€“ and Covalentâ€“Organic Frameworks. Journal of the American Chemical Society, 2016, 138, 4330-4333.	13.7	260
123	High Methane Storage Working Capacity in Metalâ€“Organic Frameworks with Acrylate Links. Journal of the American Chemical Society, 2016, 138, 10244-10251.	13.7	253
124	Metalâ€“Organic Frameworks for Water Harvesting from Air, Anywhere, Anytime. ACS Central Science, 2020, 6, 1348-1354.	11.3	248
125	What do we know about three-periodic nets?. Journal of Solid State Chemistry, 2005, 178, 2533-2554.	2.9	247
126	Pore Chemistry of Metalâ€“Organic Frameworks. Advanced Functional Materials, 2020, 30, 2000238.	14.9	245

#	Article	IF	Citations
127	Conversion of Imine to Oxazole and Thiazole Linkages in Covalent Organic Frameworks. Journal of the American Chemical Society, 2018, 140, 9099-9103.	13.7	243
128	Taxonomy of periodic nets and the design of materials. Physical Chemistry Chemical Physics, 2007, 9, 1035-1043.	2.8	239
129	Photophysical pore control in an azobenzene-containing metalâ€“organic framework. Chemical Science, 2013, 4, 2858.	7.4	239
130	Metal Nanocrystals Embedded in Single Nanocrystals of MOFs Give Unusual Selectivity as Heterogeneous Catalysts. Nano Letters, 2014, 14, 5979-5983.	9.1	235
131	Robust dynamics. Nature Chemistry, 2010, 2, 439-443.	13.6	233
132	Covalent Organic Frameworks: Organic Chemistry Extended into Two and Three Dimensions. Trends in Chemistry, 2019, 1, 172-184.	8.5	232
133	Amphidynamic Character of Crystalline MOF-5:â€‰ Rotational Dynamics of Terephthalate Phenylenes in a Free-Volume, Sterically Unhindered Environment. Journal of the American Chemical Society, 2008, 130, 3246-3247.	13.7	229
134	Heterogeneity within Order in Crystals of a Porous Metalâ€“Organic Framework. Journal of the American Chemical Society, 2011, 133, 11920-11923.	13.7	227
135	Porous, Conductive Metalâ€Triazolates and Their Structural Elucidation by the Chargeâ€Flipping Method. Chemistry - A European Journal, 2012, 18, 10595-10601.	3.3	227
136	Selective Capture of Carbon Dioxide under Humid Conditions by Hydrophobic Chabaziteâ€Type Zeolitic Imidazolate Frameworks. Angewandte Chemie - International Edition, 2014, 53, 10645-10648.	13.8	225
137	Three-periodic nets and tilings: semiregular nets. Acta Crystallographica Section A: Foundations and Advances, 2003, 59, 515-525.	0.3	222
138	A Metalâ€“Organic Framework of Organic Vertices and Polyoxometalate Linkers as a Solid-State Electrolyte. Journal of the American Chemical Society, 2019, 141, 17522-17526.	13.7	216
139	Extra adsorption and adsorbate superlattice formation in metal-organic frameworks. Nature, 2015, 527, 503-507.	27.8	212
140	Three-periodic nets and tilings: edge-transitive binodal structures. Acta Crystallographica Section A: Foundations and Advances, 2006, 62, 350-355.	0.3	206
141	A Metalâ€'Organic Framework with Covalently Bound Organometallic Complexes. Journal of the American Chemical Society, 2010, 132, 9262-9264.	13.7	206
142	Porous Metalâ€'Organic Truncated Octahedron Constructed from Paddle-Wheel Squares and Terthiophene Links. Journal of the American Chemical Society, 2005, 127, 12752-12753.	13.7	205
143	Design of Frameworks with Mixed Triangular and Octahedral Building Blocks Exemplified by the Structure of[Zn4O(TCA)2] Having the Pyrite Topology. Angewandte Chemie - International Edition, 2003, 42, 3907-3909.	13.8	200
144	Asymmetric catalytic reactions by NbO-type chiral metalâ€“organic frameworks. Chemical Science, 2011, 2, 877.	7.4	199

#	Article	IF	Citations
145	Identification of the strong BrÃ¸nsted acid site in a metalâ€“organic framework solid acid catalyst. Nature Chemistry, 2019, 11, 170-176.	13.6	198
