

One-dimensional intergrowths in two-dimensional zeolites enable ultra-selective transport

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Citation Report

#	ARTICLE	IF	CITATIONS
1	Biomass Catalytic Pyrolysis over Zeolite Catalysts with an Emphasis on Porosity and Acidity: A State-of-the-Art Review. <i>Energy & Fuels</i> , 2020, 34, 11771-11790.	2.5	61
2	Surface Effects Determining Transport in Binary Xylene Mixtures. <i>Journal of Physical Chemistry C</i> , 2020, 124, 26814-26820.	1.5	2
3	Tailor-Made Zeolitic Water Nanochannels for Liquid Fuel Production. <i>Joule</i> , 2020, 4, 710-711.	11.7	1
4	Electron Microscopy Studies of Local Structural Modulations in Zeolite Crystals. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 19403-19413.	7.2	14
5	Electron Microscopy Studies of Local Structural Modulations in Zeolite Crystals. <i>Angewandte Chemie</i> , 2020, 132, 19571-19581.	1.6	3
6	From computer design to gas separation. <i>Nature Materials</i> , 2020, 19, 374-375.	13.3	16
7	An Extrinsic Pore-Containing Molecular Sieve Film: A Robust, High-Throughput Membrane Filter. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 1323-1331.	7.2	11
8	An Extrinsic Pore-Containing Molecular Sieve Film: A Robust, High-Throughput Membrane Filter. <i>Angewandte Chemie</i> , 2021, 133, 1343-1351.	1.6	4
9	Microporous framework membranes for precise molecule/ion separations. <i>Chemical Society Reviews</i> , 2021, 50, 986-1029.	18.7	191
10	Diffusion in nanopores: inspecting the grounds. <i>Adsorption</i> , 2021, 27, 267-281.	1.4	15
11	Diffusion coefficients in nanoporous solids derived from membrane permeation measurements. <i>Adsorption</i> , 2021, 27, 283-293.	1.4	11
12	Diffusion Analysis in Pore Hierarchies by the Two-Region Model. <i>Advanced Materials Interfaces</i> , 2021, 8, 2000749.	1.9	14
13	Research Progress of MFI Zeolite Membrane. <i>Material Sciences</i> , 2021, 11, 72-82.	0.0	0
14	Pulsed field gradient NMR diffusion measurement in nanoporous materials. <i>Adsorption</i> , 2021, 27, 453-484.	1.4	40
15	Mathematical modeling and parameter estimation of MFI membranes for para/ortho-xylene separation. <i>AIChE Journal</i> , 2021, 67, e17232.	1.8	6
16	Hierarchy Control of MFI Zeolite Membrane towards Superior Butane Isomer Separation Performance. <i>Angewandte Chemie</i> , 2021, 133, 7737-7741.	1.6	8
17	Diffusion and reaction in pore hierarchies by the two-region model. <i>Adsorption</i> , 2021, 27, 761-776.	1.4	3
18	Hierarchy Control of MFI Zeolite Membrane towards Superior Butane Isomer Separation Performance. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 7659-7663.	7.2	41

