Eric D Bloch

List of Publications by Year
in descending order

76 papers	14,455 citations	101543 36 h-index	69250 77 g-index
78 all docs	78 docs citations	78 times ranked	12879 citing authors

#	Article	IF	Citations
1	Carbon Dioxide Capture in Metalâ€“Organic Frameworks. Chemical Reviews, 2012, 112, 724-781.	47.7	5,612
2	Hydrocarbon Separations in a Metal-Organic Framework with Open Iron(II) Coordination Sites. Science, 2012, 335, 1606-1610.	12.6	1,635
3	Cooperative insertion of CO2 in diamine-appended metal-organic frameworks. Nature, 2015, 519, 303-308.	27.8	1,026
4	Hydrocarbon Separations in Metalâ€“Organic Frameworks. Chemistry of Materials, 2014, 26, 323-338.	6.7	517
5	Metal Insertion in a Microporous Metalâˆ’Organic Framework Lined with 2,2â€²-Bipyridine. Journal of the American Chemical Society, 2010, 132, 14382-14384.	13.7	514
6	Selective Binding of O₂ over N₂ in a Redoxâ€“Active Metalâ€“Organic Framework with Open Iron(II) Coordination Sites. Journal of the American Chemical Society, 2011, 133, 14814-14822.	13.7	470
7	Selective adsorption of ethylene over ethane and propylene over propane in the metalâ€“organic frameworks M2(dobdc) (M = Mg, Mn, Fe, Co, Ni, Zn). Chemical Science, 2013, 4, 2054.	7.4	398
8	Oxidation of ethane to ethanol by N2O in a metalâ€“organic framework with coordinatively unsaturated iron(II) sites. Nature Chemistry, 2014, 6, 590-595.	13.6	398
9	Comprehensive study of carbon dioxide adsorption in the metalâ€“organic frameworks M₂(dobdc) (M = Mg, Mn, Fe, Co, Ni, Cu, Zn). Chemical Science, 2014, 5, 4569-4581.	7.4	342
10	Multifunctional, Defectâ€Engineered Metalâ€“Organic Frameworks with Ruthenium Centers: Sorption and Catalytic Properties. Angewandte Chemie - International Edition, 2014, 53, 7058-7062.	13.8	237
11	Reversible CO Binding Enables Tunable CO/H₂ and CO/N₂ Separations in Metalâ€“Organic Frameworks with Exposed Divalent Metal Cations. Journal of the American Chemical Society, 2014, 136, 10752-10761.	13.7	210
12	Permanently Microporous Metalâ€“Organic Polyhedra. Chemical Reviews, 2020, 120, 8987-9014.	47.7	209
13	Hydrogen Storage in the Expanded Pore Metalâ€“Organic Frameworks M₂(dobpdc) (M = Mg,) Tj ETQq1 1 0.784314 rgBT	6.7	171
14	Single-Crystal-to-Single-Crystal Metalation of a Metalâ€“Organic Framework: A Route toward Structurally Well-Defined Catalysts. Inorganic Chemistry, 2015, 54, 2995-3005.	4.0	161
15	Design of a Metalâ€“Organic Framework with Enhanced Back Bonding for Separation of N₂ and CH₄. Journal of the American Chemical Society, 2014, 136, 698-704.	13.7	157
16	Separation of Xylene Isomers through Multiple Metal Site Interactions in Metalâ€“Organic Frameworks. Journal of the American Chemical Society, 2018, 140, 3412-3422.	13.7	150
17	Impact of Metal and Anion Substitutions on the Hydrogen Storage Properties of M-BTT Metalâ€“Organic Frameworks. Journal of the American Chemical Society, 2013, 135, 1083-1091.	13.7	139
18	Highly Selective Quantum Sieving of D₂ from H₂ by a Metalâ€“Organic Framework As Determined by Gas Manometry and Infrared Spectroscopy. Journal of the American Chemical Society, 2013, 135, 9458-9464.	13.7	116

