

Wenbing Hu

List of Publications by Year in descending order

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117
papers

3,602
citations

136950

32
h-index

175258

52
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119
all docs

119
docs citations

119
times ranked

1966
citing authors

#	ARTICLE	IF	CITATIONS
1	Optical Imaging of the Molecular Mobility of Single Polystyrene Nanospheres. <i>Journal of the American Chemical Society</i> , 2022, 144, 1267-1273.	13.7	7
2	Dynamic Monte Carlo simulations of strain-induced crystallization in multiblock copolymers: 1. Dilution effects. <i>Soft Matter</i> , 2022, , .	2.7	7
3	Tammann Analysis of the Molecular Weight Selection of Polymorphic Crystal Nucleation in Symmetric Racemic Poly(lactic acid) Blends. <i>Macromolecules</i> , 2022, 55, 3661-3670.	4.8	23
4	Nascent structure memory erased in polymer stretching. <i>Journal of Chemical Physics</i> , 2022, 156, 144904.	3.0	6
5	Role of long-chain backbone in side-chain crystallization of densely grafted comb-like polymers. <i>Polymer</i> , 2022, , 124922.	3.8	1
6	Glassy Alfa-Relaxation Promotes Surprising Homo-Crystal Nucleation in the Low-Molar-Mass Enantiomeric Poly(lactic acid) Blend. <i>Macromolecules</i> , 2022, 55, 4614-4623.	4.8	6
7	Crystal morphology of polyurea on rapid quenching. <i>Polymer</i> , 2021, 213, 123201.	3.8	5
8	Observation of Stepwise Ultrafast Crystallization Kinetics of Donor–Acceptor Conjugated Polymers and Correlation with Field Effect Mobility. <i>Chemistry of Materials</i> , 2021, 33, 1637-1647.	6.7	17
9	Fast-Scanning Chip-Calorimetry Measurement of Crystallization Kinetics of Poly(Glycolic Acid) Polymers, 2021, 13, 891.	4.5	7
10	Roles of repeating-unit interactions in the stress relaxation process of bulk amorphous polymers. <i>Polymer</i> , 2021, 224, 123740.	3.8	6
11	Reversible–Irreversible Transition of Strain-Induced Crystallization in Segmented Copolymers: The Critical Strain and Chain Conformation. <i>ACS Applied Polymer Materials</i> , 2021, 3, 3576-3585.	4.4	15
12	Role of stress relaxation in stress-induced polymer crystallization. <i>Polymer</i> , 2021, 235, 124306.	3.8	16
13	Crystallization rates of moderate and ultrahigh molecular weight polyethylene characterized by Flash DSC measurement. <i>Polymer International</i> , 2020, 69, 18-23.	3.1	4
14	Thermal conductivity of Nylon 46, Nylon 66 and Nylon 610 characterized by Flash DSC measurement. <i>Thermochimica Acta</i> , 2020, 683, 178445.	2.7	9
15	Effects of hydrogen-bonding density on polyamide crystallization kinetics. <i>Polymer</i> , 2020, 189, 122165.	3.8	32
16	Elastic Aerogel with Tunable Wettability for Self-Cleaning Electronic Skin. , 2020, 2, 1575-1582.		14
17	Effects of amide comonomers on polyamide 6 crystallization kinetics. <i>Thermochimica Acta</i> , 2020, 690, 178667.	2.7	10
18	Multimorphous Phases in Diketopyrrolopyrrole-Based Conjugated Polymers: From Bulk to Ultrathin Films. <i>Macromolecules</i> , 2020, 53, 4480-4489.	4.8	18