146	Principles of Designing Extra-Large Pore Openings and Cages in Zeolitic Imidazolate Frameworks. Journal of the American Chemical Society, 2017, 139, 6448-6455.	13.7	197
147	A Metalâ€“Organic Framework with a Hierarchical System of Pores and Tetrahedral Building Blocks. Angewandte Chemie - International Edition, 2006, 45, 2528-2533.	13.8	196
148	Postsynthetic Modification of a Metalâ€“Organic Framework for Stabilization of a Hemiaminal and Ammonia Uptake. Inorganic Chemistry, 2011, 50, 6853-6855.	4.0	194
149	A Synthetic Route for Crystals of Woven Structures, Uniform Nanocrystals, and Thin Films of Imine Covalent Organic Frameworks. Journal of the American Chemical Society, 2017, 139, 13166-13172.	13.7	193
150	Design of higher valency in covalent organic frameworks. Science, 2020, 370, .	12.6	189
151	Seven Post-synthetic Covalent Reactions in Tandem Leading to Enzyme-like Complexity within Metalâ€“Organic Framework Crystals. Journal of the American Chemical Society, 2016, 138, 8352-8355.	13.7	186
152	A Porous Covalent Organic Framework with Voided Square Grid Topology for Atmospheric Water Harvesting. Journal of the American Chemical Society, 2020, 142, 2218-2221.	13.7	183
153	Adsorption Mechanism and Uptake of Methane in Covalent Organic Frameworks: Theory and Experiment. Journal of Physical Chemistry A, 2010, 114, 10824-10833.	2.5	177
154	Hydrogen Storage in New Metalâ€“Organic Frameworks. Journal of Physical Chemistry C, 2012, 116, 13143-13151.	3.1	174
155	Crystal Structure, Dissolution, and Deposition of a 5 nm Functionalized Metalâ^'Organic Great Rhombicuboctahedron. Journal of the American Chemical Society, 2006, 128, 8398-8399.	13.7	170
156	Reticular Chemistry in All Dimensions. ACS Central Science, 2019, 5, 1295-1300.	11.3	166
157	Three-Dimensional Phthalocyanine Metal-Catecholates for High Electrochemical Carbon Dioxide Reduction. Journal of the American Chemical Society, 2019, 141, 17081-17085.	13.7	165
158	Sequencing of metals in multivariate metal-organic frameworks. Science, 2020, 369, 674-680.	12.6	165
159	A Flexible Germanate Structure Containing 24-Ring Channels and with Very Low Framework Density. Journal of the American Chemical Society, 2001, 123, 12706-12707.	13.7	163
160	Transformation of a Metalâ^'Organic Framework from the NbO to PtS Net. Inorganic Chemistry, 2005, 44, 181-183.	4.0	159
161	Synthesis and Structure of Chemically Stable Metalâ^'Organic Polyhedra. Journal of the American Chemical Society, 2009, 131, 12532-12533.	13.7	150
162	NMR and X-ray Study Revealing the Rigidity of Zeolitic Imidazolate Frameworks. Journal of Physical Chemistry C, 2012, 116, 13307-13312.	3.1	150

#	Article	IF	Citations
163	Anisotropic reticular chemistry. Nature Reviews Materials, 2020, 5, 764-779.	48.7	149
164	Multivariate metal-organic frameworks. National Science Review, 2017, 4, 296-298.	9.5	148
165	Cytoprotective metal-organic frameworks for anaerobic bacteria. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 10582-10587.	7.1	145
166	Metalâ€“Organic Frameworks of Vanadium as Catalysts for Conversion of Methane to Acetic Acid. Inorganic Chemistry, 2011, 50, 7388-7390.	4.0	144
167	Standard Practices of Reticular Chemistry. ACS Central Science, 2020, 6, 1255-1273.	11.3	142
168	Site-Specific CO₂ Adsorption and Zero Thermal Expansion in an Anisotropic Pore Network. Journal of Physical Chemistry C, 2011, 115, 24915-24919.	3.1	141
169	Mesoscopic Constructs of Ordered and Oriented Metalâ€“Organic Frameworks on Plasmonic Silver Nanocrystals. Journal of the American Chemical Society, 2015, 137, 2199-2202.	13.7	141
170	Urea-Linked Covalent Organic Frameworks. Journal of the American Chemical Society, 2018, 140, 16438-16441.	13.7	140
171	Polymer-Induced Heteronucleation for the Discovery of New Extended Solids. Angewandte Chemie - International Edition, 2006, 45, 2553-2556.	13.8	139
