

Thomas Charles Buckland McLeish

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

174
papers

11,522
citations

49
h-index

105
g-index

195
ext. papers

12,320
ext. citations

5.3
avg, IF

6.38
L-index

#	Paper	IF	Citations
174	Theoretical rheo-physics of silk: Intermolecular associations reduce the critical specific work for flow-induced crystallization. <i>Journal of Rheology</i> , 2022 , 66, 515-534	4.1	0
173	Membraneless organelles formed by liquid-liquid phase separation increase bacterial fitness. <i>Science Advances</i> , 2021 , 7, eabh2929	14.3	9
172	Stretching of Silk Protein in Flow. <i>Molecules</i> , 2021 , 26,	4.8	3
171	THE RE-DISCOVERY OF CONTEMPLATION THROUGH SCIENCE. <i>Zygon</i> , 2021 , 56, 758-776	0.3	0
170	RESPONSE TO BOYLE LECTURE 2021 PANEL AND PARTICIPANT DISCUSSION. <i>Zygon</i> , 2021 , 56, 786-803	0.3	0
169	Computational analysis of dynamic allostery and control in the SARS-CoV-2 main protease. <i>Journal of the Royal Society Interface</i> , 2021 , 18, 20200591	4.1	17
168	Power Law Stretching of Associating Polymers in Steady-State Extensional Flow. <i>Physical Review Letters</i> , 2021 , 126, 057801	7.4	2
167	Combining steady state and temperature jump IR spectroscopy to investigate the allosteric effects of ligand binding to dsDNA. <i>Physical Chemistry Chemical Physics</i> , 2021 , 23, 15352-15363	3.6	3
166	Creativity, imagination and being in the image of God: a Prāis of The Poetry and Music of Science. <i>Interdisciplinary Science Reviews</i> , 2020 , 45, 1-7	0.7	0
165	Silk Protein Solution: A Natural Example of Sticky Reptation. <i>Macromolecules</i> , 2020 , 53, 2669-2676	5.5	14
164	Taking the discussion onward. <i>Interdisciplinary Science Reviews</i> , 2020 , 45, 51-70	0.7	0
163	Evolution as an Unwrapping of the Gift of Freedom. <i>Scientia Et Fides</i> , 2020 , 8, 43	2.7	5
162	A meta-metaphor for science: the true and the fictional within the book of nature. <i>Interdisciplinary Science Reviews</i> , 2020 , 45, 406-415	0.7	0
161	Morphology formation in binary mixtures upon gradual destabilisation. <i>Soft Matter</i> , 2019 , 15, 8450-8458	3.6	2
160	Emergence and topological order in classical and quantum systems. <i>Studies in History and Philosophy of Science Part B - Studies in History and Philosophy of Modern Physics</i> , 2019 , 66, 155-169	1	5
159	Polymer extrudate-swell: From monodisperse melts to polydispersity and flow-induced reduction in monomer friction. <i>Journal of Rheology</i> , 2019 , 63, 319-333	4.1	9
158	Controlled Synthesis, Characterization, and Flow Properties of EthyleneDiene Copolymers. <i>Macromolecular Reaction Engineering</i> , 2019 , 13, 1800071	1.5	6