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19	Anomalous Ostwald Ripening Enables 2D Polymer Crystals via Fast Evaporation. <i>Physical Review Letters</i> , 2019, 123, 207801.	7.8	18
20	Special issue session dedicated to the retirement of Prof. Vincent Mathot: polymer thermal analysis and crystallization. <i>Polymer International</i> , 2019, 68, 177-178.	3.1	0
21	Cross-plane thermal conductivity of thin films characterized by Flash DSC measurement. <i>Thermochimica Acta</i> , 2019, 677, 21-25.	2.7	9
22	Flash DSC study on the annealing behaviors of poly(l-lactide acid) crystallized in the low temperature region. <i>Polymer</i> , 2019, 174, 123-129.	3.8	14
23	Small- and wide-angle X-ray scattering study on α -to- β transition of Poly(L-lactide acid) crystals. <i>Polymer</i> , 2019, 167, 122-129.	3.8	17
24	Effects of short-chain branches on strain-induced polymer crystallization. <i>Polymer International</i> , 2019, 68, 225-230.	3.1	14
25	Effect of solvent selectivity on crystallization-driven fibril growth kinetics of diblock copolymers. <i>Polymer</i> , 2018, 138, 359-362.	3.8	23
26	Shish-Kebab Crystallites Initiated by Shear Fracture in Bulk Polymers. <i>Macromolecules</i> , 2018, 51, 480-487.	4.8	65
27	The physics of polymer chain-folding. <i>Physics Reports</i> , 2018, 747, 1-50.	25.6	126
28	Comparing Crystallization Kinetics between Polyamide 6 and Polyketone via Chip-Calorimeter Measurement. <i>Macromolecular Chemistry and Physics</i> , 2018, 219, 1700385.	2.2	18
29	Monte Carlo Simulation of Strain-Enhanced Stereocomplex Polymer Crystallization. <i>Journal of Physical Chemistry B</i> , 2018, 122, 10928-10933.	2.6	22
30	Growth rate equations of lamellar polymer crystals. <i>Polymer Crystallization</i> , 2018, 1, e25838.	0.8	3
31	Block copolymer crystalsomes with an ultrathin shell to extend blood circulation time. <i>Nature Communications</i> , 2018, 9, 3005.	12.8	61
32	Interplay between Free Surface and Solid Interface Nucleation on Two-Step Crystallization of Poly(ethylene terephthalate) Thin Films Studied by Fast Scanning Calorimetry. <i>Macromolecules</i> , 2018, 51, 5209-5218.	4.8	26
33	Free energy change of crystallisation in single copolymers. <i>Molecular Physics</i> , 2018, 116, 3020-3026.	1.7	6
34	Role of chain ends in coil deformation of driven single polymer. <i>Materials Chemistry Frontiers</i> , 2017, 1, 1349-1353.	5.9	2
35	Mobility Gradient of Poly(ethylene terephthalate) Chains near a Substrate Scaled by the Thickness of the Adsorbed Layer. <i>Macromolecules</i> , 2017, 50, 6804-6812.	4.8	39
36	Crystallization kinetics of ethylene-co-propylene rubber/isotactic polypropylene blend investigated via chip-calorimeter measurement. <i>European Polymer Journal</i> , 2017, 96, 79-86.	5.4	13

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37	Comparing crystallization kinetics among two G-resin samples and iPP via Flash DSC measurement. Journal of Thermal Analysis and Calorimetry, 2017, 128, 1859-1866.	3.6	13
38	Silk-silk blend materials. Journal of Thermal Analysis and Calorimetry, 2017, 127, 915-921.	3.6	12
39	Combining Fast-Scan Chip Calorimetry with Molecular Simulations to Investigate Polymer Crystal Melting. , 2016, , 379-399.		0
40	Multicomponent Thermodynamics of Strain-Induced Polymer Crystallization. Journal of Physical Chemistry B, 2016, 120, 6890-6896.	2.6	21
41	Primary and secondary crystallization of fast-cooled poly(vinylidene fluoride) studied by Flash DSC, wide-angle X-ray diffraction and Fourier transform infrared spectroscopy. Polymer International, 2016, 65, 387-392.	3.1	17
42	Entropy-Driven Segregation and Its Competition with Crystal Nucleation in the Binary Blends of Stretched and Free Guest Polymers. Journal of Physical Chemistry B, 2016, 120, 12988-12992.	2.6	17
43	Effect of Stereochemistry on Directed Self-Assembly of Poly(styrene- <i>b</i> -lactide) Films on Chemical Patterns. ACS Macro Letters, 2016, 5, 396-401.	4.8	22
44	Effect of comonomer sizes on the strain-induced crystal nucleation of random copolymers. European Polymer Journal, 2016, 81, 34-42.	5.4	22
45	Theoretical Aspects of Polymer Crystallization. , 2016, , 101-143.		2
46	Crystallization of Statistical Copolymers. Advances in Polymer Science, 2016, , 1-43.	0.8	12
47	Strong memory of strain-induced copolymer crystallization as revealed by Monte Carlo simulations. Polymer, 2016, 98, 282-286.	3.8	21
48	Intramolecular Crystal Nucleation Favored by Polymer Crystallization: Monte Carlo Simulation Evidence. Journal of Physical Chemistry B, 2016, 120, 6754-6760.	2.6	18
49	Non-monotonic molecular weight dependence of crystallization rates of linear and cyclic poly(ϵ -caprolactone)s in a wide temperature range. Polymer International, 2016, 65, 1074-1079.	3.1	28
50	Crosslinked P(VDF-CTFE)/PS-COOH nanocomposites for high-energy-density capacitor application. Journal of Polymer Science, Part B: Polymer Physics, 2016, 54, 1160-1169.	2.1	23
51	How Chain-Folding Crystal Growth Determines the Thermodynamic Stability of Polymer Crystals. Journal of Physical Chemistry B, 2016, 120, 566-571.	2.6	36
52	Low-temperature crystallization of P(VDF-TrFE-CFE) studied by Flash DSC. Polymer, 2016, 84, 319-327.	3.8	35
53	Molecular simulations of confined crystallization in the microdomains of diblock copolymers. Progress in Polymer Science, 2016, 54-55, 232-258.	24.7	39
54	Dynamic Monte Carlo simulation of non-equilibrium Brownian diffusion of single-chain macromolecules. Molecular Simulation, 2016, 42, 321-327.	2.0	12

