

Eric D Bloch

List of Publications by Year in descending order

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76
papers

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101384

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docs citations

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times ranked

12879
citing authors

#	ARTICLE	IF	CITATIONS
1	Carbon Dioxide Capture in Metal-Organic Frameworks. <i>Chemical Reviews</i> , 2012, 112, 724-781.	23.0	5,612
2	Hydrocarbon Separations in a Metal-Organic Framework with Open Iron(II) Coordination Sites. <i>Science</i> , 2012, 335, 1606-1610.	6.0	1,635
3	Cooperative insertion of CO ₂ in diamine-appended metal-organic frameworks. <i>Nature</i> , 2015, 519, 303-308.	13.7	1,026
4	Hydrocarbon Separations in Metal-Organic Frameworks. <i>Chemistry of Materials</i> , 2014, 26, 323-338.	3.2	517
5	Metal Insertion in a Microporous Metal-Organic Framework Lined with 2,2'-Bipyridine. <i>Journal of the American Chemical Society</i> , 2010, 132, 14382-14384.	6.6	514
6	Selective Binding of O ₂ over N ₂ in a Redox-Active Metal-Organic Framework with Open Iron(II) Coordination Sites. <i>Journal of the American Chemical Society</i> , 2011, 133, 14814-14822.	6.6	470
7	Selective adsorption of ethylene over ethane and propylene over propane in the metal-organic frameworks M ₂ (dobdc) (M = Mg, Mn, Fe, Co, Ni, Zn). <i>Chemical Science</i> , 2013, 4, 2054.	3.7	398
8	Oxidation of ethane to ethanol by N ₂ O in a metal-organic framework with coordinatively unsaturated iron(II) sites. <i>Nature Chemistry</i> , 2014, 6, 590-595.	6.6	398
9	Comprehensive study of carbon dioxide adsorption in the metal-organic frameworks M ₂ (dobdc) (M = Mg, Mn, Fe, Co, Ni, Cu, Zn). <i>Chemical Science</i> , 2014, 5, 4569-4581.	3.7	342
10	Multifunctional, Defect-Engineered Metal-Organic Frameworks with Ruthenium Centers: Sorption and Catalytic Properties. <i>Angewandte Chemie - International Edition</i> , 2014, 53, 7058-7062.	7.2	237
11	Reversible CO Binding Enables Tunable CO/H ₂ and CO/N ₂ Separations in Metal-Organic Frameworks with Exposed Divalent Metal Cations. <i>Journal of the American Chemical Society</i> , 2014, 136, 10752-10761.	6.6	210
12	Permanently Microporous Metal-Organic Polyhedra. <i>Chemical Reviews</i> , 2020, 120, 8987-9014.	23.0	209
13	Hydrogen Storage in the Expanded Pore Metal-Organic Frameworks M ₂ (dobpdc) (M = Mg, Tj ETQq1.1 0.784314 rgB 3.2 171)	3.2	171
14	Single-Crystal-to-Single-Crystal Metalation of a Metal-Organic Framework: A Route toward Structurally Well-Defined Catalysts. <i>Inorganic Chemistry</i> , 2015, 54, 2995-3005.	1.9	161
15	Design of a Metal-Organic Framework with Enhanced Back Bonding for Separation of N ₂ and CH ₄ . <i>Journal of the American Chemical Society</i> , 2014, 136, 698-704.	6.6	157
16	Separation of Xylene Isomers through Multiple Metal Site Interactions in Metal-Organic Frameworks. <i>Journal of the American Chemical Society</i> , 2018, 140, 3412-3422.	6.6	150
17	Impact of Metal and Anion Substitutions on the Hydrogen Storage Properties of M-BTT Metal-Organic Frameworks. <i>Journal of the American Chemical Society</i> , 2013, 135, 1083-1091.	6.6	139
18	Highly Selective Quantum Sieving of D ₂ from H ₂ by a Metal-Organic Framework As Determined by Gas Manometry and Infrared Spectroscopy. <i>Journal of the American Chemical Society</i> , 2013, 135, 9458-9464.	6.6	116

