Sankar Nair

List of Publications by Year in Descending Order

163 papers	9,466 citations	56 h-index	92 g-index
181 ext. papers	10,518 ext. citations	8 avg, IF	6.27 L-index

#	Paper	IF	Citations
163	Single-walled zeolitic nanotubes.. *Science*, **2022**, 375, 62-66	33.3	5
162	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	16.4	1
161	Detailed total scattering analysis of disorder in ZIF-8. *Journal of Applied Crystallography*, **2021**, 54, 759-767	3.8	2
160	Separation of C 2 □ 4 hydrocarbons from methane by zeolite MFI hollow fiber membranes fabricated from 2D nanosheets. *AICHE Journal*, **2021**, 67,	3.6	3
159	Graphene oxide nanofiltration membranes for desalination under realistic conditions. *Nature Sustainability*, **2021**, 4, 402-408	22.1	23
158	All-Nanoporous Hybrid Membranes: Incorporating Zeolite Nanoparticles and Nanosheets with Zeolitic Imidazolate Framework Matrices. *ACS Applied Materials & Interfaces*, **2020**, 12, 27368-27377	9.5	9
157	Similarities in Recalcitrant Structures of Industrial Non-Kraft and Kraft Lignin. *ChemSusChem*, **2020**, 13, 4624-4632	8.3	4
156	Molecular Dynamics Investigation of Surface Resistances in Zeolite Nanosheets. *Journal of Physical Chemistry C*, **2020**, 124, 15241-15252	3.8	10
155	Quantitative Correlations for the Durability of Zeolitic Imidazolate Frameworks in Humid SO2. *Industrial & Engineering Chemistry Research*, **2020**, 59, 245-252	3.9	4
154	Single-Step Scalable Fabrication of Zeolite MFI Hollow Fiber Membranes for Hydrocarbon Separations. *Advanced Materials Interfaces*, **2020**, 7, 2000926	4.6	5
153	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	8.3	0
152	AEL Zeolite Nanosheet-Polyamide Nanocomposite Membranes on □-Alumina Hollow Fibers with Enhanced Pervaporation Properties. *Industrial & Engineering Chemistry Research*, **2020**, 59, 14789-14796	3.9	2
151	Synthesizing New Hybrid Zeolitic Imidazolate Frameworks by Controlled Demolition and Reconstruction **2019**, 1, 447-451		4
150	Separation and Purification of Furans from n-Butanol by Zeolitic Imidazole Frameworks: Multicomponent Adsorption Behavior and Simulated Moving Bed Process Design. *ACS Sustainable Chemistry and Engineering*, **2019**, 7, 16560-16568	8.3	7
149	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	8.3	4
148	Scalable One-Step Gel Conversion Route to High-Performance CHA Zeolite Hollow Fiber Membranes and Modules for CO2 Separation. *Energy Technology*, **2019**, 7, 1900494	3.5	9
147	Continuous Zeolite MFI Membranes Fabricated from 2D MFI Nanosheets on Ceramic Hollow Fibers. *Angewandte Chemie*, **2019**, 131, 8285-8289	3.6	12

146	Continuous Zeolite MFI Membranes Fabricated from 2D MFI Nanosheets on Ceramic Hollow Fibers. *Angewandte Chemie - International Edition*, **2019**, 58, 8201-8205	16.4	45
145	Highly Selective SSZ-13 Zeolite Hollow Fiber Membranes by Ultraviolet Activation at Near-Ambient Temperature. *ChemNanoMat*, **2019**, 5, 61-67	3.5	17
144	Effect of Si/Al Ratio on the Catalytic Activity of Two-Dimensional MFI Nanosheets in Aromatic Alkylation and Alcohol Etherification. *ChemCatChem*, **2019**, 11, 4548-4557	5.2	5
143	High-Performance Graphene Oxide Nanofiltration Membranes for Black Liquor Concentration. *ACS Sustainable Chemistry and Engineering*, **2019**, 7, 14915-14923	8.3	10
142	All-Nanoporous Hybrid Membranes: Redefining Upper Limits on Molecular Separation Properties. *Angewandte Chemie - International Edition*, **2019**, 58, 236-239	16.4	25
