JÃ¶rg KÃ¤rger

List of Publications by Year
in descending order

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		10389	24258
468	19,511	72	110
papers	citations	h-index	g-index

510	510	510	8379
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Principles and Application of Self-Diffusion Measurements by Nuclear Magnetic Resonance. Advances in Magnetic and Optical Resonance, 1988, 12, 1-89.	1.7	530
2	Single-File Diffusion Observation. Physical Review Letters, 1996, 76, 2762-2765.	7.8	406
3	NMR Studies of Single-File Diffusion in Unidimensional Channel Zeolites. Science, 1996, 272, 702-704.	12.6	325
4	N.m.r. self-diffusion studies in zeolite science and technology. Zeolites, 1987, 7, 90-107.	0.5	286
5	Mass transfer in mesoporous materials: the benefit of microscopic diffusion measurement. Chemical Society Reviews, 2013, 42, 4172.	38.1	221
6	Exploration of molecular dynamics during transient sorption of fluids in mesoporous materials. Nature, 2006, 443, 965-968.	27.8	218
7	The Role of Mesopores in Intracrystalline Transport in USY Zeolite:Â PFG NMR Diffusion Study on Various Length Scales. Journal of the American Chemical Society, 2005, 127, 13055-13059.	13.7	211
8	NMR Studies on the Diffusion of Hydrocarbons on the Metal-Organic Framework Material MOF-5. Angewandte Chemie - International Edition, 2006, 45, 2123-2126.	13.8	211
9	Structural analysis of hierarchically organized zeolites. Nature Communications, 2015, 6, 8633.	12.8	206
10	Microdynamics of methane, ethane and propane in ZSM-5 type zeolites. Journal of the Chemical Society Faraday Transactions I, 1985, 81, 2541.	1.0	204
11	Transport properties of hierarchical microâ€“mesoporous materials. Chemical Society Reviews, 2016, 45, 3439-3467.	38.1	202
12	Interpretation and correlation of zeolitic diffusivities obtained from nuclear magnetic resonance and sorption experiments. Journal of the Chemical Society Faraday Transactions I, 1977, 73, 1363.	1.0	193
13	On the comparison between macroscopic and n.m.r. measurements of intracrystalline diffusion in zeolites. Zeolites, 1989, 9, 267-281.	0.5	191
14	NMR self-diffusion studies in heterogeneous systems. Advances in Colloid and Interface Science, 1985, 23, 129-148.	14.7	190
15	Single-file diffusion and reaction in zeolites. Journal of Catalysis, 1992, 136, 283-299.	6.2	189
16	Microimaging of transient guest profiles to monitor mass transfer in nanoporous materials. Nature Materials, 2014, 13, 333-343.	27.5	187
17	The Nature of Surface Barriers on Nanoporous Solids Explored by Microimaging of Transient Guest Distributions. Journal of the American Chemical Society, 2011, 133, 2804-2807.	13.7	166
18	Simultaneous Measurement of Self- and Transport Diffusivities in Zeolites. Physical Review Letters, 1999, 82, 4260-4263.	7.8	157

#	Article	IF	Citations
19	Molecular Simulations and NMR Measurements of Binary Diffusion in Zeolites. Journal of Physical Chemistry B, 1997, 101, 6469-6473.	2.6	154
20	Generation and Application of Ultra-High-Intensity Magnetic Field Gradient Pulses for NMR Spectroscopy. Journal of Magnetic Resonance, 2001, 151, 260-268.	2.1	154
21	Diffusion in nanoporous materials: fundamental principles, insights and challenges. New Journal of Chemistry, 2016, 40, 4027-4048.	2.8	153
22	In situ study on molecular diffusion phenomena in nanoporous catalytic solids. Chemical Society Reviews, 2010, 39, 4864.	38.1	148
