Manfred H Wagner

List of Publications by Year
in descending order

124	3,874	136740	138251
papers	citations	32 h-index	58 g-index

128	128	128	1608
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Modelling elongational viscosity overshoot and brittle fracture of low-density polyethylene melts. Rheologica Acta, 2022, 61, 281-298.	1.1	11
2	Interactive Shear and Extensional Rheologyâ€"25Âyears of IRIS Software. Rheologica Acta, 2022, 61, 259-269.	1.1	21
3	Analysis of elongational flow of star polymers. Rheologica Acta, 2022, 61, 415-425.	1.1	3
4	Thermoset powder coating wastes as filler in LDPE â€“ Characterization of mechanical, thermal and morphological properties. Polymer Testing, 2021, 93, 106897.	2.3	5
5	Modeling of nonlinear extensional and shear rheology of lowâ€viscosity polymer melts. Polymer Engineering and Science, 2021, 61, 1077-1086.	1.5	6
6	Elongational viscosity scaling of polymer melts with different chemical constituents. Rheologica Acta, 2021, 60, 163-174.	1.1	8
7	Scaling relations for brittle fracture of entangled polystyrene melts and solutions in elongational flow. Journal of Rheology, 2021, 65, 311-324.	1.3	14
8	Modeling elongational viscosity and brittle fracture of polystyrene solutions. Rheologica Acta, 2021, 60, 385-396.	1.1	9
9	Modelling of Elongational Flow of HDPE Melts by Hierarchical Multi-Mode Molecular Stress Function Model. Polymers, 2021, 13, 3217.	2.0	5
10	Elongational viscosity and brittle fracture of bidisperse blends of a high and several low molar mass polystyrenes. Rheologica Acta, 2021, 60, 803-817.	1.1	11
11	A new perspective on monomeric friction reduction in fast elongational flows of polystyrene melts and solutions. Journal of Rheology, 2021, 65, 1413-1421.	1.3	9
12	Elongational rheology of polystyrene melts and solutions: Concentration dependence of the interchain tube pressure effect. Journal of Rheology, 2020, 64, 95-110.	1.3	19
13	Modeling nonlinear rheology of unentangled polymer melts based on a single integral constitutive equation. Journal of Rheology, 2020, 64, 129-140.	1.3	14
14	Universality of steady shear flow of Rouse melts. Rheologica Acta, 2020, 59, 755-763.	1.1	3
15	A constitutive analysis of nonlinear shear flow. Rheologica Acta, 2020, 59, 487-506.	1.1	17
16	Utilizing hydrolyzed powder recyclates as filler in polystyrene. Materialwissenschaft Und Werkstofftechnik, 2019, 50, 25-32.	0.5	3
17	Review on tube model based constitutive equations for polydisperse linear and long-chain branched polymer melts. Journal of Rheology, 2019, 63, 361-375.	1.3	45
18	Response to â€œLetter to the Editor: â€˜Melt rupture unleashed by few chain scission events in fully stretched strandsâ€™â€•[J. Rheol. 63, 105 (2018)]. Journal of Rheology, 2019, 63, 419-421.	1.3	5

