

Kay Saalwächter

List of Publications by Year in descending order

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193
papers

9,215
citations

30070

54
h-index

53230

85
g-index

207
all docs

207
docs citations

207
times ranked

6178
citing authors

#	ARTICLE	IF	CITATIONS
1	Competition between crystal growth and intracrystalline chain diffusion determines the lamellar thickness in semicrystalline polymers. <i>Nature Communications</i> , 2022, 13, 119.	12.8	26
2	Defect-controlled softness, diffusive permeability, and mesh-topology of metallo-supramolecular hydrogels. <i>Soft Matter</i> , 2022, 18, 1071-1081.	2.7	13
3	Polymer Composites with Molecular Fillers: Microscopic Views into Supramolecular Reinforcement. <i>Advances in Dielectrics</i> , 2022, , 163-185.	1.2	1
4	NMR-Based Cross-Link Densities in EPDM and EPDM/ULDPE Blend Materials and Correlation with Mechanical Properties. <i>Macromolecular Materials and Engineering</i> , 2022, 307, .	3.6	3
5	Design, Synthesis and Characterization of Vitrimers with Low Topology Freezing Transition Temperature. <i>Polymers</i> , 2022, 14, 2456.	4.5	5
6	Swelling and Residual Bond Orientations of Polymer Model Gels: The Entanglement-Free Limit. <i>Macromolecules</i> , 2022, 55, 5997-6014.	4.8	9
7	Spatial inhomogeneity, interfaces and complex vitrification kinetics in a network forming nanocomposite. <i>Soft Matter</i> , 2021, 17, 2775-2790.	2.7	20
8	Sulfobetaine Hydrogels with a Complex Multilength-Scale Hierarchical Structure. <i>Journal of Physical Chemistry B</i> , 2021, 125, 3398-3408.	2.6	4
9	Dynamic Heterogeneity of Filler-Associated Interphases in Polymer Nanocomposites. <i>Macromolecular Rapid Communications</i> , 2021, 42, e2100061.	3.9	7
10	Trajectory-Based Approach for the Analysis of CODEX Solid-State Exchange Experiments in the Slow and Intermediate Motion Regime: Comparison of Experiment, Simulation, and Analytical Treatment. <i>Journal of Physical Chemistry C</i> , 2021, 125, 6839-6850.	3.1	1
11	Rheology, Sticky Chain, and Sticker Dynamics of Supramolecular Elastomers Based on Cluster-Forming Telechelic Linear and Star Polymers. <i>Macromolecules</i> , 2021, 54, 5065-5076.	4.8	20
12	Efficient polynomial analysis of magic-angle spinning sidebands and application to order parameter determination in anisotropic samples. <i>Magnetic Resonance</i> , 2021, 2, 589-606.	1.9	1
13	Asymmetric Co-unit Inclusion in Statistical Copolyesters. <i>Macromolecules</i> , 2021, 54, 835-845.	4.8	9
14	Polymer Networks for Enrichment of Calcium Ions. <i>Polymers</i> , 2021, 13, 3506.	4.5	1
15	On the Immobilized Polymer Fraction in Attractive Nanocomposites: T_g Gradient versus Interfacial Layer. <i>Macromolecules</i> , 2021, 54, 10289-10299.	4.8	20
16	Connectivity Defects and Collective Assemblies in Model Metallo-Supramolecular Dual-Network Hydrogels. <i>Macromolecular Chemistry and Physics</i> , 2020, 221, 1900400.	2.2	24
17	Self-healing and reprocessable bromo butylrubber based on combined ionic cluster formation and hydrogen bonding. <i>Polymer Chemistry</i> , 2020, 11, 1188-1197.	3.9	23
18	NMR Studies on the Phase-Resolved Evolution of Cross-Link Densities in Thermo-Oxidatively Aged Elastomer Blends. <i>Macromolecules</i> , 2020, 53, 11166-11177.	4.8	15

