Helmut MÃ¼nstedt

List of Publications by Year
in descending order

109 papers	5,128 citations	87888 38 h-index	91884 69 g-index
112 all docs	112 docs citations	112 times ranked	3541 citing authors

#	Article	IF	Citations
1	Silver ion release from antimicrobial polyamide/silver composites. Biomaterials, 2005, 26, 2081-2088.	11.4	662
2	Long-Chain Branched Polypropylenes by Electron Beam Irradiation and Their Rheological Properties. Macromolecules, 2004, 37, 9465-9472.	4.8	303
3	Long-term antimicrobial polyamide 6/silver-nanocomposites. Journal of Materials Science, 2007, 42, 6067-6073.	3.7	208
4	Polyamide/silver antimicrobials: Effect of filler types on the silver ion release. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2005, 75B, 311-319.	3.4	163
5	Strain hardening of various polyolefins in uniaxial elongational flow. Journal of Rheology, 2003, 47, 619-630.	2.6	157
6	Long-Chain Branching in Metallocene-Catalyzed Polyethylenes Investigated by Low Oscillatory Shear and Uniaxial Extensional Rheometry. Macromolecules, 2002, 35, 1038-1048.	4.8	154
7	Influence of long-chain branches in polyethylenes on linear viscoelastic flow properties in shear. Rheologica Acta, 2002, 41, 232-244.	2.4	149
8	Influence of molecular structure on rheological properties of polyethylenes. Rheologica Acta, 1998, 37, 7-20.	2.4	118
9	Rheological behavior of blends from a linear and a long-chain branched polypropylene. Journal of Rheology, 2005, 49, 1059-1079.	2.6	116
10	Influence of Type and Content of Various Comonomers on Long-Chain Branching of Ethene/Î±-Olefin Copolymers. Macromolecules, 2006, 39, 1474-1482.	4.8	115
11	Dependence of the zero shear-rate viscosity and the viscosity function of linear high-density polyethylenes on the mass-average molar mass and polydispersity. Rheologica Acta, 2006, 45, 755-764.	2.4	111
12	Rheological properties and foaming behavior of polypropylenes with different molecular structures. Journal of Rheology, 2006, 50, 907-923.	2.6	99
13	Deformation and Flow of Polymeric Materials. , 2014, , .		97
14	Analytical and rheological characterization of long-chain branched metallocene-catalyzed ethylene homopolymers. Polymer, 2002, 43, 6383-6390.	3.8	92
15	Structure-Property Relationships of Linear and Long-Chain Branched Metallocene High-Density Polyethylenes Characterized by Shear Rheology and SEC-MALLS. Macromolecular Chemistry and Physics, 2006, 207, 26-38.	2.2	92
16	Thermorheological Behavior of Various Long-Chain Branched Polyethylenes. Macromolecules, 2008, 41, 1328-1333.	4.8	84
17	Correlation between rheological behaviour in uniaxial elongation and film blowing properties of various polyethylenes. Rheologica Acta, 2005, 45, 14-22.	2.4	83
18	Creep recovery behavior of metallocene linear low-density polyethylenes. Rheologica Acta, 1999, 38, 393-403.	2.4	80