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55	Biased diffusion induces coil deformation via a “cracking-the-whip” effect of acceleration generated by dynamic heterogeneity along a polymer chain. <i>Polymer International</i> , 2015, 64, 49-53.	3.1	6
56	Understanding the Growth Rates of Polymer Cocrystallization in the Binary Mixtures of Different Chain Lengths: Revisited. <i>Journal of Physical Chemistry B</i> , 2015, 119, 9975-9981.	2.6	12
57	Comparing crystallization rates between linear and cyclic poly(epsilon-caprolactones) via fast-scan chip-calorimeter measurements. <i>Polymer</i> , 2015, 63, 34-40.	3.8	45
58	Fibril Crystal Growth in Diblock Copolymer Solutions Studied by Dynamic Monte Carlo Simulations. <i>Journal of Physical Chemistry B</i> , 2015, 119, 5926-5932.	2.6	18
59	Combining TMDSC measurements between chip-calorimeter and molecular simulation to study reversible melting of polymer crystals. <i>Thermochimica Acta</i> , 2015, 603, 79-84.	2.7	20
60	Slowing Down of Accelerated Structural Relaxation in Ultrathin Polymer Films. <i>Physical Review Letters</i> , 2014, 112, 148306.	7.8	33
61	Fast-scan chip-calorimeter measurement on the melting behaviors of melt-crystallized syndiotactic polystyrene. <i>Journal of Thermal Analysis and Calorimetry</i> , 2014, 118, 1531-1536.	3.6	9
62	Thermodynamics of strain-induced crystallization of random copolymers. <i>Soft Matter</i> , 2014, 10, 343-347.	2.7	46
63	Variable trends of chain-folding in separate stages of strain-induced crystallization of bulk polymers. <i>Polymer</i> , 2014, 55, 1267-1272.	3.8	56
64	Tuning bio-inspired skin “core structure of nascent fiber via interplay of polymer phase transitions. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 15152-15157.	2.8	12
65	Combining fast-scan chip-calorimeter with molecular simulations to investigate superheating behaviors of lamellar polymer crystals. <i>Polymer</i> , 2014, 55, 4307-4312.	3.8	41
66	Strong Memory Effect of Crystallization above the Equilibrium Melting Point of Random Copolymers. <i>Macromolecules</i> , 2013, 46, 6485-6497.	4.8	146
67	Monte Carlo Simulations of Strong Memory Effect of Crystallization in Random Copolymers. <i>Macromolecules</i> , 2013, 46, 6498-6506.	4.8	80
68	<i>Polymer Physics</i> , 2013, , .		81
69	Kinetic Analysis of Quasi-One-Dimensional Growth of Polymer Lamellar Crystals in Dilute Solutions. <i>Journal of Physical Chemistry B</i> , 2013, 117, 3047-3053.	2.6	13
70	Systematic Kinetic Analysis on Monolayer Lamellar Crystal Thickening via Chain-Sliding Diffusion of Polymers. <i>Macromolecules</i> , 2013, 46, 164-171.	4.8	22
71	<i>Polymer Crystallization</i> , 2013, , 187-221.		9
72	<i>Interplay Between Phase Separation and Polymer Crystallization</i> , 2013, , 223-239.		0