157	Allostery in Its Many Disguises: From Theory to Applications. <i>Structure</i> , 2019 , 27, 566-578	5.2	158
156	Soft Matter An Emergent Interdisciplinary Science of Emergent Entities 2019 , 248-264		3
155	The Poetry and Music of Science 2019 ,		33
154	How proteins' negative cooperativity emerges from entropic optimisation of versatile collective fluctuations. <i>Journal of Chemical Physics</i> , 2019 , 151, 215101	3.9	1
153	Pressure and shear rate dependence of the viscosity and stress relaxation of polymer melts. <i>Journal of Rheology</i> , 2018 , 62, 631-642	4.1	18
152	Lucifer's legacy: the meaning of asymmetry. <i>Laterality</i> , 2018 , 23, 252-253	2	
151	Ligand-regulated oligomerisation of allosterically interacting proteins. <i>Soft Matter</i> , 2018 , 14, 6961-6968	3.6	
150	Allostery and molecular machines. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2018 , 373,	5.8	10
149	The 'allosteron' model for entropic allostery of self-assembly. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2018 , 373,	5.8	9
148	Theoretical prediction and experimental measurement of isothermal extrudate swell of monodisperse and bidisperse polystyrenes. <i>Journal of Rheology</i> , 2017 , 61, 931-945	4.1	14
147	Bow-shaped caustics from conical prisms: a 13th-century account of rainbow formation from Robert Grosseteste's De iride. <i>Applied Optics</i> , 2017 , 56, G197-G204	1.7	3
146	Elasticity Dominated Surface Segregation of Small Molecules in Polymer Mixtures. <i>Physical Review Letters</i> , 2016 , 116, 208301	7.4	7
145	Evaluating interdisciplinary research: the elephant in the peer-reviewers room. <i>Palgrave Communications</i> , 2016 , 2,	5.3	11
144	Listening between the lines: medieval and modern science. <i>Palgrave Communications</i> , 2016 , 2,	5.3	1
143	Global low-frequency motions in protein allostery: CAP as a model system. <i>Biophysical Reviews</i> , 2015 , 7, 175-182	3.7	16
142	Multi-scale Approaches to Dynamical Transmission of Protein Allostery 2015 , 141-152		
141	Dynamic Transmission of Protein Allostery without Structural Change: Spatial Pathways or Global Modes?. <i>Biophysical Journal</i> , 2015 , 109, 1240-50	2.9	27
140	The Role of Protein-Ligand Contacts in Allosteric Regulation of the Escherichia coli Catabolite Activator Protein. <i>Journal of Biological Chemistry</i> , 2015 , 290, 22225-35	5.4	25

139	Are there ergodic limits to evolution? Ergodic exploration of genome space and convergence. <i>Interface Focus</i> , 2015 , 5, 20150041	3.9	18
138	Numerical prediction of nonlinear rheology of branched polymer melts. <i>Journal of Rheology</i> , 2014 , 58, 737-757	4.1	30
137	A medieval multiverse?: Mathematical modelling of the thirteenth century universe of Robert Grosseteste. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2014 , 470, 20140025	2.4	5
136	The role of high-dimensional diffusive search, stabilization, and frustration in protein folding. <i>Biophysical Journal</i> , 2014 , 106, 1729-40	2.9	5
135	Large amplitude oscillatory shear and Fourier transform rheology analysis of branched polymer melts. <i>Journal of Rheology</i> , 2014 , 58, 969-997	4.1	36
134	Color-coordinate system from a 13th-century account of rainbows. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 2014 , 31, A341-9	1.8	7
133	Delayed self-regulation and time-dependent chemical drive leads to novel states in epigenetic landscapes. <i>Journal of the Royal Society Interface</i> , 2014 , 11, 20140706	4.1	14
132	BT: a comprehensive toolbox for the analysis of protein motion. <i>BMC Bioinformatics</i> , 2013 , 14, 183	3.6	17
131	Transient overshoot extensional rheology of long-chain branched polyethylenes: Experimental and numerical comparisons between filament stretching and cross-slot flow. <i>Journal of Rheology</i> , 2013 , 57, 293-313	4.1	24
130	Modulation of global low-frequency motions underlies allosteric regulation: demonstration in CRP/FNR family transcription factors. <i>PLoS Biology</i> , 2013 , 11, e1001651	9.7	61
129	Allostery without conformation change: modelling protein dynamics at multiple scales. <i>Physical Biology</i> , 2013 , 10, 056004	3	46
128	A three-dimensional color space from the 13th century. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 2012 , 29, A346-52	1.8	11
127	Soft matter's charismatic pioneer. <i>Physics World</i> , 2012 , 25, 57-58	0.5	
126	Controlling the micellar morphology of binary PEOBCL block copolymers in water/HF through controlled blending. <i>Soft Matter</i> , 2011 , 7, 749-759	3.6	32
125	Cross-slot extensional rheometry and the steady-state extensional response of long chain branched polymer melts. <i>Journal of Rheology</i> , 2011 , 55, 875-900	4.1	25
124	Physics met biology, and the consequence was. <i>Studies in History and Philosophy of Science Part C: Studies in History and Philosophy of Biological and Biomedical Sciences</i> , 2011 , 42, 190-2	0.6	
123	Linking models of polymerization and dynamics to predict branched polymer structure and flow. <i>Science</i> , 2011 , 333, 1871-4	33.3	140
122	The effect of boundary curvature on the stress response of linear and branched polyethylenes in a contraction/expansion flow. <i>Rheologica Acta</i> , 2011 , 50, 675-689	2.3	8

