Katherine A Forrest

List of Publications by Year
in descending order

69	6,196	117625	95266
papers	citations	34 h-index	68 g-index

71	71	71	4682
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Selfâ€Adjusting Metalâ€“Organic Framework for Efficient Capture of Trace Xenon and Krypton. Angewandte Chemie, 2022, 134, .	2.0	5
2	Selfâ€Adjusting Metalâ€“Organic Framework for Efficient Capture of Trace Xenon and Krypton. Angewandte Chemie - International Edition, 2022, 61, .	13.8	47
3	Investigating H₂ Adsorption in Isostructural Metalâ€“Organic Frameworks M-CUK-1 (M = Co) Tj ETQq1 1 0.784314 rgBT /C 14, 8126-8136.	8.0	5
4	Metalâ€“Organic Framework Based Hydrogen-Bonding Nanotrap for Efficient Acetylene Storage and Separation. Journal of the American Chemical Society, 2022, 144, 1681-1689.	13.7	172
5	Pore-Nanospace Engineering of Mixed-Ligand Metalâ€“Organic Frameworks for High Adsorption of Hydrofluorocarbons and Hydrochlorofluorocarbons. Chemistry of Materials, 2022, 34, 5116-5124.	6.7	11
6	A MOFâ€based Ultraâ€Strong Acetylene Nanoâ€trap for Highly Efficient C₂H₂/CO₂ Separation. Angewandte Chemie, 2021, 133, 5343-5348.	2.0	49
7	Frontispiz: A MOFâ€based Ultraâ€Strong Acetylene Nanoâ€trap for Highly Efficient C₂H₂/CO₂ Separation. Angewandte Chemie, 2021, 133, .	2.0	1
8	Frontispiece: A MOFâ€based Ultraâ€Strong Acetylene Nanoâ€trap for Highly Efficient C₂H₂/CO₂ Separation. Angewandte Chemie - International Edition, 2021, 60, .	13.8	0
9	A MOFâ€based Ultraâ€Strong Acetylene Nanoâ€trap for Highly Efficient C₂H₂/CO₂ Separation. Angewandte Chemie - International Edition, 2021, 60, 5283-5288.	13.8	172
10	Nanospace Engineering of Metalâ€“Organic Frameworks through Dynamic Spacer Installation of Multifunctionalities for Efficient Separation of Ethane from Ethane/Ethylene Mixtures. Angewandte Chemie, 2021, 133, 9766-9771.	2.0	9
11	Nanospace Engineering of Metalâ€“Organic Frameworks through Dynamic Spacer Installation of Multifunctionalities for Efficient Separation of Ethane from Ethane/Ethylene Mixtures. Angewandte Chemie - International Edition, 2021, 60, 9680-9685.	13.8	89
12	Aminoâ€Functionalised Hybrid Ultramicroporous Materials that Enable Singleâ€Step Ethylene Purification from a Ternary Mixture. Angewandte Chemie, 2021, 133, 10997-11004.	2.0	10
13	Aminoâ€Functionalised Hybrid Ultramicroporous Materials that Enable Singleâ€Step Ethylene Purification from a Ternary Mixture. Angewandte Chemie - International Edition, 2021, 60, 10902-10909.	13.8	56
14	Molecular Sieving of Acetylene from Ethylene in a Rigid Ultraâ€microporous Metal Organic Framework.. Chemistry - A European Journal, 2021, 27, 9446-9453.	3.3	20
15	Indiumâ€“Organic Framework with soc Topology as a Versatile Catalyst for Highly Efficient One-Pot Strecker Synthesis of Î±-aminonitriles. ACS Applied Materials & Interfaces, 2021, 13, 52023-52033.	8.0	28
16	Toward an Understanding of the Propensity for Crystalline Hydrate Formation by Molecular Compounds. Part 2. Crystal Growth and Design, 2021, 21, 4927-4939.	3.0	13
17	Breaking the trade-off between selectivity and adsorption capacity for gas separation. CheM, 2021, 7, 3085-3098.	11.7	68
18	Efficient propyne/propadiene separation by microporous crystalline physiadsorbents. Nature Communications, 2021, 12, 5768.	12.8	26