141	All-Nanoporous Hybrid Membranes: Redefining Upper Limits on Molecular Separation Properties. *Angewandte Chemie*, **2019**, 131, 242-245	3.6	12
140	Stability of Zeolitic Imidazolate Frameworks in NO2. *Journal of Physical Chemistry C*, **2019**, 123, 2336-2346	3.8	22
139	Database of Computation-Ready 2D Zeolitic Slabs. *Chemistry of Materials*, **2019**, 31, 353-364	9.6	12
138	Ion-Exchanged SAPO-34 Membranes for Krypton-Xenon Separation: Control of Permeation Properties and Fabrication of Hollow Fiber Membranes. *ACS Applied Materials & Interfaces*, **2018**, 10, 6361-6368	9.5	27
137	Reactive Adsorption of Humid SO2 on Metal□Organic Framework Nanosheets. *Journal of Physical Chemistry C*, **2018**, 122, 10413-10422	3.8	25
136	Liquid-Phase Multicomponent Adsorption and Separation of Xylene Mixtures by Flexible MIL-53 Adsorbents. *Journal of Physical Chemistry C*, **2018**, 122, 386-397	3.8	36
135	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	5.3	36
134	Purification of 2,5-Dimethylfuran fromn-Butanol Using Defect-Engineered Metal□Organic Frameworks. *ACS Sustainable Chemistry and Engineering*, **2018**, 6, 7931-7939	8.3	12
133	Graphene oxide membranes for ion separation: Detailed studies on the effects of fabricating conditions. *Applied Surface Science*, **2018**, 459, 185-193	6.7	29
132	DMOF-1 as a Representative MOF for SO2 Adsorption in Both Humid and Dry Conditions. *Journal of Physical Chemistry C*, **2018**, 122, 23493-23500	3.8	35
131	A Lasagna-Inspired Nanoscale ZnO Anode Design for High-Energy Rechargeable Aqueous Batteries. *ACS Applied Energy Materials*, **2018**, 1, 6345-6351	6.1	27
130	Acid Gas Stability of Zeolitic Imidazolate Frameworks: Generalized Kinetic and Thermodynamic Characteristics. *Chemistry of Materials*, **2018**, 30, 4089-4101	9.6	49
129	Zeolitic Imidazolate Framework Membranes Supported on Macroporous Carbon Hollow Fibers by Fluidic Processing Techniques. *Advanced Materials Interfaces*, **2017**, 4, 1700080	4.6	29

128	Modeling and process simulation of hollow fiber membrane reactor systems for propane dehydrogenation. *AICHE Journal*, **2017**, 63, 4519-4531	3.6	12
127	Polyamide thin film composite nanofiltration membrane modified with acyl chlorided graphene oxide. *Journal of Membrane Science*, **2017**, 535, 208-220	9.6	105
126	A Mesoporous Cobalt Aluminate Spinel Catalyst for Nonoxidative Propane Dehydrogenation. *ChemCatChem*, **2017**, 9, 3330-3337	5.2	44
125	Structural and Mechanistic Differences in Mixed-Linker Zeolitic Imidazolate Framework Synthesis by Solvent Assisted Linker Exchange and de Novo Routes. *Journal of the American Chemical Society*, **2017**, 139, 5906-5915	16.4	81
124	Membranes for Kraft black liquor concentration and chemical recovery: Current progress, challenges, and opportunities. *Separation Science and Technology*, **2017**, 52, 1070-1094	2.5	25
123	Propane dehydrogenation catalyzed by gallosilicate MFI zeolites with perturbed acidity. *Journal of Catalysis*, **2017**, 345, 113-123	7.3	86
122	Graphene Oxide Membranes in Extreme Operating Environments: Concentration of Kraft Black Liquor by Lignin Retention. *ACS Sustainable Chemistry and Engineering*, **2017**, 5, 1002-1009	8.3	19
121	Recovery of Acid-Gas-Degraded Zeolitic Imidazolate Frameworks by Solvent-Assisted Crystal Redemption (SACRed). *ACS Applied Materials & Interfaces*, **2017**, 9, 34597-34602	9.5	15
120	Butanol Separation from Humid CO2-Containing Multicomponent Vapor Mixtures by Zeolitic Imidazolate Frameworks. *ACS Sustainable Chemistry and Engineering*, **2017**, 5, 9467-9476	8.3	30