172	Determination of the hydrogen absorption sites in Zn4O(1,4-benzenedicarboxylate) by single crystal neutron diffraction. Chemical Communications, 2006, , 278-280.	4.1	132
173	Reversible Interpenetration in a Metalâ€“Organic Framework Triggered by Ligand Removal and Addition. Angewandte Chemie - International Edition, 2012, 51, 8791-8795.	13.8	129
174	The geometry of periodic knots, polycatenanes and weaving from a chemical perspective: a library for reticular chemistry. Chemical Society Reviews, 2018, 47, 4642-4664.	38.1	126
175	Reticular Synthesis of Multinary Covalent Organic Frameworks. Journal of the American Chemical Society, 2019, 141, 11420-11424.	13.7	126
176	Carbon Dioxide Capture Chemistry of Amino Acid Functionalized Metalâ€“Organic Frameworks in Humid Flue Gas. Journal of the American Chemical Society, 2022, 144, 2387-2396.	13.7	122
177	Calcium <scp>l</scp>-Lactate Frameworks as Naturally Degradable Carriers for Pesticides. Journal of the American Chemical Society, 2017, 139, 8118-8121.	13.7	119
178	Reticulating 1D Ribbons into 2D Covalent Organic Frameworks by Imine and Imide Linkages. Journal of the American Chemical Society, 2020, 142, 2771-2776.	13.7	118
179	Covalent Organic Frameworks for Carbon Dioxide Capture from Air. Journal of the American Chemical Society, 2022, 144, 12989-12995.	13.7	118
180	Ring-Opening Reactions within Porous Metalâ”Organic Frameworks. Inorganic Chemistry, 2010, 49, 6387-6389.	4.0	115

#	Article	IF	Citations
181	Tertiary Building Units:Â Synthesis, Structure, and Porosity of a Metalâ^'Organic Dendrimer Framework (MODF-1)âŠ¥. Journal of the American Chemical Society, 2001, 123, 11482-11483.	13.7	113
182	A Combined Experimental-Computational Study on the Effect of Topology on Carbon Dioxide Adsorption in Zeolitic Imidazolate Frameworks. Journal of Physical Chemistry C, 2012, 116, 24084-24090.	3.1	112
183	Chemical diversity in a metalâ€"organic framework revealed by fluorescence lifetime imaging. Nature Communications, 2018, 9, 1647.	12.8	112
184	Molecular Weaving of Covalent Organic Frameworks for Adaptive Guest Inclusion. Journal of the American Chemical Society, 2018, 140, 16015-16019.	13.7	107
185	Metalâ€"Organic Frameworks Incorporating Copperâ€Complexed Rotaxanes. Angewandte Chemie - International Edition, 2012, 51, 2160-2163.	13.8	105
186	A Catenated Strut in a Catenated Metalâ€"Organic Framework. Angewandte Chemie - International Edition, 2010, 49, 6751-6755.	13.8	103
187	Structure-Based Design of Functional Amyloid Materials. Journal of the American Chemical Society, 2014, 136, 18044-18051.	13.7	102
188	The CdSO4, rutile, cooperite and quartz dual nets: interpenetration and catenation. Solid State Sciences, 2003, 5, 73-78.	3.2	101
189	Three-periodic nets and tilings: minimal nets. Acta Crystallographica Section A: Foundations and Advances, 2004, 60, 517-520.	0.3	101
190	Conceptual Advances from Werner Complexes to Metalâ€"Organic Frameworks. ACS Central Science, 2018, 4, 1457-1464.	11.3	101
191	Docking of Cu^I and Ag^I in Metalâ€"Organic Frameworks for Adsorption and Separation of Xenon. Angewandte Chemie - International Edition, 2021, 60, 3417-3421.	13.8	98
192	3D Covalent Organic Frameworks Selectively Crystallized through Conformational Design. Journal of the American Chemical Society, 2020, 142, 20335-20339.	13.7	97
193	Digital Reticular Chemistry. CheM, 2020, 6, 2219-2241.	11.7	96
194	A Covalent Organic Framework that Exceeds the DOE 2015 Volumetric Target for H₂ Uptake at 298 K. Journal of Physical Chemistry Letters, 2012, 3, 2671-2675.	4.6	95
195	A metalâ€"organic framework replete with ordered donorâ€"acceptor catenanes. Chemical Communications, 2010, 46, 380-382.	4.1	94