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19	Connecting theory and simulation with experiment for the study of diffusion in nanoporous solids. Adsorption, 2021, 27, 683-760.	1.4	72
20	Antibiotic Zwitterionic Nanogel Membrane: from Molecular Dynamics Simulation to Structure Manipulation. ACS Applied Materials & Interfaces, 2021, 13, 18237-18246.	4.0	5
21	Spontaneous Pillaring of Pentasil Zeolites. Advanced Materials, 2021, 33, e2100897.	11.1	36
22	Contribution of Pore-Connectivity to Permeation Performance of Silicalite-1 Membrane; Part II, Diffusivity of C6 Hydrocarbon in Micropore. Membranes, 2021, 11, 399.	1.4	4
23	Two Distinct Stages of Structural Modification of ZIF-L MOF under Electron-Beam Irradiation. Chemistry of Materials, 2021, 33, 5681-5689.	3.2	16
24	Towards a High Rejection Desalination Membrane: The Confined Growth of Polyamide Nanofilm Induced by Alkyl-Capped Graphene Oxide. Membranes, 2021, 11, 488.	1.4	5
25	Layered double hydroxide membrane with high hydroxide conductivity and ion selectivity for energy storage device. Nature Communications, 2021, 12, 3409.	5.8	94
26	Emerging applications of zeolites in catalysis, separation and host-guest assembly. Nature Reviews Materials, 2021, 6, 1156-1174.	23.3	209
27	Sandwich-Type Zeolite Intergrowths with MFI and the Novel Extra-Large Pore IDM-1 as Ordered End-Members. Chemistry of Materials, 2021, 33, 7869-7877.	3.2	6
28	Two-Dimensional MFI Zeolite Nanosheets Exfoliated by Surfactant Assisted Solution Process. Nanomaterials, 2021, 11, 2327.	1.9	9
30	Helium separation using membrane technology: Recent advances and perspectives. Separation and Purification Technology, 2021, 274, 119044.	3.9	38
31	Self-defect-healing of silicalite-1 membrane in alkaline aqueous solution with surfactant. Materials Advances, 2021, 2, 3892-3897.	2.6	4
32	MOF-in-COF molecular sieving membrane for selective hydrogen separation. Nature Communications, 2021, 12, 38.	5.8	212
33	Anomalous Diffusivity in Porous Solids: Levitation Effect. , 0, , .		1
34	Data-Driven Design of Biselective Templates for Intergrowth Zeolites. Journal of Physical Chemistry Letters, 2021, 12, 10689-10694.	2.1	12
35	A comprehensive review of MXene-based water-treatment membranes and technologies: Recent progress and perspectives. Desalination, 2022, 522, 115448.	4.0	53
36	High-aspect ratio zeolitic imidazolate framework (ZIF) nanoplates for hydrocarbon separation membranes. Science Advances, 2022, 8, eabl6841.	4.7	40
37	Zeolite Membranes - The Importance of Support Analysis. Chemie-Ingenieur-Technik, 2022, 94, 23-30.	0.4	7

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38	Design of a Small Organic Template for the Synthesis of Self-Pillared Pentasil Zeolite Nanosheets. <i>Journal of the American Chemical Society</i> , 2022, 144, 6270-6277.	6.6	24
39	Secondary-assembled defect-free MOF membrane via triple-needle electrostatic atomization for highly stable and selective organics permeation. <i>Journal of Membrane Science</i> , 2022, 648, 120382.	4.1	10
40	Magnetic clustering of weakly interacting Ni-ions in Ni-exchanged zeolites. <i>Microporous and Mesoporous Materials</i> , 2022, 335, 111786.	2.2	1
41	Twin-free, directly synthesized MFI nanosheets with improved thickness uniformity and their use in membrane fabrication. <i>Science Advances</i> , 2022, 8, eabm8162.	4.7	30
42	Leipzig, Berlin and Hannover: Three Stations of a Beneficial Cooperation. <i>Chemie-Ingenieur-Technik</i> , 2022, 94, 15-22.	0.4	1
43	Ru and Ce Modified Zsm-5 Catalysts for Deep Catalytic Oxidation and Catalytic Activity of Toluene. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
44	Analysis of Gas Transport in Molecularly-Mixed Composite Membranes. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
45	Molecular-Level Insights into Unique Behavior of Water Molecules Confined in the Heterojunction between One- and Two-Dimensional Nanochannels. <i>Langmuir</i> , 2022, 38, 7300-7311.	1.6	3
46	Synthesis strategies and design principles for nanosized and hierarchical zeolites. , 2022, 1, 521-534.		33
47	Emerging membranes for separation of organic solvent mixtures by pervaporation or vapor permeation. <i>Separation and Purification Technology</i> , 2022, 299, 121729.	3.9	12
48	Highly efficient and selective Ru and Ce modified ZSM-5 catalysts for catalytic oxidation of toluene. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2022, 651, 129709.	2.3	10
49	Understanding Structural and Chemical Modifications of ZIF MOF Under Electron-Beam Irradiation using STEM-EELS. <i>Microscopy and Microanalysis</i> , 2022, 28, 2168-2169.	0.2	1
50	Large-area self-standing thin film of porous hydrogen-bonded organic framework for efficient uranium extraction from seawater. <i>CheM</i> , 2022, 8, 2749-2765.	5.8	23
51	Metal-organic frameworks and covalent organic frameworks as disruptive membrane materials for energy-efficient gas separation. <i>Nature Nanotechnology</i> , 2022, 17, 911-923.	15.6	156
52	Analysis of gas transport in molecularly-mixed composite membranes. <i>Journal of Membrane Science</i> , 2022, 661, 120880.	4.1	9
53	MXenes and Other Two-Dimensional Materials for Membrane Gas Separation: Progress, Challenges, and Potential of MXene-Based Membranes. <i>Industrial & Engineering Chemistry Research</i> , 2023, 62, 2309-2328.	1.8	15
54	Electropolymerized thin films with a microporous architecture enabling molecular sieving in harsh organic solvents under high temperature. <i>Journal of Materials Chemistry A</i> , 2022, 10, 20101-20110.	5.2	9
55	Charge Distribution Controls On-Target Separation of Low Nucleophilicity Anions in Layered Double Hydroxides. <i>Advanced Materials Interfaces</i> , 2022, 9, , .	1.9	2