119	Interactions on External MOF Surfaces: Desorption of Water and Ethanol from CuBDC Nanosheets. *Langmuir*, **2017**, 33, 10153-10160	4	20
118	Hierarchical Ga-MFI Catalysts for Propane Dehydrogenation. *Chemistry of Materials*, **2017**, 29, 7213-7222	9.6	58
117	PVDF/Cu-BTC composite membranes for dye separation. *Fibers and Polymers*, **2017**, 18, 1250-1254	2	8
116	Krypton-xenon separation properties of SAPO-34 zeolite materials and membranes. *AICHE Journal*, **2017**, 63, 761-769	3.6	34
115	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	9.6	132
114	One-Step Synthesis of Zeolite Membranes Containing Catalytic Metal Nanoclusters. *ACS Applied Materials & Interfaces*, **2016**, 8, 24671-81	9.5	20
113	Interactions of SO2-Containing Acid Gases with ZIF-8: Structural Changes and Mechanistic Investigations. *Journal of Physical Chemistry C*, **2016**, 120, 27221-27229	3.8	71
112	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	13.1	79
111	Thin Hydrogen-Selective SAPO-34 Zeolite Membranes for Enhanced Conversion and Selectivity in Propane Dehydrogenation Membrane Reactors. *Chemistry of Materials*, **2016**, 28, 4397-4402	9.6	41

110	Fluidic Processing of High-Performance ZIF-8 Membranes on Polymeric Hollow Fibers: Mechanistic Insights and Microstructure Control. *Advanced Functional Materials*, **2016**, 26, 5011-5018	15.6	79
109	Engineering Porous Organic Cage Crystals with Increased Acid Gas Resistance. *Chemistry - A European Journal*, **2016**, 22, 10743-7	4.8	24
108	Synthesis, characterization, and tunable adsorption and diffusion properties of hybrid ZIF-7-90 frameworks. *AICHE Journal*, **2016**, 62, 525-537	3.6	29
107	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	3.8	59
106	Propane Dehydrogenation over In2O3□Ga2O3□Al2O3 Mixed Oxides. *ChemCatChem*, **2016**, 8, 214-221	5.2	41
105	Computational Identification and Experimental Evaluation of Metal□Organic Frameworks for Xylene Enrichment. *Journal of Physical Chemistry C*, **2016**, 120, 12075-12082	3.8	37
104	Structure Elucidation of Mixed-Linker Zeolitic Imidazolate Frameworks by Solid-State (1)H CRAMPS NMR Spectroscopy and Computational Modeling. *Journal of the American Chemical Society*, **2016**, 138, 7325-36	16.4	39
103	Effects of Open Metal Site Availability on Adsorption Capacity and Olefin/Paraffin Selectivity in the Metal□Organic Framework Cu3(BTC)2. *Industrial & Engineering Chemistry Research*, **2016**, 55, 5043-5053	3.9	16
102	ZIF-8 Membranes via Interfacial Microfluidic Processing in Polymeric Hollow Fibers: Efficient Propylene Separation at Elevated Pressures. *ACS Applied Materials & Interfaces*, **2016**, 8, 25337-42	9.5	89
101	Catalytic propane dehydrogenation over In2O3□Ga2O3 mixed oxides. *Applied Catalysis A: General*, **2015**, 498, 167-175	5.1	62
100	Highly tunable molecular sieving and adsorption properties of mixed-linker zeolitic imidazolate frameworks. *Journal of the American Chemical Society*, **2015**, 137, 4191-7	16.4	155
99	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	3.9	35
98	Ion exchange of zeolite membranes by a vacuum □flow-through□technique. *Microporous and Mesoporous Materials*, **2015**, 203, 170-177	5.3	12
97	Solution-Processed Ultrathin Aluminosilicate Nanotube□Poly(vinyl alcohol) Composite Membranes with Partial Alignment of Nanotubes. *ChemNanoMat*, **2015**, 1, 102-108	3.5	14
96	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, 15760-71	16.4	121