196	3D Covalent Organic Frameworks of Interlocking 1D Square Ribbons. Journal of the American Chemical Society, 2019, 141, 677-683.	13.7	94
197	Raman Spectroscopic Investigation of CH4and N2Adsorption in Metalâ^'Organic Frameworks. Chemistry of Materials, 2007, 19, 3681-3685.	6.7	93
198	Designed amyloid fibers as materials for selective carbon dioxide capture. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 191-196.	7.1	93

#	Article	IF	Citations
199	Multistep Solid-State Organic Synthesis of Carbamate-Linked Covalent Organic Frameworks. Journal of the American Chemical Society, 2019, 141, 11253-11258.	13.7	92
200	Rigidâ€Strutâ€Containing Crown Ethers and [2]Catenanes for Incorporation into Metalâ€“Organic Frameworks. Chemistry - A European Journal, 2009, 15, 13356-13380.	3.3	88
201	Isotherms of individual pores by gas adsorption crystallography. Nature Chemistry, 2019, 11, 562-570.	13.6	88
202	Spiers Memorial Lecture: : Progress and prospects of reticular chemistry. Faraday Discussions, 2017, 201, 9-45.	3.2	85
203	A Combined Experimentalâ€“Computational Investigation of Methane Adsorption and Selectivity in a Series of Isoreticular Zeolitic Imidazolate Frameworks. Journal of Physical Chemistry C, 2013, 117, 10326-10335.	3.1	83
204	Nanoporous Transparent MOF Glasses with Accessible Internal Surface. Journal of the American Chemical Society, 2016, 138, 10818-10821.	13.7	83
205	Metalâ€“organic frameworks with designed chiral recognition sites. Chemical Communications, 2010, 46, 4911.	4.1	82
206	Ester-Linked Crystalline Covalent Organic Frameworks. Journal of the American Chemical Society, 2020, 142, 14450-14454.	13.7	80
207	Molecular Retrofitting Adapts a Metalâ€“Organic Framework to Extreme Pressure. ACS Central Science, 2017, 3, 662-667.	11.3	79
208	Linking Molybdenumâ€“Sulfur Clusters for Electrocatalytic Hydrogen Evolution. Journal of the American Chemical Society, 2018, 140, 13618-13622.	13.7	78
209	Reticular Chemistry and Metal-Organic Frameworks for Clean Energy. MRS Bulletin, 2009, 34, 682-690.	3.5	75
210	Tuning the Interplay between Selectivity and Permeability of ZIF-7 Mixed Matrix Membranes. ACS Applied Materials & Interfaces, 2017, 9, 33401-33407.	8.0	74
211	Local Electronic Structure of Molecular Heterojunctions in a Singleâ€Layer 2D Covalent Organic Framework. Advanced Materials, 2019, 31, e1805941.	21.0	74
212	Hydroisomerization of n-Hexane Using Acidified Metalâ€“Organic Framework and Platinum Nanoparticles. Journal of the American Chemical Society, 2017, 139, 12382-12385.	13.7	73
213	Dielectrophoresis-Assembled Zeolitic Imidazolate Framework Nanoparticle-Coupled Resonators for Highly Sensitive and Selective Gas Detection. Nano Letters, 2013, 13, 5271-5276.	9.1	72
214	Large Cages of Zeolitic Imidazolate Frameworks. Accounts of Chemical Research, 2022, 55, 707-721.	15.6	71
215	Framework mobility in the metalâ€“organic framework crystal IRMOF-3: Evidence for aromatic ring and amine rotation. Journal of Molecular Structure, 2011, 1004, 94-101.	3.6	68
216	Two Principles of Reticular Chemistry Uncovered in a Metalâ€“Organic Framework of Heterotritopic Linkers and Infinite Secondary Building Units. Journal of the American Chemical Society, 2016, 138, 10826-10829.	13.7	68

#	Article	IF	Citations
217	Recent progress in scanning electron microscopy for the characterization of fine structural details of nano materials. Progress in Solid State Chemistry, 2014, 42, 1-21.	7.2	66
218	Amidation, Esterification, and Thioesterification of a Carboxylâ€Functionalized Covalent Organic Framework. Angewandte Chemie - International Edition, 2020, 59, 2023-2027.	13.8	66
219	Raman spectra of hydrogen and deuterium adsorbed on a metalâ€“organic framework. Chemical Physics Letters, 2005, 411, 516-519.	2.6	61
