

Ole Hassager

List of Publications by Year in descending order

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128
papers

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81839

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136
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136
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#	ARTICLE	IF	CITATIONS
1	Toward a Design for Flowable and Extensible Ionomers: An Example of Diamine-Neutralized Entangled Poly(styrene-co-4-vinylbenzoic acid) Ionomer Melts. <i>Macromolecules</i> , 2021, 54, 2306-2315.	2.2	15
2	Small-Angle Neutron Scattering Study of the Structural Relaxation of Elongationally Oriented, Moderately Stretched Three-Arm Star Polymers. <i>Physical Review Letters</i> , 2021, 127, 177801.	2.9	5
3	Extensional rheometry of model liquids: Simulations of filament stretching. <i>Physics of Fluids</i> , 2021, 33, .	1.6	6
4	Threadingâ€“Unthreading Transition of Linear-Ring Polymer Blends in Extensional Flow. <i>ACS Macro Letters</i> , 2020, 9, 1452-1457.	2.3	36
5	Dilatancy in dense suspensions of model hard-sphere-like colloids under shear and extensional flow. <i>Journal of Rheology</i> , 2020, 64, 1179-1196.	1.3	19
6	<scp>Electroâ€“thermal</scp> and â€“mechanical model of thermal breakdown in multilayered dielectric elastomers. <i>AICHE Journal</i> , 2020, 66, e16275.	1.8	6
7	Stress-controlled oscillatory flow initiated at time zero: A linear viscoelastic analysis. <i>Journal of Rheology</i> , 2020, 64, 545-550.	1.3	7
8	Stretch and orientational mode decoupling in relaxation of highly stretched polymer melts. <i>Physical Review Research</i> , 2020, 2, .	1.3	2
9	10.1122/1.5143653.1., 2020, , .		0
10	10.1122/1.5143653.7., 2020, , .		0
11	Electroâ€“Thermal model of thermal breakdown in multilayered dielectric elastomers. <i>AICHE Journal</i> , 2019, 65, 859-864.	1.8	11
12	On the universality in the extensional rheology of monodisperse polymer melts and oligomer dilutions thereof. <i>Rheologica Acta</i> , 2019, 58, 333-340.	1.1	12
13	Extension induced phase separation and crystallization in semidilute solutions of ultra high molecular weight polyethylene. <i>Polymer</i> , 2018, 136, 215-223.	1.8	16
14	Nonlinear Elongational Rheology of Unentangled Polystyrene and Poly(<i>i</i> - <i>p</i> - <i>t</i> ert- <i>i</i> -butylstyrene) Melts. <i>Macromolecules</i> , 2018, 51, 9710-9729.	2.2	54
15	Highly Anisotropic Glassy Polystyrenes Are Flexible. <i>ACS Macro Letters</i> , 2018, 7, 1126-1130.	2.3	24
16	Structural Studies of Three-Arm Star Block Copolymers Exposed to Extreme Stretch Suggests a Persistent Polymer Tube. <i>Physical Review Letters</i> , 2018, 120, 207801.	2.9	11
17	Flow induced crystallization prevents melt fracture of HDPE in uniaxial extensional flow. <i>Journal of Rheology</i> , 2018, 62, 1051-1060.	1.3	11
18	Linear shear and nonlinear extensional rheology of unentangled supramolecular side-chain polymers. <i>Journal of Rheology</i> , 2018, 62, 1155-1174.	1.3	32

