Sankar Nair

List of Publications by Year
in descending order

172 papers	11,563 citations	20759 60 h-index	30848 102 g-index
181 all docs	181 docs citations	181 times ranked	9708 citing authors

#	Article	IF	Citations
1	A Highâ€Performance Gasâ€Separation Membrane Containing Submicrometerâ€Sized Metalâ€"Organic Framework Crystals. Angewandte Chemie - International Edition, 2010, 49, 9863-9866.	7.2	603
2	Interfacial microfluidic processing of metal-organic framework hollow fiber membranes. Science, 2014, 345, 72-75.	6.0	602
3	A titanosilicate molecular sieve with adjustable pores for size-selective adsorption of molecules. Nature, 2001, 412, 720-724.	13.7	546
4	Alcohol and water adsorption in zeolitic imidazolate frameworks. Chemical Communications, 2013, 49, 3245.	2.2	278
5	Exploring the Framework Hydrophobicity and Flexibility of ZIF-8: From Biofuel Recovery to Hydrocarbon Separations. Journal of Physical Chemistry Letters, 2013, 4, 3618-3622.	2.1	277
6	Efficient Calculation of Diffusion Limitations in Metal Organic Framework Materials: A Tool for Identifying Materials for Kinetic Separations. Journal of the American Chemical Society, 2010, 132, 7528-7539.	6.6	273
7	Hybrid Zeolitic Imidazolate Frameworks: Controlling Framework Porosity and Functionality by Mixed-Linker Synthesis. Chemistry of Materials, 2012, 24, 1930-1936.	3.2	200
8	Growth, microstructure, and permeation properties of supported zeolite (MFI) films and membranes prepared by secondary growth. Chemical Engineering Science, 1999, 54, 3521-3531.	1.9	194
9	Highly Tunable Molecular Sieving and Adsorption Properties of Mixed-Linker Zeolitic Imidazolate Frameworks. Journal of the American Chemical Society, 2015, 137, 4191-4197.	6.6	192
10	Finding MOFs for Highly Selective CO₂/N₂ Adsorption Using Materials Screening Based on Efficient Assignment of Atomic Point Charges. Journal of the American Chemical Society, 2012, 134, 4313-4323.	6.6	187
11	Membranes from nanoporous 1D and 2D materials: A review of opportunities, developments, and challenges. Chemical Engineering Science, 2013, 104, 908-924.	1.9	187
12	Quantifying Large Effects of Framework Flexibility on Diffusion in MOFs: CH₄ and CO₂ in ZIFâ€8. ChemPhysChem, 2012, 13, 3449-3452.	1.0	185
13	Continuous Polycrystalline Zeolitic Imidazolate Frameworkâ€90 Membranes on Polymeric Hollow Fibers. Angewandte Chemie - International Edition, 2012, 51, 10615-10618.	7.2	179
14	Pervaporation performance comparison of hybrid membranes filled with two-dimensional ZIF-L nanosheets and zero-dimensional ZIF-8 nanoparticles. Journal of Membrane Science, 2017, 523, 185-196.	4.1	176
15	Transport properties of alumina-supported MFI membranes made by secondary (seeded) growth. Microporous and Mesoporous Materials, 2000, 38, 61-73.	2.2	173
16	Sonication-induced Ostwald ripening of ZIF-8 nanoparticles and formation of ZIF-8/polymer composite membranes. Microporous and Mesoporous Materials, 2012, 158, 292-299.	2.2	171
17	Temperature and Loading-Dependent Diffusion of Light Hydrocarbons in ZIF-8 as Predicted Through Fully Flexible Molecular Simulations. Journal of the American Chemical Society, 2015, 137, 15760-15771.	6.6	164
18	CO2â€"CH4 permeation in high zeolite 4A loading mixed matrix membranes. Journal of Membrane Science, 2011, 367, 197-203.	4.1	157

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19	Phenomenology of the Growth of Single-Walled Aluminosilicate and Aluminogermanate Nanotubes of Precise Dimensions. Chemistry of Materials, 2005, 17, 4900-4909.	3.2	153
