Radha Kishan Motkuri

List of Publications by Year
in descending order

78 papers	4,116 citations	136885 32 h-index	118793 62 g-index
89 all docs	89 docs citations	89 times ranked	5342 citing authors

#	Article	IF	Citations
1	Flexible (Breathing) Interpenetrated Metalâ^'Organic Frameworks for CO₂ Separation Applications. Journal of the American Chemical Society, 2008, 130, 16842-16843.	6.6	420
2	Potential of Metalâ€"Organic Frameworks for Separation of Xenon and Krypton. Accounts of Chemical Research, 2015, 48, 211-219.	7.6	330
3	Metalâ€"organic framework with optimally selective xenon adsorption and separation. Nature Communications, 2016, 7, ncomms11831.	5.8	325
4	Controlling Porosity in Ligninâ€Derived Nanoporous Carbon for Supercapacitor Applications. ChemSusChem, 2015, 8, 428-432.	3.6	196
5	Flexible metalâ€"organic supramolecular isomers for gas separation. Chemical Communications, 2010, 46, 538-540.	2.2	173
6	Facile xenon capture and release at room temperature using a metalâ€"organic framework: a comparison with activated charcoal. Chemical Communications, 2012, 48, 347-349.	2.2	172
7	Gas-Induced Expansion and Contraction of a Fluorinated Metalâ^'Organic Framework. Crystal Growth and Design, 2010, 10, 1037-1039.	1.4	152
8	Prussian Blue Analogues for CO₂ and SO₂ Capture and Separation Applications. Inorganic Chemistry, 2010, 49, 4909-4915.	1.9	138
9	Helical Rosette Nanotubes with Tunable Stability and Hierarchy. Journal of the American Chemical Society, 2005, 127, 8307-8309.	6.6	134
10	Selective Methane Oxidation to Methanol on Cu-Oxo Dimers Stabilized by Zirconia Nodes of an NU-1000 Metalâ€"Organic Framework. Journal of the American Chemical Society, 2019, 141, 9292-9304.	6.6	131
11	Pore-Engineered Metalâ€"Organic Frameworks with Excellent Adsorption of Water and Fluorocarbon Refrigerant for Cooling Applications. Journal of the American Chemical Society, 2017, 139, 10601-10604.	6.6	128
12	A Stable Graphitic, Nanocarbonâ€Encapsulated, Cobaltâ€Rich Coreâ€"Shell Electrocatalyst as an Oxygen Electrode in a Water Electrolyzer. Advanced Energy Materials, 2018, 8, 1702838.	10.2	113
13	Zeolite-catalyzed cyclocondensation reaction for the selective synthesis of 3,4-dihydropyrimidin-2(1H)-onesIICT Communication No. 4737.. Green Chemistry, 2001, 3, 305-306.	4.6	104
14	Fluorocarbon adsorption in hierarchical porous frameworks. Nature Communications, 2014, 5, 4368.	5.8	104
15	Hierarchically Porous Carbon Materials for CO₂ Capture: The Role of Pore Structure. Industrial & Engineering Chemistry Research, 2018, 57, 1262-1268.	1.8	83
16	Recent developments in the synthesis, properties, and biomedical applications of core/shell superparamagnetic iron oxide nanoparticles with gold. Biomaterials Science, 2017, 5, 2212-2225.	2.6	81
17	Metalâ€"Organic Framework-Based Microfluidic Impedance Sensor Platform for Ultrasensitive Detection of Perfluorooctanesulfonate. ACS Applied Materials & Interfaces, 2020, 12, 10503-10514.	4.0	77
18	Micro and mesoporous metalâ€"organic frameworks for catalysis applications. Dalton Transactions, 2010, 39, 1692-1694.	1.6	71