95	Material properties and operating configurations of membrane reactors for propane dehydrogenation. *AICHE Journal*, **2015**, 61, 922-935	3.6	16
94	The rheology of suspensions of porous zeolite particles in polymer solutions. *Rheologica Acta*, **2014**, 53, 133-141	2.3	5
93	Silylated mesoporous silica membranes on polymeric hollow fiber supports: synthesis and permeation properties. *ACS Applied Materials & Interfaces*, **2014**, 6, 17877-86	9.5	18

92	Separation membranes. Interfacial microfluidic processing of metal-organic framework hollow fiber membranes. *Science*, **2014**, 345, 72-5	33.3	492
91	Direct synthesis of single-walled aminoaluminosilicate nanotubes with enhanced molecular adsorption selectivity. *Nature Communications*, **2014**, 5, 3342	17.4	70
90	Mixed-linker zeolitic imidazolate framework mixed-matrix membranes for aggressive CO2 separation from natural gas. *Microporous and Mesoporous Materials*, **2014**, 192, 43-51	5.3	82
89	A generalized kinetic model for the formation and growth of single-walled metal oxide nanotubes. *Chemical Engineering Science*, **2013**, 90, 200-212	4.4	31
88	Membranes from nanoporous 1D and 2D materials: A review of opportunities, developments, and challenges. *Chemical Engineering Science*, **2013**, 104, 908-924	4.4	155
87	Exploring the Framework Hydrophobicity and Flexibility of ZIF-8: From Biofuel Recovery to Hydrocarbon Separations. *Journal of Physical Chemistry Letters*, **2013**, 4, 3618-3622	6.4	242
86	Geometry of nanopore devices fabricated by electron beam lithography: Simulations and experimental comparisons. *Microelectronic Engineering*, **2013**, 112, 149-156	2.5	10
85	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	9.6	38
84	Adsorption and Diffusion of Small Alcohols in Zeolitic Imidazolate Frameworks ZIF-8 and ZIF-90. *Journal of Physical Chemistry C*, **2013**, 117, 3169-3176	3.8	111
83	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	5.3	81
82	Polymer translocation in solid-state nanopores: Dependence on hydrodynamic interactions and polymer configuration. *Chemical Physics*, **2013**, 425, 1-13	2.3	5
81	Alcohol and water adsorption in zeolitic imidazolate frameworks. *Chemical Communications*, **2013**, 49, 3245-7	5.8	230
80	Prediction of Water Adsorption in Copper-Based Metal Organic Frameworks Using Force Fields Derived from Dispersion-Corrected DFT Calculations. *Journal of Physical Chemistry C*, **2013**, 117, 7519-7525	3.8	46
79	Tunable CO2Adsorbents by Mixed-Linker Synthesis and Postsynthetic Modification of Zeolitic Imidazolate Frameworks. *Journal of Physical Chemistry C*, **2013**, 117, 8198-8207	3.8	106
78	Nanoporous layered silicate AMH-3/cellulose acetate nanocomposite membranes for gas separations. *Journal of Membrane Science*, **2013**, 441, 129-136	9.6	72
77	Seeded growth, silylation, and organic/water separation properties of MCM-48 membranes. *Journal of Membrane Science*, **2013**, 427, 293-302	9.6	12
76	Sonication-induced Ostwald ripening of ZIF-8 nanoparticles and formation of ZIF-8/polymer composite membranes. *Microporous and Mesoporous Materials*, **2012**, 158, 292-299	5.3	153
75	Epitaxially grown layered MFI-bulk MFI hybrid zeolitic materials. *ACS Nano*, **2012**, 6, 9978-88	16.7	38

74	Single-walled aluminosilicate nanotube/poly(vinyl alcohol) nanocomposite membranes. *ACS Applied Materials & Interfaces*, **2012**, 4, 965-76	9.5	79
73	Defect Structures in Aluminosilicate Single-Walled Nanotubes: A Solid-State Nuclear Magnetic Resonance Investigation. *Journal of Physical Chemistry C*, **2012**, 116, 17149-17157	3.8	40
