

Reiner Zorn

List of Publications by Year in descending order

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78
papers

2,677
citations

201674

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times ranked

1941
citing authors

#	ARTICLE	IF	CITATIONS
1	Microscopic dynamics of highly permeable super glassy polynorbornenes revealed by quasielastic neutron scattering. <i>Journal of Membrane Science</i> , 2022, 642, 119972.	8.2	3
2	Inelastic neutron scattering analysis with time-dependent Gaussian-field models. <i>Journal of Chemical Physics</i> , 2021, 155, 024121.	3.0	2
3	Low Frequency Vibrations and Diffusion in Disordered Polymers Bearing an Intrinsic Microporosity as Revealed by Neutron Scattering. <i>Crystals</i> , 2021, 11, 1482.	2.2	2
4	Anomalies in the low frequency vibrational density of states for a polymer with intrinsic microporosity – the Boson peak of PIM-1. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 1355-1363.	2.8	17
5	Fractal diffusion in high temperature polymer electrolyte fuel cell membranes. <i>Journal of Chemical Physics</i> , 2018, 148, 204906.	3.0	8
6	Description of poly(ethylenepropylene) confined in nanopores by a modified Rouse model. <i>Journal of Chemical Physics</i> , 2017, 146, 203309.	3.0	1
7	Temperature fluctuations and the thermodynamic determination of the cooperativity length in glass forming liquids. <i>Journal of Chemical Physics</i> , 2017, 146, 104501.	3.0	21
8	Influence of morphology on physical properties of poly(2,5-benzimidazole) membranes. <i>Journal of Membrane Science</i> , 2017, 533, 342-350.	8.2	13
9	Structure and Proton Dynamics in Catalytic Layer of HT-PEFC. <i>Fuel Cells</i> , 2016, 16, 406-413.	2.4	12
10	Inelastic neutron spectroscopy as a tool to investigate nanoconfined polymer systems. <i>Polymer</i> , 2016, 105, 393-406.	3.8	28
11	The Initiation Mechanism of Butadiene Polymerization in Aliphatic Hydrocarbons: A Full Mechanistic Approach. <i>Macromolecules</i> , 2016, 49, 5397-5406.	4.8	3
12	Quasi- and inelastic neutron scattering to investigate the molecular dynamics of discotic molecules in the bulk. <i>EPJ Web of Conferences</i> , 2015, 83, 02017.	0.3	2
13	Local Structure and Proton Transport in HT-PEFCs Measured with Neutron Scattering. <i>ECS Transactions</i> , 2015, 69, 337-343.	0.5	5
14	Observing proton motion on the nanoscale in polymeric electrolyte membranes with quasielastic neutron scattering. <i>International Journal of Hydrogen Energy</i> , 2014, 39, 21657-21662.	7.1	11
15	Probing cooperative liquid dynamics with the mean square displacement. <i>Physical Review E</i> , 2014, 90, 042312.	2.1	44
16	Vibrational density of states of triphenylene based discotic liquid crystals: dependence on the length of the alkyl chain. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 7324-7333.	2.8	39
17	Closed-form Expressions for the Form Factor of a Polymer under Strong Confinement. <i>Macromolecular Theory and Simulations</i> , 2014, 23, 84-89.	1.4	3
18	Thermal properties and vibrational density of states of a nanoconfined discotic liquid crystal. <i>Colloid and Polymer Science</i> , 2014, 292, 1949-1960.	2.1	6