23	Self-diffusion of n-paraffins in NaX zeolite. Journal of the Chemical Society Faraday Transactions I, 1980, 76, 717.	1.0	146
24	Oriented Crystallisation on Supports and Anisotropic Mass Transport of the Metal-Organic Framework Manganese Formate. European Journal of Inorganic Chemistry, 2007, 2007, 60-64.	2.0	142
25	The role of crystal diversity in understanding mass transfer in nanoporous materials. Nature Materials, 2016, 15, 401-406.	27.5	142
26	Adsorption and diffusion of alkanes in CuBTC crystals investigated using infra-red microscopy and molecular simulations. Microporous and Mesoporous Materials, 2009, 117, 22-32.	4.4	135
27	Diffusion in zeolites. Comparison of sorption and nuclear magnetic resonance diffusivities. Journal of the Chemical Society Faraday Transactions I, 1981, 77, 1485.	1.0	131
28	High-temperature pulsed field gradient nuclear magnetic resonance self-diffusion measurements of n-alkanes in MFI-type zeolites. Journal of the Chemical Society, Faraday Transactions, 1992, 88, 3505-3509.	1.7	130
29	Enhanced charge transport in nano-confined ionic liquids. Soft Matter, 2012, 8, 289-293.	2.7	119
30	How Hydrogen Bonds Influence the Mobility of Imidazolium-Based Ionic Liquids. A Combined Theoretical and Experimental Study of 1-n-Butyl-3-methylimidazolium Bromide. Journal of Physical Chemistry B, 2011, 115, 15280-15288.	2.6	118
31	Straightforward derivation of the long-time limit of the mean-square displacement in one-dimensional diffusion. Physical Review A, 1992, 45, 4173-4174.	2.5	117
32	Evidence of Anisotropic Self-Diffusion of Guest Molecules in Nanoporous Materials of MCM-41 Type. Journal of the American Chemical Society, 2000, 122, 9237-9242.	13.7	116
33	Electrical conductivity and translational diffusion in the 1-butyl-3-methylimidazolium tetrafluoroborate ionic liquid. Journal of Chemical Physics, 2008, 128, 214509.	3.0	115
34	Intracrystalline self-diffusion of benzene, toluene and xylene isomers in zeolites Naî—¸X. Zeolites, 1985, 5, 91-95.	0.5	114
35	Unidirectional and Single-File Diffusion of Molecules in One-Dimensional Channel Systems. A Quasi-Elastic Neutron Scattering Study. Journal of Physical Chemistry B, 1997, 101, 5834-5841.	2.6	112
36	Mass Transfer in a Nanoscale Material Enhanced by an Opposing Flux. Physical Review Letters, 2010, 104, 085902.	7.8	111

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37	The propagator representation of molecular transport in microporous crystallites. Journal of Magnetic Resonance, 1983, 51, 1-7.	0.5	110
38	Charge transport and diffusion of ionic liquids in nanoporous silica membranes. Physical Chemistry Chemical Physics, 2010, 12, 13798.	2.8	109
39	The Potentials of Pulsed Field Gradient NMR for Investigation of Porous Media. Adsorption, 1999, 5, 117-133.	3.0	108
40	PFG NMR Study of Diffusion in MFI-Type Zeolites:â€‰ Evidence of the Existence of Intracrystalline Transport Barriers. Journal of Physical Chemistry B, 2001, 105, 5922-5927.	2.6	108
41	Unprecedented Insight into Diffusion by Monitoring the Concentration of Guest Molecules in Nanoporous Host Materials. Angewandte Chemie - International Edition, 2006, 45, 7846-7849.	13.8	107
42	Transport Phenomena in Nanoporous Materials. ChemPhysChem, 2015, 16, 24-51.	2.1	105
43	Diffusion in ionic liquids: the interplay between molecular structure and dynamics. Soft Matter, 2011, 7, 1678.	2.7	104
44	Investigation of internal silanol groups as structural defects in ZSM-5-type zeolites. Journal of the Chemical Society Faraday Transactions I, 1987, 83, 3459.	1.0	101