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19	Pore Engineering for One-Step Ethylene Purification from a Three-Component Hydrocarbon Mixture. Journal of the American Chemical Society, 2021, 143, 1485-1492.	13.7	143
20	One-step ethylene production from a four-component gas mixture by a single physisorbent. Nature Communications, 2021, 12, 6507.	12.8	64
21	Tuning the Selectivity between C2H2 and CO2 in Molecular Porous Materials. Langmuir, 2021, 37, 13838-13845.	3.5	9
22	Simulations of H₂ Sorption in an Anthracene-Functionalized rht-Metalâ€“Organic Framework. Journal of Physical Chemistry C, 2020, 124, 13753-13764.	3.1	1
23	MPMC and MCMD: Free Highâ€Performance Simulation Software for Atomistic Systems. Advanced Theory and Simulations, 2019, 2, 1900113.	2.8	8
24	Synergistic sorbent separation for one-step ethylene purification from a four-component mixture. Science, 2019, 366, 241-246.	12.6	360
25	A Metalâ€“Organic Framework Based Methane Nanoâ€trap for the Capture of Coalâ€Mine Methane. Angewandte Chemie, 2019, 131, 10244-10247.	2.0	28
26	Molecular Sieving and Direct Visualization of CO₂ in Binding Pockets of an Ultramicroporous Lanthanide Metalâ€“Organic Framework Platform. ACS Applied Materials & Interfaces, 2019, 11, 23192-23197.	8.0	26
27	Investigating CO₂ Sorption in SIFSIX-3-M (M = Fe, Co, Ni, Cu, Zn) through Computational Studies. Crystal Growth and Design, 2019, 19, 3732-3743.	3.0	35
28	A Metalâ€“Organic Framework Based Methane Nanoâ€trap for the Capture of Coalâ€Mine Methane. Angewandte Chemie - International Edition, 2019, 58, 10138-10141.	13.8	181
29	Robust Microporous Metalâ€“Organic Frameworks for Highly Efficient and Simultaneous Removal of Propyne and Propadiene from Propylene. Angewandte Chemie, 2019, 131, 10315-10320.	2.0	16
30	Robust Microporous Metalâ€“Organic Frameworks for Highly Efficient and Simultaneous Removal of Propyne and Propadiene from Propylene. Angewandte Chemie - International Edition, 2019, 58, 10209-10214.	13.8	69
31	InnenrÃ¼cktitelbild: A Metalâ€“Organic Framework Based Methane Nanoâ€trap for the Capture of Coalâ€Mine Methane (Angew. Chem. 30/2019). Angewandte Chemie, 2019, 131, 10483-10483.	2.0	0
32	A Stable Metalâ€“Organic Framework Featuring a Local Buffer Environment for Carbon Dioxide Fixation. Angewandte Chemie - International Edition, 2018, 57, 4657-4662.	13.8	283
33	A Stable Metalâ€“Organic Framework Featuring a Local Buffer Environment for Carbon Dioxide Fixation. Angewandte Chemie, 2018, 130, 4747-4752.	2.0	32
34	Efficient CO₂ Removal for Ultraâ€Pure CO Production by Two Hybrid Ultramicroporous Materials. Angewandte Chemie - International Edition, 2018, 57, 3332-3336.	13.8	52
35	Efficient CO₂ Removal for Ultraâ€Pure CO Production by Two Hybrid Ultramicroporous Materials. Angewandte Chemie, 2018, 130, 3390-3394.	2.0	12
36	Readily accessible shape-memory effect in a porous interpenetrated coordination network. Science Advances, 2018, 4, eaaq1636.	10.3	61

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37	Impact of partial interpenetration in a hybrid ultramicroporous material on C₂H₂/C₂H₄ separation performance. Chemical Communications, 2018, 54, 3488-3491.	4.1	38
38	Robust Ultramicroporous Metalâ€“Organic Frameworks with Benchmark Affinity for Acetylene. Angewandte Chemie, 2018, 130, 11137-11141.	2.0	85
39	Robust Ultramicroporous Metalâ€“Organic Frameworks with Benchmark Affinity for Acetylene. Angewandte Chemie - International Edition, 2018, 57, 10971-10975.	13.8	365
40	Investigating C₂H₂ Sorption in Î±-[M₃(O₂CH)₆] (M = Mg, Mn) Through Theoretical Studies. Crystal Growth and Design, 2018, 18, 5342-5352.	3.0	2
41	Hydrogen Adsorption in a Zeolitic Imidazolate Framework with lta Topology. Journal of Physical Chemistry C, 2018, 122, 15435-15445.	3.1	17
42	Highly Selective Separation of C₂H₂ from CO₂ by a New Dichromate-Based Hybrid Ultramicroporous Material. ACS Applied Materials & Interfaces, 2017, 9, 33395-33400.	8.0	116
43	Comparing the mechanism and energetics of CO₂ sorption in the SIFSIX series. CrystEngComm, 2017, 19, 3338-3347.	2.6	22
44	Effect of ring rotation upon gas adsorption in SIFSIX-3-M (M = Fe, Ni) pillared square grid networks. Chemical Science, 2017, 8, 2373-2380.	7.4	121
45	Investigating gas sorption in an rht-metalâ€“organic framework with 1,2,3-triazole groups. Physical Chemistry Chemical Physics, 2017, 19, 29204-29221.	2.8	8
46	Experimental and theoretical investigations of the gas adsorption sites in rht-metalâ€“organic frameworks. CrystEngComm, 2017, 19, 4646-4665.	2.6	20
47	Fine Tuning of MOFâ€505 Analogues To Reduce Lowâ€Pressure Methane Uptake and Enhance Methane Working Capacity. Angewandte Chemie, 2017, 129, 11584-11588.	2.0	33
48	Fine Tuning of MOFâ€505 Analogues To Reduce Lowâ€Pressure Methane Uptake and Enhance Methane Working Capacity. Angewandte Chemie - International Edition, 2017, 56, 11426-11430.	13.8	119
49	An unusual H2 sorption mechanism in PCN-14: insights from molecular simulation. Physical Chemistry Chemical Physics, 2016, 18, 21421-21430.	2.8	11
50	Hybrid Ultraâ€Microporous Materials for Selective Xenon Adsorption and Separation. Angewandte Chemie, 2016, 128, 8425-8429.	2.0	38
51	Hybrid Ultraâ€Microporous Materials for Selective Xenon Adsorption and Separation. Angewandte Chemie - International Edition, 2016, 55, 8285-8289.	13.8	137
52	Crystal engineering of a family of hybrid ultramicroporous materials based upon interpenetration and dichromate linkers. Chemical Science, 2016, 7, 5470-5476.	7.4	66
53	Dynamics of H2 adsorbed in porous materials as revealed by computational analysis of inelastic neutron scattering spectra. Physical Chemistry Chemical Physics, 2016, 18, 17141-17158.	2.8	23
54	Accurate H₂ Sorption Modeling in the rht-MOF NOTT-112 Using Explicit Polarization. Crystal Growth and Design, 2016, 16, 6024-6032.	3.0	17

