RenÃ© Androsch

List of Publications by Year
in descending order

135 papers	5,692 citations	53794 45 h-index	88630 70 g-index
139 all docs	139 docs citations	139 times ranked	2193 citing authors

#	Article	IF	Citations
1	Mesophases in polyethylene, polypropylene, and poly(1-butene). Polymer, 2010, 51, 4639-4662.	3.8	237
2	Insights into polymer crystallization and melting from fast scanning chip calorimetry. Polymer, 2016, 91, 239-263.	3.8	224
3	Morphology, reorganization and stability of mesomorphic nanocrystals in isotactic polypropylene. Polymer, 2006, 47, 8163-8172.	3.8	163
4	Rigid Amorphous Fraction in Isotactic Polypropylene. Macromolecules, 2008, 41, 8095-8102.	4.8	150
5	Enthalpy of melting of Î±â€²- and Î±-crystals of poly(l-lactic acid). European Polymer Journal, 2015, 70, 215-220.	5.4	150
6	Kinetics of nucleation and crystallization of poly(Îµ-caprolactone) â€“ Multiwalled carbon nanotube composites. European Polymer Journal, 2014, 52, 1-11.	5.4	126
7	Effect of Supercooling on Crystallization of Polyamide 11. Macromolecules, 2013, 46, 828-835.	4.8	124
8	Crystal Nucleation in Glassy Poly(<scp>l</scp>-lactic acid). Macromolecules, 2013, 46, 6048-6056.	4.8	112
9	Melting of Conformationally Disordered Crystals (Î±â€²â€Phase) of Poly(<scp>l</scp>â€lactic acid). Macromolecular Chemistry and Physics, 2014, 215, 1134-1139.	2.2	106
10	Non-isothermal crystal nucleation of poly (l-lactic acid). Polymer, 2015, 81, 151-158.	3.8	103
11	Reversible Crystallization and Melting at the Lateral Surface of Isotactic Polypropylene Crystals. Macromolecules, 2001, 34, 5950-5960.	4.8	101
12	Crystallization of isotactic polypropylene containing beta-phase nucleating agent at rapid cooling. European Polymer Journal, 2013, 49, 1057-1065.	5.4	100
13	Temperature of Melting of the Mesophase of Isotactic Polypropylene. Macromolecules, 2009, 42, 7275-7278.	4.8	96
14	Solid-state reorganization, melting and melt-recrystallization of conformationally disordered crystals (Î±â€²-phase) of poly (l-lactic acid). Polymer, 2014, 55, 4932-4941.	3.8	95
15	A Study of Annealing of Poly(ethylene-co-octene) by Temperature-Modulated and Standard Differential Scanning Calorimetry. Macromolecules, 1999, 32, 7238-7247.	4.8	90
16	Deformation behavior of isotactic polypropylene crystallized via a mesophase. Polymer Bulletin, 2009, 63, 755-771.	3.3	88
17	Experimental Test of Tammannâ€™s Nuclei Development Approach in Crystallization of Macromolecules. Crystal Growth and Design, 2015, 15, 786-798.	3.0	88
18	Density of heterogeneous and homogeneous crystal nuclei in poly (butylene terephthalate). European Polymer Journal, 2015, 66, 180-189.	5.4	88

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19	Sequence of enthalpy relaxation, homogeneous crystal nucleation and crystal growth in glassy polyamide 6. European Polymer Journal, 2014, 53, 100-108.	5.4	84
20	Crystallization of Polyethylene at Large Undercooling. ACS Macro Letters, 2016, 5, 365-370.	4.8	84
21	In Situ Atomic Force Microscopy of the Mesomorphicâ˜Monoclinic Phase Transition in Isotactic Polypropylene. Macromolecules, 2008, 41, 533-535.	4.8	83
22	Effect of cooling rate on the crystal/mesophase polymorphism of polyamide 6. Colloid and Polymer Science, 2011, 289, 1073-1079.	2.1	83
23	Morphology of mesophase and crystals of polyamide 6 prepared in a fast scanning chip calorimeter. Polymer, 2012, 53, 3994-4001.	3.8	83