45	Theoretical prediction of uptake behaviour in adsorption kinetics of binary gas mixtures using irreversible thermodynamics. Chemical Engineering Science, 1975, 30, 893-896.	3.8	99
46	Measurement of Diffusion in Zeolitesâ€”A Never Ending Challenge?. Adsorption, 2003, 9, 29-35.	3.0	99
47	Interference Microscopy Investigation of the Influence of Regular Intergrowth Effects in MFI-Type Zeolites on Molecular Uptake. Journal of Physical Chemistry B, 2001, 105, 10217-10222.	2.6	97
48	Molecular self-diffusion of methane in zeolite ZSM-5 by quasi-elastic neutron scattering and nuclear magnetic resonance pulsed field gradient technique. Journal of the Chemical Society Faraday Transactions I, 1989, 85, 4201.	1.0	95
49	Diffusion of a Mixture of Methane and Xenon in Silicalite:Â A Molecular Dynamics Study and Pulsed Field Gradient Nuclear Magnetic Resonance Experiments. Journal of Physical Chemistry B, 1998, 102, 6375-6381.	2.6	93
50	A study of fast tracer desorption in molecular sieve crystals. AICHE Journal, 1982, 28, 417-423.	3.6	90
51	Transport in Nanoporous Materials Including MOFs: The Applicability of Fickâ€™s Laws. Angewandte Chemie - International Edition, 2015, 54, 14580-14583.	13.8	90
52	Influence of Defects on the External Crystal Surface on Molecular Uptake into MFI-Type Zeolites. Chemistry of Materials, 2004, 16, 3552-3558.	6.7	89
53	129Xe and 13C PFG n.m.r. study of the intracrystalline self-diffusion of Xe, CO2, and CO. Zeolites, 1993, 13, 50-55.	0.5	88
54	NMR and IR studies of zeolite H-ZSM-5 modified with orthophosphoric acid. Journal of Catalysis, 1990, 124, 367-375.	6.2	87

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55	Calculating exact propagators in single-file systems via the reflection principle. Physical Review E, 1998, 57, 4382-4397.	2.1	87
56	NMR diffusion and relaxation studies during cement hydrationâ€"A non-destructive approach for clarification of the mechanism of internal post curing of cementitious materials. Cement and Concrete Research, 2006, 36, 817-826.	11.0	86
57	Measurement of the intracrystalline self-diffusion of xenon in zeolites by the NMR pulsed field gradient technique. Journal of the American Chemical Society, 1990, 112, 2175-2178.	13.7	85
58	Intracrystalline Transport Resistances in Nanoporous Zeolite X. ChemPhysChem, 2009, 10, 2429-2433.	2.1	85
59	Sorption kinetics of n-hexane on MgA zeolites of different crystal sizes. Study of the rate-limiting transport mechanism. Journal of the Chemical Society Faraday Transactions I, 1980, 76, 597.	1.0	84
60	PFG n.m.r. study of diffusion anisotropy in oriented ZSM-5 type zeolite crystallites. Zeolites, 1991, 11, 816-821.	0.5	84
61	Comparative QENS and PFG NMR diffusion studies of water in zeolite NaCaA. Microporous and Mesoporous Materials, 2002, 55, 147-158.	4.4	83
62	Concentration-dependent self-diffusion of liquids in nanopores: A nuclear magnetic resonance study. Journal of Chemical Physics, 2004, 120, 11804-11814.	3.0	83
63	Correlating phase behaviour and diffusion in mesopores: perspectives revealed by pulsed field gradient NMR. Physical Chemistry Chemical Physics, 2009, 11, 2833.	2.8	83
64	Quantitation of diffusion in zeolite catalysts. Microporous and Mesoporous Materials, 2005, 85, 195-206.	4.4	82
65	Assessing Surface Permeabilities from Transient Guest Profiles in Nanoporous Host Materials. Angewandte Chemie - International Edition, 2009, 48, 3525-3528.	13.8	82