20	Polyamide thin film composite nanofiltration membrane modified with acyl chlorided graphene oxide. Journal of Membrane Science, 2017, 535, 208-220.	4.1	153
21	Fabrication of Polymer/Selective-Flake Nanocomposite Membranes and Their Use in Gas Separation. Chemistry of Materials, 2004, 16, 3838-3845.	3.2	152
22	Adsorption and Diffusion of Small Alcohols in Zeolitic Imidazolate Frameworks ZIF-8 and ZIF-90. Journal of Physical Chemistry C, 2013, 117, 3169-3176.	1.5	135
23	ZIF-8 Membranes via Interfacial Microfluidic Processing in Polymeric Hollow Fibers: Efficient Propylene Separation at Elevated Pressures. ACS Applied Materials & Interfaces, 2016, 8, 25337-25342.	4.0	125
24	Tunable CO₂ Adsorbents by Mixed-Linker Synthesis and Postsynthetic Modification of Zeolitic Imidazolate Frameworks. Journal of Physical Chemistry C, 2013, 117, 8198-8207.	1.5	123
25	A highly crystalline layered silicate with three-dimensionally microporous layers. Nature Materials, 2003, 2, 53-58.	13.3	120
26	Synthesis and Structure Determination of ETS-4 Single Crystals. Chemistry of Materials, 2001, 13, 4247-4254.	3.2	115
27	Facile High-Yield Solvothermal Deposition of Inorganic Nanostructures on Zeolite Crystals for Mixed Matrix Membrane Fabrication. Journal of the American Chemical Society, 2009, 131, 14662-14663.	6.6	115
28	Interactions of SO₂-Containing Acid Gases with ZIF-8: Structural Changes and Mechanistic Investigations. Journal of Physical Chemistry C, 2016, 120, 27221-27229.	1.5	115
29	Structural and Mechanistic Differences in Mixed-Linker Zeolitic Imidazolate Framework Synthesis by Solvent Assisted Linker Exchange and <i>de Novo</i> Routes. Journal of the American Chemical Society, 2017, 139, 5906-5915.	6.6	111
30	Propane dehydrogenation catalyzed by gallosilicate MFI zeolites with perturbed acidity. Journal of Catalysis, 2017, 345, 113-123.	3.1	111
31	Graphene oxide nanofiltration membranes for desalination under realistic conditions. Nature Sustainability, 2021, 4, 402-408.	11.5	111
32	Separation of close-boiling hydrocarbon mixtures by MFI and FAU membranes made by secondary growth. Microporous and Mesoporous Materials, 2001, 48, 219-228.	2.2	109
33	Layered Silicates by Swelling of AMHâ€3 and Nanocomposite Membranes. Angewandte Chemie - International Edition, 2008, 47, 552-555.	7.2	107
34	Structure of Strontium Ion-Exchanged ETS-4 Microporous Molecular Sieves. Chemistry of Materials, 2000, 12, 1857-1865.	3.2	106
35	High-Throughput Screening of Metalâ€“Organic Frameworks for CO₂ Separation. ACS Combinatorial Science, 2012, 14, 263-267.	3.8	106
36	Fluidic Processing of Highâ€Performance ZIFâ€8 Membranes on Polymeric Hollow Fibers: Mechanistic Insights and Microstructure Control. Advanced Functional Materials, 2016, 26, 5011-5018.	7.8	98

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37	Propane Dehydrogenation over Alumina-Supported Iron/Phosphorus Catalysts: Structural Evolution of Iron Species Leading to High Activity and Propylene Selectivity. ACS Catalysis, 2016, 6, 5673-5683.	5.5	96
38	Mixed-linker zeolitic imidazolate framework mixed-matrix membranes for aggressive CO2 separation from natural gas. Microporous and Mesoporous Materials, 2014, 192, 43-51.	2.2	95
39	MOF stability and gas adsorption as a function of exposure to water, humid air, SO2, and NO2. Microporous and Mesoporous Materials, 2013, 173, 86-91.	2.2	94
40	Modified Mesoporous Silica Gas Separation Membranes on Polymeric Hollow Fibers. Chemistry of Materials, 2011, 23, 3025-3028.	3.2	92