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73	Competition of crystal nucleation to fabricate the oriented semi-crystalline polymers. <i>Polymer</i> , 2013, 54, 3402-3407.	3.8	100
74	Dynamic Monte Carlo simulations of double crystallization accelerated in microdomains of diblock copolymers. <i>Journal of Chemical Physics</i> , 2012, 136, 104906.	3.0	12
75	Growth Rates of Edge-on Lamellar Crystals Confined in Polymer Thin Films. <i>Journal of Macromolecular Science - Physics</i> , 2012, 51, 2341-2351.	1.0	8
76	Monte Carlo simulations of crystallization in heterogeneous copolymers: The role of copolymer fractions with intermediate comonomer content. <i>Journal of Materials Research</i> , 2012, 27, 1383-1388.	2.6	7
77	Crystallization Kinetics of Lamellar Crystals Confined in Polymer Thin Films. <i>Journal of Macromolecular Science - Physics</i> , 2012, 51, 1548-1557.	1.0	6
78	Role of Block Junctions in the Interplay of Phase Transitions of Two-Component Polymeric Systems. <i>Journal of Physical Chemistry B</i> , 2011, 115, 8853-8857.	2.6	12
79	Statistical thermodynamics of polymer crystallization. <i>Frontiers of Chemistry in China: Selected Publications From Chinese Universities</i> , 2010, 5, 29-32.	0.4	4
80	Interplay of Liquid-Liquid Demixing and Polymer Crystallization. <i>Series in Soft Condensed Matter</i> , 2010, , 179-206.	0.1	2
81	Scientists summit at Shanghai in the field of polymer crystallization. <i>Frontiers of Chemistry in China: Selected Publications From Chinese Universities</i> , 2009, 4, 402-402.	0.4	2
82	Cloning polymer single crystals through self-seeding. <i>Nature Materials</i> , 2009, 8, 348-353.	27.5	238
83	Understanding crystal nucleation in solution-segregated polymers. <i>Polymer</i> , 2009, 50, 3828-3834.	3.8	14
84	Polymer semicrystalline texture made by interplay of crystal growth. <i>Polymer</i> , 2009, 50, 5871-5875.	3.8	9
85	Understanding Self-poisoning Phenomenon in Crystal Growth of Short-Chain Polymers. <i>Journal of Physical Chemistry B</i> , 2009, 113, 13485-13490.	2.6	22
86	Polymer Crystallization Confined in Hard Spherical Microdomains of Diblock Copolymers. <i>Macromolecules</i> , 2009, 42, 3381-3385.	4.8	32
87	Polymer crystallization under nano-confinement of droplets studied by molecular simulations. <i>Faraday Discussions</i> , 2009, 143, 129.	3.2	26
88	Understanding the Growth Rates of Polymer Cocrystallization in the Binary Mixtures of Different Chain Lengths. <i>Journal of Physical Chemistry B</i> , 2008, 112, 7370-7376.	2.6	15
89	Regime Transitions of Polymer Crystal Growth Rates: Molecular Simulations and Interpretation beyond Lauritzen-Hoffman Model. <i>Macromolecules</i> , 2008, 41, 2049-2061.	4.8	47
90	Understanding crystal orientation in quasi-one-dimensional polymer systems. <i>Soft Matter</i> , 2008, 4, 540.	2.7	53