24	Homogeneous nucleation and mesophase formation in glassy isotactic polypropylene. Polymer, 2012, 53, 277-282.	3.8	83
25	Kinetics of crystal nucleation of poly(L-lactic acid). Polymer, 2013, 54, 6882-6885.	3.8	77
26	Conformationally disordered crystals and their influence on material properties: The cases of isotactic polypropylene, isotactic poly(1-butene), and poly(l-lactic acid). Journal of Molecular Structure, 2014, 1078, 114-132.	3.6	77
27	Microfocus wide-angle X-ray scattering of polymers crystallized in a fast scanning chip calorimeter. Thermochimica Acta, 2013, 563, 33-37.	2.7	75
28	Crystallization kinetics of polyamide 66 at processing-relevant cooling conditions and high supercooling. Thermochimica Acta, 2015, 603, 103-109.	2.7	75
29	Effect of structure on light transmission in isotactic polypropylene and random propylene-1-butene copolymers. Polymer Bulletin, 2009, 62, 561-571.	3.3	73
30	Direct analysis of annealing of nodular crystals in isotactic polypropylene by atomic force microscopy, and its correlation with calorimetric data. Polymer, 2007, 48, 3504-3511.	3.8	72
31	Crystal Nucleation of Polymers at High Supercooling of the Melt. Advances in Polymer Science, 2015, , 257-288.	0.8	68
32	Crystal nucleation in random l/d-lactide copolymers. European Polymer Journal, 2016, 75, 474-485.	5.4	68
33	Morphology of cold-crystallized polyamide 6. Colloid and Polymer Science, 2012, 290, 971-978.	2.1	64
34	Crystal morphology of rapidly cooled isotactic polypropylene: A comparative study by TEM and AFM. Polymer Bulletin, 2008, 60, 791-798.	3.3	63
35	Application of Tammannâ€™s Two-Stage Crystal Nuclei Development Method for Analysis of the Thermal Stability of Homogeneous Crystal Nuclei of Poly(ethylene terephthalate). Macromolecules, 2015, 48, 8082-8089.	4.8	58
36	Effect of the structure at the micrometer and nanometer scales on the light transmission of isotactic polypropylene. Journal of Applied Polymer Science, 2010, 117, 1013-1020.	2.6	53

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37	Effect of co-unit type in random propylene copolymers on the kinetics of mesophase formation and crystallization. Colloid and Polymer Science, 2012, 290, 465-471.	2.1	53
38	Interplay between the Relaxation of the Glass of Random <scp>l</scp>/<scp>d</scp>-Lactide Copolymers and Homogeneous Crystal Nucleation: Evidence for Segregation of Chain Defects. Journal of Physical Chemistry B, 2016, 120, 4522-4528.	2.6	51
39	Crystal reorganization of poly (butylene terephthalate). Polymer, 2017, 124, 274-283.	3.8	49
40	The effect of supercooling of the melt on the semicrystalline morphology of PA 66. Thermochimica Acta, 2017, 655, 313-318.	2.7	49
41	Effect of cooling rate on melt-crystallization of random propylene-ethylene and propylene-1-butene copolymers. Polymer Bulletin, 2008, 61, 643-654.	3.3	47
42	Isotropization, perfection and reorganization of the mesophase of isotactic polypropylene. Thermochimica Acta, 2011, 522, 100-109.	2.7	47
43	Mesophase-Mediated Crystallization of Poly(butylene-2,6-naphthalate): An Example of Ostwaldâ€™s Rule of Stages. ACS Macro Letters, 2012, 1, 1051-1055.	4.8	47
44	Effect of comonomer partitioning on the kinetics of mesophase formation in random copolymers of propene and higher Î±-olefins. Polymer, 2012, 53, 4429-4437.	3.8	47
45	Two crystal populations with different melting/reorganization kinetics of isothermally crystallized polyamide 6. Journal of Polymer Science, Part B: Polymer Physics, 2016, 54, 2126-2138.	2.1	47