41	Acid Gas Stability of Zeolitic Imidazolate Frameworks: Generalized Kinetic and Thermodynamic Characteristics. Chemistry of Materials, 2018, 30, 4089-4101.	3.2	86
42	Nanoporous layered silicate AMH-3/cellulose acetate nanocomposite membranes for gas separations. Journal of Membrane Science, 2013, 441, 129-136.	4.1	85
43	Continuous Zeolite MFI Membranes Fabricated from 2D MFI Nanosheets on Ceramic Hollow Fibers. Angewandte Chemie - International Edition, 2019, 58, 8201-8205.	7.2	84
44	Computational identification of a metal organic framework for high selectivity membrane-based CO2/CH4 separations: Cu(hfipbb)(H2hfipbb)0.5. Physical Chemistry Chemical Physics, 2009, 11, 11389.	1.3	83
45	Single-Walled Aluminosilicate Nanotube/Poly(vinyl alcohol) Nanocomposite Membranes. ACS Applied Materials & Interfaces, 2012, 4, 965-976.	4.0	83
46	Short, Highly Ordered, Single-Walled Mixed-Oxide Nanotubes Assemble from Amorphous Nanoparticles. Journal of the American Chemical Society, 2007, 129, 6820-6826.	6.6	82
47	Dehydration, Dehydroxylation, and Rehydroxylation of Single-Walled Aluminosilicate Nanotubes. ACS Nano, 2010, 4, 4897-4907.	7.3	82
48	Pore size analysis of >250â€‰000 hypothetical zeolites. Physical Chemistry Chemical Physics, 2011, 13, 5053.	1.3	81
49	Catalytic propane dehydrogenation over In2O3â€"Ga2O3 mixed oxides. Applied Catalysis A: General, 2015, 498, 167-175.	2.2	80
50	Synergistic Effects of Water and SO₂ on Degradation of MIL-125 in the Presence of Acid Gases. Journal of Physical Chemistry C, 2016, 120, 27230-27240.	1.5	79
51	Hierarchical Ga-MFI Catalysts for Propane Dehydrogenation. Chemistry of Materials, 2017, 29, 7213-7222.	3.2	77
52	Direct synthesis of single-walled aminoaluminosilicate nanotubes with enhanced molecular adsorption selectivity. Nature Communications, 2014, 5, 3342.	5.8	73
53	Self-Diffusion of Water and Simple Alcohols in Single-Walled Aluminosilicate Nanotubes. ACS Nano, 2009, 3, 1548-1556.	7.3	72
54	Single-Walled Aluminosilicate Nanotubes with Organic-Modified Interiors. Journal of Physical Chemistry C, 2011, 115, 7676-7685.	1.5	72

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55	Formation of Single-Walled Aluminosilicate Nanotubes from Molecular Precursors and Curved Nanoscale Intermediates. Journal of the American Chemical Society, 2011, 133, 5397-5412.	6.6	71
56	Shaping Single-Walled Metal Oxide Nanotubes from Precursors of Controlled Curvature. Nano Letters, 2012, 12, 827-832.	4.5	71
57	Porous layered oxide/NafionÂ® nanocomposite membranes for direct methanol fuel cell applications. Microporous and Mesoporous Materials, 2009, 118, 427-434.	2.2	62
58	A Mesoporous Cobalt Aluminate Spinel Catalyst for Nonoxidative Propane Dehydrogenation. ChemCatChem, 2017, 9, 3330-3337.	1.8	62
59	Controlling Nanotube Dimensions: Correlation between Composition, Diameter, and Internal Energy of Single-Walled Mixed Oxide Nanotubes. ACS Nano, 2007, 1, 393-402.	7.3	61
60	Butane isomer transport properties of 6FDAâ€“DAM and MFIâ€“6FDAâ€“DAM mixed matrix membranes. Journal of Membrane Science, 2009, 343, 157-163.	4.1	59
61	Strain energy minimum and vibrational properties of single-walled aluminosilicate nanotubes. Physical Review B, 2006, 74, .	1.1	56
62	Functionalization of the Internal Surface of Pure-Silica MFI Zeolite with Aliphatic Alcohols. Journal of Physical Chemistry C, 2008, 112, 3543-3551.	1.5	56
63	Modeling molecular transport in composite membranes with tubular fillers. Journal of Membrane Science, 2011, 381, 50-63.	4.1	56