121	A coarse-grained molecular model of strain-hardening for polymers in the marginally glassy state. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2011 , 49, 920-938	2.6	16
120	Controlling the Self-Assembly of Binary Copolymer Mixtures in Solution through Molecular Architecture. <i>Macromolecules</i> , 2011 , 44, 5510-5519	5.5	31
119	Substrate-modulated thermal fluctuations affect long-range allosteric signaling in protein homodimers: exemplified in CAP. <i>Biophysical Journal</i> , 2010 , 98, 2317-26	2.9	20
118	Chain Deformation in Entangled Polymer Melts at Re-entrant Corners. <i>Macromolecules</i> , 2010 , 43, 1539-1542	5.4	5
117	Fluctuation power spectra reveal dynamical heterogeneity of peptides. <i>Journal of Chemical Physics</i> , 2010 , 133, 015101	3.9	4
116	Elongational flow of blends of long and short polymers: effective stretch relaxation time. <i>Physical Review Letters</i> , 2009 , 103, 136001	7.4	78
115	Statistical mechanics of convergent evolution in spatial patterning. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009 , 106, 9564-9	11.5	22
114	Effect of branching in cross-slot flow: the formation of ∞ cusps. <i>Rheologica Acta</i> , 2009 , 48, 551-561	2.3	12
113	Physics meets polymerisation chemistry: modelling the Wurtz reaction. <i>Polymer International</i> , 2009 , 58, 239-241	3.3	2
112	The nonlinear response of entangled star polymers to startup of shear flow. <i>Journal of Rheology</i> , 2009 , 53, 1193-1214	4.1	17
111	Non-linear step strain of branched polymer melts. <i>Journal of Rheology</i> , 2009 , 53, 917-942	4.1	7
110	Organisation of self-assembling peptide nanostructures into macroscopically ordered lamella-like layers by ice crystallisation. <i>Soft Matter</i> , 2009 , 5, 1237	3.6	19
109	Experimental observations and matching viscoelastic specific work predictions of flow-induced crystallization for molten polyethylene within two flow geometries. <i>Journal of Rheology</i> , 2009 , 53, 859-876	4.1	17
108	The long-chain dynamics in a model homopolymer blend under strong flow: small-angle neutron scattering and theory. <i>Soft Matter</i> , 2009 , 5, 2383	3.6	23
107	Neutron flow-mapping: Multiscale modelling opens a new experimental window. <i>Soft Matter</i> , 2009 , 5, 4426	3.6	12
106	Micelle shape transitions in block copolymer/homopolymer blends: comparison of self-consistent field theory with experiment. <i>Journal of Chemical Physics</i> , 2009 , 131, 034904	3.9	12
105	Synthesis, Temperature Gradient Interaction Chromatography, and Rheology of Entangled Styrene Comb Polymers. <i>Macromolecules</i> , 2008 , 41, 5869-5875	5.5	48
104	Internal friction of single polypeptide chains at high stretch. <i>Faraday Discussions</i> , 2008 , 139, 35-51; discussion 105-28, 419-20	3.6	25

