Wim Pyckhout-hintzen

List of Publications by Year in descending order

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131 papers 4,815 citations

93792 39 h-index 64 g-index

133 all docs

133 docs citations

times ranked

133

5016 citing authors

#	Article	IF	Citations
1	A spatio-temporal in-situ investigation of the Payne effect in silica-filled rubbers in Large Amplitude Oscillatory Extension. Polymer, 2022, 251, 124927.	1.8	1
2	Chain-End Effects on Supramolecular Poly(ethylene glycol) Polymers. Polymers, 2021, 13, 2235.	2.0	4
3	Decoupling the Contributions of ZnO and Silica in the Characterization of Industrially-Mixed Filled Rubbers by Combining Small Angle Neutron and X-Ray Scattering. Polymers, 2020, 12, 502.	2.0	4
4	Supramolecular Dimerization in a Polymer Melt from Small-Angle X-ray Scattering and Rheology: A Miscible Model System. Polymers, 2020, 12, 880.	2.0	2
5	Interplay between the amphipathic polyoxometalate interactions in solution and at solid–liquid interfaces: a toolbox for the technical application. Nanoscale, 2019, 11, 4267-4277.	2.8	17
6	Linear and Nonlinear Viscoelastic Modulus of Rubber. Lubricants, 2019, 7, 22.	1.2	14
7	Creating a synthetic platform for the encapsulation of nanocrystals with covalently bound polymer shells. Nanoscale, 2019, 11, 3847-3854.	2.8	12
8	Direct Assessment of Tube Dilation in Entangled Polymers. Physical Review Letters, 2019, 122, 088001.	2.9	21
9	Hierarchical Scattering Function for Silica-Filled Rubbers under Deformation: Effect of the Initial Cluster Distribution. Macromolecules, 2019, 52, 9735-9745.	2.2	14
10	Chemically defined, ultrasoft PDMS elastomers with selectable elasticity for mechanobiology. PLoS ONE, 2018, 13, e0195180.	1.1	17
11	Self-assembly of porphyrin hexamers <i>via</i> bidentate metal–ligand coordination. Dalton Transactions, 2018, 47, 14277-14287.	1.6	3
12	Importance of Compact Random Walks for the Rheology of Transient Networks. ACS Macro Letters, 2017, 6, 73-77.	2.3	45
13	Microscopic Structure, Conformation, and Dynamics of Ring and Linear Poly(ethylene oxide) Melts from Detailed Atomistic Molecular Dynamics Simulations: Dependence on Chain Length and Direct Comparison with Experimental Data. Macromolecules, 2017, 50, 2565-2584.	2.2	50
14	Nanocomposites of Highly Monodisperse Encapsulated Superparamagnetic Iron Oxide Nanocrystals Homogeneously Dispersed in a Poly(ethylene Oxide) Melt. ACS Nano, 2017, 11, 3767-3775.	7.3	16
15	Molecular Characteristics of a Mixed-Valence Polyoxovanadate {V ^{IV/V} ₁₈ O ₄₂ } in Solution and at the Liquid–Surface Interface. Journal of Physical Chemistry C, 2017, 121, 10419-10429.	1.5	28
16	A Small-Angle Neutron Scattering Study of a Soft Model Nanofiller in an Athermal Melt. Macromolecules, 2017, 50, 4733-4741.	2.2	7
17	Tough Supramolecular Hydrogel Based on Strong Hydrophobic Interactions in a Multiblock Segmented Copolymer. Macromolecules, 2017, 50, 3333-3346.	2.2	141
18	Effect of the salt-induced micellar microstructure on the nonlinear shear flow behavior of ionic cetylpyridinium chloride surfactant solutions. Physical Review E, 2017, 95, 032603.	0.8	6