64	Prediction of Water Adsorption in Copper-Based Metalâ€“Organic Frameworks Using Force Fields Derived from Dispersion-Corrected DFT Calculations. Journal of Physical Chemistry C, 2013, 117, 7519-7525.	1.5	56
65	Thin film nanocomposite membrane containing zeolitic imidazolate framework-8 via interfacial polymerization for highly permeable nanofiltration. Journal of the Taiwan Institute of Chemical Engineers, 2018, 83, 159-167.	2.7	54
66	Heteroepitaxial Growth of a Zeolite. Angewandte Chemie - International Edition, 2001, 40, 1069-1071.	7.2	53
67	Liquid-Phase Multicomponent Adsorption and Separation of Xylene Mixtures by Flexible MIL-53 Adsorbents. Journal of Physical Chemistry C, 2018, 122, 386-397.	1.5	52
68	Sonochemical Synthesis and Characterization of Submicrometer Crystals of the Metalâ€“Organic Framework Cu[(hfipbb)(H₂hfipbb)_{0.5}]. Crystal Growth and Design, 2011, 11, 4505-4510.	1.4	51
69	Solvothermal deposition and characterization of magnesium hydroxide nanostructures on zeolite crystals. Microporous and Mesoporous Materials, 2011, 139, 120-129.	2.2	51
70	Thin Hydrogen-Selective SAPO-34 Zeolite Membranes for Enhanced Conversion and Selectivity in Propane Dehydrogenation Membrane Reactors. Chemistry of Materials, 2016, 28, 4397-4402.	3.2	51
71	DMOF-1 as a Representative MOF for SO₂ Adsorption in Both Humid and Dry Conditions. Journal of Physical Chemistry C, 2018, 122, 23493-23500.	1.5	51
72	Water in Single-Walled Aluminosilicate Nanotubes: Diffusion and Adsorption Properties. Journal of Physical Chemistry C, 2008, 112, 15367-15374.	1.5	49

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73	Propane Dehydrogenation over In₂O₃â€“Ga₂O₃â€“Al₂O₃ Mixed Oxides. ChemCatChem, 2016, 8, 214-221.	1.8	48
74	A Study of Heat-Treatment Induced Framework Contraction in Strontium-ETS-4 by Powder Neutron Diffraction and Vibrational Spectroscopy. Journal of the American Chemical Society, 2001, 123, 12781-12790.	6.6	46
75	Flexibility of Ordered Surface Hydroxyls Influences the Adsorption of Molecules in Single-Walled Aluminosilicate Nanotubes. Journal of Physical Chemistry Letters, 2010, 1, 1235-1240.	2.1	46
76	Computational Identification and Experimental Evaluation of Metalâ€“Organic Frameworks for Xylene Enrichment. Journal of Physical Chemistry C, 2016, 120, 12075-12082.	1.5	46
77	A Lasagna-Inspired Nanoscale ZnO Anode Design for High-Energy Rechargeable Aqueous Batteries. ACS Applied Energy Materials, 2018, 1, 6345-6351.	2.5	46
78	Structure Elucidation of Mixed-Linker Zeolitic Imidazolate Frameworks by Solid-State 1H CRAMPS NMR Spectroscopy and Computational Modeling. Journal of the American Chemical Society, 2016, 138, 7325-7336.	6.6	45
79	Epitaxially Grown Layered MFIâ€“Bulk MFI Hybrid Zeolitic Materials. ACS Nano, 2012, 6, 9978-9988.	7.3	44
80	Rigorous calculations of permeation in mixed-matrix membranes: Evaluation of interfacial equilibrium effects and permeability-based models. Journal of Membrane Science, 2013, 448, 160-169.	4.1	44
81	Defect Structures in Aluminosilicate Single-Walled Nanotubes: A Solid-State Nuclear Magnetic Resonance Investigation. Journal of Physical Chemistry C, 2012, 116, 17149-17157.	1.5	41
82	Structureâ€“Property Relationships of Inorganically Surface-Modified Zeolite Molecular Sieves for Nanocomposite Membrane Fabrication. Journal of Physical Chemistry C, 2012, 116, 9636-9645.	1.5	41
83	Butanol Separation from Humid CO₂-Containing Multicomponent Vapor Mixtures by Zeolitic Imidazolate Frameworks. ACS Sustainable Chemistry and Engineering, 2017, 5, 9467-9476.	3.2	41