66	Evidence for the existence of intracrystalline transport barriers in MFI-type zeolites: a model consistency check using MC simulations. Microporous and Mesoporous Materials, 2002, 55, 139-145.	4.4	81
67	Regular Intergrowth in the AFI-Type Crystals:â€‰Influence on the Intracrystalline Adsorbate Distribution As Observed by Interference and FTIR-Microscopy. Journal of the American Chemical Society, 2002, 124, 8690-8692.	13.7	81
68	Understanding capillary condensation and hysteresis in porous silicon: Network effects within independent pores. Physical Review E, 2008, 78, 060601.	2.1	80
69	Correlating Surface Permeability with Intracrystalline Diffusivity in Nanoporous Solids. Physical Review Letters, 2011, 106, 074501.	7.8	80
70	Interference microscopy as a technique for directly measuring intracrystalline transport diffusion in zeolites. Microporous and Mesoporous Materials, 1999, 32, 101-110.	4.4	77
71	Mixture diffusion in zeolites studied by MAS PFG NMR and molecular simulation. Microporous and Mesoporous Materials, 2007, 105, 124-131.	4.4	76
72	Assessing Guest Diffusivities in Porous Hosts from Transient Concentration Profiles. Physical Review Letters, 2009, 102, 065901.	7.8	76

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73	PFG NMR and QENS diffusion study of n-alkane homologues in MFI-type zeolites. Microporous and Mesoporous Materials, 2006, 90, 299-306.	4.4	75
74	Diffusion in Fluid Catalytic Cracking Catalysts on Various Displacement Scales and Its Role in Catalytic Performance. Chemistry of Materials, 2005, 17, 2466-2474.	6.7	74
75	Time correlation during anomalous diffusion in fractal systems and signal attenuation in NMR field-gradient spectroscopy. Physical Review A, 1988, 37, 4514-4517.	2.5	73
76	High-Resolution DOSY NMR with Spins in Different Chemical Surroundings: Influence of Particle Exchange. Journal of Magnetic Resonance, 2002, 157, 124-131.	2.1	73
77	Der EinfluÃŸ der Zweibereichdiffusion auf die SpinechodÃmpfung unter BerÃ¼cksichtigung der Relaxation bei Messungen mit der Methode der gepulsten Feldgradienten. Annalen Der Physik, 1971, 482, 107-109.	2.4	71
78	Intracrystalline Diffusivities and Surface Permeabilities Deduced from Transient Concentration Profiles:Â Methanol in MOF Manganese Formate. Journal of the American Chemical Society, 2007, 129, 8041-8047.	13.7	71
79	Intracrystalline self-diffusion of H2O and CH4 in ZSM-5 zeolites. Zeolites, 1986, 6, 213-216.	0.5	68
80	Mass Transfer in Micro- and Mesoporous Materials. Chemical Engineering and Technology, 2002, 25, 769.	1.5	67
81	Understanding adsorption and desorption processes in mesoporous materials with independent disordered channels. Physical Review E, 2009, 80, 031607.	2.1	67
82	Diffusion of methanol in NaX crystals: Comparison of i.r., ZLC, and PFG-n.m.r. measurements. Zeolites, 1994, 14, 242-249.	0.5	65
83	A phenomenological study of surface barriers in zeolites. Zeolites, 1986, 6, 146-150.	0.5	63
84	Synthesis and characterization of the layered sodium silicate ilerite. Microporous and Mesoporous Materials, 2000, 40, 43-52.	4.4	63
85	Uphill diffusion and overshooting in the adsorption of binary mixtures in nanoporous solids. Nature Communications, 2015, 6, 7697.	12.8	63
86	Dynamics of water diffusion in mesoporous zeolites. Microporous and Mesoporous Materials, 2011, 142, 236-244.	4.4	62