#	Article	IF	Citations
19	An Efficient Synthesis Strategy for Metal-Organic Frameworks: Dry-Gel Synthesis of MOF-74 Framework with High Yield and Improved Performance. Scientific Reports, 2016, 6, 28050.	1.6	67
20	Redoxâ€Active Metalâ€“Organic Composites for Highly Selective Oxygen Separation Applications. Advanced Materials, 2016, 28, 3572-3577.	11.1	55
21	Probing the Sorption of Perfluorooctanesulfonate Using Mesoporous Metalâ€“Organic Frameworks from Aqueous Solutions. Inorganic Chemistry, 2019, 58, 8339-8346.	1.9	51
22	Molecular Insight into Fluorocarbon Adsorption in Pore Expanded Metalâ€“Organic Framework Analogs. Journal of the American Chemical Society, 2020, 142, 3002-3012.	6.6	44
23	Framework stabilization of Si-rich LTA zeolite prepared in organic-free media. Chemical Communications, 2015, 51, 269-272.	2.2	42
24	Separation of polar compounds using a flexible metalâ€“organic framework. Chemical Communications, 2015, 51, 8421-8424.	2.2	41
25	A Tunable Bimetallic MOFâ€74 for Adsorption Chiller Applications. European Journal of Inorganic Chemistry, 2018, 2018, 885-889.	1.0	41
26	Impact of chabazite SSZ-13 textural properties and chemical composition on CO₂ adsorption applications. New Journal of Chemistry, 2016, 40, 4375-4385.	1.4	40
27	Bridging Rotaxanes' Wheelsâ€”Cyclochiral Bonnanes. Angewandte Chemie - International Edition, 2006, 45, 7296-7299.	7.2	35
28	Dehydrated Prussian blues for CO2 storage and separation applications. CrystEngComm, 2010, 12, 4003.	1.3	35
29	Exceptional Fluorocarbon Uptake with Mesoporous Metalâ€“Organic Frameworks for Adsorption-Based Cooling Systems. ACS Applied Energy Materials, 2018, 1, 5853-5858.	2.5	35
30	Insight into Fluorocarbon Adsorption in Metal-Organic Frameworks via Experiments and Molecular Simulations. Scientific Reports, 2019, 9, 10289.	1.6	34
31	Immobilization of metalloporphyrin complexes in molecular sieves and their catalytic activity. Catalysis Communications, 2005, 6, 531-538.	1.6	32
32	Metalâˆ’Organic Framework Isomers with Diamondoid Networks Constructed of a Semirigid Tetrahedral Linker. Crystal Growth and Design, 2010, 10, 5327-5333.	1.4	32
33	Synthesis Strategies for Ultrastable Zeolite GIS Polymorphs as Sorbents for Selective Separations. Chemistry - A European Journal, 2016, 22, 16078-16088.	1.7	31
34	A Combined Experimental and Computational Study on the Stability of Nanofluids Containing Metal Organic Frameworks. Journal of Physical Chemistry B, 2015, 119, 8992-8999.	1.2	29
35	Role of hydrocarbons in pore expansion and contraction of a flexible metalâ€“organic framework. Chemical Communications, 2011, 47, 7077.	2.2	27
36	Simulation and Experimental Study of Metal Organic Frameworks Used in Adsorption Cooling. Heat Transfer Engineering, 2017, 38, 1305-1315.	1.2	27

#	Article	IF	Citations
37	Dynamic Adsorption of CO₂/N₂ on Cation-Exchanged Chabazite SSZ-13: A Breakthrough Analysis. ACS Applied Materials & Interfaces, 2018, 10, 14287-14291.	4.0	27
38	Role of Zeolite Structural Properties toward Iodine Capture: A Head-to-head Evaluation of Framework Type and Chemical Composition. ACS Applied Materials & Interfaces, 2022, 14, 18439-18452.	4.0	27
39	Synthesis of calixpyrroles and porphyrins over molecular sieve catalysts. Journal of Molecular Catalysis A, 2004, 223, 263-267.	4.8	23
40	Synthesis, Characterization, and Application of Metal Organic Framework Nanostructures. Langmuir, 2010, 26, 18591-18594.	1.6	22
41	Liquid phase selective oxidation of alcohols over modified molecular sieves. Journal of Molecular Catalysis A, 2001, 172, 187-191.	4.8	21
42	Computational studies of adsorption in metal organic frameworks and interaction of nanoparticles in condensed phases. Molecular Simulation, 2014, 40, 571-584.	0.9	21
43	Improving the sensitivity of electrochemical sensors through a complementary luminescent mode: A new spectroelectrochemical approach. Sensors and Actuators B: Chemical, 2019, 284, 663-674.	4.0	21
44	Ammoxidation of picolines over modified silicoaluminophosphate molecular sieves. Microporous and Mesoporous Materials, 2000, 39, 125-134.	2.2	16
45	Generation of 2D and 3D (PtS, Adamantanoid) Nets with a Flexible Tetrahedral Building Block. Crystal Growth and Design, 2010, 10, 3843-3846.	1.4	16
46	Multi-glass investigation of Stage III glass dissolution behavior from 22 to 90â€Â°C triggered by the addition of zeolite phases. Journal of Nuclear Materials, 2019, 523, 490-501.	1.3	16
47	Porous Covalent Organic Polymers for Efficient Fluorocarbonâ€Based Adsorption Cooling. Angewandte Chemie - International Edition, 2021, 60, 18037-18043.	7.2	16
48	Isoreticular Expansion of Metalâ€“Organic Frameworks via Pillaring of Metal Templated Tunable Building Layers: Hydrogen Storage and Selective CO₂ Capture. Chemistry - A European Journal, 2019, 25, 14500-14505.	1.7	15
49	A new environmentally friendly method for the synthesis of calix(4)pyrroles over molecular sieve catalysts. Journal of Molecular Catalysis A, 2005, 237, 155-160.	4.8	14
50	ESSENCE â€“ A rapid, shear-enhanced, flow-through, capacitive electrochemical platform for rapid detection of biomolecules. Biosensors and Bioelectronics, 2021, 182, 113163.	5.3	14
51	A novel zeolite based stationary phases for in situ synthesis and evaluation of porphyrins and calix (4) pyrroles. Journal of Molecular Catalysis A, 2007, 269, 30-34.	4.8	13
52	Understanding initial zeolite oligomerization steps with first principles calculations. AICHE Journal, 2020, 66, e17107.	1.8	12
53	Recent Advances in Metal-Organic Frameworks for Heterogeneous Catalyzed Organic Transformations. Synthesis and Catalysis Open Access, 2016, 01, .	0.4	11
54	Kinetics and Mechanisms of ZnO to ZIFâ€8 Transformations in Supercritical CO 2 Revealed by Inâ€…Situ Xâ€ray Diffraction. ChemSusChem, 2020, 13, 2602-2612.	3.6	11