103	New dynamical window onto the landscape for forced protein unfolding. <i>Physical Review Letters</i> , 2008 , 101, 248104	7.4	8
102	Molecular physics of a polymer engineering instability: experiments and computation. <i>Physical Review E</i> , 2008 , 77, 050801	2.4	11
101	A tangled tale of topological fluids. <i>Physics Today</i> , 2008 , 61, 40-45	0.9	33
100	Molecular polymeric matter, Weissenberg, Astbury and the pleasure of being wrong. <i>Rheologica Acta</i> , 2008 , 47, 479-489	2.3	6
99	The effect of viscoelasticity on stress fields within polyethylene melt flow for a cross-slot and contraction-expansion slit geometry. <i>Rheologica Acta</i> , 2008 , 47, 821-834	2.3	28
98	Preparation of hierarchical hollow CaCO ₃ particles and the application as anticancer drug carrier. <i>Journal of the American Chemical Society</i> , 2008 , 130, 15808-10	16.4	391
97	Rouse Model with Internal Friction: A Coarse Grained Framework for Single Biopolymer Dynamics. <i>Macromolecules</i> , 2007 , 40, 6770-6777	5.5	65
96	Entropy and barrier-controlled fluctuations determine conformational viscoelasticity of single biomolecules. <i>Biophysical Journal</i> , 2007 , 92, 1825-35	2.9	45
95	Tearing energy study of oriented and relaxed polystyrene in the glassy state. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2007 , 45, 377-394	2.6	9
94	Demixing instability in coil-rod blends undergoing polycondensation reactions. <i>Journal of Chemical Physics</i> , 2007 , 126, 074901	3.9	4
93	Molecular Dynamics of Pectin Extension. <i>Macromolecular Symposia</i> , 2007 , 252, 140-148	0.8	4
92	A theory for heterogeneous states of polymer melts produced by single chain crystal melting. <i>Soft Matter</i> , 2006 , 3, 83-87	3.6	17
91	Viscoelastic properties of single poly(ethylene glycol) molecules. <i>ChemPhysChem</i> , 2006 , 7, 1710-6	3.2	12
90	Diffusive searches in high-dimensional spaces and apparent 'two-state' behaviour in protein folding. <i>Journal of Physics Condensed Matter</i> , 2006 , 18, 1861-8	1.8	2
89	Dynamic scaling in entangled mean-field gelation polymers. <i>Physical Review E</i> , 2006 , 74, 011404	2.4	18
88	Computational linear rheology of general branch-on-branch polymers. <i>Journal of Rheology</i> , 2006 , 50, 207-234	4.1	192
87	Molecular dynamics simulation of dextran extension by constant force in single molecule AFM. <i>Biophysical Journal</i> , 2006 , 91, 3579-88	2.9	26
86	Coupling of global and local vibrational modes in dynamic allostery of proteins. <i>Biophysical Journal</i> , 2006 , 91, 2055-62	2.9	52

85	Introduction: statistical mechanics of molecular and cellular biological systems. <i>Journal of the Royal Society Interface</i> , 2006 , 3, 123-4	4.1	
84	Dynamic allostery of protein alpha helical coiled-coils. <i>Journal of the Royal Society Interface</i> , 2006 , 3, 125-38	4.1	29
83	Self-Assembling Peptide Gels 2006 , 99-130		5
82	Shear-Induced Crystallization in Blends of Model Linear and Long-Chain Branched Hydrogenated Polybutadienes. <i>Macromolecules</i> , 2006 , 39, 5058-5071	5.5	86
81	Measuring and Predicting the Dynamics of Linear Monodisperse Entangled Polymers in Rapid Flow through an Abrupt Contraction. A Small Angle Neutron Scattering Study. <i>Macromolecules</i> , 2006 , 39, 2700-2709	5.5	46
80	Viscoelasticity of Monodisperse Comb Polymer Melts. <i>Macromolecules</i> , 2006 , 39, 4217-4227	5.5	96
79	Molecular Dynamics Simulation of Dextran Extension at Constant Pulling Speed. <i>Macromolecular Symposia</i> , 2006 , 237, 81-89	0.8	4
78	New Molecular Mechanism of Dextran Extension in Single Molecule AFM. <i>Lecture Notes in Computer Science</i> , 2006 , 711-720	0.9	2
77	Rheo-Optical Evidence of CCR in an Entangled Four-Arm Star. <i>Macromolecules</i> , 2005 , 38, 1451-1455	5.5	12
76	Protein folding in high-dimensional spaces: hypergutters and the role of nonnative interactions. <i>Biophysical Journal</i> , 2005 , 88, 172-83	2.9	24
75	Constriction flows of monodisperse linear entangled polymers: Multiscale modeling and flow visualization. <i>Journal of Rheology</i> , 2005 , 49, 501-522	4.1	65
74	Viscoelastic measurements of single molecules on a millisecond time scale by magnetically driven oscillation of an atomic force microscope cantilever. <i>Langmuir</i> , 2005 , 21, 4765-72	4	37
73	Small angle neutron scattering observation of chain retraction after a large step deformation. <i>Physical Review Letters</i> , 2005 , 95, 166001	7.4	47
72	Coarse-grained model of entropic allostery. <i>Physical Review Letters</i> , 2004 , 93, 098104	7.4	56
71	Small-Angle Neutron Scattering Study of the Relaxation of a Melt of Polybutadiene H-Polymers Following a Large Step Strain. <i>Macromolecules</i> , 2004 , 37, 5054-5064	5.5	31
70	Viscoelastic properties of single polysaccharide molecules determined by analysis of thermally driven oscillations of an atomic force microscope cantilever. <i>Langmuir</i> , 2004 , 20, 9299-303	4	52
69	Neutron-mapping polymer flow: scattering, flow visualization, and molecular theory. <i>Science</i> , 2003 , 301, 1691-5	33.3	148
68	Microscopic theory of linear, entangled polymer chains under rapid deformation including chain stretch and convective constraint release. <i>Journal of Rheology</i> , 2003 , 47, 1171-1200	4.1	386