87	Microimaging of Transient Concentration Profiles of Reactant and Product Molecules during Catalytic Conversion in Nanoporous Materials. Angewandte Chemie - International Edition, 2015, 54, 5060-5064.	13.8	62
88	Tracer Exchange and Catalytic Reaction in Single-File Systems. Journal of Catalysis, 1995, 157, 656-664.	6.2	61
89	Exploring the hierarchy of transport phenomena in hierarchical pore systems by NMR diffusion measurement. Microporous and Mesoporous Materials, 2012, 164, 273-279.	4.4	61
90	N.m.r. evidence of the existence of surface barriers on zeolite crystallites. Zeolites, 1982, 2, 275-278.	0.5	59

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91	Internal Concentration Gradients of Guest Molecules in Nanoporous Host Materials:Â Measurement and Microscopic Analysis. Journal of Physical Chemistry B, 2006, 110, 23821-23828.	2.6	59
92	Exploring Crystal Morphology of Nanoporous Hosts from Timeâ€Dependent Guest Profiles. Angewandte Chemie - International Edition, 2008, 47, 3954-3957.	13.8	59
93	Charge transport and glassy dynamics in imidazole-based liquids. Journal of Chemical Physics, 2008, 129, 234511.	3.0	59
94	Self-Diffusion of Chain Molecules in the Metalâ€“Organic Framework IRMOF-1: Simulation and Experiment. Journal of Physical Chemistry Letters, 2012, 3, 930-933.	4.6	59
95	Monitoring the evolution of intracrystalline concentration. Europhysics Letters, 1999, 46, 204-210.	2.0	58
96	An MD simulation on the applicability of the diffusion equation for molecules adsorbed in a zeolite. Chemical Physics Letters, 1992, 198, 283-287.	2.6	57
97	Long-time limit of the self-correlation-function of one-dimensional diffusion. Physical Review E, 1993, 47, 1427-1428.	2.1	57
98	On the Use of Pulsed Field Gradients in a High-Field NMR Spectrometer to Study Restricted Diffusion in Zeolites. Zeitschrift Fur Naturforschung - Section A Journal of Physical Sciences, 1995, 50, 186-190.	1.5	57
99	A new view of diffusion in nanoporous materials. Chemie-Ingenieur-Technik, 2010, 82, 779-804.	0.8	57
100	Sorption Kinetics and Intracrystalline Diffusion of Methanol in Ferrierite: An Example of Disguised Kinetics. Adsorption, 2005, 11, 235-244.	3.0	56
101	Probing Memory Effects in Confined Fluids via Diffusion Measurements. Langmuir, 2008, 24, 6429-6432.	3.5	56
102	Ensemble Measurement of Diffusion: Novel Beauty and Evidence. ChemPhysChem, 2009, 10, 2623-2627.	2.1	56
103	Observing Diffusion Anisotropy in Zeolites by Pulsed Field Gradient NMR. Zeitschrift Fur Physikalische Chemie, 1991, 173, 225-234.	2.8	55
104	Diffusivities of n-Alkanes in 5A Zeolite Measured by Neutron Spin Echo, Pulsed-Field Gradient NMR, and Zero Length Column Techniques. Adsorption, 2005, 11, 403-407.	3.0	55
105	Molecular transport through assemblages of microporous particles. Journal of Colloid and Interface Science, 1981, 84, 240-249.	9.4	54
106	Molecular mobility of methane adsorbed on ZSM-5 containing co-adsorbed benzene, and the location of the benzene molecules. Journal of the Chemical Society Faraday Transactions I, 1987, 83, 2301.	1.0	54
107	Exact analytical description of tracer exchange and particle conversion in single-file systems. Physical Review E, 1997, 55, 5697-5712.	2.1	54
108	Effect of Surface Modification on Uptake Rates of Isobutane in MFI Crystals: An Infrared Microscopy Study. Chemistry of Materials, 2007, 19, 6012-6019.	6.7	54

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109	Self-diffusion measurements of n-alkanes in zeolite NaCaA by pulsed-field gradient nuclear magnetic resonance. Journal of the Chemical Society, Faraday Transactions, 1992, 88, 515-519.	1.7	53