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19	Terminal Flow of Cluster-Forming Supramolecular Polymer Networks: Single-Chain Relaxation or Micelle Reorganization?. <i>Physical Review Letters</i> , 2020, 125, 127801.	7.8	20
20	Study on Homogeneity in Sulfur Cross-Linked Network Structures of Isoprene Rubber by TD-NMR and AFM of Zinc Stearate System. <i>Macromolecules</i> , 2020, 53, 8438-8449.	4.8	20
21	Control of Particle Dispersion with Autophobic Dewetting in Polymer Nanocomposites. <i>Macromolecules</i> , 2020, 53, 4836-4844.	4.8	9
22	Intracrystalline Dynamics in Oligomer-Diluted Poly(Ethylene Oxide). <i>Macromolecular Chemistry and Physics</i> , 2020, 221, 1900393.	2.2	3
23	Structure, Mechanical Properties, and Dynamics of Polyethylenoxide/Nanoclay Nacre-Mimetic Nanocomposites. <i>Macromolecules</i> , 2020, 53, 1716-1725.	4.8	27
24	Relaxation-induced dipolar exchange with recoupling (RIDER) distortions in CODEX experiments. <i>Magnetic Resonance</i> , 2020, 1, 247-259.	1.9	2
25	Initial Solvent-Driven Nonequilibrium Effect on Structure, Properties, and Dynamics of Polymer Nanocomposites. <i>Physical Review Letters</i> , 2019, 123, 167801.	7.8	23
26	Structure and Dynamics in a Polymorphic Nanophase-Separated Stiff Comblike Polymer. <i>Macromolecules</i> , 2019, 52, 6943-6952.	4.8	5
27	Microscopic State of Polymer Network Chains upon Swelling and Deformation. <i>Macromolecules</i> , 2019, 52, 5042-5053.	4.8	14
28	Hierarchical Sticker and Sticky Chain Dynamics in Self-Healing Butyl Rubber Ionomers. <i>Macromolecules</i> , 2019, 52, 4169-4184.	4.8	48
29	Cholesterol-like effects of a fluorotelomer alcohol incorporated in phospholipid membranes. <i>Scientific Reports</i> , 2018, 8, 2154.	3.3	6
30	Dynamics-based assessment of nanoscopic polymer-network mesh structures and their defects. <i>Soft Matter</i> , 2018, 14, 1976-1991.	2.7	38
31	Entrapped Styrene Butadiene Polymer Chains by Sol-Gel-Derived Silica Nanoparticles with Hierarchical Raspberry Structures. <i>Journal of Physical Chemistry B</i> , 2018, 122, 2010-2022.	2.6	10
32	Tuning the Properties and Self-Healing Behavior of Ionically Modified Poly(isobutylene-co-isoprene) Rubber. <i>Macromolecules</i> , 2018, 51, 468-479.	4.8	77
33	Liquid-liquid phase coexistence in lipid membranes observed by natural abundance ^{13}C solid-state NMR. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 9751-9754.	2.8	9
34	Synthesis and Structural NMR Characterization of Novel PPG/PCL Conetworks Based upon Heterocomplementary Coupling Reactions. <i>Macromolecular Chemistry and Physics</i> , 2018, 219, 1700327.	2.2	30
35	The Underestimated Effect of Intracrystalline Chain Dynamics on the Morphology and Stability of Semicrystalline Polymers. <i>Macromolecules</i> , 2018, 51, 8377-8385.	4.8	36
36	Identifying the Role of Primary and Secondary Interactions on the Mechanical Properties and Healing of Densely Branched Polyimides. <i>Macromolecules</i> , 2018, 51, 8333-8345.	4.8	22

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37	Microsecond motions probed by near-rotary-resonance R ₁ ρ-15N MAS NMR experiments: the model case of protein overall-rocking in crystals. <i>Journal of Biomolecular NMR</i> , 2018, 71, 53-67.	2.8	34
38	Time-Domain NMR Observation of Entangled Polymer Dynamics: Focus on All Tube-Model Regimes, Chain Center, and Matrix Effects. <i>Macromolecules</i> , 2018, 51, 4108-4117.	4.8	20
39	The Influence of Chemical Modification on Linker Rotational Dynamics in Metal-Organic Frameworks. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 8678-8681.	13.8	33
40	The Influence of Chemical Modification on Linker Rotational Dynamics in Metal-Organic Frameworks. <i>Angewandte Chemie</i> , 2018, 130, 8814-8817.	2.0	11
41	Quantitative NMR study of heat-induced aggregation of eye-lens crystallin proteins under crowding conditions. <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , 2018, 1866, 1055-1061.	2.3	3
42	Moisture-mediated self-healing kinetics and molecular dynamics in modified polyurethane urea polymers. <i>Polymer</i> , 2018, 151, 125-135.	3.8	15
43	Interplay between Crystallization and Entanglements in the Amorphous Phase of the Crystal-Fixed Polymer Poly(μ-caprolactone). <i>Macromolecules</i> , 2018, 51, 5831-5841.	4.8	44
44	Multiple-Quantum NMR Studies of Anisotropic Polymer Chain Dynamics. , 2018, , 755-781.		5
45	Orientation-dependent proton double-quantum NMR build-up function for soft materials with anisotropic mobility. <i>Solid State Nuclear Magnetic Resonance</i> , 2017, 82-83, 22-28.	2.3	9
46	Reduced-mobility layers with high internal mobility in poly(ethylene oxide)-silica nanocomposites. <i>Journal of Chemical Physics</i> , 2017, 146, 203303.	3.0	25
47	Intracrystalline Jump Motion in Poly(ethylene oxide) Lamellae of Variable Thickness: A Comparison of NMR Methods. <i>Macromolecules</i> , 2017, 50, 3890-3902.	4.8	28
48	Microscopic observation of the segmental orientation autocorrelation function for entangled and constrained polymer chains. <i>Journal of Chemical Physics</i> , 2017, 146, .	3.0	20
49	Segmental dynamics of polyethylene-alt-propylene studied by NMR spin echo techniques. <i>Journal of Chemical Physics</i> , 2017, 146, 224901.	3.0	9
50	Complex Morphology of the Intermediate Phase in Block Copolymers and Semicrystalline Polymers As Revealed by ¹ H NMR Spin Diffusion Experiments. <i>Macromolecules</i> , 2017, 50, 8598-8610.	4.8	24
51	Opposing Phase-Segregation and Hydrogen-Bonding Forces in Supramolecular Polymers. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 13016-13020.	13.8	27
52	Opposing Phase-Segregation and Hydrogen-Bonding Forces in Supramolecular Polymers. <i>Angewandte Chemie</i> , 2017, 129, 13196-13200.	2.0	4
53	Comment on "Turning Vulcanized Natural Rubber into a Self-Healing Polymer: Effect of the Disulfide/Polysulfide Ratio". <i>ACS Sustainable Chemistry and Engineering</i> , 2017, 5, 11125-11126.	6.7	5
54	Polymer Applications of NMR. , 2017, , 695-708.		1

