Markus Gahleitner

List of Publications by Year
in descending order

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57 papers	1,881 citations	257429 24 h-index	265191 42 g-index
58 all docs	58 docs citations	58 times ranked	1348 citing authors

#	Article	IF	Citations
1	Melt rheology of polyolefins. Progress in Polymer Science, 2001, 26, 895-944.	24.7	227
2	Structureâ€“property relations in molded, nucleated isotactic polypropylene. Polymer, 2009, 50, 2304-2319.	3.8	198
3	Propylene-ethylene random copolymers: Comonomer effects on crystallinity and application properties. Journal of Applied Polymer Science, 2005, 95, 1073-1081.	2.6	112
4	Crystallinity and mechanical properties of PP-homopolymers as influenced by molecular structure and nucleation. Journal of Applied Polymer Science, 1996, 61, 649-657.	2.6	108
5	Crystallization of isotactic polypropylene containing beta-phase nucleating agent at rapid cooling. European Polymer Journal, 2013, 49, 1057-1065.	5.4	100
6	The influence of nucleus density on optical properties in nucleated isotactic polypropylene. European Polymer Journal, 2009, 45, 3138-3148.	5.4	98
7	Heterophasic copolymers of polypropylene: Development, design principles, and future challenges. Journal of Applied Polymer Science, 2013, 130, 3028-3037.	2.6	71
8	Morphology and mechanical properties of polypropylene/polyamide 6 nanocomposites prepared by a two-step melt-compounding process. Journal of Applied Polymer Science, 2006, 100, 283-291.	2.6	62
9	Designing polymer crystallinity: An industrial perspective. Polymer Crystallization, 2018, 1, e10009.	0.8	51
10	Ageing of polypropylene: processes and consequences. Polymer Testing, 1999, 18, 257-266.	4.8	48
11	Effects of the catalyst system on the crystallization of polypropylene*. Journal of Applied Polymer Science, 1999, 73, 2507-2515.	2.6	45
12	Heterogeneous Ziegler-Natta, metallocene, and post-metallocene catalysis: Successes and challenges in industrial application. MRS Bulletin, 2013, 38, 229-233.	3.5	45
13	Effect of cooling rate on crystal polymorphism in beta-nucleated isotactic polypropylene as revealed by a combined WAXS/FSC analysis. Polymer, 2016, 90, 67-75.	3.8	42
14	Rheology/morphology interactions in polypropylene/polyamide-6 nanocomposites. Rheologica Acta, 2006, 45, 322-330.	2.4	40
15	Synergistic mechanical effects of calcite micro- and nanoparticles and Î²-nucleation in polypropylene copolymers. European Polymer Journal, 2012, 48, 49-59.	5.4	38
16	Effect of the Molecular Structure of the Polymer and Nucleation on the Optical Properties of Polypropylene Homo- and Copolymers. ACS Applied Materials & Interfaces, 2014, 6, 7456-7463.	8.0	36
17	POST-CRYSTALLIZATION AND PHYSICAL AGING OF POLYPROPYLENE: MATERIAL AND PROCESSING EFFECTS. Journal of Macromolecular Science - Physics, 2002, 41, 833-849.	1.0	33
18	Correlation between molecular structure and rheological behaviour of polypropylene. Polymer Testing, 1992, 11, 89-100.	4.8	31

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19	Optical properties of highly transparent polypropylene cast films: Influence of material structure, additives, and processing conditions. Polymer Engineering and Science, 2006, 46, 520-531.	3.1	31
20	The role of solubility and critical temperatures for the efficiency of sorbitol clarifiers in polypropylene. RSC Advances, 2014, 4, 19737-19745.	3.6	31
21	Influence of molecular structure on crystallization behaviour and mechanical properties of polypropylene. Polymer Testing, 1995, 14, 173-187.	4.8	30
22	Highly transparent polypropylene cast films: Relationships between optical properties, additives, and surface structure. Polymer Engineering and Science, 2007, 47, 1021-1032.	3.1	29
23	Melt viscosity effects in ethyleneâ€“propylene copolymers. Rheologica Acta, 2007, 46, 1083-1089.	2.4	28
24	Effect of molecular architecture on the crystalline structure and stiffness of iPP homopolymers: Modeling based on annealing experiments. Journal of Applied Polymer Science, 2013, 130, 3365-3373.	2.6	28
25	The chemical structure of the amorphous phase of propyleneâ€“ethylene random copolymers in relation to their stressâ€“strain properties. Polymer, 2014, 55, 896-905.	3.8	24
26	Polypropylene/polyethylene blends as models for highâ€impact propyleneâ€ethylene copolymers, part 2: Relation between composition and mechanical performance. Journal of Applied Polymer Science, 2013, 130, 287-296.	2.6	23
27	Characterization of modified polypropylene by scanning electron microscopy. Journal of Applied Polymer Science, 2000, 78, 1152-1161.	2.6	22
28	Environmental degradation and formation of secondary microplastics from packaging material: A polypropylene film case study. Polymer Degradation and Stability, 2022, 195, 109794.	5.8	22
29	Polypropylene and Other Polyolefins. , 2017, , 279-309.		20
30	Polypropylene/polyethylene blends as models for highâ€impact propyleneâ€“ethylene copolymers, part 1: Interaction between rheology and morphology. Journal of Applied Polymer Science, 2013, 128, 1484-1496.	2.6	19
31	Chain regularity of isotactic polypropylene determined by different thermal fractionation methods. Journal of Thermal Analysis and Calorimetry, 2014, 118, 235-245.	3.6	17
32	Improvement of the impact strength of ethyleneâ€propylene random copolymers by nucleation. Journal of Applied Polymer Science, 2016, 133, .	2.6	16
33	Systematic Investigation on the Structure-Property Relationship in Isotactic Polypropylene Films Processed via Cast Film Extrusion. Polymers, 2020, 12, 1636.	4.5	14
34	Interfacial strengthening of high-impact polypropylene compounds by reactive modification. Composite Interfaces, 2005, 12, 707-723.	2.3	11
35	Polypropylene Copolymers. , 2019, , 295-355.		11
36	New Insights into Crystallization of Heterophasic Isotactic Polypropylene by Fast Scanning Chip Calorimetry. Polymers, 2020, 12, 1683.	4.5	11