110	Fractal Geometry of Surface Areas of Sand Grains Probed by Pulsed Field Gradient NMR. Physical Review Letters, 2002, 88, 105505.	7.8	53
111	In situ measurement of molecular diffusion during catalytic reaction by pulsed-field gradient NMR spectroscopy. Journal of Catalysis, 1992, 137, 243-251.	6.2	52
112	On the heat effect in measurements of sorption kinetics by the frequency response method. Chemical Engineering Science, 1993, 48, 715-722.	3.8	52
113	Background gradient suppression in stimulated echo NMR diffusion studies using magic pulsed field gradient ratios. Journal of Magnetic Resonance, 2004, 166, 164-173.	2.1	52
114	Pulsed field gradient NMR and nuclear magnetic relaxation studies of water mobility in hydrated collagen II. Magnetic Resonance in Medicine, 1996, 36, 241-248.	3.0	51
115	Freezing and melting transitions of liquids in mesopores with ink-bottle geometry. New Journal of Physics, 2007, 9, 272-272.	2.9	51
116	Some remarks on the straight and cross-coefficients in irreversible thermodynamics of surface flow and on the relation between diffusion and selfdiffusion. Surface Science, 1973, 36, 797-801.	1.9	49
117	Application of zeugmatography to study kinetics of physical adsorption. Chemical Engineering Science, 1978, 33, 1019-1023.	3.8	49
118	Selective two-component self-diffusion measurement of adsorbed molecules by pulsed field gradient Fourier transform NMR. Journal of the American Chemical Society, 1991, 113, 4812-4815.	13.7	49
119	Inhomogeneous Distribution of Water Adsorbed under Low Pressure in CrAPO-5 and SAPO-5:Â An Interference Microscopy Study. Journal of Physical Chemistry B, 2003, 107, 4685-4687.	2.6	47
120	Self-diffusion measurements of water adsorbed in NaY zeolites by means of NMR pulsed field gradient techniques. Journal of Colloid and Interface Science, 1973, 44, 187-188.	9.4	46
121	Pulsed field gradient nuclear magnetic resonance study of longâ€“range diffusion in beds of NaX zeolite: Evidence for different apparent tortuosity factors in the Knudsen and bulk regimes. Journal of Chemical Physics, 2002, 117, 1935-1938.	3.0	46
122	Application of Interference Microscopy and IR Microscopy for Characterizing and Investigating Mass Transport in Nanoporous Materials. Chemical Engineering and Technology, 2007, 30, 995-1002.	1.5	46
123	Formation of surface barriers on silicalite-1 crystal fragments by residual water vapour as probed with isobutane by interference microscopy. Microporous and Mesoporous Materials, 2008, 110, 72-76.	4.4	46
124	The predictive power of classical transition state theory revealed in diffusion studies with MOF ZIF-8. Microporous and Mesoporous Materials, 2016, 225, 128-132.	4.4	46
125	Fourier-transform pulsed-field-gradient1H nuclear magnetic resonance investigation of the diffusion of light n-alkanes in zeolite ZSM-5. Journal of the Chemical Society, Faraday Transactions, 1991, 87, 1935-1943.	1.7	45
126	Direct assessment of molecular transport in mordenite: dominance of surface resistances. Chemical Communications, 2009, , 6424.	4.1	45

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127	Monitoring Molecular Mass Transfer in Cation-Free Nanoporous Host Crystals of Type AlPO-LTA. Journal of the American Chemical Society, 2012, 134, 7725-7732.	13.7	45
128	Self-diffusion of paraffins and olefins in zeolite Naî—¸X under the influence of residual water molecules. Zeolites, 1984, 4, 188-190.	0.5	44