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55	Multiple-Quantum NMR Studies of Anisotropic Polymer Chain Dynamics. , 2017, , 1-28.		5
56	Applications of Solid-State NMR Spectroscopy for the Study of Lipid Membranes with Polyphilic Guest (Macro)Molecules. <i>Polymers</i> , 2016, 8, 439.	4.5	15
57	Solid State NMR Investigations of Lipid Bilayers in Interaction with Amphiphilic Triblock Copolymers. <i>Biophysical Journal</i> , 2016, 110, 246a.	0.5	0
58	Pharmaceutical nanocrystals confined in porous host systems – interfacial effects and amorphous interphases. <i>Chemical Communications</i> , 2016, 52, 4466-4469.	4.1	15
59	Entanglements, Defects, and Inhomogeneities in Nitrile Butadiene Rubbers: Macroscopic versus Microscopic Properties. <i>Macromolecules</i> , 2016, 49, 9004-9016.	4.8	48
60	Coupling and Decoupling of Rotational and Translational Diffusion of Proteins under Crowding Conditions. <i>Journal of the American Chemical Society</i> , 2016, 138, 10365-10372.	13.7	86
61	Acyl Chain Disorder and Azelaoyl Orientation in Lipid Membranes Containing Oxidized Lipids. <i>Langmuir</i> , 2016, 32, 6524-6533.	3.5	22
62	Transient binding accounts for apparent violation of the generalized Stokes-Einstein relation in crowded protein solutions. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 18006-18014.	2.8	23
63	Oxidized Lipids in Model Membranes: Atomistic Details from Solid-State NMR Experiments and MD Simulations. <i>Biophysical Journal</i> , 2016, 110, 584a.	0.5	1
64	Self-Assembly of X-Shaped Bolapolyphiles in Lipid Membranes: Solid-State NMR Investigations. <i>Langmuir</i> , 2016, 32, 673-682.	3.5	10
65	Chain Dynamics and Segmental Orientation in Polymer Melts Confined to Nanochannels. <i>Macromolecules</i> , 2016, 49, 244-256.	4.8	30
66	Multiple-Quantum NMR Studies of Anisotropic Polymer Chain Dynamics. , 2016, , 1-28.		1
67	Dendritic Domains with Hexagonal Symmetry Formed by X-Shaped Bolapolyphiles in Lipid Membranes. <i>Chemistry - A European Journal</i> , 2015, 21, 8840-8850.	3.3	15
68	Critical fluctuations and static inhomogeneities in polymer gel volume phase transitions. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2015, 53, 1112-1122.	2.1	15
69	NMR-Detected Brownian Dynamics of β -Crystallin over a Wide Range of Concentrations. <i>Biophysical Journal</i> , 2015, 108, 98-106.	0.5	21
70	Temperature-Dependent In-Plane Structure Formation of an X-Shaped Bolapolyphile within Lipid Bilayers. <i>Langmuir</i> , 2015, 31, 2839-2850.	3.5	11
71	Large-Scale Diffusion of Entangled Polymers along Nanochannels. <i>ACS Macro Letters</i> , 2015, 4, 561-565.	4.8	35
72	Moderate MAS enhances local ^1H spin exchange and spin diffusion. <i>Journal of Magnetic Resonance</i> , 2015, 260, 28-37.	2.1	18