220	Synthesis of Metalâˆ’Organic Complex Arrays. Journal of the American Chemical Society, 2011, 133, 759-761.	13.7	60
221	Characterization of Adsorption Enthalpy of Novel Water-Stable Zeolites and Metal-Organic Frameworks. Scientific Reports, 2016, 6, 19097.	3.3	59
222	Sequence-Dependent Materials. Accounts of Chemical Research, 2017, 50, 532-534.	15.6	59
223	Hydrazine-Hydrazide-Linked Covalent Organic Frameworks for Water Harvesting. ACS Central Science, 2022, 8, 926-932.	11.3	59
224	Azulene based metalâ€“organic frameworks for strong adsorption of H2. Chemical Communications, 2010, 46, 7981.	4.1	57
225	Cooperative effects at the interface of nanocrystalline metalâ€“organic frameworks. Nano Research, 2016, 9, 47-58.	10.4	57
226	Computation of Aromatic C3N4 Networks and Synthesis of the Molecular Precursor N(C3N3)3Cl6. Chemistry - A European Journal, 2003, 9, 4197-4201.	3.3	55
227	Impact of Disordered Guestâ€“Framework Interactions on the Crystallography of Metalâ€“Organic Frameworks. Journal of the American Chemical Society, 2018, 140, 8958-8964.	13.7	54
228	Thermal maps of gases in heterogeneous reactions. Nature, 2013, 502, 537-540.	27.8	52
229	Layered Structures Constructed from New Linkages of Ge7(O,OH,F)19Clusters. Chemistry of Materials, 2003, 15, 714-718.	6.7	50
230	Coordinative Alignment in the Pores of MOFs for the Structural Determination of N-, S-, and P-Containing Organic Compounds Including Complex Chiral Molecules. Journal of the American Chemical Society, 2019, 141, 18862-18869.	13.7	49
231	The â€˜folkloreâ€™ and reality of reticular chemistry. Materials Chemistry Frontiers, 2017, 1, 1304-1309.	5.9	47
232	Reticular Chemistry: Molecular Precision in Infinite 2D and 3D. Molecular Frontiers Journal, 2019, 03, 66-83.	1.1	46
233	Open-Framework Solids with Diamond-Like Structures Prepared from Clusters and Metal-Organic Building Blocks. Materials Research Society Symposia Proceedings, 1994, 371, 15.	0.1	45
234	Induced molecule self-organization. Nature, 1991, 352, 115-116.	27.8	43

#	Article	IF	Citations
235	Synthesis and Characterization of Zirconogermanates. Inorganic Chemistry, 2003, 42, 5954-5959.	4.0	43
236	Hyperpolarized 129Xe Nuclear Magnetic Resonance Studies of Isoreticular Metal-Organic Frameworks. Journal of Physical Chemistry C, 2007, 111, 6060-6067.	3.1	43
237	Architectural Stabilization of a Gold(III) Catalyst in Metal-Organic Frameworks. CheM, 2020, 6, 142-152.	11.7	39
238	Facilitating Laboratory Research Experience Using Reticular Chemistry. Journal of Chemical Education, 2018, 95, 1512-1519.	2.3	38
239	Heterogeneity of functional groups in a metalâ€“organic framework displays magic number ratios. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 5591-5596.	7.1	36
240	Incorporation of active metal sites in MOFs via in situ generated ligand deficient metalâ€“linker complexes. Chemical Communications, 2011, 47, 11882.	4.1	35
241	Ionic Conduction Mechanism and Design of Metalâ€“Organic Framework Based Quasi-Solid-State Electrolytes. Journal of the American Chemical Society, 2022, 144, 13446-13450.	13.7	33
242	Covalent Organic Frameworksâ€”Organic Chemistry Beyond the Molecule. Molecules, 2017, 22, 1575.	3.8	31
243	Synthesis and hydrogen adsorption properties of internally polarized 2,6-azulenedicarboxylate based metalâ€“organic frameworks. Journal of Materials Chemistry A, 2014, 2, 18823-18830.	10.3	29
244	Precise Control of Molecular Selfâ€Diffusion in Isoreticular and Multivariate Metalâ€Organic Frameworks. ChemPhysChem, 2020, 21, 32-35.	2.1	29
245	<scp>l</scp>-Aspartate links for stable sodium metalâ€“organic frameworks. Chemical Communications, 2015, 51, 17463-17466.	4.1	28
