

Prashant Bhatt

List of Publications by Citations

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54
papers

5,142
citations

32
h-index

58
g-index

58
ext. papers

6,306
ext. citations

15.1
avg, IF

5.86
L-index

#	Paper	IF	Citations
54	Gas/vapour separation using ultra-microporous metal-organic frameworks: insights into the structure/separation relationship. <i>Chemical Society Reviews</i> , 2017 , 46, 3402-3430	58.5	791
53	A metal-organic framework-based splitter for separating propylene from propane. <i>Science</i> , 2016 , 353, 137-40	33.3	654
52	MOF Crystal Chemistry Paving the Way to Gas Storage Needs: Aluminum-Based soc-MOF for CH ₄ , O ₂ , and CO ₂ Storage. <i>Journal of the American Chemical Society</i> , 2015 , 137, 13308-18	16.4	475
51	A Fine-Tuned Fluorinated MOF Addresses the Needs for Trace CO ₂ Removal and Air Capture Using Physisorption. <i>Journal of the American Chemical Society</i> , 2016 , 138, 9301-7	16.4	244
50	Hydrolytically stable fluorinated metal-organic frameworks for energy-efficient dehydration. <i>Science</i> , 2017 , 356, 731-735	33.3	209
49	Saccharin Salts of Active Pharmaceutical Ingredients, Their Crystal Structures, and Increased Water Solubilities. <i>Crystal Growth and Design</i> , 2005 , 5, 2299-2309	3.5	205
48	Ultra-Tuning of the Rare-Earth fcu-MOF Aperture Size for Selective Molecular Exclusion of Branched Paraffins. <i>Angewandte Chemie - International Edition</i> , 2015 , 54, 14353-8	16.4	174
47	Fluorinated MOF platform for selective removal and sensing of SO from flue gas and air. <i>Nature Communications</i> , 2019 , 10, 1328	17.4	164
46	Reticular Chemistry in Action: A Hydrolytically Stable MOF Capturing Twice Its Weight in Adsorbed Water. <i>CheM</i> , 2018 , 4, 94-105	16.2	160
45	A Fine-Tuned Metal-Organic Framework for Autonomous Indoor Moisture Control. <i>Journal of the American Chemical Society</i> , 2017 , 139, 10715-10722	16.4	150
44	Co-Crystals of the Anti-HIV Drugs Lamivudine and Zidovudine. <i>Crystal Growth and Design</i> , 2009 , 9, 951-957	5.7	134
43	Saccharin as a salt former. Enhanced solubilities of saccharinates of active pharmaceutical ingredients. <i>Chemical Communications</i> , 2005 , 1073-5	5.8	124
42	Natural gas upgrading using a fluorinated MOF with tuned H ₂ S and CO ₂ adsorption selectivity. <i>Nature Energy</i> , 2018 , 3, 1059-1066	62.3	123
41	Direct evidence for single-crystal to single-crystal switching of degree of interpenetration in a metal-organic framework. <i>Journal of the American Chemical Society</i> , 2014 , 136, 3776-9	16.4	105
40	A facile solvent-free synthesis route for the assembly of a highly CO ₂ selective and H ₂ S tolerant NiSIFSIX metal-organic framework. <i>Chemical Communications</i> , 2015 , 51, 13595-8	5.8	102
39	Applying the Power of Reticular Chemistry to Finding the Missing alb-MOF Platform Based on the (6,12)-Coordinated Edge-Transitive Net. <i>Journal of the American Chemical Society</i> , 2017 , 139, 3265-3274	16.4	84
38	Metal-organic frameworks to satisfy gas upgrading demands: fine-tuning the soc-MOF platform for the operative removal of H ₂ S. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 3293-3303	13	76

37	Tautomeric polymorphism in omeprazole. <i>Chemical Communications</i> , 2007 , 2057-9	5.8	75
36	Isorecticular rare earth fcu -MOFs for the selective removal of H ₂ S from CO ₂ containing gases. <i>Chemical Engineering Journal</i> , 2017 , 324, 392-396	14.7	73
35	Valuing Metal-Organic Frameworks for Postcombustion Carbon Capture: A Benchmark Study for Evaluating Physical Adsorbents. <i>Advanced Materials</i> , 2017 , 29, 1702953	24	70
34	A Tailor-Made Interpenetrated MOF with Exceptional Carbon-Capture Performance from Flue Gas. <i>CheM</i> , 2019 , 5, 950-963	16.2	68
33	Recent Progress on Microfine Design of Metal-Organic Frameworks: Structure Regulation and Gas Sorption and Separation. <i>Advanced Materials</i> , 2020 , 32, e2002563	24	65
32	A Fine-Tuned MOF for Gas and Vapor Separation: A Multipurpose Adsorbent for Acid Gas Removal, Dehydration, and BTX Sieving. <i>CheM</i> , 2017 , 3, 822-833	16.2	62
31	Structural studies of the system Na(saccharinate) _n H ₂ O: a model for crystallization. <i>Angewandte Chemie - International Edition</i> , 2005 , 44, 2515-20	16.4	54
30	Solvates of Sildenafil Saccharinate. A New Host Material. <i>Crystal Growth and Design</i> , 2006 , 6, 1468-1478	3.5	48
29	Hydrocarbon recovery using ultra-microporous fluorinated MOF platform with and without uncoordinated metal sites: I- structure properties relationships for C ₂ H ₂ /C ₂ H ₄ and CO ₂ /C ₂ H ₂ separation. <i>Chemical Engineering Journal</i> , 2019 , 359, 32-36	14.7	47
28	Trianglamine-Based Supramolecular Organic Framework with Permanent Intrinsic Porosity and Tunable Selectivity. <i>Journal of the American Chemical Society</i> , 2018 , 140, 14571-14575	16.4	46
27	Isolation of a structural intermediate during switching of degree of interpenetration in a metal-organic framework. <i>Chemical Science</i> , 2015 , 6, 4986-4992	9.4	45
26	Realization of an Ultrasensitive and Highly Selective OFET NO Sensor: The Synergistic Combination of PDVT-10 Polymer and Porphyrin-MOF. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 18748-18760	9.5	45
25	Topology meets MOF chemistry for pore-aperture fine tuning: ftw-MOF platform for energy-efficient separations via adsorption kinetics or molecular sieving. <i>Chemical Communications</i> , 2018 , 54, 6404-6407	5.8	44
24	Co-crystal formation and the determination of absolute configuration. <i>CrystEngComm</i> , 2008 , 10, 1747	3.3	43
23	Variable-temperature powder X-ray diffraction of aromatic carboxylic acid and carboxamide cocrystals. <i>Chemistry - an Asian Journal</i> , 2007 , 2, 505-13	4.5	40
22	A Polymorphic Azobenzene Cage for Energy-Efficient and Highly Selective p-Xylene Separation. <i>Angewandte Chemie - International Edition</i> , 2020 , 59, 21367-21371	16.4	30
21	Enhanced Separation of Butane Isomers via Defect Control in a Fumarate/Zirconium-Based Metal Organic Framework. <i>Langmuir</i> , 2018 , 34, 14546-14551	4	30
20	From an equilibrium based MOF adsorbent to a kinetic selective carbon molecular sieve for paraffin/iso-paraffin separation. <i>Chemical Communications</i> , 2016 , 52, 13897-13900	5.8	26