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55	Tuning Pore Size in Squareâ€Lattice Coordination Networks for Sizeâ€Selective Sieving of CO₂. Angewandte Chemie, 2016, 128, 10424-10428.	2.0	43
56	Tuning Pore Size in Squareâ€Lattice Coordination Networks for Sizeâ€Selective Sieving of CO₂. Angewandte Chemie - International Edition, 2016, 55, 10268-10272.	13.8	237
57	Theoretical Investigations of CO₂ and H₂ Sorption in Robust Molecular Porous Materials. Langmuir, 2016, 32, 11492-11505.	3.5	17
58	Dramatic Effect of the Electrostatic Parameters on H2 Sorption in an M-MOF-74 Analogue. Crystal Growth and Design, 2016, 16, 867-874.	3.0	23
59	Theoretical Insights into the Tuning of Metal Binding Sites of Paddlewheels in rhtâ€Metalâ€“Organic Frameworks. ChemPhysChem, 2015, 16, 3170-3179.	2.1	14
60	Remote Stabilization of Copper Paddlewheel Based Molecular Building Blocks in Metalâ€“Organic Frameworks. Chemistry of Materials, 2015, 27, 2144-2151.	6.7	72
61	Investigating H2Sorption in a Fluorinated Metalâ€“Organic Framework with Small Pores Through Molecular Simulation and Inelastic Neutron Scattering. Langmuir, 2015, 31, 7328-7336.	3.5	26
62	Modeling PCN-61 and PCN-66: Isostructural rht-Metalâ€“Organic Frameworks with Distinct CO₂ Sorption Mechanisms. Crystal Growth and Design, 2014, 14, 5599-5607.	3.0	23
63	Simulations of hydrogen sorption in rht-MOF-1: identifying the binding sites through explicit polarization and quantum rotation calculations. Journal of Materials Chemistry A, 2014, 2, 2088-2100.	10.3	55
64	Capturing the H₂â€“Metal Interaction in Mg-MOF-74 Using Classical Polarization. Journal of Physical Chemistry C, 2014, 118, 22683-22690.	3.1	40
65	Insights into an intriguing gas sorption mechanism in a polar metalâ€“organic framework with open-metal sites and narrow channels. Chemical Communications, 2014, 50, 7283-7286.	4.1	16
66	Porous materials with optimal adsorption thermodynamics and kinetics for CO2 separation. Nature, 2013, 495, 80-84.	27.8	2,005
67	A Polarizable and Transferable PHAST CO₂ Potential for Materials Simulation. Journal of Chemical Theory and Computation, 2013, 9, 5421-5429.	5.3	39
68	Simulation of the Mechanism of Gas Sorption in a Metalâ€“Organic Framework with Open Metal Sites: Molecular Hydrogen in PCN-61. Journal of Physical Chemistry C, 2012, 116, 15538-15549.	3.1	76
69	Highly Selective CO₂ Uptake in Uninodal 6-Connected â€œmmoâ€•Nets Based upon MO₄^{2â€“} (M = Cr, Mo) Pillars. Journal of the American Chemical Society, 2012, 134, 19556-19559.	13.7	110