

# Soumya Mukherjee

## List of Publications by Year in descending order

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89  
papers

7,686  
citations

101496

36  
h-index

58549

82  
g-index

94  
all docs

94  
docs citations

94  
times ranked

6856  
citing authors

#	ARTICLE	IF	CITATIONS
1	Metal-organic frameworks: functional luminescent and photonic materials for sensing applications. <i>Chemical Society Reviews</i> , 2017, 46, 3242-3285.	18.7	2,457
2	Highly Selective Detection of Nitro Explosives by a Luminescent Metal-Organic Framework. <i>Angewandte Chemie - International Edition</i> , 2013, 52, 2881-2885.	7.2	1,206
3	Synergistic sorbent separation for one-step ethylene purification from a four-component mixture. <i>Science</i> , 2019, 366, 241-246.	6.0	360
4	Selective and Sensitive Aqueous-Phase Detection of 2,4,6-Trinitrophenol (TNP) by an Amine-Functionalized Metal-Organic Framework. <i>Chemistry - A European Journal</i> , 2015, 21, 965-969.	1.7	297
5	Trace CO <sub>2</sub> capture by an ultramicroporous physisorbent with low water affinity. <i>Science Advances</i> , 2019, 5, eaax9171.	4.7	143
6	Pore Engineering for One-Step Ethylene Purification from a Three-Component Hydrocarbon Mixture. <i>Journal of the American Chemical Society</i> , 2021, 143, 1485-1492.	6.6	143
7	Exploitation of Guest Accessible Aliphatic Amine Functionality of a Metal-Organic Framework for Selective Detection of 2,4,6-Trinitrophenol (TNP) in Water. <i>Crystal Growth and Design</i> , 2015, 15, 4627-4634.	1.4	137
8	Crystal engineering of porous coordination networks to enable separation of C2 hydrocarbons. <i>Chemical Communications</i> , 2020, 56, 10419-10441.	2.2	123
9	Potential of metal-organic frameworks for adsorptive separation of industrially and environmentally relevant liquid mixtures. <i>Coordination Chemistry Reviews</i> , 2018, 367, 82-126.	9.5	105
10	Porphyritic MOF Film for Multifaceted Electrochemical Sensing. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 20551-20557.	7.2	105
11	An Ultrahydrophobic Fluorous Metal-Organic Framework Derived Recyclable Composite as a Promising Platform to Tackle Marine Oil Spills. <i>Chemistry - A European Journal</i> , 2016, 22, 10937-10943.	1.7	91
12	Homochiral metal-organic frameworks for enantioseparation. <i>Chemical Society Reviews</i> , 2021, 50, 5706-5745.	18.7	86
13	Influence of Tuned Linker Functionality on Modulation of Magnetic Properties and Relaxation Dynamics in a Family of Six Isotypic Ln <sub>2</sub> (Ln = Dy and Gd) Complexes. <i>Inorganic Chemistry</i> , 2016, 55, 11283-11298.	1.9	83
14	How Reproducible are Surface Areas Calculated from the BET Equation?. <i>Advanced Materials</i> , 2022, 34, .	11.1	82
15	Framework-Flexibility Driven Selective Sorption of p-Xylene over Other Isomers by a Dynamic Metal-Organic Framework. <i>Scientific Reports</i> , 2014, 4, 5761.	1.6	81
16	Harnessing Lewis acidic open metal sites of metal-organic frameworks: the foremost route to achieve highly selective benzene sorption over cyclohexane. <i>Chemical Communications</i> , 2016, 52, 8215-8218.	2.2	76
17	Advances in adsorptive separation of benzene and cyclohexane by metal-organic framework adsorbents. <i>Coordination Chemistry Reviews</i> , 2021, 437, 213852.	9.5	74
18	Halogen-C <sub>2</sub> H <sub>2</sub> Binding in Ultramicroporous Metal-Organic Frameworks (MOFs) for Benchmark C <sub>2</sub> H <sub>2</sub> /CO <sub>2</sub> Separation Selectivity. <i>Chemistry - A European Journal</i> , 2020, 26, 4923-4929.	1.7	72