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19	Influence of Extensional Stress Overshoot on Crystallization of LDPE. <i>Macromolecules</i> , 2017, 50, 1134-1140.	2.2	28
20	Polymer liquids fracture like solids. <i>Soft Matter</i> , 2017, 13, 3470-3474.	1.2	41
21	Rheological Link Between Polymer Melts with a High Molecular Weight Tail and Enhanced Formation of Shish-Kebabs. <i>ACS Macro Letters</i> , 2017, 6, 1268-1273.	2.3	26
22	Nonlinear shear and uniaxial extensional rheology of polyether-ester-sulfonate copolymer ionomer melts. <i>Journal of Rheology</i> , 2017, 61, 1279-1289.	1.3	46
23	Fabrication of Nanostructures by Roll-to-Roll Extrusion Coating. <i>Advanced Engineering Materials</i> , 2016, 18, 484-489.	1.6	33
24	Oscillatory squeeze flow for the study of linear viscoelastic behavior. <i>Journal of Rheology</i> , 2016, 60, 407-418.	1.3	11
25	Linear Viscoelastic and Dielectric Relaxation Response of Unentangled UPy-Based Supramolecular Networks. <i>Macromolecules</i> , 2016, 49, 3899-3910.	2.2	62
26	Shear and Extensional Rheology of Polystyrene Melts and Solutions with the Same Number of Entanglements. <i>Macromolecules</i> , 2016, 49, 3925-3935.	2.2	145
27	Nematic effects and strain coupling in entangled polymer melts under strong flow. <i>Physical Review E</i> , 2016, 94, 020502.	0.8	12
28	Multiple Cracks Propagate Simultaneously in Polymer Liquids in Tension. <i>Physical Review Letters</i> , 2016, 117, 087801.	2.9	43
29	Dynamics of Star Polymers in Fast Extensional Flow and Stress Relaxation. <i>Macromolecules</i> , 2016, 49, 6694-6699.	2.2	36
30	Brittle fracture in associative polymers: the case of ionomer melts. <i>Soft Matter</i> , 2016, 12, 7606-7612.	1.2	34
31	Stress relaxation of bi-disperse polystyrene melts. <i>Rheologica Acta</i> , 2016, 55, 303-314.	1.1	19
32	A new look at extensional rheology of low-density polyethylene. <i>Rheologica Acta</i> , 2016, 55, 343-350.	1.1	50
33	Linear and Nonlinear Universality in the Rheology of Polymer Melts and Solutions. <i>Physical Review Letters</i> , 2015, 115, 078302.	2.9	62
34	Bridging the Gap between Polymer Melts and Solutions in Extensional Rheology. <i>Macromolecules</i> , 2015, 48, 4158-4163.	2.2	89
35	Effect of Hydrogen Bonding on Linear and Nonlinear Rheology of Entangled Polymer Melts. <i>Macromolecules</i> , 2015, 48, 5988-5996.	2.2	103
36	A control scheme for filament stretching rheometers with application to polymer melts. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2013, 194, 14-22.	1.0	49

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37	Extensional Rheology of Entangled Polystyrene Solutions Suggests Importance of Nematic Interactions. ACS Macro Letters, 2013, 2, 741-744.	2.3	93
38	Creep Measurements Confirm Steady Flow after Stress Maximum in Extension of Branched Polymer Melts. Physical Review Letters, 2013, 110, 168301.	2.9	34
39	The chromatographic separation of particles using optical electric fields. Lab on A Chip, 2013, 13, 928.	3.1	2
40	Concentrated Polymer Solutions are Different from Melts: Role of Entanglement Molecular Weight. Macromolecules, 2013, 46, 5026-5035.	2.2	167
41	Mechanism of spontaneous hole formation in thin polymeric films. Physical Review B, 2012, 85, .	1.1	6
42	Stress relaxation and reversed flow of low-density polyethylene melts following uniaxial extension. Journal of Rheology, 2012, 56, 1535-1554.	1.3	20
43	Transient Convection, Diffusion, and Adsorption in Surface-Based Biosensors. Langmuir, 2012, 28, 7557-7563.	1.6	55
44	Stress and neutron scattering measurements on linear polymer melts undergoing steady elongational flow. Rheologica Acta, 2012, 51, 385-394.	1.1	34
45	Reply to: "On the "viscosity overshoot" during the uniaxial extension of a low density polyethylene". Journal of Non-Newtonian Fluid Mechanics, 2012, 171-172, 106.	1.0	8
46	Mean Span Dimensions of Ideal Polymer Chains Containing Branches and Rings. Macromolecules, 2011, 44, 403-412.	2.2	27
47	The dynamics of cylindrical samples in dual wind-up extensional rheometers. Journal of Rheology, 2011, 55, 571-580.	1.3	7
48	Reversed planar elongation of soft polymeric networks. Rheologica Acta, 2011, 50, 729-740.	1.1	9
49	A new approach to heart valve tissue engineering: mimicking the heart ventricle with a ventricular assist device in a novel bioreactor. Journal of Tissue Engineering and Regenerative Medicine, 2011, 5, 292-300.	1.3	8
50	A Theoretical Study of the Separation Principle in Size Exclusion Chromatography. Macromolecules, 2010, 43, 1651-1659.	2.2	47
51	Planar elongation of soft polymeric networks. Rheologica Acta, 2010, 49, 1-13.	1.1	24
52	Constitutive equations for the Doi-Edwards model without independent alignment. Rheologica Acta, 2010, 49, 555-562.	1.1	13
53	Polymeric liquids in extension: fluid mechanics or rheometry?. Rheologica Acta, 2010, 49, 543-554.	1.1	16
54	Large amplitude oscillatory extension of soft polymeric networks. Rheologica Acta, 2010, 49, 807-814.	1.1	31