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56	Preparation of amorphous carbon membranes synthesized via a glucose-solution hydrothermal method. <i>Ceramics International</i> , 2022, , .	2.3	1
57	Quantum water desalination: Water generation through separate pathways for protons and hydroxide ions in membranes. <i>Journal of Applied Physics</i> , 2022, 132, 194302.	1.1	1
59	A Comprehensive Review on Zeolite Chemistry for Catalytic Conversion of Biomass/Waste into Green Fuels. <i>Molecules</i> , 2022, 27, 8578.	1.7	7
60	Thin-Film Composite Cyclomatrix Poly(Phenoxy)Phosphazenes Membranes for Hot Hydrogen Separation. <i>Advanced Materials Interfaces</i> , 2023, 10, .	1.9	4
61	High-temperature vapor permeation of preferentially b-oriented zeolite MFI membranes fabricated from nanocrystal-containing nanosheets. <i>Separation and Purification Technology</i> , 2023, 315, 123709.	3.9	0
62	Hybridizing zeolite MFI nanosheets with PTMSP membranes for enhanced butane isomer separations. <i>Journal of Membrane Science</i> , 2023, 677, 121659.	4.1	4
63	Fabrication of highly uniform ultra-small zeolite T nanocrystals. <i>Materials Chemistry and Physics</i> , 2023, 298, 127465.	2.0	0
64	Dimensional Regulation of Titanosilicate by Kinetically Controlled Intergrowth Crystals. <i>Advanced Functional Materials</i> , 2023, 33, .	7.8	3
65	Twin suppression effect of dihydroxy-benzene isomers during the secondary growth of c-oriented zeolite MFI nanosheet films. <i>CrystEngComm</i> , 2023, 25, 2359-2365.	1.3	3
66	Ultrafast formation of exciplex species in dicyanoanthracene ZSM-5 revealed by transient emission and vibrational spectroscopy. <i>European Physical Journal: Special Topics</i> , 2023, 232, 2145-2156.	1.2	3
69	Diffusive Spreading of Molecules in Nanoporous Materials. , 2023, , 179-214.		0
72	Surface barriers to mass transfer in nanoporous materials for catalysis and separations. <i>Chemical Society Reviews</i> , 2023, 52, 3991-4005.	18.7	2
85	An open-pore MFI zeolite nanosheet-modified separator with Li-ion flux regulation for lithium-metal batteries. <i>Chemical Communications</i> , 0, , .	2.2	0