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19	Selective Detection of 2,4,6-Trinitrophenol (TNP) by a $\pi$ -Stacked Organic Crystalline Solid in Water. <i>Crystal Growth and Design</i> , 2015, 15, 3493-3497.	1.4	70
20	Highly Selective, High-Capacity Separation of <i>p</i> -Xylene from $C_{8}$ Aromatics by a Switching Adsorbent Layered Material. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 6630-6634.	7.2	69
21	Breaking the trade-off between selectivity and adsorption capacity for gas separation. <i>Chem</i> , 2021, 7, 3085-3098.	5.8	68
22	Stabilizing Metal-Organic Polyhedra (MOP): Issues and Strategies. <i>Chemistry - an Asian Journal</i> , 2019, 14, 3096-3108.	1.7	66
23	Bi-porous metal-organic framework with hydrophilic and hydrophobic channels: selective gas sorption and reversible iodine uptake studies. <i>CrystEngComm</i> , 2013, 15, 9465.	1.3	64
24	A $\pi$ -electron deficient diaminotriazine functionalized MOF for selective sorption of benzene over cyclohexane. <i>Chemical Communications</i> , 2015, 51, 15386-15389.	2.2	64
25	One-step ethylene production from a four-component gas mixture by a single physisorbent. <i>Nature Communications</i> , 2021, 12, 6507.	5.8	64
26	Amino-Functionalised Hybrid Ultramicroporous Materials that Enable Single-Step Ethylene Purification from a Ternary Mixture. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 10902-10909.	7.2	56
27	Tuning the Gate-Opening Pressure in a Switching $pcu$ Coordination Network, $X_{Cu}Zn$ , by Pillar-Ligand Substitution. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 18212-18217.	7.2	55
28	Crystal Engineering of Hybrid Coordination Networks: From Form to Function. <i>Trends in Chemistry</i> , 2020, 2, 506-518.	4.4	55
29	Cleaving Carboxyls: Understanding Thermally Triggered Hierarchical Pores in the Metal-Organic Framework MIL-121. <i>Journal of the American Chemical Society</i> , 2019, 141, 14257-14271.	6.6	53
30	Coordination Network That Reversibly Switches between Two Nonporous Polymorphs and a High Surface Area Porous Phase. <i>Journal of the American Chemical Society</i> , 2018, 140, 15572-15576.	6.6	51
31	Exploiting Framework Flexibility of a Metal-Organic Framework for Selective Adsorption of Styrene over Ethylbenzene. <i>Inorganic Chemistry</i> , 2015, 54, 4403-4408.	1.9	50
32	Hydrophobic Shielding of Outer Surface: Enhancing the Chemical Stability of Metal-Organic Polyhedra. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 1041-1045.	7.2	45
33	An overview on trace CO <sub>2</sub> removal by advanced physisorbent materials. <i>Journal of Environmental Management</i> , 2020, 255, 109874.	3.8	45
34	Guest-Responsive Function of a Dynamic Metal-Organic Framework with a $\pi$ Lewis Acidic Pore Surface. <i>Chemistry - A European Journal</i> , 2014, 20, 15303-15308.	1.7	43
35	Hydrophobic metal-organic frameworks: Potential toward emerging applications. <i>APL Materials</i> , 2019, 7, 050701.	2.2	40
36	Recyclable switching between nonporous and porous phases of a square lattice ( $sq$ ) topology coordination network. <i>Chemical Communications</i> , 2018, 54, 7042-7045.	2.2	37