46	Supercooling-controlled heterogeneous and homogenous crystal nucleation of polyamide 11 and its effect onto the crystal/mesophase polymorphism. Polymer, 2016, 106, 29-34.	3.8	47
47	Kinetics of Nucleation and Growth of Crystals of Poly(l-lactic acid). Advances in Polymer Science, 2017, , 235-272.	0.8	46
48	Mesophase formation in poly(propylene-ran-1-butene) by rapid cooling. Polymer, 2009, 50, 5482-5489.	3.8	45
49	Effect of an alpha-phase nucleating agent on the crystallization kinetics of a propylene/ethylene random copolymer at largely different supercooling. Journal of Crystal Growth, 2014, 408, 91-96.	1.5	45
50	Optical Microscopy to Study Crystal Nucleation in Polymers Using a Fast Scanning Chip Calorimeter for Precise Control of the Nucleation Pathway. Macromolecular Chemistry and Physics, 2018, 219, 1700479.	2.2	45
51	Tensile properties of random copolymers of propylene with ethylene and 1-butene: effect of crystallinity and crystal habit. Polymer Bulletin, 2010, 65, 623-634.	3.3	43
52	Mechanical behavior and optical transparency of polyamide 6 of different morphology formed by variation of the pathway of crystallization. Polymer Bulletin, 2014, 71, 581-593.	3.3	43
53	Sensitivity of Polymer Crystallization to Shear at Low and High Supercooling of the Melt. Macromolecules, 2018, 51, 2785-2795.	4.8	43
54	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

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55	Influence of chain structure on crystal polymorphism of poly(lactic acid). Part 2. Effect of molecular mass on the crystal growth rate and semicrystalline morphology. Colloid and Polymer Science, 2015, 293, 2459-2467.	2.1	37
56	Relaxation and crystal nucleation in polymer glasses. European Polymer Journal, 2018, 102, 195-208.	5.4	37
57	Low-temperature crystallization of poly(butylene succinate). European Polymer Journal, 2017, 94, 384-391.	5.4	36
58	Stability and Reorganization of Î±â€²â€Crystals in Random <scp>l</scp>/<scp>d</scp>â€Lactide Copolymers. Macromolecular Chemistry and Physics, 2016, 217, 1534-1538.	2.2	34
59	Melt-recrystallization of poly (l-lactic acid) initially containing Î±â€²-crystals. Polymer, 2019, 176, 227-235.	3.8	34
60	Formation and reorganization of the mesophase of random copolymers of propylene and 1-butene. Polymer, 2011, 52, 1107-1115.	3.8	33
61	Mosquitoâ€repellent controlledâ€release formulations for fighting infectious diseases. Malaria Journal, 2021, 20, 165.	2.3	33
62	Polymorphism and Multiple Melting Behavior of Bio-Based Poly(propylene 2,5-furandicarboxylate). Biomacromolecules, 2020, 21, 2622-2634.	5.4	32
63	Crystallization of polyamide 11 during injection molding. Polymer Engineering and Science, 2018, 58, 1053-1061.	3.1	31
64	Growth and dissolution of crystal nuclei in poly(l-lactic acid) (PLLA) in Tammann's development method. Polymer, 2020, 196, 122453.	3.8	31
65	Effect of polymorphism of isotactic polybuteneâ€1 on peel behavior of polyethylene/polybuteneâ€1 peel systems. Journal of Applied Polymer Science, 2008, 107, 3111-3118.	2.6	30
66	Skin/core crystallinity of injection-molded poly (butylene terephthalate) as revealed by microfocus X-ray diffraction and fast scanning chip calorimetry. Journal of Thermal Analysis and Calorimetry, 2017, 127, 939-946.	3.6	30
67	New Insights into Polymer Crystallization by Fast Scanning Chip Calorimetry. , 2016, , 463-535.		28
68	Tailoring the rigid amorphous fraction of isotactic polybutene-1 by ethylene chain defects. Polymer, 2014, 55, 6132-6139.	3.8	27