67	Small-Angle Neutron Scattering from Peptide Nematic Fluids and Hydrogels under Shear. <i>Langmuir</i> , 2003 , 19, 4940-4949	4	15
66	Why, and when, does dynamic tube dilation work for stars?. <i>Journal of Rheology</i> , 2003 , 47, 177-198	4.1	33
65	Definitions of entanglement spacing and time constants in the tube model. <i>Journal of Rheology</i> , 2003 , 47, 809-818	4.1	190
64	Chemistry. Polymers without beginning or end. <i>Science</i> , 2002 , 297, 2005-6	33.3	133
63	Rheology of Three-Arm Asymmetric Star Polymer Melts. <i>Macromolecules</i> , 2002 , 35, 4801-4820	5.5	96
62	A Model for Defect-Diffusion-Controlled Polymerization at a Surface as Typified by the Alkali-Metal Mediated Synthesis of Polysilanes. <i>Macromolecules</i> , 2002 , 35, 548-554	5.5	14
61	Synthesis, Hydrogenation, and Rheology of 1,2-Polybutadiene Star Polymers. <i>Macromolecules</i> , 2002 , 35, 467-472	5.5	17
60	Rheology and Molecular Weight Distribution of Hyperbranched Polymers. <i>Macromolecules</i> , 2002 , 35, 9605-9612	5.5	51
59	Arm Relaxation in Deformed H-Polymers in Elongational Flow by SANS. <i>Macromolecules</i> , 2002 , 35, 6650-6664	5.5	35
58	Characterization of long chain branching: Dilution rheology of industrial polyethylenes. <i>Journal of Rheology</i> , 2002 , 46, 401-426	4.1	38
57	Quantitative Theory for Linear Dynamics of Linear Entangled Polymers. <i>Macromolecules</i> , 2002 , 35, 6332-6343	5.5	507
56	Tube theory of entangled polymer dynamics. <i>Advances in Physics</i> , 2002 , 51, 1379-1527	18.4	719
55	Soft condensed matter: where physics meets biology. <i>Physics World</i> , 2001 , 14, 33-38	0.5	3
54	Shear modulus of polyelectrolyte gels under electric field. <i>Journal of Physics Condensed Matter</i> , 2001 , 13, 1381-1393	1.8	16
53	Using the pom-pom equations to analyze polymer melts in exponential shear. <i>Journal of Rheology</i> , 2001 , 45, 275-290	4.1	34
52	Microscopic theory of convective constraint release. <i>Journal of Rheology</i> , 2001 , 45, 539-563	4.1	130
51	Experimental observation and numerical simulation of transient stress fangs within flowing molten polyethylene. <i>Journal of Rheology</i> , 2001 , 45, 1261-1277	4.1	62
50	Structure and dynamics of self-assembling beta-sheet peptide tapes by dynamic light scattering. <i>Biomacromolecules</i> , 2001 , 2, 378-88	6.9	56