72	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	3.8	34
71	Shaping single-walled metal oxide nanotubes from precursors of controlled curvature. *Nano Letters* , **2012**, 12, 827-32	11.5	64
70	Continuous Polycrystalline Zeolitic Imidazolate Framework-90 Membranes on Polymeric Hollow Fibers. *Angewandte Chemie*, **2012**, 124, 10767-10770	3.6	28
69	Continuous polycrystalline zeolitic imidazolate framework-90 membranes on polymeric hollow fibers. *Angewandte Chemie - International Edition*, **2012**, 51, 10615-8	16.4	156
68	High-throughput screening of metal-organic frameworks for CO2 separation. *ACS Combinatorial Science*, **2012**, 14, 263-7	3.9	91
67	Structure–Property Relationships of Inorganically Surface-Modified Zeolite Molecular Sieves for Nanocomposite Membrane Fabrication. *Journal of Physical Chemistry C*, **2012**, 116, 9636-9645	3.8	35
66	Hybrid Zeolitic Imidazolate Frameworks: Controlling Framework Porosity and Functionality by Mixed-Linker Synthesis. *Chemistry of Materials*, **2012**, 24, 1930-1936	9.6	164
65	Gas Adsorption Characteristics of Metal−Organic Frameworks via Quartz Crystal Microbalance Techniques. *Journal of Physical Chemistry C*, **2012**, 116, 15313-15321	3.8	30
64	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, 4313-23	16.4	165
63	Quantifying large effects of framework flexibility on diffusion in MOFs: CH4 and CO2 in ZIF-8. *ChemPhysChem*, **2012**, 13, 3449-52	3.2	164
62	Polymer translocation in solid-state nanopores: dependence of scaling behavior on pore dimensions and applied voltage. *Journal of Chemical Physics*, **2012**, 136, 065105	3.9	21
61	Pore size analysis of >250,000 hypothetical zeolites. *Physical Chemistry Chemical Physics*, **2011**, 13, 5053-60	3.6	75
60	Swelling, functionalization, and structural changes of the nanoporous layered silicates AMH-3 and MCM-22. *Langmuir*, **2011**, 27, 7892-901	4	18
59	Modified Mesoporous Silica Gas Separation Membranes on Polymeric Hollow Fibers. *Chemistry of Materials*, **2011**, 23, 3025-3028	9.6	75
58	Modeling molecular transport in composite membranes with tubular fillers. *Journal of Membrane Science*, **2011**, 381, 50-63	9.6	46
57	Formation of Mg(OH)2 nanowhiskers on LTA zeolite surfaces using a sol–gel method. *Journal of Sol-Gel Science and Technology*, **2011**, 60, 189-197	2.3	6

56	Sonochemical Synthesis and Characterization of Submicrometer Crystals of the Metal–Organic Framework Cu[(hfipbb)(H2hfipbb)0.5]. *Crystal Growth and Design*, **2011**, 11, 4505-4510	3.5	44
55	Formation of single-walled aluminosilicate nanotubes from molecular precursors and curved nanoscale intermediates. *Journal of the American Chemical Society*, **2011**, 133, 5397-412	16.4	65
54	Preparation and Gas Adsorption Characteristics of Zeolite MFI Crystals with Organic-Functionalized Interiors. *Journal of Physical Chemistry C*, **2011**, 115, 19640-19646	3.8	15
53	Single-Walled Aluminosilicate Nanotubes with Organic-Modified Interiors. *Journal of Physical Chemistry C*, **2011**, 115, 7676-7685	3.8	65
52	CO2/CH4 permeation in high zeolite 4A loading mixed matrix membranes. *Journal of Membrane Science*, **2011**, 367, 197-203	9.6	140
51	Solvothermal deposition and characterization of magnesium hydroxide nanostructures on zeolite crystals. *Microporous and Mesoporous Materials*, **2011**, 139, 120-129	5.3	43
50	Osmotic ensemble methods for predicting adsorption-induced structural transitions in nanoporous materials using molecular simulations. *Journal of Chemical Physics*, **2011**, 134, 184103	3.9	33