69	Phase behavior of the polymer/drug system PLA/DEET. Polymer, 2017, 126, 116-125.	3.8	27
70	Enthalpy Relaxation of Polyamide 11 of Different Morphology Far Below the Glass Transition Temperature. Entropy, 2019, 21, 984.	2.2	27
71	Experimental analysis of lateral thermal inhomogeneity of a specific chip-calorimeter sensor. Thermochimica Acta, 2019, 674, 95-99.	2.7	27
72	Crystallization of a Polyamide 6/Montmorillonite Nanocomposite at Rapid Cooling. Macromolecular Materials and Engineering, 2013, 298, 938-943.	3.6	26

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73	The Origin of Annealing Peaks in Semicrystalline Polymers: Enthalpy Recovery or Melting?. Macromolecules, 2020, 53, 8751-8756.	4.8	25
74	In situ X-ray analysis of mesophase formation in random copolymers of propylene and 1-butene. Polymer Bulletin, 2011, 67, 497-510.	3.3	24
75	Biodegradable electrospun PLLA fibers containing the mosquito-repellent DEET. European Polymer Journal, 2019, 113, 377-384.	5.4	24
76	Structure of blown films of polyethylene/polybuteneâ€1 blends. Polymer Engineering and Science, 2010, 50, 249-256.	3.1	22
77	Enthalpy relaxation of the glass of poly (l-lactic acid) of different d-isomer content and its effect on mechanical properties. Polymer Bulletin, 2017, 74, 2565-2573.	3.3	22
78	Phase behavior of the polymer/drug system PLA/DEET: Effect of PLA molar mass on subambient liquid-liquid phase separation. Thermochimica Acta, 2018, 660, 77-81.	2.7	22
79	Stability of Crystal Nuclei of Poly (butylene isophthalate) Formed Near the Glass Transition Temperature. Polymers, 2020, 12, 1099.	4.5	22
80	Effect of atomic force microscope tip geometry on the evaluation of the crystal size of semicrystalline polymers. Measurement Science and Technology, 2009, 20, 097003.	2.6	21
81	Comparative study of the kinetics of non-isothermal melt solidification of random copolymers of butene-1 with either ethylene or propylene. Colloid and Polymer Science, 2014, 292, 1639-1647.	2.1	21
82	Polyamide 11/Poly(butylene succinate) Bio-Based Polymer Blends. Materials, 2019, 12, 2833.	2.9	20
83	Crystallization of a polyamide 11/organo-modified montmorillonite nanocomposite at rapid cooling. Colloid and Polymer Science, 2013, 291, 2541-2549.	2.1	19
84	Spherulite growth rate and fold surface free energy of the form II mesophase in isotactic polybutene-1 and random butene-1/ethylene copolymers. Colloid and Polymer Science, 2014, 292, 1479-1485.	2.1	19
85	Microporous polyolefin strands as controlled-release devices for mosquito repellents. Chemical Engineering Journal, 2019, 360, 435-444.	12.7	19
86	Surface and bulk morphology of cold-crystallized poly(ethylene terephthalate). Colloid and Polymer Science, 2010, 288, 819-825.	2.1	18
87	Smectic liquid crystal Schlieren texture in rapidly cooled poly(butylene naphthalate). European Polymer Journal, 2018, 101, 90-95.	5.4	18
88	Mosquito repellent thermal stability, permeability and air volatility. Pest Management Science, 2020, 76, 1112-1120.	3.4	18
89	Steady-State Crystal Nucleation Rate of Polyamide 66 by Combining Atomic Force Microscopy and Fast-Scanning Chip Calorimetry. Macromolecules, 2020, 53, 5560-5571.	4.8	18
90	Formation and Reorganization of the Mesophase of Isotactic Polypropylene. Molecular Crystals and Liquid Crystals, 2012, 556, 74-83.	0.9	17