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73	Depercolation of aggregates upon polymer grafting in simplified industrial nanocomposites studied with dielectric spectroscopy. <i>Polymer</i> , 2015, 73, 131-138.	3.8	35
74	Basic principles of static proton low-resolution spin diffusion NMR in nanophase-separated materials with mobility contrast. <i>Solid State Nuclear Magnetic Resonance</i> , 2015, 72, 50-63.	2.3	80
75	The "long tail" of the protein tumbling correlation function: observation by ¹ H NMR relaxometry in a wide frequency and concentration range. <i>Journal of Biomolecular NMR</i> , 2015, 63, 403-415.	2.8	19
76	Correlation of crosslink densities using solid state NMR and conventional techniques in peroxide-crosslinked EPDM rubber. <i>Polymer</i> , 2015, 56, 309-317.	3.8	78
77	Comparison of double-quantum NMR normalization schemes to measure homonuclear dipole-dipole interactions. <i>Journal of Chemical Physics</i> , 2014, 141, 064201.	3.0	4
78	Use of ²⁹ Si and ²⁷ Al MAS NMR to study thermal activation of kaolinites from Brazilian Amazon kaolin wastes. <i>Applied Clay Science</i> , 2014, 87, 189-196.	5.2	65
79	Entanglement Effects in Elastomers: Macroscopic vs Microscopic Properties. <i>Macromolecules</i> , 2014, 47, 2759-2773.	4.8	109
80	NMR Observations of Entangled Polymer Dynamics: Focus on Tagged Chain Rotational Dynamics and Confirmation from a Simulation Model. <i>Macromolecules</i> , 2014, 47, 256-268.	4.8	23
81	Binding of amphiphilic and triphilic block copolymers to lipid model membranes: the role of perfluorinated moieties. <i>Soft Matter</i> , 2014, 10, 6147-6160.	2.7	20
82	Microscopic Study of Chain Deformation and Orientation in Uniaxially Strained Polymer Networks: NMR Results versus Different Network Models. <i>Macromolecules</i> , 2014, 47, 7597-7611.	4.8	29
83	Slow motions in microcrystalline proteins as observed by MAS-dependent ¹⁵ N rotating-frame NMR relaxation. <i>Journal of Magnetic Resonance</i> , 2014, 248, 8-12.	2.1	41
84	A double-component Anderson-Weiss approach for describing NMR signals of mobile Sn units: Application to constant-time DIPSHIFT experiments. <i>Journal of Magnetic Resonance</i> , 2014, 248, 115-125.	2.1	7
85	Characterization of Network Structure and Chain Dynamics of Elastomeric Ionomers by Means of ¹ H Low-Field NMR. <i>Macromolecules</i> , 2014, 47, 5655-5667.	4.8	86
86	NMR study of interphase structure in layered polymer morphologies with mobility contrast: disorder and confinement effects vs. dynamic heterogeneities. <i>Colloid and Polymer Science</i> , 2014, 292, 1825-1839.	2.1	22
87	Detection of Surface-Immobilized Components and Their Role in Viscoelastic Reinforcement of Rubber-Silica Nanocomposites. <i>ACS Macro Letters</i> , 2014, 3, 481-485.	4.8	139
88	Studying Twin Samples Provides Evidence for a Unique Structure-Determining Parameter in Simplified Industrial Nanocomposites. <i>ACS Macro Letters</i> , 2014, 3, 448-452.	4.8	27
89	Network Structure and Inhomogeneities of Model and Commercial Polyelectrolyte Hydrogels as Investigated by Low-Field Proton NMR Techniques. <i>Macromolecules</i> , 2014, 47, 4251-4265.	4.8	47
90	Local Flips and Chain Motion in Polyethylene Crystallites: A Comparison of Melt-Crystallized Samples, Reactor Powders, and Nanocrystals. <i>Macromolecules</i> , 2014, 47, 5163-5173.	4.8	37