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19	Influence of morphology on physical properties of poly(2,5-benzimidazole) membranes. Journal of Membrane Science, 2017, 533, 342-350.	4.1	13
20	The microscopic origin of the rheology in supramolecular entangled polymer networks. Journal of Rheology, 2017, 61, 1211-1226.	1.3	36
21	Melt dynamics of supramolecular comb polymers: Viscoelastic and dielectric response. Journal of Rheology, 2017, 61, 1185-1196.	1.3	17
22	Polymer Chain Conformation and Dynamical Confinement in a Model One-Component Nanocomposite. Physical Review Letters, 2017, 119, 047801.	2.9	28
23	Neutron Scattering on Different States of Polymer–Clay Compounds: From Solution to Dry States. , 2017, , 327-361.		2
24	Synthesis and rheological behavior of poly(1,2-butylene oxide) based supramolecular architectures. RSC Advances, 2016, 6, 6093-6106.	1.7	15
25	Branch Point Withdrawal in Elongational Startup Flow by Time-Resolved Small Angle Neutron Scattering. Macromolecules, 2016, 49, 4330-4339.	2.2	9
26	Sacrificial bonds enhance toughness of dual polybutadiene networks. Polymer, 2016, 87, 123-128.	1.8	63
27	Mixtures of polymer architectures: Probing the structure and dynamics with neutron scattering. Polymer, 2016, 105, 378-392.	1.8	7
28	Nanoscale Motion of Soft Nanoparticles in Unentangled and Entangled Polymer Matrices. Physical Review Letters, 2016, 117, 147803.	2.9	32
29	Hydrogen Bonding in a Reversible Comb Polymer Architecture: A Microscopic and Macroscopic Investigation. Macromolecules, 2016, 49, 5692-5703.	2.2	21
30	Molecular View on Supramolecular Chain and Association Dynamics. Physical Review Letters, 2016, 117, 147802.	2.9	19
31	The role of the binding salt sodium salicylate in semidilute ionic cetylpyridinium chloride micellar solutions: a rheological and scattering study. Physical Chemistry Chemical Physics, 2016, 19, 782-790.	1.3	6
32	Sensing Polymer Chain Dynamics through Ring Topology: A Neutron Spin Echo Study. Physical Review Letters, 2015, 115, 148302.	2.9	53
33	Influence of the Solvent Quality on Ring Polymer Dimensions. Macromolecules, 2015, 48, 1598-1605.	2.2	48
34	Association Behavior, Diffusion, and Viscosity of End-Functionalized Supramolecular Poly(ethylene) Tj ETQq0 0 0	O rgBT/Ov	erlock 10 Tf 5
35	Self-healing dynamic bond-based rubbers: understanding the mechanisms in ionomeric elastomer model systems. Physical Chemistry Chemical Physics, 2015, 17, 21005-21017.	1.3	60
36	The segmental and chain relaxation modes in high- <i>cis</i> -polyisoprene as studied by thermally stimulated currents. Journal of Chemical Physics, 2015, 142, 044903.	1.2	9