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91	Enthalpy Relaxation, Crystal Nucleation and Crystal Growth of Biobased Poly(butylene Isophthalate). Polymers, 2020, 12, 235.	4.5	17
92	Visualization of Polymer Crystallization by In Situ Combination of Atomic Force Microscopy and Fast Scanning Calorimetry. Polymers, 2019, 11, 890.	4.5	16
93	Bulk Enthalpy of Melting of PolyÂ(<scp>l</scp>â€lactic acid) (PLLA) Determined by Fast Scanning Chip Calorimetry. Macromolecular Rapid Communications, 2022, 43, e2200148.	3.9	16
94	Flame retarding polyamide 11 with exfoliated vermiculite nanoflakes. Polymer Engineering and Science, 2018, 58, 1746-1755.	3.1	15
95	Nucleationâ€controlled semicrystalline morphology of bulk polymers. Polymer Crystallization, 2018, 1, e10036.	0.8	14
96	Crystal self-nucleation in polyamide 11. Thermochimica Acta, 2019, 677, 139-143.	2.7	14
97	The Narrow Thickness Distribution of Lamellae of Poly(butylene succinate) Formed at Low Melt Supercooling. Macromolecules, 2021, 54, 3366-3376.	4.8	14
98	Phase behavior of solvent-rich compositions of the polymer/drug system poly(butylene succinate) and N,N-diethyl-3-methylbenzamide (DEET). Colloid and Polymer Science, 2021, 299, 873-881.	2.1	13
99	Insertionâ€Crystallizationâ€Induced Lowâ€Temperature Annealing Peaks in Meltâ€Crystallized Poly(<scp>l</scp>â€Lactic Acid). Macromolecular Chemistry and Physics, 2021, 222, 2100177.	2.2	13
100	Full-composition-range glass transition behavior of the polymer/solvent system poly (lactic acid) / ethyl butylacetylaminopropionate (PLA/IR3535Â®). Polymer, 2020, 209, 123058.	3.8	13
101	Critical specific work of flow for shearâ€induced formation of crystal nuclei in poly (<scp>l</scp>â€lactic acid). Polymer Crystallization, 2019, 2, e10073.	0.8	11
102	New Insights into Crystallization of Heterophasic Isotactic Polypropylene by Fast Scanning Chip Calorimetry. Polymers, 2020, 12, 1683.	4.5	11
103	Crystallization-Induced Polymer Scaffold Formation in the Polymer/Drug Delivery System Poly(<scp>l</scp>-lactic acid)/Ethyl Butylacetylaminopropionate (PLLA/IR3535). Biomacromolecules, 2021, 22, 3950-3959.	5.4	11
104	Crystallization kinetics of polyamide 11 in the presence of sepiolite and montmorillonite nanofillers. Colloid and Polymer Science, 2016, 294, 1143-1151.	2.1	10
105	Thermal Properties of Biobased Polyamide 11. Advances in Polymer Science, 2019, , 143-187.	0.8	10
106	Competition between Liquid-liquid De-mixing, Crystallization, and Glass Transition in Solutions of PLA of Different Stereochemistry and DEET. Chinese Journal of Polymer Science (English Edition), 2020, 38, 174-178.	3.8	10
107	Melting Kinetics of Superheated Polymer Crystals Examined by Isothermal and Nonisothermal Fast Scanning Calorimetry. Macromolecules, 2021, 54, 8770-8779.	4.8	10
108	Nucleation and crystallization kinetics of polyamide 12 investigated by fast scanning calorimetry. Journal of Polymer Science, 2022, 60, 842-855.	3.8	10

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109	Shear-induced crystallization of polyamide 11. Rheologica Acta, 2021, 60, 231-240.	2.4	9
110	On the crystal stabilization during two-step isothermal crystallization of poly(butylene) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 702 Td (te	3.8	9
111	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
112	Crystallization of poly(<scp>l</scp> â€lactic acid) in solution with the mosquitoâ€repellent N , N â€diethylâ€3â€methylbenzamide. Polymer Crystallization, 2019, 2, e10029.	0.8	8