84	Graphene oxide membranes for ion separation: Detailed studies on the effects of fabricating conditions. Applied Surface Science, 2018, 459, 185-193.	3.1	41
85	Kryptonâ€xenon separation properties of SAPOâ€34 zeolite materials and membranes. AIChE Journal, 2017, 63, 761-769.	1.8	40
86	Membranes for Kraft black liquor concentration and chemical recovery: Current progress, challenges, and opportunities. Separation Science and Technology, 2017, 52, 1070-1094.	1.3	39
87	Aziridine-Functionalized Mesoporous Silica Membranes on Polymeric Hollow Fibers: Synthesis and Single-Component CO₂ and N₂ Permeation Properties. Industrial & Engineering Chemistry Research, 2015, 54, 4407-4413.	1.8	38
88	Synthesis, characterization, and tunable adsorption and diffusion properties of hybrid <scp>ZIF</scp>â€7â€90 frameworks. AIChE Journal, 2016, 62, 525-537.	1.8	37
89	Osmotic ensemble methods for predicting adsorption-induced structural transitions in nanoporous materials using molecular simulations. Journal of Chemical Physics, 2011, 134, 184103.	1.2	36
90	Diffusion of Tetrafluoromethane in Single-Walled Aluminosilicate Nanotubes: Pulsed Field Gradient NMR and Molecular Dynamics Simulations. Journal of Physical Chemistry C, 2012, 116, 21350-21355.	1.5	36

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91	A generalized kinetic model for the formation and growth of single-walled metal oxide nanotubes. Chemical Engineering Science, 2013, 90, 200-212.	1.9	35
92	Reactive Adsorption of Humid SO₂ on Metalâ€“Organic Framework Nanosheets. Journal of Physical Chemistry C, 2018, 122, 10413-10422.	1.5	35
93	Allâ€Nanoporous Hybrid Membranes: Redefining Upper Limits on Molecular Separation Properties. Angewandte Chemie - International Edition, 2019, 58, 236-239.	7.2	35
94	Stability of Zeolitic Imidazolate Frameworks in NO₂. Journal of Physical Chemistry C, 2019, 123, 2336-2346.	1.5	35
95	Zeolitic Imidazolate Framework Membranes Supported on Macroporous Carbon Hollow Fibers by Fluidic Processing Techniques. Advanced Materials Interfaces, 2017, 4, 1700080.	1.9	34
96	The Location of o- and m-Xylene in Silicalite by Powder X-ray Diffraction. Journal of Physical Chemistry B, 2000, 104, 8982-8988.	1.2	33
97	Graphene Oxide Membranes in Extreme Operating Environments: Concentration of Kraft Black Liquor by Lignin Retention. ACS Sustainable Chemistry and Engineering, 2017, 5, 1002-1009.	3.2	33
98	Ion-Exchanged SAPO-34 Membranes for Kryptonâ€“Xenon Separation: Control of Permeation Properties and Fabrication of Hollow Fiber Membranes. ACS Applied Materials & Interfaces, 2018, 10, 6361-6368.	4.0	33
99	Gas Adsorption Characteristics of Metalâ€“Organic Frameworks via Quartz Crystal Microbalance Techniques. Journal of Physical Chemistry C, 2012, 116, 15313-15321.	1.5	32
100	Engineering Porous Organic Cage Crystals with Increased Acid Gas Resistance. Chemistry - A European Journal, 2016, 22, 10743-10747.	1.7	31
101	Highly Selective SSZâ€13 Zeolite Hollow Fiber Membranes by Ultraviolet Activation at Nearâ€Ambient Temperature. ChemNanoMat, 2019, 5, 61-67.	1.5	31
102	One-Step Synthesis of Zeolite Membranes Containing Catalytic Metal Nanoclusters. ACS Applied Materials & Interfaces, 2016, 8, 24671-24681.	4.0	29
103	Effects of Open Metal Site Availability on Adsorption Capacity and Olefin/Paraffin Selectivity in the Metalâ€“Organic Framework Cu₃(BTC)₂. Industrial & Engineering Chemistry Research, 2016, 55, 5043-5053.	1.8	28
104	Interactions on External MOF Surfaces: Desorption of Water and Ethanol from CuBDC Nanosheets. Langmuir, 2017, 33, 10153-10160.	1.6	27