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91	The Non-effect of Polymer Network Inhomogeneities in Microgel Volume Phase Transitions: Support for the Mean-Field Perspective. <i>Macromolecular Chemistry and Physics</i> , 2014, 215, 1116-1133.	2.2	27
92	Photo-vulcanization using thiol-ene chemistry: Film formation, morphology and network characteristics of UV crosslinked rubber latices. <i>Polymer</i> , 2014, 55, 5584-5595.	3.8	26
93	Dynamics in Crystallites of Poly(μ -caprolactone) As Investigated by Solid-State NMR. <i>Macromolecules</i> , 2013, 46, 7818-7825.	4.8	52
94	Internal protein dynamics on ps to $\hat{1}$ / ₄ s timescales as studied by multi-frequency ¹⁵ N solid-state NMR relaxation. <i>Journal of Biomolecular NMR</i> , 2013, 57, 219-235.	2.8	37
95	Solid-State NMR Approaches to Internal Dynamics of Proteins: From Picoseconds to Microseconds and Seconds. <i>Accounts of Chemical Research</i> , 2013, 46, 2028-2036.	15.6	72
96	Local Chain Deformation and Overstrain in Reinforced Elastomers: An NMR Study. <i>Macromolecules</i> , 2013, 46, 5549-5560.	4.8	49
97	Inhomogeneities and local chain stretching in partially swollen networks. <i>Soft Matter</i> , 2013, 9, 6943-6954.	2.7	48
98	Heterogeneity, Segmental and Hydrogen Bond Dynamics, and Aging of Supramolecular Self-Healing Rubber. <i>Macromolecules</i> , 2013, 46, 1841-1850.	4.8	89
99	Structure and swelling of polymer networks: insights from NMR. <i>Soft Matter</i> , 2013, 9, 6587.	2.7	51
100	Sulfur-Cured Natural Rubber Elastomer Networks: Correlating Cross-Link Density, Chain Orientation, and Mechanical Response by Combined Techniques. <i>Macromolecules</i> , 2013, 46, 889-899.	4.8	110
101	Comment on "Chain Entanglements in Polyethylene Melts. Why Is It Studied Again?" <i>Macromolecules</i> , 2013, 46, 5090-5093.	4.8	10
102	Robust NMR Approaches for the Determination of Homonuclear Dipole-Dipole Coupling Constants in Studies of Solid Materials and Biomolecules. <i>ChemPhysChem</i> , 2013, 14, 3000-3014.	2.1	62
103	Avoiding Bias Effects in NMR Experiments for Heteronuclear Dipole-Dipole Coupling Determinations: Principles and Application to Organic Semiconductor Materials. <i>ChemPhysChem</i> , 2013, 14, 3146-3155.	2.1	10
104	MICROSTRUCTURE AND MOLECULAR DYNAMICS OF ELASTOMERS AS STUDIED BY ADVANCED LOW-RESOLUTION NUCLEAR MAGNETIC RESONANCE METHODS. <i>Rubber Chemistry and Technology</i> , 2012, 85, 350-386.	1.2	62
105	Cross-Link Density Estimation of PDMS Networks with Precise Consideration of Networks Defects. <i>Macromolecules</i> , 2012, 45, 899-912.	4.8	174
106	Determination of Chain Flip Rates in Poly(ethylene) Crystallites by Solid-State Low-Field ¹ H NMR for Two Different Sample Morphologies. <i>Journal of Physical Chemistry B</i> , 2012, 116, 13089-13097.	2.6	47
107	Solid particles in an elastomer matrix: impact of colloid dispersion and polymer mobility modification on the mechanical properties. <i>Soft Matter</i> , 2012, 8, 4090.	2.7	99
108	Glass-Transition Temperature Gradient in Nanocomposites: Evidence from Nuclear Magnetic Resonance and Differential Scanning Calorimetry. <i>Physical Review Letters</i> , 2012, 108, 065702.	7.8	152

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109	Proton NMR spin-diffusion studies of PS-PB block copolymers at low field: two- vs three-phase model and recalibration of spin-diffusion coefficients. <i>Polymer Journal</i> , 2012, 44, 748-756.	2.7	19
110	A T-Shaped Amphiphilic Molecule Forms Closed Vesicles in Water and Bicelles in Mixtures with a Membrane Lipid. <i>Journal of Physical Chemistry B</i> , 2012, 116, 4871-4878.	2.6	18
111	Mechanical Properties and Cross-Link Density of Styrene-Butadiene Model Composites Containing Fillers with Bimodal Particle Size Distribution. <i>Macromolecules</i> , 2012, 45, 6504-6515.	4.8	118
112	The relation of the X-ray B-factor to protein dynamics: insights from recent dynamic solid-state NMR data. <i>Journal of Biomolecular Structure and Dynamics</i> , 2012, 30, 617-627.	3.5	16
113	Recoupled separated-local-field experiments and applications to study intermediate-regime molecular motions. <i>Journal of Magnetic Resonance</i> , 2012, 221, 85-96.	2.1	20
114	Thermodynamics of Swollen Networks As Reflected in Segmental Orientation Correlations. <i>Macromolecules</i> , 2012, 45, 5513-5523.	4.8	27
115	Real-Time Observation of Polymer Network Formation by Liquid- and Solid-State NMR Revealing Multistage Reaction Kinetics. <i>Journal of Physical Chemistry B</i> , 2012, 116, 7566-7574.	2.6	11
116	Polymer Dynamics in PEG-Silica Nanocomposites: Effects of Polymer Molecular Weight, Temperature and Solvent Dilution. <i>Macromolecules</i> , 2012, 45, 4225-4237.	4.8	137
117	Polymer Dynamics of Polybutadiene in Nanoscopic Confinement As Revealed by Field Cycling ¹ H NMR. <i>Macromolecules</i> , 2011, 44, 4017-4021.	4.8	38
118	Influence of Chain Topology on Polymer Dynamics and Crystallization. Investigation of Linear and Cyclic Poly(μ -caprolactone)s by ¹ H Solid-State NMR Methods. <i>Macromolecules</i> , 2011, 44, 2743-2754.	4.8	77
119	Time-Domain NMR Observation of Entangled Polymer Dynamics: Universal Behavior of Flexible Homopolymers and Applicability of the Tube Model. <i>Macromolecules</i> , 2011, 44, 1549-1559.	4.8	102
120	Connectivity and Structural Defects in Model Hydrogels: A Combined Proton NMR and Monte Carlo Simulation Study. <i>Macromolecules</i> , 2011, 44, 9666-9674.	4.8	161
121	Low-Field NMR Investigations of Nanocomposites: Polymer Dynamics and Network Effects. <i>Macromolecules</i> , 2011, 44, 913-922.	4.8	207
122	Time-Domain NMR Observation of Entangled Polymer Dynamics: Analytical Theory of Signal Functions. <i>Macromolecules</i> , 2011, 44, 1560-1569.	4.8	53
123	Chain Mobility in Crosslinked EPDM Rubbers. Comparison of ¹ H NMR T ₂ Relaxometry and Double-Quantum ¹ H NMR. <i>ACS Symposium Series</i> , 2011, , 207-220.	0.5	7
124	BaBa-xy16: Robust and broadband homonuclear DQ recoupling for applications in rigid and soft solids up to the highest MAS frequencies. <i>Journal of Magnetic Resonance</i> , 2011, 212, 204-215.	2.1	143
125	Breakdown in the efficiency factor of the mixed Magic Sandwich Echo: A novel NMR probe for slow motions. <i>Chemical Physics Letters</i> , 2011, 516, 106-110.	2.6	19
126	Precise dipolar coupling constant distribution analysis in proton multiple-quantum NMR of elastomers. <i>Journal of Chemical Physics</i> , 2011, 134, 044907.	3.0	105