#	Article	IF	Citations
19	Effect of Long-chain Branching on the Foaming of Polypropylene with Azodicarbonamide. Journal of Cellular Plastics, 2006, 42, 445-467.	2.4	80
20	Influence of molar mass distribution and long-chain branching on strain hardening of low density polyethylene. Rheologica Acta, 2009, 48, 479-490.	2.4	80
21	Influence of Shortâ€Chain Branching of Polyethylenes on the Temperature Dependence of Rheological Properties in Shear. Macromolecular Chemistry and Physics, 2007, 208, 2449-2454.	2.2	75
22	Rheological properties and molecular structure of polymer melts. Soft Matter, 2011, 7, 2273-2283.	2.7	73
23	Comparison of Molecular Structure and Rheological Properties of Electron-Beam- and Gamma-Irradiated Polypropylene. Macromolecules, 2012, 45, 2057-2065.	4.8	65
24	Comparison of the elongational behavior of various polyolefins in uniaxial and equibiaxial flows. Rheologica Acta, 2007, 46, 1003-1012.	2.4	64
25	Thermorheological Behavior of Various Short- and Long-Chain Branched Polyethylenes and Their Correlations with the Molecular Structure. Macromolecules, 2010, 43, 7341-7350.	4.8	64
26	Characterization of electron beam irradiated polypropylene: Influence of irradiation temperature on molecular and rheological properties. Journal of Applied Polymer Science, 2006, 100, 2770-2780.	2.6	61
27	Thermal stability of poly(methyl methacrylate)/silica nano- and microcomposites as investigated by dynamic-mechanical experiments. Polymer Degradation and Stability, 2007, 92, 1966-1976.	5.8	61
28	Rheological experiments at constant stress as efficient method to characterize polymeric materials. Journal of Rheology, 2014, 58, 565-587.	2.6	58
29	Thermorheology as a method to analyze long-chain branched polyethylenes. Polymer, 2010, 51, 507-513.	3.8	57
30	Rheological Characterization of Long-chain Branched Polyethylenes and Comparison with Classical Analytical Methods. Macromolecular Symposia, 2006, 236, 209-218.	0.7	56
31	Dynamic-mechanical behavior of polyethylenes and ethene-/Î±-olefin-copolymers. Part I. Î±â€²-Relaxation. Polymer, 2005, 46, 10311-10320.	3.8	53
32	Importance of elongational properties of polymer melts for film blowing and thermoforming. Polymer Engineering and Science, 2006, 46, 1190-1195.	3.1	53
33	Conductivity of polymethylmethacrylate filled with carbon black or carbon fibres under oscillatory shear. Polymer, 2012, 53, 395-402.	3.8	50
34	Rheological measuring techniques and their relevance for the molecular characterization of polymers. Journal of Non-Newtonian Fluid Mechanics, 2005, 128, 62-69.	2.4	49
35	Rheological properties of branched polystyrenes: nonlinear shear and extensional behavior. Rheologica Acta, 2006, 45, 717-727.	2.4	47
36	Terminal viscous and elastic properties of linear etheneâ^•Î±-olefin copolymers. Journal of Rheology, 2008, 52, 697-712.	2.6	47

#	Article	IF	Citations
37	Oxidation resistant ceramic foam from a silicone preceramic polymer/polyurethane blend. Journal of the European Ceramic Society, 2001, 21, 2821-2828.	5.7	44
38	On the â€œviscosity overshootâ€•during the uniaxial extension of a low density polyethylene. Journal of Non-Newtonian Fluid Mechanics, 2011, 166, 1198-1209.	2.4	41
39	Correlations between the Shape of Viscosity Functions and the Molecular Structure of Longâ€Chain Branched Polyethylenes. Macromolecular Materials and Engineering, 2009, 294, 25-34.	3.6	40
40	Determination of method-invariant activation energies of long-chain branched low-density polyethylenes. Journal of Rheology, 2009, 53, 1001-1016.	2.6	38
41	Polyurethane/silver-nanocomposites with enhanced silver ion release using multifunctional invertible polyesters. Journal of Materials Chemistry, 2011, 21, 4377.	6.7	38
42	Influence of molecular structure on secondary flow of polyolefin melts as investigated by laser-Doppler velocimetry. Rheologica Acta, 2001, 40, 384-394.	2.4	37
43	Foaming of thin films of a fluorinated ethylene propylene copolymer using supercritical carbon dioxide. Journal of Supercritical Fluids, 2009, 49, 103-110.	3.2	36
44	Rheological properties of branched polystyrenes: linear viscoelastic behavior. Rheologica Acta, 2005, 45, 151-163.	2.4	35
45	Numerical description of shear viscosity functions of long-chain branched metallocene-catalyzed polyethylenes. Journal of Non-Newtonian Fluid Mechanics, 2008, 151, 129-135.	2.4	34
46	Influence of a compatibilizer on the morphology development in polymer blends under elongation. Polymer, 2012, 53, 1881-1889.	3.8	34
47	Melt rheology and structure of silicone resins. Rheologica Acta, 2001, 40, 490-498.	2.4	33
48	Linear Rheological Properties of the Semifluorinated Copolymer Tetrafluoroethylene-Hexafluoropropylene-Vinylidenfluoride (THV) with Controlled Amounts of Long-Chain Branching. Macromolecules, 2007, 40, 2409-2416.	4.8	33
49	Method for obtaining tube model parameters for commercial ethene/Î±-olefin copolymers. Journal of Rheology, 2010, 54, 393-406.	2.6	32
50	Synthesis and Characterization of Novel Etheneâ€graftâ€Ethene/Propene Copolymers. Macromolecular Rapid Communications, 2007, 28, 1472-1478.	3.9	31
51	Comparison of viscous and elastic properties of polyolefin melts in shear and elongation. Rheologica Acta, 2010, 49, 95-103.	2.4	31
52	Processing of Threeâ€Dimensional Laser Sintered Polyetheretherketone Composites and Testing of Osteoblast Proliferation in vitro. Macromolecular Symposia, 2007, 253, 65-70.	0.7	25
53	Morphology development in PS/LLDPE blend during and after elongational deformation. Journal of Polymer Science, Part B: Polymer Physics, 2008, 46, 16-27.	2.1	25
54	Influence of the Molecular Structure of Polyolefins on the Damping Function in Shear. Macromolecules, 2008, 41, 3720-3726.	4.8	25