49	Molecular Rheology of Comb Polymer Melts. 1. Linear Viscoelastic Response. <i>Macromolecules</i> , 2001 , 34, 7025-7033	5.5	133
48	Hierarchical self-assembly of chiral rod-like molecules as a model for peptide beta -sheet tapes, ribbons, fibrils, and fibers. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2001 , 98, 11857-62	11.5	900
47	Molecular Rheology and Statistics of Long Chain Branched Metallocene-Catalyzed Polyolefins. <i>Macromolecules</i> , 2001 , 34, 1928-1945	5.5	87
46	Theoretical Linear and Nonlinear Rheology of Symmetric Treelike Polymer Melts. <i>Macromolecules</i> , 2001 , 34, 2579-2596	5.5	74
45	Bulk Spinodal Decomposition Studied by Atomic Force Microscopy and Light Scattering. <i>Macromolecules</i> , 2001 , 34, 3748-3756	5.5	31
44	Linear Melt Rheology and Small-Angle X-ray Scattering of AB Diblocks vs A2B2 Four Arm Star Block Copolymers. <i>Macromolecules</i> , 2000 , 33, 8399-8414	5.5	29
43	Microscopic theory for the fast flow of polymer melts. <i>Physical Review Letters</i> , 2000 , 85, 4550-3	7.4	49
42	Molecular drag-strain coupling in branched polymer melts. <i>Journal of Rheology</i> , 2000 , 44, 121-136	4.1	127
41	A Deuterium NMR Study of Selectively Labeled Polybutadiene Star Polymers. <i>Macromolecules</i> , 2000 , 33, 7101-7106	5.5	25
40	Demixing Instability in Polymer Blends Undergoing Polycondensation Reactions. <i>Macromolecules</i> , 2000 , 33, 3871-3878	5.5	6
39	The chevron folding instability in thermoplastic elastomers and other layered materials. <i>Journal Physics D: Applied Physics</i> , 1999 , 32, 2087-2099	3	36
38	An investigation of the shape and crossover scaling of flexible tangent hard-sphere polymer chains by Monte Carlo simulation. <i>Journal of Chemical Physics</i> , 1999 , 111, 416-428	3.9	13
37	Scattering from deformed polymer networks. <i>Journal of Chemical Physics</i> , 1999 , 111, 8196-8208	3.9	1
36	Predicting low density polyethylene melt rheology in elongational and shear flows with pom-pom constitutive equations. <i>Journal of Rheology</i> , 1999 , 43, 873-896	4.1	181
35	Dynamics of Entangled H-Polymers: Theory, Rheology, and Neutron-Scattering. <i>Macromolecules</i> , 1999 , 32, 6734-6758	5.5	241
34	Closed-Loop Miscibility Gaps in Polymer Blends under Shear Flow. <i>Macromolecules</i> , 1999 , 32, 4447-4449	5.5	5
33	Concentration Fluctuations in Surfactant Cubic Phases: Theory, Rheology, and Light Scattering. <i>Langmuir</i> , 1999 , 15, 7495-7503	4	33
32	Anomalous Difference in the Order-Disorder Transition Temperature Comparing a Symmetric Diblock Copolymer AB with Its Hetero-Four-Arm Star Analog A2B2. <i>Macromolecules</i> , 1999 , 32, 7483-7495	5.5	27