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127	Segmental Order Parameters and Swelling in Polymer Networks. <i>Macromolecular Symposia</i> , 2010, 291-292, 251-257.	0.7	8
128	Confinement Effects on Chain Dynamics and Local Chain Order in Entangled Polymer Melts. <i>Macromolecules</i> , 2010, 43, 4429-4434.	4.8	58
129	Novel Experimental Approach To Evaluate Filler-Elastomer Interactions. <i>Macromolecules</i> , 2010, 43, 334-346.	4.8	163
130	High Crystallinity and Nature of Crystal-Crystal Phase Transformations in Regioregular Poly(3-hexylthiophene). <i>Macromolecules</i> , 2010, 43, 9401-9410.	4.8	126
131	NMR Observation of Entangled Polymer Dynamics: Tube Model Predictions and Constraint Release. <i>Physical Review Letters</i> , 2010, 104, 198305.	7.8	58
132	Inhomogeneities and Chain Dynamics in Diene Rubbers Vulcanized with Different Cure Systems. <i>Macromolecules</i> , 2010, 43, 4210-4222.	4.8	171
133	MQ NMR and SPME Analysis of Nonlinearity in the Degradation of a Filled Silicone Elastomer. <i>Journal of Physical Chemistry B</i> , 2010, 114, 9729-9736.	2.6	21
134	Particle-induced network formation in linear PDMS filled with silica. <i>Polymer</i> , 2009, 50, 5434-5442.	3.8	55
135	Direct Observation of Millisecond to Second Motions in Proteins by Dipolar CODEX NMR Spectroscopy. <i>Journal of the American Chemical Society</i> , 2009, 131, 12097-12099.	13.7	45
136	Diffusion in Model Networks as Studied by NMR and Fluorescence Correlation Spectroscopy. <i>Macromolecules</i> , 2009, 42, 4681-4689.	4.8	47
137	Gradient Interfaces in SBS and SBS/PS Blends and Their Influence on Morphology Development and Material Properties. <i>Macromolecules</i> , 2009, 42, 5684-5699.	4.8	28
138	Structure of Poly(vinyl alcohol) Cryo-Hydrogels as Studied by Proton Low-Field NMR Spectroscopy. <i>Macromolecules</i> , 2009, 42, 263-272.	4.8	75
139	Intermediate motions and dipolar couplings as studied by Lee-Goldburg cross-polarization NMR: Hartmann-Hahn matching profiles. <i>Physical Chemistry Chemical Physics</i> , 2009, 11, 7036.	2.8	27
140	Signal loss in 1D magic-angle spinning exchange NMR (CODEX): radio-frequency limitations and intermediate motions. <i>Physical Chemistry Chemical Physics</i> , 2009, 11, 7022.	2.8	11
141	Spin-diffusion NMR at low field for the study of multiphase solids. <i>Solid State Nuclear Magnetic Resonance</i> , 2008, 34, 125-141.	2.3	87
142	Natural rubber/clay nanocomposites: Influence of poly(ethylene glycol) on the silicate dispersion and local chain order of rubber network. <i>European Polymer Journal</i> , 2008, 44, 3493-3500.	5.4	44
143	Uncertainties in the Determination of Cross-Link Density by Equilibrium Swelling Experiments in Natural Rubber. <i>Macromolecules</i> , 2008, 41, 4717-4729.	4.8	201
144	Insights in the Antibacterial Action of Poly(methyloxazoline)s with a Biocidal End Group and Varying Satellite Groups. <i>Biomacromolecules</i> , 2008, 9, 1764-1771.	5.4	92