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91	Breakout and Breakdown Induced by Crystallization in Cylinder-Forming Diblock Copolymers. <i>Macromolecules</i> , 2008, 41, 7625-7629.	4.8	20
92	Crystal nucleation enhanced at the diffuse interface of immiscible polymer blends. <i>Physical Review E</i> , 2008, 77, 061801.	2.1	33
93	Polymer immiscibility enhanced by thermal fluctuations toward crystalline order. <i>Physical Review E</i> , 2007, 76, 031801.	2.1	14
94	Homogeneous Crystal Nucleation Triggered by Spinodal Decomposition in Polymer Solutions. <i>Journal of Physical Chemistry B</i> , 2007, 111, 11373-11378.	2.6	22
95	Intramolecular Crystal Nucleation. , 2007, , 47-63.		22
96	Epitaxial polymer crystal growth influenced by partial melting of the fiber in the single-polymer composites. <i>Polymer</i> , 2007, 48, 4264-4270.	3.8	21
97	Confined crystallization of cylindrical diblock copolymers studied by dynamic Monte Carlo simulations. <i>Journal of Chemical Physics</i> , 2006, 124, 244901.	3.0	37
98	How the restriction of sliding diffusion of comonomers affects crystallization and melting of homogeneous copolymers. <i>Polymer</i> , 2006, 47, 5582-5587.	3.8	16
99	Molecular Segregation in Polymer Melt Crystallization: A Simulation Evidence and Unified-Scheme Interpretation. <i>Macromolecules</i> , 2005, 38, 8712-8718.	4.8	45
100	Oriented primary crystal nucleation in lamellar diblock copolymer systems. <i>Faraday Discussions</i> , 2005, 128, 253.	3.2	28
101	Orientational Relaxation Together with Polydispersity Decides Precursor Formation in Polymer Melt Crystallization. <i>Macromolecules</i> , 2005, 38, 2806-2812.	4.8	60
102	Crystallization-Induced Microdomain Coalescence in Lamellar Diblock Copolymers Studied by Dynamic Monte Carlo Simulations. <i>Macromolecules</i> , 2005, 38, 3977-3983.	4.8	23
103	Effect of Metastable Liquid-Liquid Demixing on the Morphology of Nucleated Polymer Crystals. <i>Macromolecules</i> , 2004, 37, 4336-4338.	4.8	34
104	Sequence-Length Segregation during Crystallization and Melting of a Model Homogeneous Copolymer. <i>Macromolecules</i> , 2004, 37, 673-675.	4.8	18
105	Sectorization of a Lamellar Polymer Crystal Studied by Dynamic Monte Carlo Simulations. <i>Macromolecules</i> , 2003, 36, 549-552.	4.8	35
106	Intramolecular Nucleation Model for Polymer Crystallization. <i>Macromolecules</i> , 2003, 36, 8178-8183.	4.8	113
107	Phase Transitions of Bulk Statistical Copolymers Studied by Dynamic Monte Carlo Simulations. <i>Macromolecules</i> , 2003, 36, 2165-2175.	4.8	46
108	Free energy barrier to melting of single-chain polymer crystallite. <i>Journal of Chemical Physics</i> , 2003, 118, 3455-3457.	3.0	32

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109	Liquid-liquid demixing in a binary polymer blend driven solely by the component-selective crystallizability. <i>Journal of Chemical Physics</i> , 2003, 119, 10953-10957.	3.0	28
110	Lattice-model study of the thermodynamic interplay of polymer crystallization and liquid-liquid demixing. <i>Journal of Chemical Physics</i> , 2003, 118, 10343-10348.	3.0	40
111	Simulation of Shish-Kebab Crystallite Induced by a Single Prealigned Macromolecule. <i>Macromolecules</i> , 2002, 35, 7172-7174.	4.8	130
112	Chain folding in polymer melt crystallization studied by dynamic Monte Carlo simulations. <i>Journal of Chemical Physics</i> , 2001, 115, 4395-4401.	3.0	65
113	The melting point of chain polymers. <i>Journal of Chemical Physics</i> , 2000, 113, 3901-3908.	3.0	56
114	Reversible Surface Melting of PE and PEO Crystallites Indicated by TMDSC. <i>Macromolecules</i> , 1999, 32, 7548-7554.	4.8	90
115	Structural transformation in the collapse transition of the single flexible homopolymer model. <i>Journal of Chemical Physics</i> , 1998, 109, 3686-3690.	3.0	127
116	Block copolymerization of ethylene oxide and acrylonitrile and the influence of block length of polyacrylonitrile on the thermal behavior and morphology of block copolymer. <i>Journal of Polymer Science Part A</i> , 1996, 34, 1317-1324.	2.3	9
117	Polymer Crystallization Driven by Anisotropic Interactions. , 0, , 1-35.		149