19	Concurrent Sensing of CO and HO from Air Using Ultramicroporous Fluorinated Metal-Organic Frameworks: Effect of Transduction Mechanism on the Sensing Performance. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 1706-1712	9.5	25
18	Topology Meets Reticular Chemistry for Chemical Separations: MOFs as a Case Study. <i>CheM</i> , 2020 , 6, 1613-1633	16.2	23
17	Advances in Shaping of Metal-Organic Frameworks for CO ₂ Capture: Understanding the Effect of Rubbery and Glassy Polymeric Binders. <i>Industrial & Engineering Chemistry Research</i> , 2018 , 57, 16897-16902 ²²	3.9	22
16	Creation of new guest accessible space under gas pressure in a flexible MOF: multidimensional insight through combination of in situ techniques. <i>Chemical Communications</i> , 2016 , 52, 11374-11377	5.8	20
15	Electrochemical synthesis of continuous metal-organic framework membranes for separation of hydrocarbons. <i>Nature Energy</i> , 2021 , 6, 882-891	62.3	20
14	Rational design of mixed-matrix metal-organic framework membranes for molecular separations. <i>Science</i> , 2022 , 376, 1080-1087	33.3	18
13	Adsorptive Molecular Sieving of Styrene over Ethylbenzene by Trianglimine Crystals. <i>Journal of the American Chemical Society</i> , 2021 , 143, 4090-4094	16.4	16
12	Upgrading gasoline to high octane numbers using a zeolite-like metal-organic framework molecular sieve with ana-topology. <i>Chemical Communications</i> , 2018 , 54, 9414-9417	5.8	15
11	Differential guest location by host dynamics enhances propylene/propane separation in a metal-organic framework. <i>Nature Communications</i> , 2020 , 11, 6099	17.4	14
10	Structural Studies of the System Na(saccharinate) _n ·H ₂ O: A Model for Crystallization. <i>Angewandte Chemie</i> , 2005 , 117, 2571-2576	3.6	12
9	Introducing a Cantellation Strategy for the Design of Mesoporous Zeolite-like Metal-Organic Frameworks: Zr-sod-ZMOFs as a Case Study. <i>Journal of the American Chemical Society</i> , 2020 , 142, 20547-20553 ¹²	16.4	12
8	Form I of desloratadine, a tricyclic antihistamine. <i>Acta Crystallographica Section C: Crystal Structure Communications</i> , 2006 , 62, o362-3		11
7	Extreme Carbon Dioxide Sorption Hysteresis in Open-Channel Rigid Metal-Organic Frameworks. <i>Angewandte Chemie</i> , 2015 , 127, 2107-2111	3.6	10
6	Carbonization of covalent triazine-based frameworks via ionic liquid induction. <i>Journal of Materials Chemistry A</i> , 2018 , 6, 15564-15568	13	8
5	A Polymorphic Azobenzene Cage for Energy-Efficient and Highly Selective p-Xylene Separation. <i>Angewandte Chemie</i> , 2020 , 132, 21551-21555	3.6	4
4	Molecular recognition and adsorptive separation of -xylene by trianglimine crystals. <i>Chemical Communications</i> , 2021 , 57, 9124-9127	5.8	3
3	Crystal structure of Na ₄ Li ₄ (saccharinate) ₈ ·4H ₂ O and its comparison with other alkali metal saccharinates. <i>Journal of Molecular Structure</i> , 2007 , 871, 73-79	3.4	1
2	Optimizing Host-Guest Selectivity for Ethylbenzene Capture Toward Superior Styrene Purification. <i>Chemistry of Materials</i> , 2022 , 34, 197-202	9.6	0

- 1 Titelbild: A Polymorphic Azobenzene Cage for Energy-Efficient and Highly Selective p-Xylene Separation (Angew. Chem. 48/2020). *Angewandte Chemie*, **2020**, 132, 21433-21433 3.6