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37	Consequences of Increasing Packing Length on the Dynamics of Polymer Melts. Macromolecules, 2015, 48, 6638-6645.	2.2	23
38	Monitoring the Internal Structure of Poly(<i>N</i> -vinylcaprolactam) Microgels with Variable Cross-Link Concentration. Langmuir, 2014, 30, 15317-15326.	1.6	60
39	Solution scattering studies of the hierarchical assembly of porphyrin trimers based on benzene triscarboxamide. Soft Matter, 2014, 10, 9688-9694.	1.2	4
40	Molecular Scale Dynamics of Large Ring Polymers. Physical Review Letters, 2014, 113, 168302.	2.9	70
41	Compact structure and non-Gaussian dynamics of ring polymer melts. Soft Matter, 2014, 10, 3649-3655.	1.2	57
42	Effects of Core Microstructure on Structure and Dynamics of Star Polymer Melts: From Polymeric to Colloidal Response. Macromolecules, 2014, 47, 5347-5356.	2.2	49
43	Master curve of viscoelastic solid: Using causality to determine the optimal shifting procedure, and to test the accuracy of measured data. Polymer, 2014, 55, 565-571.	1.8	46
44	Polymers in 2-D confinement. Soft Matter, 2013, 9, 10484.	1.2	7
45	Viscosity of Ring Polymer Melts. ACS Macro Letters, 2013, 2, 874-878.	2.3	134
46	Polyoxometalate-stabilized, water dispersible Fe2Pt magnetic nanoparticles. Nanoscale, 2013, 5, 2511.	2.8	20
47	Direct Observation of Nonaffine Tube Deformation in Strained Polymer Networks. Physical Review Letters, 2013, 110, 196002.	2.9	27
48	Controllable synthesis and self-assembly of PbCO3 nanorods in shape-dependent nonionic w/o microemulsions. Soft Matter, 2013, 9, 7576.	1.2	3
49	Microscopic Relaxation Processes in Branched-Linear Polymer Blends by Rheo-SANS. Macromolecules, 2013, 46, 9122-9133.	2.2	21
50	Molecular Approach to Supramolecular Polymer Assembly by Small Angle Neutron Scattering. Macromolecules, 2013, 46, 9446-9454.	2.2	27
51	Stress and neutron scattering measurements on linear polymer melts undergoing steady elongational flow. Rheologica Acta, 2012, 51, 385-394.	1.1	34
52	Structure and dynamics of polymer rings by neutron scattering: breakdown of the Rouse model. Soft Matter, 2011, 7, 11169.	1.2	66
53	Interactions between Block Copolymers and Single-Walled Carbon Nanotubes in Aqueous Solutions: A Small-Angle Neutron Scattering Study. Langmuir, 2011, 27, 751-759.	1.6	45
54	Chain Conformation of Poly(alkylene oxide)s Studied by Small-Angle Neutron Scattering. Macromolecules, 2011, 44, 6077-6084.	2.2	28

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55	Viscosity Decrease and Reinforcement in Polymer–Silsesquioxane Composites. Macromolecules, 2011, 44, 7820-7830.	2.2	115
56	Unified Description of the Viscoelastic and Dielectric Global Chain Motion in Terms of the Tube Theory. Macromolecules, 2011, 44, 7430-7437.	2.2	25
57	Recent developments in polymer dynamics investigations of architecturally complex systems. European Polymer Journal, 2011, 47, 474-485.	2.6	14
58	Synthesis of Polymer/Silica Hybrid Nanoparticles Using Anionic Polymerization Techniques. Macromolecules, 2010, 43, 856-867.	2,2	42
59	Segmental and Normal Mode Relaxation of Poly(alkylene oxide)s Studied by Dielectric Spectroscopy and Rheology. Macromolecules, 2010, 43, 4968-4977.	2.2	43
60	Conformations of Silicaâ^'Poly(ethyleneâ^'propylene) Nanocomposites. Macromolecules, 2010, 43, 9837-9847.	2.2	95
61	Molecular Observation of Branch Point Motion in Star Polymer Melts. Macromolecules, 2010, 43, 518-524.	2.2	27
62	Thermoresponsive Copolymer Hydrogels Based on N-Isopropylacrylamide and Cationic Surfactant Monomers Prepared from Micellar Solution and Microemulsion in a One-Step Reaction. Journal of Physical Chemistry B, 2010, 114, 5666-5677.	1.2	21
63	Linear Viscoelastic Rheology of Moderately Entangled Telechelic Polybutadiene Temporary Networks. Macromolecules, 2009, 42, 6181-6192.	2.2	79
64	Unexpected power-law stress relaxation of entangled ring polymers. Nature Materials, 2008, 7, 997-1002.	13.3	480
65	Chain Dynamics and Viscoelastic Properties of Poly(ethylene oxide). Macromolecules, 2008, 41, 4866-4872.	2.2	88
66	SANS Investigation and Conductivity of Pure and Salt-Containing Poly(bismethoxyphosphazene). Macromolecules, 2008, 41, 2212-2218.	2.2	7
67	Linear and Nonlinear Rheological Characterization of Temporary Networks of Telechelic Polybutadiene. AIP Conference Proceedings, 2008, , .	0.3	2
68	Structural studies on cationic poly{9,9-bis[6-(N,N,N-trimethylammonium)alkyl]fluorene-co-1,4-phenylene} iodides in aqueous solutions in the presence of the non-ionic surfactant pentaethyleneglycol monododecyl ether (C12E5). Journal of Physics Condensed Matter, 2008, 20, 104210.	0.7	18
69	Structure of interacting aggregates of silicananoparticles in a polymer matrix: small-angle scattering and reverse Monte Carlo simulations. Soft Matter, 2007, 3, 476-485.	1.2	73
70	A microscopic look at the reinforcement of silica-filled rubbers. Journal of Chemical Physics, 2006, 124, 174908.	1.2	48
71	Network structure of poly(methyl methacrylate)-based gels and gel electrolytes. Electrochimica Acta, 2006, 51, 4153-4156.	2.6	6
72	Quantitative analysis of small angle neutron scattering data from montmorillonite dispersions. Polymer, 2006, 47, 2147-2155.	1.8	18