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19	Carbohydrate-Mediated Purification of Petrochemicals. Journal of the American Chemical Society, 2015, 137, 5706-5719.	13.7	112
20	Hydrogen Storage and Selective, Reversible O₂ Adsorption in a Metalâ€“Organic Framework with Open Chromium(II) Sites. Angewandte Chemie - International Edition, 2016, 55, 8605-8609.	13.8	102
21	Evaluating UiO-66 Metalâ€“Organic Framework Nanoparticles as Acid-Sensitive Carriers for Pulmonary Drug Delivery Applications. ACS Applied Materials & Interfaces, 2020, 12, 38989-39004.	8.0	102
22	Selective Propene Oligomerization with Nickel(II)-Based Metalâ€“Organic Frameworks. ACS Catalysis, 2014, 4, 717-721.	11.2	87
23	Methane Storage in Paddlewheel-Based Porous Coordination Cages. Journal of the American Chemical Society, 2018, 140, 11153-11157.	13.7	84
24	Gradual Release of Strongly Bound Nitric Oxide from Fe₂(NO)₂(dobdc). Journal of the American Chemical Society, 2015, 137, 3466-3469.	13.7	81
25	Structural characterization of frameworkâ€“gas interactions in the metalâ€“organic framework Co₂(dobdc) by in situ single-crystal X-ray diffraction. Chemical Science, 2017, 8, 4387-4398.	7.4	80
26	Hydrogen adsorption in the metalâ€“organic frameworks Fe2(dobdc) and Fe2(O2)(dobdc). Dalton Transactions, 2012, 41, 4180.	3.3	78
27	Electronic Structure of Copper Corroles. Angewandte Chemie - International Edition, 2016, 55, 2176-2180.	13.8	76
28	Critical Factors Driving the High Volumetric Uptake of Methane in Cu₃(btc)₂. Journal of the American Chemical Society, 2015, 137, 10816-10825.	13.7	73
29	Understanding Gas Storage in Cuboctahedral Porous Coordination Cages. Journal of the American Chemical Society, 2019, 141, 12128-12138.	13.7	73
30	Selective Gas Adsorption in Highly Porous Chromium(II)-Based Metalâ€“Organic Polyhedra. Chemistry of Materials, 2017, 29, 8583-8587.	6.7	68
31	A Charged Coordination Cage-Based Porous Salt. Journal of the American Chemical Society, 2020, 142, 9594-9598.	13.7	60
32	CO₂ Adsorption in Fe₂(dobdc): A Classical Force Field Parameterized from Quantum Mechanical Calculations. Journal of Physical Chemistry C, 2014, 118, 12230-12240.	3.1	45
33	An experimental and computational study of CO2adsorption in the sodalite-type M-BTT (M = Cr, Mn, Fe,) Tj ETQq1 1 0.784314 rgBT /Ov	7.4	43
34	Ligand-Based Phase Control in Porous Molecular Assemblies. ACS Applied Materials & Interfaces, 2018, 10, 11420-11424.	8.0	41
35	Controlling Size, Defectiveness, and Fluorescence in Nanoparticle UiO-66 through Water and Ligand Modulation. Chemistry of Materials, 2019, 31, 4831-4839.	6.7	41
36	Acetylene Adsorption on CPOâ€27â€M Metalâ€“Organic Frameworks (M=Fe, Co and Ni). ChemPhysChem, 2012, 13, 445-448.	2.1	38

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37	Ligand-Based Phase Control in Porous Zirconium Coordination Cages. Chemistry of Materials, 2020, 32, 5872-5878.	6.7	37
38	Tuning the Porosity, Solubility, and Gas-Storage Properties of Cuboctahedral Coordination Cages via Amide or Ester Functionalization. ACS Applied Materials & Interfaces, 2020, 12, 24913-24919.	8.0	34
39	Influence of Solventâ€Like Sidechains on the Adsorption of Light Hydrocarbons in Metalâ€“Organic Frameworks. Chemistry - A European Journal, 2015, 21, 18764-18769.	3.3	32
40	Gas Storage in Porous Molecular Materials. Chemistry - A European Journal, 2021, 27, 4531-4547.	3.3	30
41	Electrochemically Mediated Syntheses of Titanium(III)-Based Metalâ€“Organic Frameworks. Journal of the American Chemical Society, 2019, 141, 11383-11387.	13.7	29
42	Structurally characterized terminal manganese(<scp>iv</scp>) oxo tris(alkoxide) complex. Chemical Science, 2018, 9, 4524-4528.	7.4	28
43	MOF-mimetic molecules: carboxylate-based supramolecular complexes as molecular metalâ€“organic framework analogues. Journal of Materials Chemistry A, 2020, 8, 4217-4229.	10.3	28
44	Counteranion effects on the catalytic activity of copper salts immobilized on the 2,2â€²-bipyridine-functionalized metalâ€“organic framework MOF-253. Catalysis Today, 2015, 246, 55-59.	4.4	27
45	Electronic Structure of Copper Corroles. Angewandte Chemie, 2016, 128, 2216-2220.	2.0	26
46	Design and Synthesis of Porous Nickel(II) and Cobalt(II) Cages. Inorganic Chemistry, 2018, 57, 11847-11850.	4.0	25
47	Facile and Rapid Room-Temperature Electrosynthesis and Controlled Surface Growth of Fe-MIL-101 and Fe-MIL-101-NH₂. ACS Central Science, 2021, 7, 1427-1433.	11.3	25
48	Elaboration of Porous Salts. Journal of the American Chemical Society, 2021, 143, 14956-14961.	13.7	25
49	Hydrogen Storage and Selective, Reversible O₂ Adsorption in a Metalâ€“Organic Framework with Open Chromium(II) Sites. Angewandte Chemie, 2016, 128, 8747-8751.	2.0	23
50	Manipulating solvent and solubility in the synthesis, activation, and modification of permanently porous coordination cages. Coordination Chemistry Reviews, 2021, 430, 213679.	18.8	20
51	Gas adsorption in an isostructural series of pillared coordination cages. Chemical Communications, 2018, 54, 6392-6395.	4.1	19
52	Design and synthesis of capped-paddlewheel-based porous coordination cages. Chemical Communications, 2019, 55, 9527-9530.	4.1	19
53	Using Low-Pressure Methane Adsorption Isotherms for Higher-Throughput Screening of Methane Storage Materials. ACS Applied Materials & Interfaces, 2020, 12, 40318-40327.	8.0	19
54	Structure and redox tuning of gas adsorption properties in calixarene-supported Fe(<scp>ii</scp>)-based porous cages. Chemical Science, 2020, 11, 5273-5279.	7.4	19