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37	Polar Pore Surface Guided Selective CO <sub>2</sub> Adsorption in a Prefunctionalized Metal-Organic Framework. <i>Crystal Growth and Design</i> , 2017, 17, 3581-3587.	1.4	34
38	Spiers Memorial Lecture: Coordination networks that switch between nonporous and porous structures: an emerging class of soft porous crystals. <i>Faraday Discussions</i> , 2021, 231, 9-50.	1.6	34
39	Gas Adsorption, Magnetism, and Single-Crystal to Single-Crystal Transformation Studies of a Three-Dimensional Mn(II) Porous Coordination Polymer. <i>Crystal Growth and Design</i> , 2014, 14, 5585-5592.	1.4	33
40	Three-dimensional C <sub>2</sub> H <sub>2</sub> -selectivity-guided adsorptive separation across an isorecticular family of cationic square-lattice MOFs. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	7.2	33
41	Surface-Mounted Metal-Organic Frameworks: Past, Present, and Future Perspectives. <i>Langmuir</i> , 2021, 37, 6847-6863.	1.6	32
42	Structures and Magnetic Properties of Two Analogous Dy <sub>6</sub> Wheels with Electron-Donation and -Withdrawal Effects. <i>Inorganic Chemistry</i> , 2014, 53, 7554-7560.	1.9	30
43	Ultramicropore Engineering by Dehydration to Enable Molecular Sieving of H <sub>2</sub> by Calcium Trimesate. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 16188-16194.	7.2	28
44	Two-dimensional flexible Ni(II)-based porous coordination polymer showing single-crystal to single-crystal transformation, selective gas adsorption and catalytic properties. <i>Polyhedron</i> , 2016, 105, 228-237.	1.0	26
45	Crystal engineering of a rectangular $\sqrt{3} \times \sqrt{3}$ coordination network to enable xylenes selectivity over ethylbenzene. <i>Chemical Science</i> , 2020, 11, 6889-6895.	3.7	26
46	Porphyrimetal-organic framework films: nucleation and growth. <i>Journal of Materials Chemistry A</i> , 2020, 8, 25941-25950.	5.2	24
47	Efficient Capture of Trace Acetylene by an Ultramicroporous Metal-Organic Framework with Purine Binding Sites. <i>Chemistry of Materials</i> , 2021, 33, 5800-5808.	3.2	22
48	Post-synthetically modified metal-organic frameworks for sensing and capture of water pollutants. <i>Dalton Transactions</i> , 2021, 50, 17832-17850.	1.6	22
49	Metal-organic framework based carbon capture and purification technologies for clean environment. <i>Journal of Materials Chemistry A</i> , 2019, 7, 5-61.		21
50	An asymmetrically connected hexanuclear Dy <sub>III</sub> 6 cluster exhibiting slow magnetic relaxation. <i>Inorganic Chemistry Communication</i> , 2013, 35, 144-148.	1.8	17
51	[Cu(4-phenylpyridine) <sub>4</sub> (trifluoromethanesulfonate) <sub>2</sub> ], a Werner complex that exhibits high selectivity for <i>o</i> -xylene. <i>Chemical Communications</i> , 2020, 56, 1940-1943.	2.2	17
52	CO <sub>2</sub> Capture by Hybrid Ultramicroporous TIFSI <sub>6</sub> -Ni under Humid Conditions Using Non-equilibrium Cycling. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	7.2	17
53	Structural Dynamism and Controlled Chemical Blocking/Unblocking of Active Coordination Space of a Soft Porous Crystal. <i>Inorganic Chemistry</i> , 2013, 52, 12784-12789.	1.9	16
54	One dimensional coordination polymers of Cd(II) and Zn(II): Synthesis, structure, polar packing through strong inter-chain hydrogen bonding and gas adsorption studies. <i>Polyhedron</i> , 2016, 106, 163-170.	1.0	16