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73	Phase separation in randomly charged polystyrene sulphonate ionomer solutions. Polymer, 2005, 46, 7109-7117.	1.8	8
74	Small Angle Neutron Scattering Observation of Chain Retraction after a Large Step Deformation. Physical Review Letters, 2005, 95, 166001.	2.9	50
75	Persistence Length of Titin from Rabbit Skeletal Muscles Measured with Scattering and Microrheology Techniques. Biophysical Journal, 2005, 88, 4095-4106.	0.2	20
76	From carbon nanotube dispersion to composite nanofibers. , 2005, , 64-69.		1
77	Conformation of Polymers Dispersing Single-Walled Carbon Nanotubes in Water:  A Small-Angle Neutron Scattering Study. Macromolecules, 2005, 38, 7828-7836.	2.2	83
78	Molecular observation of contour length fluctuations in polymer melts. Physica B: Condensed Matter, 2004, 350, 193-195.	1.3	1
79	Development of the meso- and macroporous structure of coals with rank as analysed with small angle neutron scattering and adsorption experiments. Fuel, 2004, 83, 547-556.	3.4	110
80	Segregation of hydrogen at internal Ag/MgO (metal/oxide)-interfaces as observed by small angle neutron scattering. Acta Materialia, 2004, 52, 2701-2710.	3.8	17
81	Rheological Properties of 1,4-Polyisoprene over a Large Molecular Weight Range. Macromolecules, 2004, 37, 8135-8144.	2.2	89
82	Performance measurements of a new large-area neutron scintillation detector system. IEEE Transactions on Nuclear Science, 2004, 51, 1098-1102.	1.2	15
83	Small-Angle Neutron Scattering Study of the Relaxation of a Melt of Polybutadiene H-Polymers Following a Large Step Strain. Macromolecules, 2004, 37, 5054-5064.	2.2	33
84	Structure and Dynamics in Aqueous Solutions of Amphiphilic Sodium Maleate-Containing Alternating Copolymers. Macromolecules, 2004, 37, 8457-8465.	2.2	36
85	Silica filled elastomers: polymer chain and filler characterization in the undeformed state by a SANS–SAXS approach. Polymer, 2003, 44, 7505-7512.	1.8	44
86	Reinforcement of model filled elastomers: synthesis and characterization of the dispersion state by SANS measurements. Polymer, 2003, 44, 4909-4919.	1.8	44
87	Isotropic to Nematic Transition in Solutions of Cylindrical PBâ^'PEO Block Copolymer Micelles Close to a Wall. Langmuir, 2003, 19, 7597-7603.	1.6	14
88	Microscopic deformation of filler particles in rubber under uniaxial deformation. Macromolecular Symposia, 2003, 200, 121-128.	0.4	17
89	Heterogeneous structure of poly(vinyl chloride) as the origin of anomalous dynamical behavior. Journal of Chemical Physics, 2002, 117, 1336-1350.	1.2	33
90	SANS Investigation of PSâ^PB Block Copolymer Micelles in a Short Chain PB Homopolymer Matrix. Macromolecules, 2002, 35, 9110-9116.	2.2	16