113	Development, characterization and modeling of mosquito repellent release from microporous devices. SPE Polymers, 2020, 1, 90-100.	3.3	8
114	Melt-Spun Poly(D,L-lactic acid) Monofilaments Containing N,N-Diethyl-3-methylbenzamide as Mosquito Repellent. Materials, 2021, 14, 638.	2.9	8
115	Effect of crystal habit and superstructure on modulus of elasticity of isotactic polypropylene by AFM nanoindentation. Journal of Materials Science, 2012, 47, 3040-3045.	3.7	7
116	Fast Scanning Chip Calorimetry. Handbook of Thermal Analysis and Calorimetry, 2018, , 47-102.	1.6	7
117	Thermal Stability and Nucleation Efficacy of Shear-Induced Pointlike and Shishlike Crystallization Precursors. ACS Macro Letters, 2021, 10, 684-689.	4.8	7
118	Crystal-nuclei formation during injection-molding of poly (l-lactic acid). Polymer, 2022, 250, 124897.	3.8	7
119	Zero-Entropy-Production Melting Temperature of Crystals of Poly(butylene succinate) Formed at High Supercooling of the Melt. Macromolecules, 2022, 55, 965-970.	4.8	6
120	Slow-DEET-Release Mosquito-Repellent System Based on Poly(butylene succinate). ACS Omega, 2022, 7, 8377-8384.	3.5	6
121	Influence of the Form II/Form I crystal polymorphism of random copolymers of butene-1 with ethylene or propylene on the peel behavior of peel films. Polymer Engineering and Science, 2015, 55, 749-1757.	3.1	5
122	Time-resolved micro-indentation hardness measurement to probe the Form II/Form I crystal polymorphism in random copolymers of butene-1 with either ethylene or propylene. Colloid and Polymer Science, 2015, 293, 2451-2458.	2.1	4
123	Melting of Î±â€²- and Î±-crystals of poly(lactic acid). AIP Conference Proceedings, 2016, , .	0.4	4
124	Blooming of insecticides from polyethylene mesh and film. Transactions of the Royal Society of South Africa, 2021, 76, 127-136.	1.1	4
125	3D-printing of the polymer/insect-repellent system poly(l-lactic acid)/ethyl butylacetylaminopropionate (PLLA/IR3535). International Journal of Pharmaceutics, 2022, 624, 122023.	5.2	4
126	Kinetics of homogeneous crystal nucleation of polyamide 11 near the glass transition temperature. Polymer Crystallization, 2021, 4, .	0.8	3

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127	Pressure- and Temperature-Dependent Crystallization Kinetics of Isotactic Polypropylene under Process Relevant Conditions. Crystals, 2021, 11, 1138.	2.2	3
128	Crystallization of nanocomposites of an isotactic random butene-1/ethylene copolymer and layered double hydroxide. Polymer Bulletin, 2013, 70, 3115-3128.	3.3	2
129	Surface Crystal Nucleation and Growth in Poly (Îµ-caprolactone): Atomic Force Microscopy Combined with Fast Scanning Chip Calorimetry. Polymers, 2021, 13, 2008.	4.5	2
130	Cover Image: Nucleationâ€controlled semicrystalline morphology of bulk polymers. Polymer Crystallization, 2018, 1, e10115.	0.8	1
131	Crystallization behavior of sheared polyamide 66. AIP Conference Proceedings, 2018, , .	0.4	1
132	Crystallization of poly(butylene 2,6â€naphthalate) containing diethylene 2,6â€naphthalate constitutional defects. Polymer Crystallization, 2019, 2, e10044.	0.8	1
133	Effect of DEET on the crystallinity of bicomponent poly(lactic acid) monofilaments. AIP Conference Proceedings, 2020, , .	0.4	1
134	Random butene-1/ethylene copolymers: Influence of composition on the three-phase structure. , 2014, , .		0
135	Solidâ€“liquidâ€“liquid phase envelopes from temperature-scanned refractive index data. Journal of Polymer Engineering, 2021, .	1.4	0