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55	3D Simulation of Nano-Imprint Lithography. <i>Nanoscale Research Letters</i> , 2010, 5, 274-278.	3.1	13
56	3D modeling of dual wind-up extensional rheometers. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2010, 165, 14-23.	1.0	24
57	Experimental evaluation of the pure configurational stress assumption in the flow dynamics of entangled polymer melts. <i>Journal of Rheology</i> , 2010, 54, 1325-1336.	1.3	33
58	Simulation of Elastic Rupture in Extension of Entangled Monodisperse Polymer Melts. <i>Physical Review Letters</i> , 2009, 102, 138301.	2.9	30
59	Linear rheology of cross-linked polypropylene oxide as a pressure sensitive adhesive. <i>International Journal of Adhesion and Adhesives</i> , 2009, 29, 687-693.	1.4	36
60	Determination of the concentration profile and homogeneity of antioxidants and degradation products in a cross-linked polyethylene type A (PEXa) pipe. <i>Polymer Testing</i> , 2009, 28, 378-385.	2.3	21
61	Observing the chain stretch transition in a highly entangled polyisoprene melt using transient extensional rheometry. <i>Journal of Rheology</i> , 2009, 53, 1327-1346.	1.3	35
62	A constitutive analysis of transient and steady-state elongational viscosities of bidisperse polystyrene blends. <i>Journal of Rheology</i> , 2008, 52, 67-86.	1.3	50
63	Stress relaxation of narrow molar mass distribution polystyrene following uniaxial extension. <i>Journal of Rheology</i> , 2008, 52, 885-899.	1.3	69
64	Equilibrium partitioning of macromolecules in confining geometries: Improved universality with a new molecular size parameter. <i>Journal of Chemical Physics</i> , 2008, 128, 124904.	1.2	24
65	Constitutive Equation for Polymer Networks with Phonon Fluctuations. <i>AIP Conference Proceedings</i> , 2008, , .	0.3	0
66	Elongational Dynamics of Narrow Molar Mass Distribution Linear and Branched Polystyrene Melts. <i>AIP Conference Proceedings</i> , 2008, , .	0.3	0
67	Proof of the identity between the depletion layer thickness and half the average span for an arbitrary polymer chain. <i>Journal of Chemical Physics</i> , 2008, 129, 074904.	1.2	10
68	Constitutive equation for polymer networks with phonon fluctuations. <i>Physical Review E</i> , 2008, 77, 011802.	0.8	9
69	An all-polymer micropump based on the conductive polymer poly (3,4-ethylenedioxythiophene) and a polyurethane channel system. <i>Journal of Micromechanics and Microengineering</i> , 2007, 17, 860-866.	1.5	20
70	Modelling of the release of organic compounds from polyethylene pipes to water. <i>Journal of Water Supply: Research and Technology - AQUA</i> , 2007, 56, 435-443.	0.6	19
71	Kinetic Theory and Rheology of Macromolecular Solutions. <i>Advances in Chemical Physics</i> , 2007, , 31-117.	0.3	56
72	Micropatterning of a stretchable conductive polymer using inkjet printing and agarose stamping. <i>Synthetic Metals</i> , 2007, 157, 961-967.	2.1	19