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91	Arm Relaxation in Deformed H-Polymers in Elongational Flow by SANS. Macromolecules, 2002, 35, 6650-6664.	2.2	35
92	Relaxation of entangled model H-shaped polymers: a SANS investigation. Applied Physics A: Materials Science and Processing, 2002, 74, s380-s382.	1.1	3
93	Composites reinforcement by rods: a SAS study. Applied Physics A: Materials Science and Processing, 2002, 74, s510-s512.	1.1	0
94	Silica-filled elastomers: polymer chain and filler characterization by a SANS-SAXS approach. Applied Physics A: Materials Science and Processing, 2002, 74, s513-s515.	1.1	3
95	The length-scale dependence of strain in networks by SANS. Applied Physics A: Materials Science and Processing, 2002, 74, s368-s370.	1.1	2
96	Butadiene rubbers: topological constraints and microscopic deformation by mechanical and small angle neutron scattering investigation. Polymer Bulletin, 2002, 48, 183-190.	1.7	1
97	An in situ rheological and SANS investigation of the crosslinking reaction of polyisoprene and dicumyl peroxide. Rheologica Acta, 2002, 41, 475-482.	1.1	7
98	Filled elastomers: polymer chain and filler characterization by a SANS–SAXS approach. Physica A: Statistical Mechanics and Its Applications, 2002, 304, 230-234.	1.2	17
99	Janus Micellesâ€. Macromolecules, 2001, 34, 1069-1075.	2.2	391
100	On the Length Scale Dependence of Microscopic Strain by SANS. Macromolecules, 2001, 34, 2186-2194.	2.2	27
101	The Aggregation Behavior of Poly(ethylene oxide)-Poly(methyl methacrylate) Diblock Copolymers in Organic Solvents. Macromolecular Chemistry and Physics, 2001, 202, 1638-1644.	1.1	20
102	Interaction of hydrogen and deuterium with dislocations in palladium as observed by small angle neutron scattering. Acta Materialia, 2001, 49, 2625-2634.	3.8	62
103	Small angle neutron scattering of hydrogen segregation at dislocations in palladium. Scripta Materialia, 2001, 44, 817-822.	2.6	22
104	Kinetics of decomposition in ionic solids: II. Neutron scattering study of the system AgCl-NaCl. Journal of Physics Condensed Matter, 2001, 13, 11521-11530.	0.7	11
105	Response to "Comment on  From Rouse dynamics to local relaxation: A neutron spin echo study on polyisobutylene melts' ―[J. Chem. Phys. 113, 11396 (2000)]. Journal of Chemical Physics, 2000, 113, 11398-11399.	1.2	8
106	Chain deformation in filled elastomers: a SANS approach. Physica B: Condensed Matter, 2000, 276-278, 371-372.	1.3	7
107	Cationic Gemini Surfactants with Oligo(oxyethylene) Spacer Groups and Their Use in the Polymerization of Styrene in Ternary Microemulsion. Langmuir, 1999, 15, 391-399.	1.6	94
108	Matrix Chain Deformation in Reinforced Networks:  a SANS Approach. Macromolecules, 1999, 32, 5793-5802.	2.2	70