105	Translational dynamics of water in a nanoporous layered silicate. Physical Review B, 2005, 71, .	1.1	26
106	Layered silicate by proton exchange and swelling of AMH-3. Microporous and Mesoporous Materials, 2008, 115, 75-84.	2.2	25
107	Single-walled zeolitic nanotubes. Science, 2022, 375, 62-66.	6.0	25
108	Rotary heat exchanger performance with axial heat dispersion. International Journal of Heat and Mass Transfer, 1998, 41, 2857-2864.	2.5	24

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109	Polymer translocation in solid-state nanopores: Dependence of scaling behavior on pore dimensions and applied voltage. Journal of Chemical Physics, 2012, 136, 065105.	1.2	24
110	Recovery of Acid-Gas-Degraded Zeolitic Imidazolate Frameworks by Solvent-Assisted Crystal Redemption (SACRed). ACS Applied Materials & Interfaces, 2017, 9, 34597-34602.	4.0	24
111	Purification of 2,5-Dimethylfuran from <i>n</i>-Butanol Using Defect-Engineered Metalâ€"Organic Frameworks. ACS Sustainable Chemistry and Engineering, 2018, 6, 7931-7939.	3.2	24
112	A Computational Study of Gas Molecule Transport in a Polymer/Nanoporous Layered Silicate Nanocomposite Membrane Material. Journal of Physical Chemistry C, 2007, 111, 2017-2024.	1.5	21
113	Silylated Mesoporous Silica Membranes on Polymeric Hollow Fiber Supports: Synthesis and Permeation Properties. ACS Applied Materials & Interfaces, 2014, 6, 17877-17886.	4.0	21
114	High-Performance Graphene Oxide Nanofiltration Membranes for Black Liquor Concentration. ACS Sustainable Chemistry and Engineering, 2019, 7, 14915-14923.	3.2	21
115	Swelling, Functionalization, and Structural Changes of the Nanoporous Layered Silicates AMH-3 and MCM-22. Langmuir, 2011, 27, 7892-7901.	1.6	20
116	Material properties and operating configurations of membrane reactors for propane dehydrogenation. AIChE Journal, 2015, 61, 922-935.	1.8	20
117	Scalable Oneâ€Step Gel Conversion Route to Highâ€Performance CHA Zeolite Hollow Fiber Membranes and Modules for CO₂ Separation. Energy Technology, 2019, 7, 1900494.	1.8	20
118	Infrared reflectance measurements of zeolite film thickness, refractive index and other characteristics. Microporous and Mesoporous Materials, 2003, 58, 81-89.	2.2	19
119	Zeolite-Î² grown epitaxially on SSZ-31 nanofibers. Chemical Communications, 1999, , 921-922.	2.2	18
120	Database of Computation-Ready 2D Zeolitic Slabs. Chemistry of Materials, 2019, 31, 353-364.	3.2	18
121	Origins of Acid-Gas Stability Behavior in Zeolitic Imidazolate Frameworks: The Unique High Stability of ZIF-71. Journal of the American Chemical Society, 2021, 143, 18061-18072.	6.6	18
122	Modeling and process simulation of hollow fiber membrane reactor systems for propane dehydrogenation. AIChE Journal, 2017, 63, 4519-4531.	1.8	17
123	Continuous Zeolite MFI Membranes Fabricated from 2D MFI Nanosheets on Ceramic Hollow Fibers. Angewandte Chemie, 2019, 131, 8285-8289.	1.6	17
124	All-Nanoporous Hybrid Membranes: Incorporating Zeolite Nanoparticles and Nanosheets with Zeolitic Imidazolate Framework Matrices. ACS Applied Materials & Interfaces, 2020, 12, 27368-27377.	4.0	17
125	Molecular Dynamics Investigation of Surface Resistances in Zeolite Nanosheets. Journal of Physical Chemistry C, 2020, 124, 15241-15252.	1.5	17
126	Characterization of HKUST-1 Crystals and Their Application to MEMS Microcantilever Array Sensors. ECS Transactions, 2010, 33, 229-238.	0.3	16