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55	Synthesis and Characterization of an Isoreticular Family of Calixarene-Capped Porous Coordination Cages. Inorganic Chemistry, 2021, 60, 5607-5616.	4.0	18
56	Mechanochemical Synthesis of Porous Molecular Assemblies. Chemistry of Materials, 2018, 30, 3975-3978.	6.7	17
57	High-pressure methane storage and selective gas adsorption in a cyclohexane-functionalised porous organic cage. Supramolecular Chemistry, 2019, 31, 508-513.	1.2	16
58	Porous metalâ€“organic alloys based on soluble coordination cages. Chemical Science, 2020, 11, 12540-12546.	7.4	16
59	NMR relaxation and exchange in metalâ€“organic frameworks for surface area screening. Microporous and Mesoporous Materials, 2015, 205, 65-69.	4.4	14
60	Atomically Precise Crystalline Materials Based on Kinetically Inert Metal Ions via Reticular Mechanopolymerization. Angewandte Chemie - International Edition, 2020, 59, 10878-10883.	13.8	13
61	Metal Insertion in a Methylamine-Functionalized Zirconium Metalâ€“Organic Framework for Enhanced Carbon Dioxide Capture. Inorganic Chemistry, 2017, 56, 4308-4316.	4.0	11
62	Tuning water adsorption, stability, and phase in Fe-MIL-101 and Fe-MIL-88 analogs with amide functionalization. Chemical Communications, 2021, 57, 8312-8315.	4.1	11
63	Novel syntheses of carbazole-3,6-dicarboxylate ligands and their utilization for porous coordination cages. Dalton Transactions, 2020, 49, 16340-16347.	3.3	11
64	Oxygen activation at a dicobalt centre of a dipyridylethane naphthyridine complex. Dalton Transactions, 2018, 47, 11903-11908.	3.3	9
65	Elucidating the Structure of the Metalâ€“Organic Framework Ru-HKUST-1. Chemistry of Materials, 2020, 32, 7710-7715.	6.7	9
66	Stabilizing Porosity in Organic Cages through Coordination Chemistry. Inorganic Chemistry, 2021, 60, 7044-7050.	4.0	9
67	Design and synthesis of aryl-functionalized carbazole-based porous coordination cages. Chemical Communications, 2020, 56, 9352-9355.	4.1	8
68	Mechanochemical synthesis of two-dimensional metal-organic frameworks. Powder Diffraction, 2019, 34, 119-123.	0.2	7
69	Synthesis and characterization of low-nuclearity lantern-type porous coordination cages. Chemical Communications, 2020, 56, 8924-8927.	4.1	7
70	Utilization of a Mixed-Ligand Strategy to Tune the Properties of Cuboctahedral Porous Coordination Cages. Inorganic Chemistry, 2022, 61, 4609-4617.	4.0	7
71	Synthesis, characterization, and polymerization of capped paddlewheel porous cages. Dalton Transactions, 2021, 50, 3127-3131.	3.3	6
72	Templated synthesis of zirconium(<scp>iv</scp>)-based metalâ€“organic layers (MOLs) with accessible chelating sites. Chemical Communications, 2022, 58, 957-960.	4.1	6

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73	Neutron diffraction structural study of CO₂ binding in mixed-metal CPM-200 metalâ€“organic frameworks. Chemical Communications, 2020, 56, 2574-2577.	4.1	5
74	Using Helium Pycnometry to Study the Apparent Densities of Metalâ€“Organic Frameworks. ACS Applied Materials & Interfaces, 2021, 13, 51925-51932.	8.0	5
75	Atomically Precise Crystalline Materials Based on Kinetically Inert Metal Ions via Reticular Mechanopolymerization. Angewandte Chemie, 2020, 132, 10970-10975.	2.0	3
76	Frontispiece: Gas Storage in Porous Molecular Materials. Chemistry - A European Journal, 2021, 27, .	3.3	0