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109	Copolymerization Behaviour and Structure of Styrene and Polymerizable Surfactants in Three-Component Cationic Microemulsion. Macromolecules, 1998, 31, 272-280.	2.2	49
110	Comment on`"Lozenge―Contour Plots in Scattering from Polymer Networks'. Physical Review Letters, 1998, 80, 5449-5449.	2.9	6
111	Strain amplification effects in polymer networks. Physica B: Condensed Matter, 1997, 234-236, 306-307.	1.3	21
112	SANS investigations of topological constraints and microscopic deformation in polymer networks. Physica B: Condensed Matter, 1997, 234-236, 236-239.	1.3	0
113	SANS Investigations of Topological Constraints in Networks Made from Triblock Copolymers. Macromolecules, 1996, 29, 6165-6174.	2.2	26
114	Small-Angle Neutron Scattering Investigation of Topological Constraints and Tube Deformation in Networks. Physical Review Letters, 1995, 74, 4464-4467.	2.9	62
115	SANS Investigations of Topological Constraints and Microscopic Deformations in Rubber-Elastic Networks. Macromolecules, 1994, 27, 7681-7688.	2.2	29
116	Elastic properties of random-linked cis-PB networks: A characterization and gel point study. Journal of Applied Polymer Science, 1993, 48, 887-896.	1.3	6
117	Characterization and gel point of randomly linked high cisâ€polybutadiene networks. Makromolekulare Chemie Macromolecular Symposia, 1993, 76, 121-123.	0.6	0
118	Temperature dependence of the unperturbed dimensions of alternating poly(ethylene-propylene). Macromolecules, 1992, 25, 954-960.	2.2	30
119	Small-angle neutron scattering investigation of a multilinked polybutadiene network crosslinked in solution. Macromolecules, 1991, 24, 1269-1274.	2.2	10
120	Microscopic and macroscopic evaluation of fundamental facets of the entanglement concept. Physical Review Letters, 1991, 66, 2088-2091.	2.9	27
121	Molecular aspects of polymer network deformation - small angle neutron scattering and NMR studies. Makromolekulare Chemie Macromolecular Symposia, 1990, 40, 121-137.	0.6	7
122	SANS investigations of critical phenomena and phase separations: Two examples of blends with high and low molecular weights. Physica B: Condensed Matter, 1989, 156-157, 402-404.	1.3	4
123	Structures of norbornane and dodecahedrane by molecular mechanics calculations (MM3), x-ray crystallography, and electron diffraction. Journal of the American Chemical Society, 1989, 111, 1106-1114.	6.6	79
124	The molecular structure of pyridine in the gas phase determined from electron diffraction, microwave and infrared data and ab-initio force-field calculations. Journal of Molecular Structure, 1987, 156, 315-329.	1.8	53
125	Transâ€Diaquaâ€Bis[Dimethylglyoximato(1â€)â€N, N′] Cobalt(III) Perchlorate: Crystal Structure and Local Disordering Effects. Bulletin Des Sociétés Chimiques Belges, 1987, 96, 575-580.	0.0	3
126	The molecular structure of gaseous allyl alcohol determined from electron diffraction, microwave, infrared and geometry-relaxed ab-initio data. Journal of Molecular Structure, 1986, 140, 33-48.	1.8	34

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127	Vinyl formate in the gas phase, investigated by electron diffraction, microwave spectroscopy and infrared band contour analysis, supplemented with molecular mechanics and ab-initio calculations of geometries and force fields. Journal of Molecular Structure, 1986, 147, 85-104.	1.8	13
128	The molecular structure of S-triazine in the gas phase determined from electron diffraction, infrared/raman data and ab initio force field calculations. Journal of Molecular Structure, 1986, 147, 321-329.	1.8	39
129	Structure of gaseous methyl acetate as determined by joint analysis of electron diffraction, microwave and infrared spectroscopy, supplemented by a valence force field and constraints from geometry relaxed ab initio calculations. Journal of Molecular Structure, 1986, 144, 265-279.	1.8	52
130	Rotational isomerism in divinylether studied by gas phase electron diffraction, microwave spectroscopy, infrared band profile simulation and ab initio calculations. Journal of Molecular Structure, 1985, 130, 335-353.	1.8	23
131	The molecular structure of gaseous methyl vinyl ether at room temperature, studied by molecular orbital constrained electron diffraction and microwave spectroscopy. Journal of Molecular Structure, 1983, 102, 333-345.	1.8	44