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19	Piezo-Plunger Jetting Technology: An Experimental Study on Jetting Characteristics of Filled Epoxy Polymers. Fluids, 2019, 4, 23.	0.8	3
20	Hierarchical multi-mode molecular stress function (HMMSF) model for linear and LCB polymer melts. AIP Conference Proceedings, 2019, , .	0.3	0
21	Analysis of high meltâ€strength poly(ethylene terephthalate) produced by reactive processing by shear and elongational rheology. Polymer Engineering and Science, 2019, 59, 396-410.	1.5	15
22	Review of the hierarchical multiâ€mode molecular stress function model for broadly distributed linear and LCB polymer melts. Polymer Engineering and Science, 2019, 59, 573-583.	1.5	12
23	Polymer Fiber Processing: The Rheotens Test. , 2019, , .		0
24	On the origin of brittle fracture of entangled polymer solutions and melts. Journal of Rheology, 2018, 62, 221-233.	1.3	26
25	The peculiar elongational viscosity of concentrated solutions of monodisperse PMMA in oligomeric MMA. Rheologica Acta, 2018, 57, 591-601.	1.1	4
26	Wall slip of polyisobutylenes: effect of molecular characteristics. Rheologica Acta, 2017, 56, 85-94.	1.1	7
27	Rheological and molecular characterization of long-chain branched poly(ethylene terephthalate). Rheologica Acta, 2017, 56, 887-904.	1.1	33
28	The peculiar behavior of functionalized carbon nanotubes in hydrocarbons and polymeric oxidation environments. Journal of Adhesion Science and Technology, 2017, 31, 988-1006.	1.4	5
29	Enhancing the potential of employing thermosetting powder recyclates as filler in LLDPE by structural modifications. Journal of Polymer Engineering, 2017, 37, 287-296.	0.6	10
30	A hierarchical multimode molecular stress function model for linear polymer melts in extensional flows. Journal of Rheology, 2016, 60, 625-636.	1.3	30
31	A hierarchical multi-mode MSF model for long-chain branched polymer melts part III: shear flows. Rheologica Acta, 2016, 55, 633-639.	1.1	16
32	From linear viscoelasticity to elongational flow of polydisperse linear and branched polymer melts: The hierarchical multi-mode molecular stress function model. Polymer, 2016, 104, 204-214.	1.8	21
33	A hierarchical multi-mode MSF model for long-chain branched polymer melts part II: multiaxial extensional flows. Rheologica Acta, 2016, 55, 327-333.	1.1	22
34	An extended interchain tube pressure model for elongational flow of polystyrene melts and concentrated solutions. Journal of Non-Newtonian Fluid Mechanics, 2015, 222, 121-131.	1.0	11
35	From melt to solution: Scaling relations for concentrated polystyrene solutions. Journal of Rheology, 2015, 59, 1113-1130.	1.3	8
36	Uniaxial extensional flow behavior of comb-shaped poly(methyl methacrylate). Rheologica Acta, 2015, 54, 637-645.	1.1	1

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37	Rheological characterization of H-shaped poly(methyl methacrylate)s. Rheologica Acta, 2015, 54, 793-804.	1.1	1
38	A hierarchical multi-mode MSF model for long-chain branched polymer melts part I: elongational flow. Rheologica Acta, 2015, 54, 779-791.	1.1	30
39	Recent advances in modeling of polymer melt rheology. Polimery, 2015, 61, 603-611.	0.4	2
40	Drop Test of Plastic Packagings â€“ Correlation with Material Parameters and Change of Packaging Behaviour After Impact of Standard Liquids. Packaging Technology and Science, 2014, 27, 479-493.	1.3	2
41	Scaling relations for elongational flow of polystyrene melts and concentrated solutions of polystyrene in oligomeric styrene. Rheologica Acta, 2014, 53, 765-777.	1.1	34
42	Elongational rheology and cohesive fracture of photo-oxidated LDPE. Journal of Rheology, 2014, 58, 199-222.	1.3	15
43	Study of inkjet printing as additive manufacturing process for gradient polyurethane material. Production Engineering, 2014, 8, 25-32.	1.1	21
44	The Internal Pressure Test in Experiment and Simulationâ€”Influence of the Wall Thickness Variation and the Change of the Packaging Behavior after the Impact of Standard Liquids. Packaging Technology and Science, 2013, 26, 311-326.	1.3	3
45	Effect of Br gassing after Ar plasma treatment of polyolefins. Journal of Adhesion Science and Technology, 2013, 27, 1828-1839.	1.4	19
46	Rheological characterization of cross-linked poly(methyl methacrylate). Rheologica Acta, 2013, 52, 753-765.	1.1	8
47	Increase of long-chain branching by thermo-oxidative treatment of LDPE: Chromatographic, spectroscopic, and rheological evidence. Journal of Rheology, 2013, 57, 105-129.	1.3	22
48	Elongational flow of polymer melts at constant strain rate, constant stress and constant force. , 2013, , .		2
49	Photo-oxidation of LDPE: Effects on elongational viscosity. , 2013, , .		0
50	Rheological characterization of degradation and polycondensation of poly(ethylene terephthalate) melt in air and in nitrogen. AIP Conference Proceedings, 2013, , .	0.3	14
51	Macromol. Chem. Phys. 22/2012. Macromolecular Chemistry and Physics, 2012, 213, 2436-2436.	1.1	0
52	Constant force elongational flow of polymer melts: Experiment and modelling. Journal of Rheology, 2012, 56, 1279.	1.3	23
53	Residue Stabilization in the Fire Retardancy of Woodâ€“Plastic Composites: Combination of Ammonium Polyphosphate, Expandable Graphite, and Red Phosphorus. Macromolecular Chemistry and Physics, 2012, 213, 2370-2377.	1.1	64
54	Role of compatibilizers on the physicomechanical performance of tea dust polypropylene composites. Journal of Applied Polymer Science, 2012, 125, E413.	1.3	7