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127	Preparation and Gas Adsorption Characteristics of Zeolite MFI Crystals with Organic-Functionalized Interiors. Journal of Physical Chemistry C, 2011, 115, 19640-19646.	1.5	16
128	PVDF/Cu-BTC composite membranes for dye separation. Fibers and Polymers, 2017, 18, 1250-1254.	1.1	15
129	Quantitative Correlations for the Durability of Zeolitic Imidazolate Frameworks in Humid SO2. Industrial & Engineering Chemistry Research, 2020, 59, 245-252.	1.8	15
130	Singleâ€Step Scalable Fabrication of Zeolite MFI Hollow Fiber Membranes for Hydrocarbon Separations. Advanced Materials Interfaces, 2020, 7, 2000926.	1.9	15
131	Effects of composition and phonon scattering mechanisms on thermal transport in MFI zeolite films. Journal of Applied Physics, 2007, 102, 053523.	1.1	14
132	Seeded growth, silylation, and organic/water separation properties of MCM-48 membranes. Journal of Membrane Science, 2013, 427, 293-302.	4.1	14
133	Solutionâ€Processed Ultrathin Aluminosilicate Nanotubeâ€"Poly(vinyl alcohol) Composite Membranes with Partial Alignment of Nanotubes. ChemNanoMat, 2015, 1, 102-108.	1.5	14
134	Ion exchange of zeolite membranes by a vacuum â€˜flow-throughâ€™ technique. Microporous and Mesoporous Materials, 2015, 203, 170-177.	2.2	14
135	Allâ€Nanoporous Hybrid Membranes: Redefining Upper Limits on Molecular Separation Properties. Angewandte Chemie, 2019, 131, 242-245.	1.6	14
136	Geometry of nanopore devices fabricated by electron beam lithography: Simulations and experimental comparisons. Microelectronic Engineering, 2013, 112, 149-156.	1.1	13
137	Separation and Purification of Furans from <i>n-</i>Butanol by Zeolitic Imidazole Frameworks: Multicomponent Adsorption Behavior and Simulated Moving Bed Process Design. ACS Sustainable Chemistry and Engineering, 2019, 7, 16560-16568.	3.2	13
138	Similarities in Recalcitrant Structures of Industrial Nonâ€Kraft and Kraft Lignin. ChemSusChem, 2020, 13, 4624-4632.	3.6	12
139	Separation of <scp>C₂â€"C₄</scp> hydrocarbons from methane by zeolite <scp>MFI</scp> hollow fiber membranes fabricated from <scp>2D</scp> nanosheets. AIChE Journal, 2021, 67, .	1.8	12
140	Methyl rotational tunneling dynamics of p-xylene confined in a crystalline zeolite host. Journal of Chemical Physics, 2004, 121, 4810-4819.	1.2	11
141	Effect of Si/Al Ratio on the Catalytic Activity of Twoâ€Dimensional MFI Nanosheets in Aromatic Alkylation and Alcohol Etherification. ChemCatChem, 2019, 11, 4548-4557.	1.8	9
142	Aromatics/Alkanes separation: Simulated moving bed process model development by a concurrent approach and its validation in a mini-plant. Separation and Purification Technology, 2019, 215, 410-421.	3.9	8
143	Kinetic Model of Acid Gas Induced Defect Propagation in Zeolitic Imidazolate Frameworks. Journal of Physical Chemistry Letters, 2022, 13, 6541-6548.	2.1	8
144	Effects of nonframework metal cations and phonon scattering mechanisms on the thermal transport properties of polycrystalline zeolite LTA films. Journal of Applied Physics, 2010, 107, 063518.	1.1	7

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145	Synthesizing New Hybrid Zeolitic Imidazolate Frameworks by Controlled Demolition and Reconstruction. , 2019, 1, 447-451.		7
146	Structure Evolution of Chemically Degraded ZIF-8. Journal of Physical Chemistry C, 2022, 126, 9736-9741.	1.5	7
147	Formation of Mg(OH)2 nanowhiskers on LTA zeolite surfaces using a solâ€“gel method. Journal of Sol-Gel Science and Technology, 2011, 60, 189-197.	1.1	6
148	Polymer translocation in solid-state nanopores: Dependence on hydrodynamic interactions and polymer configuration. Chemical Physics, 2013, 425, 1-13.	0.9	6