#	Article	IF	Citations
55	Comparative investigations of surface instabilities (â€œsharkskinâ€) of a linear and a long-chain branched polyethylene. Journal of Non-Newtonian Fluid Mechanics, 2010, 165, 1093-1104.	2.4	25
56	Investigations on the temperature dependence of the die entrance flow of various long-chain branched polyethylenes using laser-Doppler velocimetry. Journal of Rheology, 2002, 46, 797.	2.6	24
57	Influence of long-chain branching on time-pressure and time-temperature shift factors for polystyrene and polyethylene. Rheologica Acta, 2006, 46, 153-159.	2.4	24
58	Steady states in extensional flow of strain hardening polymer melts and the uncertainties of their determination. Journal of Rheology, 2013, 57, 1065-1077.	2.6	24
59	Molecular Characterization of Semi-Fluorinated Copolymers with a Controlled Amount of Long-Chain Branching. Macromolecules, 2006, 39, 2316-2324.	4.8	23
60	Investigations on the quality of dispersion of nanofillers in poly(methyl methacrylate) composites by creep-recovery experiments. Journal of Rheology, 2010, 54, 407-420.	2.6	21
61	An in situ investigation of the draw resonance phenomenon in film casting of a polypropylene melt. Journal of Non-Newtonian Fluid Mechanics, 2012, 173-174, 87-96.	2.4	21
62	Different surface treatments to improve the adhesion of polypropylene. Journal of Adhesion Science and Technology, 2000, 14, 619-634.	2.6	20
63	Reological behaviour of concentrated monodisperse suspensions as a function of preshear conditions and temperature: an experimental study. Rheologica Acta, 2002, 41, 193-204.	2.4	20
64	Rheological properties of electron beam-irradiated polypropylenes with different molar masses. Rheologica Acta, 2012, 51, 979-989.	2.4	19
65	Is electrical percolation in carbon-filled polymers reflected by rheological properties?. Polymer, 2016, 98, 51-60.	3.8	18
66	Rheological Measurements and Structural Analysis of Polymeric Materials. Polymers, 2021, 13, 1123.	4.5	18
67	Elongational creep experiments â€“ A new method for investigations of morphology development in polymer blends. Polymer, 2010, 51, 3744-3752.	3.8	17
68	Viscoelastic properties of a silicone resin during crosslinking. Rheologica Acta, 2011, 50, 917-924.	2.4	15
69	Prediction of steady-state viscous and elastic properties of polyolefin melts in shear and elongation. Rheologica Acta, 2011, 50, 645-653.	2.4	15
70	Extrusion Foaming of a Preceramic Silicone Resin with a Variety of Profiles and Morphologies. Advanced Engineering Materials, 2012, 14, 1110-1115.	3.5	15
71	Recoverable deformation and morphology after uniaxial elongation of a polystyrene/linear low density polyethylene blend. Rheologica Acta, 2007, 46, 1197-1209.	2.4	14
72	Time- and temperature-dependent crosslinking behaviour of a silicone resin. Rheologica Acta, 2012, 51, 71-80.	2.4	14