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145	Direct Observation of Interphase Composition in Block Copolymers. <i>Macromolecules</i> , 2008, 41, 9187-9191.	4.8	25
146	Effect of excluded volume on segmental orientation correlations in polymer chains. <i>Physical Review E</i> , 2008, 78, 051803.	2.1	34
147	Intermediate motions as studied by solid-state separated local field NMR experiments. <i>Journal of Chemical Physics</i> , 2008, 128, 104505.	3.0	85
148	Gelation as Studied by Proton Multiple-Quantum NMR. <i>Macromolecules</i> , 2007, 40, 1555-1561.	4.8	47
149	Crystallization Kinetics of Poly(dimethylsiloxane) Molecular-Weight Blends – Correlation with Local Chain Order in the Melt?. <i>Macromolecular Chemistry and Physics</i> , 2007, 208, 2066-2075.	2.2	24
150	NMR Reveals Non-Distributed and Uniform Character of Network Chain Dynamics. <i>Macromolecular Rapid Communications</i> , 2007, 28, 1455-1465.	3.9	47
151	Proton multiple-quantum NMR for the study of chain dynamics and structural constraints in polymeric soft materials. <i>Progress in Nuclear Magnetic Resonance Spectroscopy</i> , 2007, 51, 1-35.	7.5	365
152	Memory effect in isothermal crystallization of syndiotactic polypropylene – Role of melt structure and dynamics?. <i>European Physical Journal E</i> , 2007, 23, 91-101.	1.6	57
153	Hydrogel formation by photocrosslinking of dimethylmaleimide functionalized polyacrylamide. <i>Polymer</i> , 2007, 48, 5599-5611.	3.8	67
154	Phase Biaxiality in Nematic Liquid Crystals. , 2007, , 141-170.		4
155	Chain Dynamics in Elastomers As Investigated by Proton Multiple-Quantum NMR. <i>Macromolecules</i> , 2006, 39, 3291-3303.	4.8	73
156	Phase Biaxiality in Nematic Liquid Crystalline Side-Chain Polymers of Various Chemical Constitutions. <i>Journal of Physical Chemistry B</i> , 2006, 110, 15680-15688.	2.6	53
157	Low-field NMR studies of polymer crystallization kinetics: Changes in the melt dynamics. <i>Polymer</i> , 2006, 47, 7216-7221.	3.8	27
158	A Robust Proton NMR Method to Investigate Hard/Soft Ratios, Crystallinity, and Component Mobility in Polymers. <i>Macromolecular Chemistry and Physics</i> , 2006, 207, 1150-1158.	2.2	144
159	Analysis of the spatial structure of rigid polyphenylene dendrimers by small-angle neutron scattering. <i>Journal of Luminescence</i> , 2005, 111, 225-238.	3.1	25
160	Segmental order in end-linked polymer networks: A Monte Carlo study. <i>European Physical Journal E</i> , 2005, 18, 167-182.	1.6	37
161	Lamellar Liquid Single Crystal Hydrogels: Synthesis and Investigation of Anisotropic Water Diffusion and Swelling. <i>Macromolecules</i> , 2005, 38, 9772-9782.	4.8	22
162	Chain Order and Cross-Link Density of Elastomers As Investigated by Proton Multiple-Quantum NMR. <i>Macromolecules</i> , 2005, 38, 9650-9660.	4.8	125

#	ARTICLE	IF	CITATIONS
163	Chemical Shift-Related Artifacts in NMR Determinations of Proton Residual Dipolar Couplings in Elastomers. <i>Macromolecules</i> , 2005, 38, 4040-4042.	4.8	24
164	Artifacts in Transverse Proton NMR Relaxation Studies of Elastomers. <i>Macromolecules</i> , 2005, 38, 1508-1512.	4.8	60
165	Molecular Motion of Isolated Linear Alkanes in Nanochannels. <i>Journal of Physical Chemistry B</i> , 2005, 109, 23285-23294.	2.6	24
166	¹ H multiple-quantum nuclear magnetic resonance investigations of molecular order in polymer networks. II. Intensity decay and restricted slow dynamics. <i>Journal of Chemical Physics</i> , 2004, 120, 454-464.	3.0	48
167	Biaxial Nematic Phase in a Thermotropic Liquid-Crystalline Side-Chain Polymer. <i>Physical Review Letters</i> , 2004, 92, 125501.	7.8	144
168	Swelling Heterogeneities in End-Linked Model Networks: A Combined Proton Multiple-Quantum NMR and Computer Simulation Study. <i>Macromolecules</i> , 2004, 37, 8556-8568.	4.8	60
169	Solid State NMR Spectroscopic Investigations of Model Compounds for Imidazole-Based Proton Conductors. <i>Journal of Physical Chemistry B</i> , 2004, 108, 18500-18508.	2.6	46
170	Study of Molecular Interactions and Dynamics in Thin Silica Surface Layers by Proton Solid-State NMR Spectroscopy. <i>Chemistry of Materials</i> , 2004, 16, 4071-4079.	6.7	23
171	Reorientation phenomena in imidazolium methyl sulfonate as probed by advanced solid-state NMR. <i>Solid State Nuclear Magnetic Resonance</i> , 2003, 24, 150-162.	2.3	37
172	Detection of Heterogeneities in Dry and Swollen Polymer Networks by Proton Low-Field NMR Spectroscopy. <i>Journal of the American Chemical Society</i> , 2003, 125, 14684-14685.	13.7	70
173	¹ H multiple-quantum nuclear magnetic resonance investigations of molecular order distributions in poly(dimethylsiloxane) networks: Evidence for a linear mixing law in bimodal systems. <i>Journal of Chemical Physics</i> , 2003, 119, 3468-3482.	3.0	168
174	Structure and Dynamics in Columnar Discotic Materials: A Combined X-ray and Solid-State NMR Study of Hexabenzocoronene Derivatives. <i>Journal of Physical Chemistry B</i> , 2002, 106, 6408-6418.	2.6	163
175	¹⁵ N- ¹ H Bond Length Determination in Natural Abundance by Inverse Detection in Fast-MAS Solid-State NMR Spectroscopy. <i>Journal of the American Chemical Society</i> , 2002, 124, 10938-10939.	13.7	31
176	Solid-State NMR Investigations of Molecular Dynamics in Polyphenylene Dendrimers: Evidence of Dense-Shell Packing. <i>Macromolecules</i> , 2002, 35, 10071-10086.	4.8	62
177	An Investigation of Poly(dimethylsiloxane) Chain Dynamics and Order in Its Inclusion Compound with ³ H-Cyclodextrin by Fast-MAS Solid-State NMR Spectroscopy. <i>Macromolecular Rapid Communications</i> , 2002, 23, 286-291.	3.9	34
178	The Application of MAS Recoupling Methods in the Intermediate Motional Regime. <i>Journal of Magnetic Resonance</i> , 2002, 157, 17-30.	2.1	44
179	REDOR-Based Heteronuclear Dipolar Correlation Experiments in Multi-Spin Systems: Rotor-Encoding, Directing, and Multiple Distance and Angle Determination. <i>Solid State Nuclear Magnetic Resonance</i> , 2002, 22, 154-187.	2.3	74
180	Methyl groups as local probes for polymer dynamics as investigated by double-quantum magic-angle spinning NMR spectroscopy. <i>Chemical Physics Letters</i> , 2002, 362, 331-340.	2.6	20