149	Academiaâ€“Industry Partnership for R&D Safety Culture: The Partners in Lab Safety (PALS) Initiative. Journal of Chemical Health and Safety, 2022, 29, 79-86.	1.1	6
150	Highâ€Performance Zeolitic Hollowâ€Fiber Membranes by a Viscosityâ€Confined Dry Gel Conversion Process for Gas Separation. Angewandte Chemie - International Edition, 2022, 61, .	7.2	6
151	Concentration Profiling of a Molecular Sieve Membrane by Step-Scan Photoacoustic Spectroscopy. Journal of Physical Chemistry B, 2004, 108, 8766-8769.	1.2	5
152	The rheology of suspensions of porous zeolite particles in polymer solutions. Rheologica Acta, 2014, 53, 133-141.	1.1	5
153	AEL Zeolite Nanosheet-Polyamide Nanocomposite Membranes on Î±-Alumina Hollow Fibers with Enhanced Pervaporation Properties. Industrial & Engineering Chemistry Research, 2020, 59, 14789-14796.	1.8	5
154	Kraft black liquor concentration with graphene oxide membranes: Process simulations and technoeconomic analysis. Journal of Advanced Manufacturing and Processing, 2021, 3, .	1.4	5
155	Controlled Demolition and Reconstruction of Imidazolate and Carboxylate Metalâ€“Organic Frameworks by Acid Gas Exposure and Linker Treatment. Industrial & Engineering Chemistry Research, 2021, 60, 15582-15592.	1.8	4
156	Washing kinetics of pollution-preventing lithographic inks. Chemical Engineering Science, 2000, 55, 1921-1923.	1.9	3
157	Synthesis and Properties of Zeolitic Membranes. , 2003, , .		3
158	Spatially resolved in situ measurements of the transport of organic molecules in a polycrystalline nanoporous membrane. Applied Physics Letters, 2005, 87, 151912.	1.5	3
159	An Accurate DNA Sensing and Diagnosis Methodology Using Fabricated Silicon Nanopores. IEEE Transactions on Circuits and Systems Part 1: Regular Papers, 2006, 53, 2377-2383.	0.1	3
160	Separation and Purification of 2,5-Dimethylfuran: Process Design and Comparative Technoeconomic and Sustainability Evaluation of Simulated Moving Bed Adsorption and Conventional Distillation. ACS Sustainable Chemistry and Engineering, 2020, 8, 12482-12492.	3.2	3
161	Detailed total scattering analysis of disorder in ZIF-8. Journal of Applied Crystallography, 2021, 54, 759-767.	1.9	3
162	Engineered Nanopores. , 2008, , 233-250.		2

#	Article	IF	Citations
163	Special Issue on nanomaterials for catalysis and electrochemical processes. Chemical Engineering Science, 2019, 194, 1.	1.9	1
164	ACS Sustainable Chemistry & Engineering Welcomes Manuscripts on Alternative Feedstocks. ACS Sustainable Chemistry and Engineering, 2021, 9, 4702-4703.	3.2	1
165	Separation of multicomponent aromatic/aliphatic mixtures by simulated moving bed adsorption: Modeling and experiments. AIChE Journal, 2021, 67, .	1.8	1
166	Electrons to membranes. Nature Energy, 2021, 6, 864-865.	19.8	1
167	TiO2/PVDF hollow fiber membranes for the separation of dyes and salts (NaCl and Na2SO4) during textile wastewater treatment. , 0, 119, 90-96.		1
168	Synthesis of Polycrystalline Zeolite Films and Thermal Conductivity Measurements by a 3-Omega Method. , 2004, , 91.		0
169	Modeling Lattice Dynamics and Heat Capacities of Zeolites. , 2006, , 415.		0
170	The Effects of Material Composition on the Thermal Conductivity of Zeolite MFI. , 2007, , 625.		0
171	CATALYSIS BY MICROPOROUS METAL ORGANIC FRAMEWORKS. , 2018, , .		0
172	Highâ€Performance Zeolitic Hollowâ€Fiber Membranes by a Viscosityâ€Confined Dry Gel Conversion Process for Gas Separation. Angewandte Chemie, 0, , .	1.6	0