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73	Highly Stretchable and Conductive Polymer Material Made from Poly(3,4-ethylenedioxythiophene) and Polyurethane Elastomers. <i>Advanced Functional Materials</i> , 2007, 17, 3069-3073.	7.8	164
74	Direct Fast Patterning of Conductive Polymers Using Agarose Stamping. <i>Advanced Materials</i> , 2007, 19, 3261-3265.	11.1	39
75	Elongational viscosity of monodisperse and bidisperse polystyrene melts. <i>Journal of Rheology</i> , 2006, 50, 453-476.	1.3	139
76	Nonlinear Branch-Point Dynamics of Multiarm Polystyrene. <i>Macromolecules</i> , 2006, 39, 8844-8853.	2.2	76
77	Integration of conducting polymer network in non-conductive polymer substrates. <i>Synthetic Metals</i> , 2006, 156, 1203-1207.	2.1	24
78	Dynamic Dilution Effects in Polymeric Networks. <i>E-Polymers</i> , 2006, 6, .	1.3	2
79	Viscosity overshoot in the start-up of uniaxial elongation of low density polyethylene melts. <i>Journal of Rheology</i> , 2005, 49, 369-381.	1.3	90
80	Quantitative prediction of transient and steady-state elongational viscosity of nearly monodisperse polystyrene melts. <i>Journal of Rheology</i> , 2005, 49, 1317-1327.	1.3	118
81	How to tune rubber elasticity. , 2004, , .		19
82	Direct measurement of gas solubilities in polymers with a high-pressure microbalance. <i>Journal of Applied Polymer Science</i> , 2004, 91, 1476-1488.	1.3	32
83	Some experimental results for the end-linked polydimethylsiloxane network system. <i>E-Polymers</i> , 2004, 4, .	1.3	4
84	Molecular model for solubility of gases in flexible polymers. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2003, 41, 701-706.	2.4	2
85	Elongational Viscosity of Narrow Molar Mass Distribution Polystyrene. <i>Macromolecules</i> , 2003, 36, 5174-5179.	2.2	252
86	Elastic Properties of Nonstoichiometric Reacted PDMS Networks. <i>Macromolecules</i> , 2003, 36, 10063-10070.	2.2	78
87	Extensional viscosity for polymer melts measured in the filament stretching rheometer. <i>Journal of Rheology</i> , 2003, 47, 429-441.	1.3	177
88	Oxygen Diffusion in Bilayer Polymer Films. <i>Journal of Physical Chemistry B</i> , 2003, 107, 13885-13891.	1.2	21
89	Growth of non-axisymmetric disturbances of the free surface in the filament stretching rheometer: experiments and simulation. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2002, 108, 163-186.	1.0	51
90	The role of surface tension on the elastic decohesion of polymeric filaments. <i>Journal of Rheology</i> , 2001, 45, 527-537.	1.3	26

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91	Modeling of pressure effects in HVDC cables. IEEE Transactions on Dielectrics and Electrical Insulation, 1999, 6, 845-851.	1.8	11
92	Numerical simulation of wire-coating: The influence of temperature boundary conditions. Polymer Engineering and Science, 1999, 39, 2007-2018.	1.5	21
93	Analytical solutions for squeeze flow with partial wall slip. Journal of Non-Newtonian Fluid Mechanics, 1999, 81, 1-15.	1.0	111
94	Three-dimensional simulations of viscoelastic instability in polymeric filaments. Journal of Non-Newtonian Fluid Mechanics, 1999, 82, 189-202.	1.0	40
95	Inflation and instability of a polymeric membrane. Journal of Non-Newtonian Fluid Mechanics, 1999, 88, 185-204.	1.0	23
96	The Considère condition and rapid stretching of linear and branched polymer melts. Journal of Rheology, 1999, 43, 1195-1212.	1.3	123
97	Spectral element simulation of ultrafiltration. Chemical Engineering Science, 1998, 53, 3099-3115.	1.9	15
98	Viscous flow with large fluid-fluid interface displacement. , 1998, 28, 859-881.		11
99	Observations of peeling of a polyisobutylene-based pressure-sensitive adhesive. International Journal of Adhesion and Adhesives, 1998, 18, 131-137.	1.4	36
100	Failure and nonfailure of fluid filaments in extension1Dedicated to the memory of Professor Gianni Astarita.1. Journal of Non-Newtonian Fluid Mechanics, 1998, 76, 137-151.	1.0	62
101	Transient filament stretching rheometer. Rheologica Acta, 1997, 36, 285-302.	1.1	70
102	Simulation of free surfaces in 3-D with the arbitrary Lagrange-Euler method. International Journal for Numerical Methods in Engineering, 1995, 38, 717-734.	1.5	23
103	Simulation of transport phenomena in ultrafiltration. Chemical Engineering Science, 1993, 48, 2983-2999.	1.9	18
104	Rheological characterization of media containing <i>Penicillium chrysogenum</i> . Biotechnology and Bioengineering, 1993, 41, 162-164.	1.7	49
105	Flow of viscoplastic fluids in a rotating concentric annulus. Journal of Non-Newtonian Fluid Mechanics, 1992, 42, 19-36.	1.0	38
106	Flow of viscoplastic fluids in eccentric annular geometries. Journal of Non-Newtonian Fluid Mechanics, 1992, 45, 149-169.	1.0	72
107	Gravity waves and Rayleigh Taylor instability on a Jeffrey-fluid. Rheologica Acta, 1991, 30, 301-306.	1.1	16
108	A new moving finite element method based on quadratic approximation functions. International Journal for Numerical Methods in Engineering, 1989, 28, 415-430.	1.5	4