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55	Dual In Situ Laser Techniques Underpin the Role of Cations in Impacting Electrocatalysts. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	7.2	16
56	A superhydrophilic metal-organic framework thin film for enhancing capillary-driven boiling heat transfer. <i>Journal of Materials Chemistry A</i> , 2021, 9, 25480-25487.	5.2	15
57	Hydrophobicity: a key factor en route to applications of metal-organic frameworks. <i>Trends in Chemistry</i> , 2021, 3, 911-925.	4.4	14
58	All-in-One: Sensing, Adsorptive Removal, and Photocatalytic Degradation of Nitro-Explosive Contaminants by Microporous Polycarbazole Polymer. <i>Macromolecular Rapid Communications</i> , 2021, 42, e2000469.	2.0	13
59	Porphyritic MOF derived Single-atom electrocatalyst enables methanol oxidation. <i>Chemical Engineering Journal</i> , 2022, 449, 137888.	6.6	13
60	A Bifunctional Metal-Organic Framework: Striking CO <sub>2</sub> -selective Sorption Features along with Guest-Induced Tuning of Luminescence. <i>ChemPlusChem</i> , 2016, 81, 702-707.	1.3	12
61	Finding the Optimal Balance between the Pore Size and Pore Chemistry in Hybrid Ultramicroporous Materials for Trace Acetylene Capture. <i>ACS Applied Nano Materials</i> , 2018, 1, 6000-6004.	2.4	12
62	Tuning the Gate-Opening Pressure in a Switching pcu Coordination Network, X <sub>5</sub> Zn, by Pillar-Ligand Substitution. <i>Angewandte Chemie</i> , 2019, 131, 18380-18385.	1.6	12
63	Avoiding Pyrolysis and Calcination: Advances in the Benign Routes Leading to MOF-Derived Electrocatalysts. <i>ChemElectroChem</i> , 2022, 9, .	1.7	12
64	Crystal engineering of dichromate pillared hybrid ultramicroporous materials incorporating pyrazole-based ligands. <i>CrystEngComm</i> , 2018, 20, 1193-1197.	1.3	11
65	Toxic Aromatics Induced Responsive Facets for a Pore Surface Functionalized Luminescent Coordination Polymer. <i>Inorganic Chemistry</i> , 2017, 56, 6864-6869.	1.9	10
66	Layered Bimetallic Metal-Organic Material Derived Cu <sub>2</sub> SnS <sub>3</sub> /SnS <sub>2</sub> /C Composite for Anode Applications in Lithium-Ion Batteries. <i>ChemElectroChem</i> , 2018, 5, 3764-3770.	1.7	10
67	Highly Selective, High-Capacity Separation of o-Xylene from C <sub>8</sub> Aromatics by a Switching Adsorbent Layered Material. <i>Angewandte Chemie</i> , 2019, 131, 6702-6706.	1.6	10
68	Amino-Functionalised Hybrid Ultramicroporous Materials that Enable Single-Step Ethylene Purification from a Ternary Mixture. <i>Angewandte Chemie</i> , 2021, 133, 10997-11004.	1.6	10
69	Capsule voided nanospace confinement in a $\pi$ -stacked supramolecular organic solid. <i>CrystEngComm</i> , 2014, 16, 4691.	1.3	9
70	Chiral biomolecule based dodecanuclear dysprosium( <sup>III</sup> )-copper( <sup>I</sup> ) clusters: structural analyses and magnetic properties. <i>Inorganic Chemistry Frontiers</i> , 2015, 2, 854-859.	3.0	9
71	Self-Assembled, Fluorine-Rich Porous Organic Polymers: A Class of Mechanically Stiff and Hydrophobic Materials. <i>Chemistry - A European Journal</i> , 2018, 24, 11771-11778.	1.7	8
72	Hydrophobic Shielding of Outer Surface: Enhancing the Chemical Stability of Metal-Organic Polyhedra. <i>Angewandte Chemie</i> , 2019, 131, 1053-1057.	1.6	8