#	ARTICLE	IF	CITATIONS
181	Heteronuclear ^1H - ^{13}C multiple-spin correlation in solid-state nuclear magnetic resonance: Combining rotational-echo double-resonance recoupling and multiple-quantum spectroscopy. <i>Journal of Chemical Physics</i> , 2001, 114, 5707-5728.	3.0	64
182	An Investigation of the Hydrogen-Bonding Structure in Bilirubin by ^1H Double-Quantum Magic-Angle Spinning Solid-State NMR Spectroscopy. <i>Journal of the American Chemical Society</i> , 2001, 123, 4275-4285.	13.7	78
183	Cellulose in New Metal-Complexing Solvents. 2. Semidilute Behavior in Cd-tren. <i>Macromolecules</i> , 2001, 34, 5587-5598.	4.8	25
184	High-Sensitivity ^2H NMR in Solids by ^1H Detection. <i>Journal of the American Chemical Society</i> , 2001, 123, 7168-7169.	13.7	21
185	Recoupled Polarization-Transfer Methods for Solid-State ^1H - ^{13}C Heteronuclear Correlation in the Limit of Fast MAS. <i>Journal of Magnetic Resonance</i> , 2001, 148, 398-418.	2.1	76
186	Shape-Persistent Polyphenylene Dendrimers—Restricted Molecular Dynamics from Advanced Solid-State Nuclear Magnetic Resonance Techniques. <i>Advanced Materials</i> , 2001, 13, 752-756.	21.0	47
187	Relaxation-Induced Dipolar Exchange with Recoupling—An MAS NMR Method for Determining Heteronuclear Distances without Irradiating the Second Spin. <i>Journal of Magnetic Resonance</i> , 2000, 145, 161-172.	2.1	55
188	Sideband Patterns from Rotor-Encoded Longitudinal Magnetization in MAS Recoupling Experiments. <i>Journal of Magnetic Resonance</i> , 2000, 146, 140-156.	2.1	25
189	Cellulose Solutions in Water Containing Metal Complexes. <i>Macromolecules</i> , 2000, 33, 4094-4107.	4.8	136
190	Heteronuclear Double-Quantum MAS NMR Spectroscopy in Dipolar Solids. <i>Journal of Magnetic Resonance</i> , 1999, 139, 287-301.	2.1	21
191	Recoupled Polarization Transfer Heteronuclear ^1H - ^{13}C Multiple-Quantum Correlation in Solids under Ultra-fast MAS. <i>Journal of Magnetic Resonance</i> , 1999, 140, 471-476.	2.1	84
192	Highly Ordered Columnar Structures from Hexa-peri-hexabenzocoronenes—Synthesis, X-ray Diffraction, and Solid-State Heteronuclear Multiple-Quantum NMR Investigations. <i>Angewandte Chemie - International Edition</i> , 1999, 38, 3039-3042.	13.8	178
193	Chain dynamics in partially cross-linked polyethylene by combined rheology and NMR—based molecular rheology. <i>Journal of Polymer Science</i> , 0, , .	3.8	3