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19	Glass transition cooperativity from broad band heat capacity spectroscopy. <i>Colloid and Polymer Science</i> , 2014, 292, 1893-1904.	2.1	57
20	Determination of the Compositional Profile for Tapered Copolymers of Ethylene Oxide and 1,2-Butylene Oxide by In-situ-NMR. <i>Macromolecules</i> , 2013, 46, 3931-3938.	4.8	28
21	Molecular dynamics of n-hexane: A quasi-elastic neutron scattering study on the bulk and spatially nanochannel-confined liquid. <i>Journal of Chemical Physics</i> , 2012, 136, 124505.	3.0	28
22	Sample shape contribution to the resolution function of time-of-flight neutron scattering spectrometers. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2012, 674, 85-91.	1.6	4
23	Unified Description of the Viscoelastic and Dielectric Global Chain Motion in Terms of the Tube Theory. <i>Macromolecules</i> , 2011, 44, 7430-7437.	4.8	25
24	Neutron spectroscopy for confinement studies. <i>European Physical Journal: Special Topics</i> , 2010, 189, 65-81.	2.6	7
25	Vibrational and molecular dynamics of a nanoconfined liquid crystal. <i>European Physical Journal: Special Topics</i> , 2010, 189, 251-255.	2.6	19
26	Boson peak in confined disordered systems. <i>Physical Review B</i> , 2010, 81, .	3.2	32
27	On the evaluation of neutron scattering elastic scan data. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2009, 603, 439-445.	1.6	26
28	Inelastic neutron scattering study of a glass-forming liquid in soft confinement. <i>Soft Matter</i> , 2008, 4, 522-533.	2.7	26
29	SANS Investigation and Conductivity of Pure and Salt-Containing Poly(bismethoxyphosphazene). <i>Macromolecules</i> , 2008, 41, 2212-2218.	4.8	7
30	Molecular dynamics in glass-forming poly(phenyl methyl siloxane) as investigated by broadband thermal, dielectric and neutron spectroscopy. <i>Journal of Non-Crystalline Solids</i> , 2007, 353, 3853-3861.	3.1	34
31	Dielectric and thermal relaxation in the energy landscape. <i>Philosophical Magazine</i> , 2007, 87, 389-400.	1.6	0
32	Multiple scattering correction of neutron scattering elastic scans. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2007, 572, 874-881.	1.6	25
33	Segmental dynamics of poly(methyl phenyl siloxane) confined to nanoporous glasses. <i>European Physical Journal: Special Topics</i> , 2007, 141, 255-259.	2.6	54
34	Plasticizer effect on the dynamics of polyvinylchloride studied by dielectric spectroscopy and quasielastic neutron scattering. <i>Journal of Chemical Physics</i> , 2006, 125, 154904.	3.0	17
35	Going to the limits of NSE. <i>Physica B: Condensed Matter</i> , 2005, 356, 206-212.	2.7	4
36	Fast dynamics of H ₂ O in hydrous aluminosilicate glasses studied with quasielastic neutron scattering. <i>Physical Review B</i> , 2005, 71, .	3.2	20

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37	Partial Structure Factors in 1,4-Polybutadiene. A Combined Neutron Scattering and Molecular Dynamics Simulations Study. <i>Macromolecules</i> , 2005, 38, 9847-9853.	4.8	22
38	Inelastic neutron scattering for investigating the dynamics of confined glass-forming liquids. <i>Journal of Non-Crystalline Solids</i> , 2005, 351, 2657-2667.	3.1	51
39	Polymers in nanoconfinement: What can be learned from relaxation and scattering experiments?. <i>Journal of Non-Crystalline Solids</i> , 2005, 351, 2668-2677.	3.1	108
40	Glass transition of polymers confined to nanoporous glasses. <i>Colloid and Polymer Science</i> , 2004, 282, 882-891.	2.1	95
41	Dynamics of confined glass-forming systems observed by neutron scattering. <i>Physica B: Condensed Matter</i> , 2004, 350, E1115-E1118.	2.7	12
42	Glassy dynamics of polymers confined to nanoporous glasses revealed by relaxational and scattering experiments. <i>European Physical Journal E</i> , 2003, 12, 173-178.	1.6	124
43	Editorial. <i>European Physical Journal E</i> , 2003, 12, 3-4.	1.6	19
44	Partial Structure Factors of Polyisoprene: A Neutron Scattering and Molecular Dynamics Simulation. <i>Macromolecules</i> , 2003, 36, 238-248.	4.8	32
45	Microscopic dynamics of glass-forming polymers. <i>Journal of Physics Condensed Matter</i> , 2003, 15, R1025-R1046.	1.8	17
46	Quasielastic neutron scattering study of the methyl group dynamics in polyisoprene. <i>Journal of Chemical Physics</i> , 2002, 116, 845-853.	3.0	44
47	Logarithmic moments of relaxation time distributions. <i>Journal of Chemical Physics</i> , 2002, 116, 3204-3209.	3.0	74
48	Inelastic neutron scattering experiments on the dynamics of a glass-forming material in mesoscopic confinement. <i>Journal of Non-Crystalline Solids</i> , 2002, 307-310, 547-554.	3.1	54
49	Partial structure factors of a simulated polymer melt. <i>Computational Materials Science</i> , 2002, 25, 596-605.	3.0	5
50	Multiple scattering correction of polarized neutron diffraction data. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2002, 479, 568-584.	1.6	8
51	The segmental dynamics of a polymer electrolyte investigated by coherent quasielastic neutron scattering. <i>Journal of Chemical Physics</i> , 2001, 114, 9645-9656.	3.0	23
52	Neutron Spin Echo Study of the Dynamic Behavior of Amphiphilic Diblock Copolymer Micelles in Aqueous Solution. <i>Langmuir</i> , 2000, 16, 9177-9185.	3.5	24
53	Applicability of distribution functions for the Havriliak-Negami spectral function. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 1999, 37, 1043-1044.	2.1	38
54	Anisotropic Motion of Cholesterol in Oriented DPPC Bilayers Studied by Quasielastic Neutron Scattering: The Liquid-Ordered Phase. <i>Biophysical Journal</i> , 1999, 77, 331-340.	0.5	81