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37	Crystallization behaviour of heterophasic propylene-ethylene copolymer at rapid cooling conditions. Polymer, 2016, 102, 214-220.	3.8	10
38	Long-Chain Branched Polypropylene: Effects of Chain Architecture, Melt Structure, Shear Modification, and Solution Treatment on Melt Relaxation Dynamics. Macromolecules, 2022, 55, 2588-2608.	4.8	9
39	Crystal structure: a way to control properties in cast films of polypropylene. Polymer Bulletin, 2018, 75, 5587-5598.	3.3	8
40	Catalyst Type Effects on Structure/Property Relations of Polypropylene Random Copolymers. Macromolecular Chemistry and Physics, 2021, 222, 2100302.	2.2	8
41	Flowâ€induced solidification of highâ€impact polypropylene copolymer compositions: Morphological and mechanical effects. Journal of Applied Polymer Science, 2015, 132, .	2.6	7
42	Polymer structure effects on crystallization and properties in polypropylene film casting. AIP Conference Proceedings, 2017, , .	0.4	7
43	The Effect of Reactor Conditions on Highâ€impact Polypropylene Properties and Gas Phase Polymerization Kinetics. Macromolecular Reaction Engineering, 2018, 12, 1700063.	1.5	6
44	Rapid characterization of high-impact ethyleneâ€“propylene copolymer composition by crystallization extraction separation: comparability to standard separation methods. International Journal of Polymer Analysis and Characterization, 2020, 25, 581-596.	1.9	6
45	Copolymer Structure and Performance Consequences of Highâ€impact Ethyleneâ€“Propylene Copolymers Based on a Zieglerâ€“Natta Catalyst with Novel Internal Donor. Macromolecular Reaction Engineering, 2020, 14, 2000022.	1.5	6
46	Rheology of highly filled polypropylene compounds: Measurement and applications. Macromolecular Symposia, 1996, 108, 127-136.	0.7	5
47	RHEOLOGY AS A QUALITY CONTROL INSTRUMENT. Journal of Macromolecular Science - Pure and Applied Chemistry, 1999, 36, 1731-1741.	2.2	4
48	Structure and properties of polypropylene cast films: Polymer type and processing effects. AIP Conference Proceedings, 2016, , .	0.4	3
49	Novel characterization of the Î² â†' Î± crystalline phase transition of isotactic polypropylene through highâ€temperature atomic force microscopy imaging and nanoindentation. Polymer Crystallization, 2020, 3, e10140.	0.8	3
50	Comonomer distribution effect on the ageing behavior of ethylene-propylene random copolymers. AIP Conference Proceedings, 2018, , .	0.4	2
51	Crystallization of Random Metallocene-Catalyzed Propylene-Based Copolymers with Ethylene and 1-Hexene on Rapid Cooling. Polymers, 2021, 13, 2091.	4.5	2
52	Plastic drawing response in the biaxially oriented polypropylene (BOPP) process: polymer structure and film casting effects. Journal of Polymer Engineering, 2020, 40, 743-752.	1.4	1
53	Gelation and Crystallization Phenomena in Polyethylene Plastomers Modified with Waxes. Polymers, 2021, 13, 2147.	4.5	1
54	â€œAustrian Rheologists meet in Leobenâ€• Applied Rheology, 2005, 15, 344-344.	5.2	0

#	Article	IF	Citations
55	8th Austrian Polymer Meeting 2006 The Chain of Knowledge â€“ From Catalyst to Application. Applied Rheology, 2007, 17, 107-108.	5.2	0
56	Rheology as thermoanalytical method for polymers. Journal of Thermal Analysis and Calorimetry, 2009, 98, 609-609.	3.6	0
57	Crystallinity-based product design: Utilizing the polymorphism of isotactic PP homo- and copolymers. AIP Conference Proceedings, 2015, , .	0.4	0