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55	Effect of Î³-Radiation on the Mechanical Performance of Hybrid Rice Straw/Seaweed-Polypropylene Composites. Journal of Adhesion Science and Technology, 2011, 25, 1961-1971.	1.4	10
56	Probing Nonlinear Viscoelasticity of Polymer Melts by Medium Amplitude Oscillatory Shear (MAOS). , 2011, , .		0
57	Increase of Long-chain Branching by Thermo-oxidative Treatment of LDPE. , 2011, , .		0
58	Study on the Performance of Hybrid Jute/Betel Nut Fiber Reinforced Polypropylene Composites. Journal of Adhesion Science and Technology, 2011, 25, 615-626.	1.4	34
59	Prediction of steady-state viscous and elastic properties of polyolefin melts in shear and elongation. Rheologica Acta, 2011, 50, 645-653.	1.1	15
60	Enhancement of strain-hardening by thermo-oxidative degradation of low-density polyethylene. Rheologica Acta, 2011, 50, 519-535.	1.1	22
61	Correlation between molecular structure parameters and network properties of silaneâ€grafted and moisture crossâ€linked polyethylenes. Advances in Polymer Technology, 2011, 30, 286-300.	0.8	18
62	Mechanical performance of hybrid rice straw/sea weed polypropylene composites. Journal of Applied Polymer Science, 2011, 120, 1843-1849.	1.3	22
63	Rheological behavior of lubricating systems in polypropylene/seaweed composites. Journal of Applied Polymer Science, 2011, 121, 2143-2148.	1.3	15
64	The effect of dynamic tube dilation on chain stretch in nonlinear polymer melt rheology. Journal of Non-Newtonian Fluid Mechanics, 2011, 166, 915-924.	1.0	23
65	The interchain pressure effect in shear rheology. Rheologica Acta, 2010, 49, 459-471.	1.1	29
66	Measurement technique and data analysis of extensional viscosity for polymer melts by Sentmanat extensional rheometer (SER). Rheologica Acta, 2010, 49, 359-370.	1.1	50
67	Seaweed as novel biofiller in polypropylene composites. Journal of Applied Polymer Science, 2010, 118, 997-1005.	1.3	11
68	Extensional viscosity in uniaxial extension and contraction flowâ€"Comparison of experimental methods and application of the molecular stress function model. Journal of Non-Newtonian Fluid Mechanics, 2010, 165, 212-218.	1.0	25
69	Effect of layered silicate nanoclay on the properties of silane crosslinked linear low-density polyethylene (LLDPE). EXPRESS Polymer Letters, 2010, 4, 252-262.	1.1	29
70	The damping function in rheology. Rheologica Acta, 2009, 48, 245-284.	1.1	96
71	Modelling elongational and shear rheology of two LDPE melts. Rheologica Acta, 2009, 48, 691-697.	1.1	37
72	Rheological Characterization and Constitutive Modeling of Two LDPE Melts. , 2009, , .		1