#	Article	IF	Citations
73	Simultaneous measurements of velocity and stress distributions in polyisobutylenes using laser-Doppler velocimetry and flow induced birefringence. Rheologica Acta, 2008, 47, 111-119.	2.4	13
74	Local versus integral measurements of the extensional viscosity of polymer melts. Journal of Rheology, 2009, 53, 1363-1377.	2.6	13
75	Influence of molecular parameters on the stress dependence of viscous and elastic properties of polypropylene melts in shear. Rheologica Acta, 2011, 50, 53-63.	2.4	12
76	Graded Cellular Ceramics from Continuous Foam Extrusion. Advanced Engineering Materials, 2012, 14, 1097-1103.	3.5	12
77	Mechanical pretreatment of polymer melts: Critical aspects and new rheological investigations on a linear and a long-chain branched polypropylene. Journal of Rheology, 2021, 65, 871-885.	2.6	12
78	Advances in Film Blowing, Thermoforming, and Foaming by Using Long-Chain Branched Polymers. Macromolecular Symposia, 2006, 245-246, 181-190.	0.7	11
79	Continuous direct melt foaming of a preceramic polymer using carbon dioxide: extrusion device and first results. Journal of Materials Science, 2011, 46, 6162-6167.	3.7	11
80	Silver Nanoparticles in Blends of Polyethylene and a Superabsorbent Polymer: Morphology and Silver Ion Release. Macromolecular Materials and Engineering, 2011, 296, 423-427.	3.6	10
81	Transient elongational viscosities of aqueous polyacrylamide solutions measured with an optical rheometer. Rheologica Acta, 2008, 47, 139-147.	2.4	9
82	Artefacts of the storage modulus due to bubbles in polymeric fluids. Rheologica Acta, 2013, 52, 287-289.	2.4	9
83	Elongational Viscosities of Polymethylmethacrylate / Nano-Clay Composites. Applied Rheology, 2007, 17, 52751-1-52751-9.	5.2	8
84	Influence of hydrostatic pressure on rheological properties of polymer meltsâ€"A review. Journal of Rheology, 2020, 64, 751-774.	2.6	8
85	Local Flow Behavior of Ceramic Slurries in Tape Casting, as Investigated by Laserâ€"Doppler Velocimetry. Journal of the American Ceramic Society, 2002, 85, 314-320.	3.8	7
86	Influence of crystallinity on rheological properties of unfilled and particle-filled polycarbonates. Polymer, 2011, 52, 3677-3680.	3.8	7
87	Velocity measurements on a polypropylene melt during extrusion through a flat coat-hanger die. Polymer Engineering and Science, 2012, 52, 615-624.	3.1	7
88	Rheological behaviour and molecular structure of long-chain branched semifluorinated thermoplastics. Rheologica Acta, 2009, 48, 509-516.	2.4	6
89	Recoverable Extensional Flow of Polymer Melts and Its Relevance for Processing. Polymers, 2020, 12, 1512.	4.5	6
90	Shape Recovery Versus Breakup of Deformed Droplets in a Polymer Blend after Uniaxial Extension. Macromolecular Materials and Engineering, 2011, 296, 414-422.	3.6	4

#	Article	IF	Citations
91	Recoverable strains and retardation times of monodisperse suspensions of silicon dioxide spheres in poly(dimethylsiloxane). Rheologica Acta, 2008, 47, 873-881.	2.4	3
92	Elastic and Viscous Properties of Linear and Long-Chain Branched Etheneâˆ•Î±-Olefin Copolymers in the Terminal Regime. AIP Conference Proceedings, 2008, , .	0.4	3
93	Flow behavior of polypropylenes with different molecular structures in a coatâ€hanger die. Polymer Engineering and Science, 2012, 52, 2253-2259.	3.1	3
94	Compression moduli of foamed films of fluorinated ethylene propylene copolymers determined by nanoindentation. Polymer Testing, 2011, 30, 286-293.	4.8	2
95	Rheological Properties and Molecular Structure. , 2014, , 419-452.		2
96	Shear Rheology. , 2014, , 363-386.		2
97	Rheological properties of conductive polymer composites around the electrical percolation threshold. AIP Conference Proceedings, 2017, , .	0.4	1
98	Measurements of Flow Fields of Polymer Melts by Laser-Doppler Velocimetry. , 2014, , 495-526.		1
99	Rheological properties of branched polystyrenes: linear viscoelastic behavior. Rheologica Acta, 2005, 45, 1-13.	2.4	1
100	Elongational experiments on polymer melts and their assessment. , 2013, , .		0
101	Gelation of polyvinylbutyral solutions by the addition of tetrabutyl orthotitanate. Rheologica Acta, 2014, 53, 635-643.	2.4	0
102	Morphology Development in Compatibilized Polymer Blends. , 2016, , 407-425.		0
103	Rheological Behavior of Polymer Melts with Intrinsic Structural Heterogeneities. , 2016, , 223-240.		0
104	Determination of Miscibility of Polymer Blends. , 2016, , 271-284.		0
105	Rheological Properties of Blends of Homologous Polymeric Materials. , 2016, , 285-303.		0
106	Dependence of Elastic Quantities on Experimental Parameters. , 2019, , 37-55.		0
107	Experimental Basics of Various Methods for Measuring the Elastic Behavior. , 2019, , 21-35.		0
108	Dependence of Elastic Properties on Molecular Structure. , 2019, , 57-109.		0

#	Article	IF	Citations
109	Influence of Elastic Properties on Processing. , 2019, , 219-245.		0