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73	Ultramicropore Engineering by Dehydration to Enable Molecular Sieving of H <sub>2</sub> by Calcium Trimesate. <i>Angewandte Chemie</i> , 2020, 132, 16322-16328.	1.6	8
74	A square lattice topology coordination network that exhibits highly selective C <sub>2</sub> H <sub>2</sub> /CO <sub>2</sub> separation performance. <i>SmartMat</i> , 2020, 1, e1008.	6.4	7
75	In Situ Tracking of Wetting-Front Transient Heat Release on a Surface-Mounted Metal-Organic Framework. <i>Advanced Materials</i> , 2021, 33, 2006980.	11.1	7
76	Dual In Situ Laser Techniques Underpin the Role of Cations in Impacting Electrocatalysts. <i>Angewandte Chemie</i> , 2022, 134, .	1.6	7
77	Tin-Based Oxide, Alloy, and Selenide Li-Ion Battery Anodes Derived from a Bimetallic Metal-Organic Material. <i>Journal of Physical Chemistry C</i> , 2021, 125, 1180-1189.	1.5	6
78	Porphyrischer MOF-Film für vielfältige elektrochemische Sensorik. <i>Angewandte Chemie</i> , 2021, 133, 20714-20721.	1.6	5
79	Water vapour induced reversible switching between a 1-D coordination polymer and a 0-D aqua complex. <i>Chemical Communications</i> , 2022, 58, 8218-8221.	2.2	5
80	Slow Magnetic Relaxation in an Asymmetrically Coupled Heptanuclear Dysprosium(III)-Nickel(II) Architecture. <i>Proceedings of the National Academy of Sciences India Section A - Physical Sciences</i> , 2014, 84, 151-156.	0.8	4
81	CO <sub>2</sub> Capture by Hybrid Ultramicroporous TIFSIX-3-Ni under Humid Conditions Using Non-Equilibrium Cycling. <i>Angewandte Chemie</i> , 0, .	1.6	3
82	A decade of decoding. <i>Nature Reviews Chemistry</i> , 2021, 5, 600-601.	13.8	2
83	Three-in-One C <sub>2</sub> H <sub>2</sub> Selectivity-Guided Adsorptive Separation across an Isorecticular Family of Cationic Square-Lattice MOFs. <i>Angewandte Chemie</i> , 2022, 134, e202114132.	1.6	2
84	Frontispiece: A Bifunctional Metal-Organic Framework: Striking CO <sub>2</sub> -Selective Sorption Features along with Guest-Induced Tuning of Luminescence. <i>ChemPlusChem</i> , 2016, 81, .	1.3	0
85	Innentitelbild: Ultramicropore Engineering by Dehydration to Enable Molecular Sieving of H <sub>2</sub> by Calcium Trimesate ( <i>Angew. Chem.</i> 37/2020). <i>Angewandte Chemie</i> , 2020, 132, 15898-15898.	1.6	0
86	Metal-Organic Frameworks: In Situ Tracking of Wetting-Front Transient Heat Release on a Surface-Mounted Metal-Organic Framework ( <i>Adv. Mater.</i> 14/2021). <i>Advanced Materials</i> , 2021, 33, 2170109.	11.1	0
87	Recent Progress in the Realm of Homonuclear Ln <sup>6</sup> Single molecule magnets: Structural Overview and Synthetic Approaches. <i>Proceedings of the Indian National Science Academy</i> , 2015, 81, .	0.5	0
88	Cover Feature: Avoiding Pyrolysis and Calcination: Advances in the Benign Routes Leading to MOF-Derived Electrocatalysts ( <i>ChemElectroChem</i> 7/2022). <i>ChemElectroChem</i> , 2022, 9, .	1.7	0
89	Crystal engineered hybrid ultramicroporous materials for single-step ethylene purification from C <sub>2</sub> H <sub>2</sub> -CO <sub>2</sub> ternary mixture. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2021, 77, C126-C126.	0.0	0