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73	Recent Advances in Constitutive Modeling of Polymer Melts. , 2009, , .		14
74	Study on phase separation of PET/PEN blends by dynamic rheology. Journal of Applied Polymer Science, 2008, 110, 177-182.	1.3	8
75	Verification of branch point withdrawal in elongational flow of pom-pom polystyrene melt. Journal of Rheology, 2008, 52, 1049-1068.	1.3	51
76	A constitutive analysis of transient and steady-state elongational viscosities of bidisperse polystyrene blends. Journal of Rheology, 2008, 52, 67-86.	1.3	50
77	The MSF model: relation of nonlinear parameters to molecular structure of long-chain branched polymer melts. Rheologica Acta, 2007, 46, 583-593.	1.1	42
78	Experiment as a Boundary-Value Problem. , 2007, , 3-31.		0
79	Modeling non-Gaussian extensibility effects in elongation of nearly monodisperse polystyrene melts. Journal of Rheology, 2006, 50, 327-340.	1.3	52
80	The Rheology of Linear and Long-chain Branched Polymer Melts. Macromolecular Symposia, 2006, 236, 219-227.	0.4	7
81	A modification of the convective constraint release mechanism in the molecular stress function model giving enhanced vortex growth. Journal of Non-Newtonian Fluid Mechanics, 2006, 135, 68-81.	1.0	16
82	Modeling elongational viscosity of blends of linear and long-chain branched polypropylenes. Rheologica Acta, 2006, 46, 211-221.	1.1	23
83	Impact of processing history on rheological properties for branched polypropylene. Polymer, 2006, 47, 3629-3635.	1.8	60
84	Modeling strain hardening of polydisperse polystyrene melts by molecular stress function theory. Rheologica Acta, 2005, 44, 235-243.	1.1	35
85	Exponential shear flow of branched polyethylenes in rotational parallel-plate geometry. Rheologica Acta, 2005, 45, 164-173.	1.1	14
86	Quantitative prediction of transient and steady-state elongational viscosity of nearly monodisperse polystyrene melts. Journal of Rheology, 2005, 49, 1317-1327.	1.3	118
87	Quantitative analysis of melt elongational behavior of LLDPE/LDPE blends. Rheologica Acta, 2004, 44, 198-218.	1.1	84
88	Development of a polymer stent with shape memory effect as a drug delivery system. Journal of Materials Science: Materials in Medicine, 2003, 14, 109-112.	1.7	242
89	Surface treatment mechanism of nano-SiO2 and the properties of PP/nano-SiO2 composite materials. Colloid and Polymer Science, 2003, 281, 550-555.	1.0	26
90	The Matching of Experimental Polymer Processing Flows to Viscoelastic Numerical Simulation. International Polymer Processing, 2002, 17, 3-10.	0.3	18

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91	Determination of elongational viscosity of polymer melts by RME and Rheotens experiments. Rheologica Acta, 2002, 41, 316-325.	1.1	42
92	Golden Jubilee Meeting of the German Society of Rheology (DRG), Berlin, Germany. Rheologica Acta, 2002, 41, 290-291.	1.1	0
93	LDPE melt rheology and the pomâ€“pom model. Journal of Non-Newtonian Fluid Mechanics, 2000, 92, 245-259.	1.0	35
94	The strain-hardening behaviour of linear and long-chain-branched polyolefin melts in extensional flows. Rheologica Acta, 2000, 39, 97-109.	1.1	157
95	Assessment of LDPE Melt Strength by Use of Rheotens Mastercurves. International Polymer Processing, 2000, 15, 268-272.	0.3	7
96	Effect of Wall Slip on Rheotens Mastercurves for Linear PE Melts. International Polymer Processing, 1999, 14, 336-341.	0.3	3
97	Dynamics of polymer melts in reversing shear flows1Dedicated to the memory of Professor Gianni Astarita.1. Journal of Non-Newtonian Fluid Mechanics, 1998, 76, 183-197.	1.0	23
98	Nonlinear viscoelastic characterization of a linear polyethylene (HDPE) melt in rotational and irrotational flows. Journal of Non-Newtonian Fluid Mechanics, 1998, 79, 283-296.	1.0	23
99	Damping functions and nonlinear viscoelasticityâ€”a review. Journal of Non-Newtonian Fluid Mechanics, 1997, 68, 169-171.	1.0	12
100	The role of the orientation tensor in the rheology of flexible polymers. Macromolecular Theory and Simulations, 1997, 6, 703-711.	0.6	4
101	Rheotens-mastercurves and drawability of polymer melts. Polymer Engineering and Science, 1996, 36, 925-935.	1.5	61
102	Professor Dr. Joachim Meissner on the occasion of his retirement. Rheologica Acta, 1996, 35, 101-102.	1.1	2
103	Rheotens-mastercurves and elongational viscosity of polymer melts. Rheologica Acta, 1996, 35, 117-126.	1.1	42
104	Untersuchungen zur irreversibilitÃt von Netzwerkentschlaufungen beim FlieÃŸen von Polymerschmelzen. Macromolecular Chemistry and Physics, 1995, 196, 2989-3004.	1.1	5
105	Assessment of nonlinear strain measures for extensional and shearing flows of polymer melts. Rheologica Acta, 1994, 33, 506-516.	1.1	56
106	Analysis of Small-Angle Neutron Scattering Data on Poly(dimethylsiloxane) Network Unfolding. Macromolecules, 1994, 27, 5223-5226.	2.2	12
107	The nonlinear strain measure of polymer melts and rubbers: A unifying approach. Makromolekulare Chemie Macromolecular Symposia, 1993, 68, 95-108.	0.6	3
108	The slipâ€link model: A constitutive equation for general biaxial extension of polymer melts. Makromolekulare Chemie Macromolecular Symposia, 1992, 56, 13-24.	0.6	4