49	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	2.5	6
48	Dehydration, dehydroxylation, and rehydroxylation of single-walled aluminosilicate nanotubes. *ACS Nano*, **2010**, 4, 4897-907	16.7	74
47	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, 7528-39	16.4	239
46	Flexibility of Ordered Surface Hydroxyls Influences the Adsorption of Molecules in Single-Walled Aluminosilicate Nanotubes. *Journal of Physical Chemistry Letters*, **2010**, 1, 1235-1240	6.4	40
45	Characterization of HKUST-1 Crystals and Their Application to MEMS Microcantilever Array Sensors. *ECS Transactions*, **2010**, 33, 229-238	1	14
44	A High-Performance Gas-Separation Membrane Containing Submicrometer-Sized Metal–Organic Framework Crystals. *Angewandte Chemie*, **2010**, 122, 10059-10062	3.6	79
43	A high-performance gas-separation membrane containing submicrometer-sized metal-organic framework crystals. *Angewandte Chemie - International Edition*, **2010**, 49, 9863-6	16.4	558
42	Butane isomer transport properties of 6FDA–DAM and MFI–6FDA–DAM mixed matrix membranes. *Journal of Membrane Science*, **2009**, 343, 157-163	9.6	50
41	Porous layered oxide/Nafion® nanocomposite membranes for direct methanol fuel cell applications. *Microporous and Mesoporous Materials*, **2009**, 118, 427-434	5.3	58
40	Self-diffusion of water and simple alcohols in single-walled aluminosilicate nanotubes. *ACS Nano*, **2009**, 3, 1548-56	16.7	67
39	Facile high-yield solvothermal deposition of inorganic nanostructures on zeolite crystals for mixed matrix membrane fabrication. *Journal of the American Chemical Society*, **2009**, 131, 14662-3	16.4	101

38	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, 11389-94	3.6	77
37	Functionalization of the Internal Surface of Pure-Silica MFI Zeolite with Aliphatic Alcohols. *Journal of Physical Chemistry C*, **2008**, 112, 3543-3551	3.8	51
36	Water in Single-Walled Aluminosilicate Nanotubes: Diffusion and Adsorption Properties. *Journal of Physical Chemistry C*, **2008**, 112, 15367-15374	3.8	46
35	Layered silicates by swelling of AMH-3 and nanocomposite membranes. *Angewandte Chemie - International Edition*, **2008**, 47, 552-5	16.4	93
34	Layered Silicates by Swelling of AMH-3 and Nanocomposite Membranes. *Angewandte Chemie*, **2008**, 120, 562-565	3.6	11
33	Layered silicate by proton exchange and swelling of AMH-3. *Microporous and Mesoporous Materials*, **2008**, 115, 75-84	5.3	22
32	Engineered Nanopores **2008**, 233-250		2
31	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	3.8	20
30	Controlling nanotube dimensions: correlation between composition, diameter, and internal energy of single-walled mixed oxide nanotubes. *ACS Nano*, **2007**, 1, 393-402	16.7	58
29	Short, highly ordered, single-walled mixed-oxide nanotubes assemble from amorphous nanoparticles. *Journal of the American Chemical Society*, **2007**, 129, 6820-6	16.4	77
28	Effects of composition and phonon scattering mechanisms on thermal transport in MFI zeolite films. *Journal of Applied Physics*, **2007**, 102, 053523	2.5	13
27	The Effects of Material Composition on the Thermal Conductivity of Zeolite MFI **2007**, 625		
26	Strain energy minimum and vibrational properties of single-walled aluminosilicate nanotubes. *Physical Review B*, **2006**, 74,	3.3	51
25	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		3
24	Modeling Lattice Dynamics and Heat Capacities of Zeolites **2006**, 415		