#	Article	IF	Citations
55	pH-Mediated Colorimetric and Luminescent Sensing of Aqueous Nitrate Anions by a Platinum(II) Luminophore@Mesoporous Silica Composite. ACS Applied Materials & Interfaces, 2021, 13, 16197-16209.	4.0	11
56	In-situ monitoring of seeded and unseeded stage III corrosion using Raman spectroscopy. Npj Materials Degradation, 2019, 3, .	2.6	10
57	Understanding Time Dependence on Zinc Metalâ€“Organic Framework Growth Using in Situ Liquid Secondary Ion Mass Spectrometry. ACS Applied Materials & Interfaces, 2020, 12, 5090-5098.	4.0	10
58	An Ultraâ€Microporous Metalâ€“Organic Framework with Exceptional Xe Capacity. Chemistry - A European Journal, 2020, 26, 12544-12548.	1.7	10
59	Metal Organic Frameworks for Xenon Storage Applications. , 2020, 2, 233-238.		10
60	Techno-Economic Analysis of Magnesium Extraction from Seawater via a Catalyzed Organo-Metathetical Process. Jom, 2018, 70, 431-435.	0.9	9
61	High surface area magnetic double perovskite La2AlFeO6 as an efficient and stable photo-Fenton catalyst under a wide pH range. Applied Surface Science, 2022, 574, 151554.	3.1	9
62	Manipulating Pore Topology and Functionality to Promote Fluorocarbon-Based Adsorption Cooling. Accounts of Chemical Research, 2022, 55, 649-659.	7.6	9
63	An Efficient, Solvent-Free Process for Synthesizing Anhydrous MgCl₂. ACS Sustainable Chemistry and Engineering, 2018, 6, 1048-1054.	3.2	8
64	Mass spectral study ofmeso-alkyl andmeso-cycloalkyl calix(4)pyrroles under electron impact conditions. Rapid Communications in Mass Spectrometry, 2004, 18, 2077-2086.	0.7	7
65	Controlling Porosity in Ligninâ€Derived Nanoporous Carbon for Supercapacitor Applications. ChemSusChem, 2015, 8, 411-411.	3.6	7
66	Water Electrolysis: A Stable Graphitic, Nanocarbonâ€Encapsulated, Cobaltâ€Rich Coreâ€“Shell Electrocatalyst as an Oxygen Electrode in a Water Electrolyzer (Adv. Energy Mater. 14/2018). Advanced Energy Materials, 2018, 8, 1870065.	10.2	7
67	Structureâ€“Property Correlation of Hierarchically Porous Carbons for Fluorocarbon Adsorption. ACS Applied Materials & Interfaces, 2021, 13, 54266-54273.	4.0	7
68	Molecular Recognition between the Constituents of a Pseudorotaxane Studied by Scanning Tunneling Microscopy. Journal of Physical Chemistry C, 2009, 113, 12870-12877.	1.5	6
69	Strain engineered gas-consumption electroreduction reactions: Fundamentals and perspectives. Coordination Chemistry Reviews, 2021, 429, 213649.	9.5	6
70	METAL ORGANIC FRAMEWORKSâ€“SYNTHESIS AND APPLICATIONS. , 2014, , 61-103.		6
71	Transition-Metal Nitroprussides Examined for Water Harvesting and Sorption Cooling. Inorganic Chemistry, 2020, 59, 15620-15625.	1.9	5
72	A new route for the synthesis of 2-phenylpyridines over molecular sieve catalysts. Catalysis Communications, 2005, 6, 71-74.	1.6	4

#	Article	IF	Citations
73	Investigation of reactive intermediates during the synthesis of di-n-butylmagnesium. Inorganica Chimica Acta, 2019, 489, 150-154.	1.2	3
74	Synthesis Strategies for Ultrastable Zeolite GIS Polymorphs as Sorbents for Selective Separations. Chemistry - A European Journal, 2016, 22, 15961-15961.	1.7	2
75	A Non-condensing Thermal Compression Power Generation System. Energy Procedia, 2017, 129, 1041-1046.	1.8	2
76	A Computational and Experimental Study of Metal and Covalent Organic Frameworks Used in Adsorption Cooling. , 2015, , .		1
77	Porous Covalent Organic Polymers for Efficient Fluorocarbonâ€Based Adsorption Cooling. Angewandte Chemie, 2021, 133, 18185-18191.	1.6	0
78	Innentitelbild: Porous Covalent Organic Polymers for Efficient Fluorocarbonâ€Based Adsorption Cooling (Angew. Chem. 33/2021). Angewandte Chemie, 2021, 133, 17894-17894.	1.6	0