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109	Constitutive equations from Gaussian slip-link network theories in polymer melt rheology. Rheologica Acta, 1992, 31, 22-31.	1.1	27
110	The nonlinear strain measure of polyisobutylene melt in general biaxial flow and its comparison to the Doi-Edwards model. Rheologica Acta, 1990, 29, 594-603.	1.1	42
111	Einige offene Fragen in der Rheologie der Polymerschmelzen. Angewandte Makromolekulare Chemie, 1990, 179, 217-229.	0.3	1
112	Constant force elongational flow of a low-density polyethylene meltâ€"experiment and theory. Journal of Non-Newtonian Fluid Mechanics, 1982, 11, 239-256.	1.0	28
113	The spike-strain test for polymeric liquids and its relevance for irreversible destruction of network connectivity by deformation. Rheologica Acta, 1979, 18, 463-468.	1.1	26
114	Tensile stress overshoot in uniaxial extension of a LDPE melt. Rheologica Acta, 1979, 18, 427-428.	1.1	86
115	Model analysis of nonlinear viscoelastic behaviour by use of a single integral constitutive equation: Stresses and birefringence of a polystyrene melt in intermittent shear flows. Rheologica Acta, 1979, 18, 615-622.	1.1	29
116	Elongational behaviour of polymer melts in constant elongation-rate, constant tensile stress, and constant tensile force experiments. Rheologica Acta, 1979, 18, 681-692.	1.1	59
117	A constitutive analysis of uniaxial elongational flow data of low-density polyethylene melt. Journal of Non-Newtonian Fluid Mechanics, 1978, 4, 39-55.	1.0	189
118	Nonlinear shear creep and constrained elastic recovery of a LDPE melt. Rheologica Acta, 1978, 17, 138-148.	1.1	98
119	Prediction of primary normal stress difference from shear viscosity data using a single integral constitutive equation. Rheologica Acta, 1977, 16, 43-50.	1.1	99
120	Analysis of stress-growth data for simple extension of a low-density branched polyethylene melt. Rheologica Acta, 1976, 15, 133-135.	1.1	65
121	Analysis of time-dependent non-linear stress-growth data for shear and elongational flow of a low-density branched polyethylene melt. Rheologica Acta, 1976, 15, 136-142.	1.1	387
122	Das Folienblasverfahren als rheologisch-thermodynamischer Prozeï¿½. Rheologica Acta, 1976, 15, 40-51.	1.1	36
123	Developing flow in circular conduits: transition from plug flow to tube flow. Journal of Fluid Mechanics, 1975, 72, 257.	1.4	18
124	Endor study of atomic hydrogen in KI-crystals. Solid State Communications, 1974, 14, 1101-1104.	0.9	11