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109	Creeping motion of long bubbles and drops in capillary tubes. Journal of Colloid and Interface Science, 1989, 133, 135-147.	5.0	59
110	Nonlinear Viscoelastic Behavior. , 1989, , 237-269.		0
111	Numerical Analysis of Forming Processes. Journal of Non-Newtonian Fluid Mechanics, 1986, 21, 385-386.	1.0	0
112	Do Polymers Really Climb Rods?. Journal of Rheology, 1985, 29, 361-364.	1.3	16
113	An algorithm for the use of the Lagrangian specification in Newtonian fluid mechanics and applications to free-surface flow. Journal of Fluid Mechanics, 1985, 152, 173-190.	1.4	108
114	THE MOTION OF VISCOELASTIC FLUIDS AROUND SPHERES AND BUBBLESâ€”The manuscript was prepared while the author held a position as visiting professor at the Mathematics Research Center and the Department of Chemical Engineering, The University of Wisconsin.. , 1985, , 1-11.		0
115	Processor operated correlator with applications to laser Doppler signals. Review of Scientific Instruments, 1984, 55, 737-742.	0.6	3
116	The physics of deformation and flow. Journal of Non-Newtonian Fluid Mechanics, 1983, 13, 103-105.	1.0	1
117	Variational principle for the KBKZ rheological equation of state with potential function. Journal of Non-Newtonian Fluid Mechanics, 1981, 9, 321-328.	1.0	17
118	Negative wake behind bubbles in non-newtonian liquids. Nature, 1979, 279, 402-403.	13.7	178
119	On co-rotational and other rate type constitutive equations. Journal of Non-Newtonian Fluid Mechanics, 1978, 4, 261-268.	1.0	12
120	MeÃverfahren zur Bestimmung der GrenzflÃchengeschwindigkeit aufsteigender Luftblasen. Chemie-Ingenieur-Technik, 1978, 50, 807-807.	0.4	0
121	Kinetic theory and rheology of dilute polymer solutions. , 1975, , 1153-1155.		0
122	The Goddard expansion and the kinetic theory for solutions of rodlike macromolecules. Journal of Chemical Physics, 1974, 61, 4312-4316.	1.2	29
123	Kinetic theory and rheology of beadâ€”rod models for macromolecular solutions. II. Linear unsteady flow properties. Journal of Chemical Physics, 1974, 60, 4001-4008.	1.2	73
124	Co-rotational rheological models and the Goddard expansion. AIChE Journal, 1974, 20, 1041-1066.	1.8	94
125	Kinetic theory and rheology of dilute polymer solutions. Rheologica Acta, 1974, 13, 645-647.	1.1	1
126	Prediction of melt elasticity from viscosity data. Polymer Engineering and Science, 1974, 14, 859-867.	1.5	76

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127	Kinetic theory and rheology of bead-rod models for macromolecular solutions. I. Equilibrium and steady flow properties. Journal of Chemical Physics, 1974, 60, 2111-2124.	1.2	107
128	Stress Relaxation of Solutions of Flexible Macromolecules. Journal of Chemical Physics, 1972, 56, 2498-2501.	1.2	28