129	Comparison of nuclear magnetic resonance tracer exchange and molecular uptake of benzene on pentasils. Journal of the Chemical Society, Faraday Transactions, 1990, 86, 881-885.	1.7	44
130	Nuclear magnetic resonance measurement of mass transfer in molecular sieve crystallites. Journal of the Chemical Society, Faraday Transactions, 1991, 87, 1989-1996.	1.7	44
131	Boundary effects of molecular diffusion in nanoporous materials: A pulsed field gradient nuclear magnetic resonance study. Journal of Chemical Physics, 2004, 120, 367-373.	3.0	44
132	Inflection in the loading dependence of the Maxwellâ€“Stefan diffusivity of iso-butane in MFI zeolite. Chemical Physics Letters, 2008, 459, 141-145.	2.6	44
133	In-depth study of surface resistances in nanoporous materials by microscopic diffusion measurement. Microporous and Mesoporous Materials, 2014, 189, 126-135.	4.4	44
134	On the diffusion mechanism of methane in a cation-free zeolite of type ZK4. Chemical Physics, 1993, 174, 229-236.	1.9	43
135	Liquid-phase self-diffusion in hydrating cement pastes â€" results from NMR studies and perspectives for further research. Cement and Concrete Research, 2007, 37, 398-413.	11.0	43
136	Exploring the nature of surface barriers on MOF Zn(tbip) by applying IR microscopy in high temporal and spatial resolution. Microporous and Mesoporous Materials, 2010, 129, 340-344.	4.4	43
137	Singleâ€Particle and Ensemble Diffusivitiesâ€"Test of Ergodicity. Angewandte Chemie - International Edition, 2012, 51, 1152-1155.	13.8	43
138	Scale-dependent diffusion anisotropy in nanoporous silicon. Scientific Reports, 2017, 7, 40207.	3.3	43
139	In SituPFG NMR Study of Intracrystalline Diffusion during Ethene Conversion in ZSM-5. Journal of Catalysis, 1996, 163, 130-137.	6.2	42
140	In Situ13C Fourier Transform Pulsed Field Gradient NMR Study of Intracrystalline Diffusion during Isopropanol Conversion in X-Type Zeolites. Journal of Catalysis, 1997, 167, 248-255.	6.2	42
141	Molecular dynamics under confinement to one dimension: options of measurement and accessible information. New Journal of Physics, 2005, 7, 15-15.	2.9	42
142	Exchange Dynamics at the Interface of Nanoporous Materials with their Surroundings. Physical Review Letters, 2007, 99, 228301.	7.8	42
143	Nanoporous Glass as a Model System for a Consistency Check of the Different Techniques of Diffusion Measurement. ChemPhysChem, 2011, 12, 1130-1134.	2.1	41
144	Intracrystalline Diffusion in Mesoporous Zeolites. ChemPhysChem, 2012, 13, 1495-1499.	2.1	41

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145	Uncommon Synergy between Adsorption and Diffusion of Hexane Isomer Mixtures in MFI Zeolite Induced by Configurational Entropy Effects. Journal of Physical Chemistry C, 2014, 118, 2660-2665.	3.1	41
146	Nuclear magnetic resonance self-diffusion studies of methanolâ€“water mixtures in pentasil-type zeolites. Journal of the Chemical Society Faraday Transactions I, 1987, 83, 1843.	1.0	40
147	NMR study of mass transfer in granulated molecular sieves. AICHE Journal, 1988, 34, 1185-1189.	3.6	40
148	Molecular Mobility Measurement of Hydrocarbons in Zeolites by NMR Techniques. Advances in Catalysis, 1993, 39, 351-414.	0.2	40
149	â€œTwo-stepâ€•model of molecular diffusion in silicalite. Journal of Chemical Physics, 1999, 110, 1163-1172.	3.0	40
150	Surface Self-Diffusion of Organic Molecules Adsorbed in Porous Silicon. Journal of Physical Chemistry B, 2005, 109, 5746-5752.	2.6	40