246	The Reticular Chemist. Nano Letters, 2020, 20, 8432-8434.	9.1	28
247	From Molecules to Frameworks to Superframework Crystals. Advanced Materials, 2021, 33, e2103808.	21.0	26
248	Entanglement of Square Nets in Covalent Organic Frameworks. Journal of the American Chemical Society, 2022, 144, 1539-1544.	13.7	26
249	Isomers of Metalâ€“Organic Complex Arrays. Inorganic Chemistry, 2012, 51, 6437-6439.	4.0	23
250	Crystal structures as periodic graphs: the topological genome and graph databases. Structural Chemistry, 2017, 28, 39-44.	2.0	22
251	Amidation, Esterification, and Thioesterification of a Carboxylâ€Functionalized Covalent Organic Framework. Angewandte Chemie, 2020, 132, 2039-2043.	2.0	22
252	One-Step Synthesis and Structure of an Oligo(spiro-orthocarbonate). Journal of the American Chemical Society, 2002, 124, 4942-4943.	13.7	18

#	Article	IF	Citations
253	Zeolitic imidazolate framework-coupled resonators for enhanced gas detection. Journal of Micromechanics and Microengineering, 2013, 23, 125027.	2.6	18
254	Modular Synthesis of Metalâ€“Organic Complex Arrays Containing Precisely Designed Metal Sequences. Inorganic Chemistry, 2015, 54, 1197-1199.	4.0	16
255	Response to Comment on â€œWater harvesting from air with metal-organic frameworks powered by natural sunlightâ€• Science, 2017, 358, .	12.6	16
256	Docking of Cu^I and Ag^I in Metalâ€“Organic Frameworks for Adsorption and Separation of Xenon. Angewandte Chemie, 2021, 133, 3459-3463.	2.0	12
257	Evolution of MOF single crystals. CheM, 2022, 8, 1541-1543.	11.7	12
258	A water-soluble metalâ€“organic complex array as a multinuclear heterometallic peptide amphiphile that shows unconventional anion dependency in its self-assembly. Chemical Communications, 2016, 52, 1579-1581.	4.1	11
259	Visualizing Pore Packing and Topology in MOFs. Journal of Chemical Education, 2022, 99, 1998-2004.	2.3	11
260	Crystalline Fibers of Metalâ€“Peptide Double Ladders. Inorganic Chemistry, 2013, 52, 13818-13820.	4.0	10
261	Individually Encapsulated Frame-in-Frame Structure. , 2020, 2, 685-690.		10
262	The Development of Global Science. ACS Central Science, 2015, 1, 18-23.	11.3	9
263	Strategies for Hydrogen Storage in Metalâ€”Organic Frameworks. ChemInform, 2005, 36, no.	0.0	5
264	Response to Comment on â€œWater harvesting from air with metal-organic frameworks powered by natural sunlightâ€• Science, 2017, 358, .	12.6	5
265	Building a Global Culture of Scienceâ€”The Vietnam Experience. Angewandte Chemie - International Edition, 2019, 58, 1552-1560.	13.8	5
266	Design of MOFs with Absolute Structures: A Case Study. Israel Journal of Chemistry, 0, , .	2.3	5
267	Reticular Chemistry of Metal-Organic Frameworks Composed of Copper and Zinc Metal Oxide Secondary Building Units as Nodes. , 0, , 41-72.		4
268	Metal coordination as a template strategy to make resilient woven materials. Bulletin of Japan Society of Coordination Chemistry, 2018, 71, 12-17.	0.2	3
269	Reticular Chemistry: Occurrence and Taxonomy of Nets and Grammar for the Design of Frameworks. ChemInform, 2005, 36, no.	0.0	2
270	Aufbau einer globalen Wissenschaftskultur â€“ die Vietnamâ€Erfahrung. Angewandte Chemie, 2019, 131, 1566-1575.	2.0	2

#	Article	IF	Citations
271	Synthesis of a Water-soluble Metal–Organic Complex Array. Journal of Visualized Experiments, 2016, , .	0.3	1
272	â€˜Eyeâ€™ of the moleculeâ€”a viewpoint. Faraday Discussions, 2021, 231, 145-149.	3.2	1
273	Layered Structures Constructed from New Linkages of Ge7(O,OH,F)19 Clusters.. ChemInform, 2003, 34, no.	0.0	0
274	Synthesis and Characterization of Zirconogermanates.. ChemInform, 2003, 34, no.	0.0	0
275	Parallel Worlds Meet at Designed Interfaces with a Vast Number of Potential Frameworks. Biochemistry, 2019, 58, 3823-3824.	2.5	0