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19	Carbohydrate-Mediated Purification of Petrochemicals. <i>Journal of the American Chemical Society</i> , 2015, 137, 5706-5719.	6.6	112
20	Hydrogen Storage and Selective, Reversible O ₂ Adsorption in a Metal-Organic Framework with Open Chromium(II) Sites. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 8605-8609.	7.2	102
21	Evaluating UiO-66 Metal-Organic Framework Nanoparticles as Acid-Sensitive Carriers for Pulmonary Drug Delivery Applications. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 38989-39004.	4.0	102
22	Selective Propene Oligomerization with Nickel(II)-Based Metal-Organic Frameworks. <i>ACS Catalysis</i> , 2014, 4, 717-721.	5.5	87
23	Methane Storage in Paddlewheel-Based Porous Coordination Cages. <i>Journal of the American Chemical Society</i> , 2018, 140, 11153-11157.	6.6	84
24	Gradual Release of Strongly Bound Nitric Oxide from Fe ₂ (NO) ₂ (dobdc). <i>Journal of the American Chemical Society</i> , 2015, 137, 3466-3469.	6.6	81
25	Structural characterization of framework-gas interactions in the metal-organic framework Co ₂ (dobdc) by in situ single-crystal X-ray diffraction. <i>Chemical Science</i> , 2017, 8, 4387-4398.	3.7	80
26	Hydrogen adsorption in the metal-organic frameworks Fe ₂ (dobdc) and Fe ₂ (O ₂)(dobdc). <i>Dalton Transactions</i> , 2012, 41, 4180.	1.6	78
27	Electronic Structure of Copper Corroles. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 2176-2180.	7.2	76
28	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
29	Understanding Gas Storage in Cuboctahedral Porous Coordination Cages. <i>Journal of the American Chemical Society</i> , 2019, 141, 12128-12138.	6.6	73
30	Selective Gas Adsorption in Highly Porous Chromium(II)-Based Metal-Organic Polyhedra. <i>Chemistry of Materials</i> , 2017, 29, 8583-8587.	3.2	68
31	A Charged Coordination Cage-Based Porous Salt. <i>Journal of the American Chemical Society</i> , 2020, 142, 9594-9598.	6.6	60
32	CO ₂ Adsorption in Fe ₂ (dobdc): A Classical Force Field Parameterized from Quantum Mechanical Calculations. <i>Journal of Physical Chemistry C</i> , 2014, 118, 12230-12240.	1.5	45
33	An experimental and computational study of CO ₂ adsorption in the sodalite-type M-BTT (M = Cr, Mn, Fe.) <i>Tj ETQq1 1 0.784314 rgBT / Ov</i>	3.7	43
34	Ligand-Based Phase Control in Porous Molecular Assemblies. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 11420-11424.	4.0	41
35	Controlling Size, Defectiveness, and Fluorescence in Nanoparticle UiO-66 through Water and Ligand Modulation. <i>Chemistry of Materials</i> , 2019, 31, 4831-4839.	3.2	41
36	Acetylene Adsorption on CPO-27-M Metal-Organic Frameworks (M=Fe, Co and Ni). <i>ChemPhysChem</i> , 2012, 13, 445-448.	1.0	38

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37	Ligand-Based Phase Control in Porous Zirconium Coordination Cages. <i>Chemistry of Materials</i> , 2020, 32, 5872-5878.	3.2	37
38	Tuning the Porosity, Solubility, and Gas-Storage Properties of Cuboctahedral Coordination Cages via Amide or Ester Functionalization. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 24913-24919.	4.0	34
39	Influence of Solvent-Like Sidechains on the Adsorption of Light Hydrocarbons in Metal-Organic Frameworks. <i>Chemistry - A European Journal</i> , 2015, 21, 18764-18769.	1.7	32
40	Gas Storage in Porous Molecular Materials. <i>Chemistry - A European Journal</i> , 2021, 27, 4531-4547.	1.7	30
41	Electrochemically Mediated Syntheses of Titanium(III)-Based Metal-Organic Frameworks. <i>Journal of the American Chemical Society</i> , 2019, 141, 11383-11387.	6.6	29
42	Structurally characterized terminal manganese(IV) oxo tris(alkoxide) complex. <i>Chemical Science</i> , 2018, 9, 4524-4528.	3.7	28
43	MOF-mimetic molecules: carboxylate-based supramolecular complexes as molecular metal-organic framework analogues. <i>Journal of Materials Chemistry A</i> , 2020, 8, 4217-4229.	5.2	28
44	Counteranion effects on the catalytic activity of copper salts immobilized on the 2,2'-bipyridine-functionalized metal-organic framework MOF-253. <i>Catalysis Today</i> , 2015, 246, 55-59.	2.2	27
45	Electronic Structure of Copper Corroles. <i>Angewandte Chemie</i> , 2016, 128, 2216-2220.	1.6	26
46	Design and Synthesis of Porous Nickel(II) and Cobalt(II) Cages. <i>Inorganic Chemistry</i> , 2018, 57, 11847-11850.	1.9	25
47	Facile and Rapid Room-Temperature Electrosynthesis and Controlled Surface Growth of Fe-MIL-101 and Fe-MIL-101-NH ₂ . <i>ACS Central Science</i> , 2021, 7, 1427-1433.	5.3	25
48	Elaboration of Porous Salts. <i>Journal of the American Chemical Society</i> , 2021, 143, 14956-14961.	6.6	25
49	Hydrogen Storage and Selective, Reversible O ₂ Adsorption in a Metal-Organic Framework with Open Chromium(II) Sites. <i>Angewandte Chemie</i> , 2016, 128, 8747-8751.	1.6	23
50	Manipulating solvent and solubility in the synthesis, activation, and modification of permanently porous coordination cages. <i>Coordination Chemistry Reviews</i> , 2021, 430, 213679.	9.5	20
51	Gas adsorption in an isostructural series of pillared coordination cages. <i>Chemical Communications</i> , 2018, 54, 6392-6395.	2.2	19
52	Design and synthesis of capped-paddlewheel-based porous coordination cages. <i>Chemical Communications</i> , 2019, 55, 9527-9530.	2.2	19
53	Using Low-Pressure Methane Adsorption Isotherms for Higher-Throughput Screening of Methane Storage Materials. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 40318-40327.	4.0	19
54	Structure and redox tuning of gas adsorption properties in calixarene-supported Fe(II)-based porous cages. <i>Chemical Science</i> , 2020, 11, 5273-5279.	3.7	19