31	Dynamic Dilution, Constraint-Release, and Star-Linear Blends. <i>Macromolecules</i> , 1998 , 31, 9345-9353	5.5	125
30	Arm-Length Dependence of Stress Relaxation in Star Polymer Melts. <i>Macromolecules</i> , 1998 , 31, 7479-7482	5.5	106
29	Molecular constitutive equations for a class of branched polymers: The pom-pom polymer. <i>Journal of Rheology</i> , 1998 , 42, 81-110	4.1	631
28	Rheology and Tube Model Theory of Bimodal Blends of Star Polymer Melts. <i>Macromolecules</i> , 1998 , 31, 9295-9304	5.5	38
27	Read and McLeish Reply:. <i>Physical Review Letters</i> , 1998 , 80, 5450-5450	7.4	5
26	Spinodal-Assisted Crystallization in Polymer Melts. <i>Physical Review Letters</i> , 1998 , 81, 373-376	7.4	330
25	Theory of surface light scattering from a fluid-fluid interface with adsorbed polymeric surfactants. <i>Journal of Chemical Physics</i> , 1998 , 109, 5008-5024	3.9	53
24	“Lozenge” Contour Plots in Scattering from Polymer Networks. <i>Physical Review Letters</i> , 1997 , 79, 87-90	7.4	28
23	Microscopic Theory for the “Lozenge” Contour Plots in Scattering from Stretched Polymer Networks. <i>Macromolecules</i> , 1997 , 30, 6376-6384	5.5	18
22	Parameter-Free Theory for Stress Relaxation in Star Polymer Melts. <i>Macromolecules</i> , 1997 , 30, 2159-2166	5.5	353
21	Theoretical Molecular Rheology of Branched Polymers in Simple and Complex Flows: The Pom-Pom Model. <i>Physical Review Letters</i> , 1997 , 79, 2352-2355	7.4	78
20	Fashioning flow by self-assembly. <i>Science</i> , 1997 , 278, 1577-8	3.3	5
19	Responsive gels formed by the spontaneous self-assembly of peptides into polymeric beta-sheet tapes. <i>Nature</i> , 1997 , 386, 259-62	5.4	788
18	Predicting the rheology of linear with branched polyethylene blends. <i>Rheologica Acta</i> , 1996 , 35, 481-491	2.3	23
17	Topological contributions to nonlinear elasticity in branched polymers. <i>Physical Review Letters</i> , 1996 , 76, 2587-2590	7.4	77
16	TOWARDS UNDERSTANDING ER FLUIDS USING SALS/RHEOMETRY. <i>International Journal of Modern Physics B</i> , 1996 , 10, 3029-3036	1.1	
15	Phase Behavior of Linear/Branched Polymer Blends. <i>Macromolecules</i> , 1995 , 28, 4650-4659	5.5	66
14	Linear rheological behaviour of polyisoprene-polystyrene hetero-star and linear diblock copolymer melts. <i>Journal of the Chemical Society, Faraday Transactions</i> , 1995 , 91, 2403-2409		12

13	Entangled dynamics of healing end-grafted chains at a solid/polymer interface. <i>Faraday Discussions</i> , 1994 , 98, 67	3.6	13
12	Stress Relaxation in Entangled Comb Polymer Melts. <i>Macromolecules</i> , 1994 , 27, 7205-7211	5.5	32
11	The dynamic structure factor of a star polymer in a concentrated solution. <i>Macromolecules</i> , 1993 , 26, 5264-5266	5.5	20
10	"Molecular velcro": dynamics of a constrained chain into an elastomer network. <i>Macromolecules</i> , 1993 , 26, 7322-7325	5.5	38
9	The Rheology of Entangled Polymers at Very High Shear Rates. <i>Europhysics Letters</i> , 1993 , 21, 451-456	1.6	140
8	Nonlinear rheology of wormlike micelles. <i>Physical Review Letters</i> , 1993 , 71, 939-942	7.4	341
7	'Living trees': dynamics at a reversible classical gel point. <i>Journal of Physics Condensed Matter</i> , 1990 , 2, 749-754	1.8	6
6	Dynamic dilution and the viscosity of star-polymer melts. <i>Macromolecules</i> , 1989 , 22, 1911-1913	5.5	299
5	Molecular rheology of H-polymers. <i>Macromolecules</i> , 1988 , 21, 1062-1070	5.5	69
4	Hierarchical Relaxation in Tube Models of Branched Polymers. <i>Europhysics Letters</i> , 1988 , 6, 511-516	1.6	70
3	Stability of the interface between two dynamic phases in capillary flow of linear polymer melts. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 1987 , 25, 2253-2264	2.6	56
2	A molecular approach to the spurt effect in polymer melt flow. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 1986 , 24, 1735-1745	2.6	177
1	Computational Analysis of Dynamic Allostery and Control in the SARS-CoV-2 Main Protease		5