23	Phenomenology of the Growth of Single-Walled Aluminosilicate and Aluminogermanate Nanotubes of Precise Dimensions. *Chemistry of Materials*, **2005**, 17, 4900-4909	9.6	143
22	Spatially resolved in situ measurements of the transport of organic molecules in a polycrystalline nanoporous membrane. *Applied Physics Letters*, **2005**, 87, 151912	3.4	2
21	Translational dynamics of water in a nanoporous layered silicate. *Physical Review B*, **2005**, 71,	3.3	25

20	Methyl rotational tunneling dynamics of p-xylene confined in a crystalline zeolite host. *Journal of Chemical Physics*, **2004**, 121, 4810-9	3.9	11
19	Concentration Profiling of a Molecular Sieve Membrane by Step-Scan Photoacoustic Spectroscopy. *Journal of Physical Chemistry B*, **2004**, 108, 8766-8769	3.4	4
18	Fabrication of Polymer/Selective-Flake Nanocomposite Membranes and Their Use in Gas Separation. *Chemistry of Materials*, **2004**, 16, 3838-3845	9.6	138
17	Synthesis of Polycrystalline Zeolite Films and Thermal Conductivity Measurements by a 3-Omega Method **2004**, 91		
16	Synthesis and Properties of Zeolitic Membranes **2003**,		3
15	Infrared reflectance measurements of zeolite film thickness, refractive index and other characteristics. *Microporous and Mesoporous Materials*, **2003**, 58, 81-89	5.3	14
14	A highly crystalline layered silicate with three-dimensionally microporous layers. *Nature Materials*, **2003**, 2, 53-8	27	106
13	Separation of close-boiling hydrocarbon mixtures by MFI and FAU membranes made by secondary growth. *Microporous and Mesoporous Materials*, **2001**, 48, 219-228	5.3	96
12	Heteroepitaxial Growth of a Zeolite. *Angewandte Chemie*, **2001**, 113, 1103-1105	3.6	10
11	Heteroepitaxial Growth of a Zeolite T.W. and T.O. are grateful to H. Tsunakawa of the High Voltage Electron Microscope Laboratory, University of Tokyo (UT), and Prof. Y. Ikuhara, Engineering Research Institute, UT, for the 400-kV SAED experiments and their analyses, respectively. H. Shiga, T. Hayashi and T. Shiraki are acknowledged for preliminary experiments. This work was supported	16.4	48
10	A titanosilicate molecular sieve with adjustable pores for size-selective adsorption of molecules. *Nature*, **2001**, 412, 720-4 o. *Angewandte Chemie - International Edition*, **2001**, 40, 1069-1071	50.4	467
9	Synthesis and Structure Determination of ETS-4 Single Crystals. *Chemistry of Materials*, **2001**, 13, 4247-4254	9.6	95
8	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, 12781-90	16.4	42
7	Washing kinetics of pollution-preventing lithographic inks. *Chemical Engineering Science*, **2000**, 55, 1921-1923	4.4	3
6	Transport properties of alumina-supported MFI membranes made by secondary (seeded) growth. *Microporous and Mesoporous Materials*, **2000**, 38, 61-73	5.3	152
5	The Location of o- and m-Xylene in Silicalite by Powder X-ray Diffraction. *Journal of Physical Chemistry B*, **2000**, 104, 8982-8988	3.4	29
4	Structure of Strontium Ion-Exchanged ETS-4 Microporous Molecular Sieves. *Chemistry of Materials*, **2000**, 12, 1857-1865	9.6	79
3	Growth, microstructure, and permeation properties of supported zeolite (MFI) films and membranes prepared by secondary growth. *Chemical Engineering Science*, **1999**, 54, 3521-3531	4.4	175

2	Zeolite-β grown epitaxially on SSZ-31 nanofibers. *Chemical Communications*, **1999**, 921-922	5.8	17
1	Rotary heat exchanger performance with axial heat dispersion. *International Journal of Heat and Mass Transfer*, **1998**, 41, 2857-2864	4.9	22