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55	Synthesis and Characterization of an Isorecticular Family of Calixarene-Capped Porous Coordination Cages. <i>Inorganic Chemistry</i> , 2021, 60, 5607-5616.	1.9	18
56	Mechanochemical Synthesis of Porous Molecular Assemblies. <i>Chemistry of Materials</i> , 2018, 30, 3975-3978.	3.2	17
57	High-pressure methane storage and selective gas adsorption in a cyclohexane-functionalised porous organic cage. <i>Supramolecular Chemistry</i> , 2019, 31, 508-513.	1.5	16
58	Porous metal-organic alloys based on soluble coordination cages. <i>Chemical Science</i> , 2020, 11, 12540-12546.	3.7	16
59	NMR relaxation and exchange in metal-organic frameworks for surface area screening. <i>Microporous and Mesoporous Materials</i> , 2015, 205, 65-69.	2.2	14
60	Atomically Precise Crystalline Materials Based on Kinetically Inert Metal Ions via Reticular Mechanopolymerization. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 10878-10883.	7.2	13
61	Metal Insertion in a Methylamine-Functionalized Zirconium Metal-Organic Framework for Enhanced Carbon Dioxide Capture. <i>Inorganic Chemistry</i> , 2017, 56, 4308-4316.	1.9	11
62	Tuning water adsorption, stability, and phase in Fe-MIL-101 and Fe-MIL-88 analogs with amide functionalization. <i>Chemical Communications</i> , 2021, 57, 8312-8315.	2.2	11
63	Novel syntheses of carbazole-3,6-dicarboxylate ligands and their utilization for porous coordination cages. <i>Dalton Transactions</i> , 2020, 49, 16340-16347.	1.6	11
64	Oxygen activation at a dicobalt centre of a dipyriddyethane naphthyridine complex. <i>Dalton Transactions</i> , 2018, 47, 11903-11908.	1.6	9
65	Elucidating the Structure of the Metal-Organic Framework Ru-HKUST-1. <i>Chemistry of Materials</i> , 2020, 32, 7710-7715.	3.2	9
66	Stabilizing Porosity in Organic Cages through Coordination Chemistry. <i>Inorganic Chemistry</i> , 2021, 60, 7044-7050.	1.9	9
67	Design and synthesis of aryl-functionalized carbazole-based porous coordination cages. <i>Chemical Communications</i> , 2020, 56, 9352-9355.	2.2	8
68	Mechanochemical synthesis of two-dimensional metal-organic frameworks. <i>Powder Diffraction</i> , 2019, 34, 119-123.	0.4	7
69	Synthesis and characterization of low-nuclearity lantern-type porous coordination cages. <i>Chemical Communications</i> , 2020, 56, 8924-8927.	2.2	7
70	Utilization of a Mixed-Ligand Strategy to Tune the Properties of Cuboctahedral Porous Coordination Cages. <i>Inorganic Chemistry</i> , 2022, 61, 4609-4617.	1.9	7
71	Synthesis, characterization, and polymerization of capped paddlewheel porous cages. <i>Dalton Transactions</i> , 2021, 50, 3127-3131.	1.6	6
72	Templated synthesis of zirconium(μ_3)-based metal-organic layers (MOLs) with accessible chelating sites. <i>Chemical Communications</i> , 2022, 58, 957-960.	2.2	6

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73	Neutron diffraction structural study of CO ₂ binding in mixed-metal CPM-200 metal-organic frameworks. <i>Chemical Communications</i> , 2020, 56, 2574-2577.	2.2	5
74	Using Helium Pycnometry to Study the Apparent Densities of Metal-Organic Frameworks. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 51925-51932.	4.0	5
75	Atomically Precise Crystalline Materials Based on Kinetically Inert Metal Ions via Reticular Mechanopolymerization. <i>Angewandte Chemie</i> , 2020, 132, 10970-10975.	1.6	3
76	Frontispiece: Gas Storage in Porous Molecular Materials. <i>Chemistry - A European Journal</i> , 2021, 27, .	1.7	0