151	Pulsed field gradient NMR diffusion measurement in nanoporous materials. Adsorption, 2021, 27, 453-484.	3.0	40
152	Comparison of predicted and nuclear magnetic resonance zeolitic diffusion coefficients. Journal of the Chemical Society Faraday Transactions I, 1980, 76, 1562.	1.0	39
153	Length and occupancy dependence of the tracer exchange in single-file systems. Journal of Chemical Physics, 1999, 110, 3970-3980.	3.0	39
154	Reactivity Enhancement by Molecular Traffic Control. Journal of Catalysis, 2000, 194, 1-3.	6.2	39
155	Determination of Genuine Diffusivities in Heterogeneous Media Using Stimulated Echo Pulsed Field Gradient NMR. Journal of Magnetic Resonance, 2001, 149, 228-233.	2.1	39
156	On the diffusion of water in silicalite-1: MD simulations using ab initio fitted potential and PFG NMR measurements. Applied Catalysis A: General, 2002, 232, 59-66.	4.3	39
157	Investigating the reasons for the significant influence of lattice flexibility on self-diffusivity of ethane in Zn(tbip). Microporous and Mesoporous Materials, 2010, 130, 92-96.	4.4	39
158	Direct Assessment of Transport Properties of Supercritical Fluids Confined to Nanopores. Journal of the American Chemical Society, 2007, 129, 10344-10345.	13.7	38
159	The Impact of Mesopores on Mass Transfer in Nanoporous Materials: Evidence of Diffusion Measurement by NMR. Chemie-Ingenieur-Technik, 2011, 83, 166-176.	0.8	38
160	Intracrystalline mass transfer in zeolites monitored by microscopic and macroscopic techniques. Journal of the American Chemical Society, 1990, 112, 7-9.	13.7	37
161	P.f.g. n.m.r. study of the influence of the exchangeable cations on the self-diffusion of hydrocarbons in zeolites. Zeolites, 1994, 14, 320-325.	0.5	37
162	NMR relaxometry during internal curing of Portland cements by lightweight aggregates. Materials and Structures/Materiaux Et Constructions, 2008, 41, 1647-1655.	3.1	37

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163	NMR Study of Adsorbate Self-Diffusion in Porous Glasses. Journal of the American Ceramic Society, 1983, 66, 69-72.	3.8	36
164	On the translational mobility of benzene adsorbed on NaX-type zeolites. Journal of the Chemical Society Chemical Communications, 1990, , 341-342.	2.0	36
165	Anomalous Segment Diffusion in Polymer Melts. Macromolecules, 1994, 27, 4274-4277.	4.8	36
166	PFG NMR Self-Diffusion Measurements with Large Field Gradients. Journal of Magnetic Resonance Series A, 1995, 114, 101-104.	1.6	36
167	Intracrystalline monitoring of molecular uptake into the one-dimensional channels of the AFI-type crystals using interference microscopy. Journal of Chemical Physics, 2003, 118, 6129-6132.	3.0	36
168	Tracing pore connectivity and architecture in nanostructured silica SBA-15. Microporous and Mesoporous Materials, 2008, 110, 37-40.	4.4	36
169	Assessing Molecular Transport Properties of Nanoporous Materials by Interference Microscopy: Remarkable Effects of Composition and Microstructure on Diffusion in the Silicoaluminophosphate Zeotype STA-7. Journal of the American Chemical Society, 2010, 132, 11665-11670.	13.7	36
170	On the correlation between diffusion and self-diffusion processes of adsorbed molecules in a simple microkinetic model. Surface Science, 1976, 57, 749-754.	1.9	35
171	Diffusion, cracking and coking on HZSM-5 of various morphologies. Applied Catalysis, 1988, 42, 15-27.	0.8	35
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