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55	Fast-dynamics in plasticized poly(vinyl chloride). Journal of Non-Crystalline Solids, 1998, 235-237, 169-172.	3.1	6
56	Orientational effects on low-energy modes in amorphous poly(ethylene terephthalate) fiber. Journal of Chemical Physics, 1998, 109, 10456-10463.	3.0	5
57	Absence of annealing effect in the vibrational density of states in a glassforming polymer. Journal of Chemical Physics, 1998, 108, 3327-3331.	3.0	26
58	Dynamics of polybutadienes with different microstructures. 2. Dielectric response and comparisons with rheological behavior. Journal of Chemical Physics, 1997, 107, 3645-3655.	3.0	62
59	Deviation from Gaussian behavior in the self-correlation function of the proton motion in polybutadiene. Physical Review B, 1997, 55, 6249-6259.	3.2	78
60	Deconvolution of neutron scattering data: a new computational approach. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1996, 378, 275-283.	1.6	9
61	Influence of the microstructure on the incoherent neutron scattering of glass-forming polybutadienes. Journal of Chemical Physics, 1996, 105, 1189-1197.	3.0	16
62	Neutron scattering study of the picosecond dynamics of polybutadiene and polyisoprene. Physical Review E, 1995, 52, 781-795.	2.1	192
63	Rheological Investigation of Polybutadienes Having Different Microstructures over a Large Temperature Range. Macromolecules, 1995, 28, 8552-8562.	4.8	83
64	Optimization of step-scanning registration with radiation counters. Review of Scientific Instruments, 1995, 66, 3377-3381.	1.3	0
65	Molecular dynamics of water in oriented DPPC multilayers studied by quasielastic neutron scattering and deuterium nuclear magnetic resonance relaxation. Journal of Chemical Physics, 1994, 100, 3307-3316.	3.0	110
66	The fast relaxation process near the glass transition in amorphous polymers with different microstructure. Journal of Non-Crystalline Solids, 1994, 172-174, 272-285.	3.1	22
67	Neutron scattering experiments on the glass transition of polymers. Physica A: Statistical Mechanics and Its Applications, 1993, 201, 52-66.	2.6	50
68	Decoupling of time scales of motion in polybutadiene close to the glass transition. Physical Review Letters, 1992, 68, 71-74.	7.8	130
69	Richter et al. reply. Physical Review Letters, 1992, 69, 1621-1621.	7.8	12
70	A Relation Between Fast and Slow Motions in Glassy and Liquid Selenium. Europhysics Letters, 1992, 18, 523-528.	2.0	228
71	Comparative study of the segmental relaxation in polyisoprene by quasi-elastic neutron scattering and dielectric spectroscopy. Physica B: Condensed Matter, 1992, 180-181, 534-536.	2.7	45
72	Investigation of the glass transition in polymers under the aspect of mode coupling predictions. Journal of Non-Crystalline Solids, 1991, 131-133, 169-176.	3.1	26

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73	Neutron Scattering Experiments in the Neighborhood of the Glass Transition in Polybutadiene " a Test of Mode Coupling. Zeitschrift Fur Elektrotechnik Und Elektrochemie, 1991, 95, 1111-1118.	0.9	12
74	Influence of Ca ²⁺ - and Mg ²⁺ -Ions on Model Membranes. Zeitschrift Fur Elektrotechnik Und Elektrochemie, 1990, 94, 573-578.	0.9	2
75	Structural and dielectric properties of synthetic glycolipids in mixtures with water. Biophysical Journal, 1990, 58, 1199-1206.	0.5	9
76	Dielectric and Structural Properties of a Water-Oil Emulsion at the Gel-Microemulsion Transition. Europhysics Letters, 1986, 2, 103-108.	2.0	9
77	Tests of the multi-spin-coding technique in Monte Carlo simulations of statistical systems. Computer Physics Communications, 1981, 23, 337-342.	7.5	68
78	A wing explained. Nature Physics, 0, , .	16.7	0