Zong-Bao Wang

List of Publications by Citations

77 papers	962 citations	17 h-index	27 g-index
83 ext. papers	1,192 ext. citations	4.2 avg, IF	4.36 L-index

#	Paper	IF	Citations
77	Rhythmic Growth-Induced Ring-Banded Spherulites with Radial Periodic Variation of Thicknesses Grown from Poly(ε-caprolactone) Solution with Constant Concentration. *Macromolecules*, **2008**, 41, 7584-7595	5.5	73
76	Rhythmic Growth-Induced Concentric Ring-Banded Structures in Poly(ε-caprolactone) Solution-Casting Films Obtained at the Slow Solvent Evaporation Rate. *Macromolecules*, **2007**, 40, 4381-4385	5.5	65
75	Chitin nanocrystals grafted with poly(3-hydroxybutyrate-co-3-hydroxyvalerate) and their effects on thermal behavior of PHBV. *Carbohydrate Polymers*, **2012**, 87, 784-789	10.3	54
74	Twisting of Lamellar Crystals in Poly(3-hydroxybutyrate-co-3-hydroxyvalerate) Ring-Banded Spherulites. *Macromolecules*, **2010**, 43, 4441-4444	5.5	50
73	Electrostatic adsorption method for preparing electrically conducting ultrahigh molecular weight polyethylene/graphene nanosheets composites with a segregated network. *Composites Science and Technology*, **2013**, 89, 180-185	8.6	48
72	Reduced graphene oxide enhances the crystallization and orientation of poly(ε-caprolactone). *Composites Science and Technology*, **2014**, 96, 63-70	8.6	39
71	Rhythmic Growth Combined with Lamellar Twisting Induces Poly(ethylene adipate) Nested Ring-Banded Structures.. *ACS Macro Letters*, **2012**, 1, 154-158	6.6	36
70	Crystallization behavior, thermal and mechanical properties of PHBV/graphene nanosheet composites. *Chinese Journal of Polymer Science (English Edition)*, **2013**, 31, 670-678	3.5	35
69	Tuning Radial Lamellar Packing and Orientation into Diverse Ring-Banded Spherulites: Effects of Structural Feature and Crystallization Condition. *Macromolecules*, **2014**, 47, 1783-1792	5.5	34
68	Anisotropically Fatigue-Resistant Hydrogels. *Advanced Materials*, **2021**, 33, e2102011	24	33
67	Structural evolution from shish-kebab to fibrillar crystals during hot-stretching process of gel spinning ultra-high molecular weight polyethylene fibers obtained from low concentration solution. *Polymer*, **2017**, 120, 244-254	3.9	25
66	Band-to-Nonband Transition into Unique Poly(ε-caprolactone) Crystals by Modulating the Interplay of Diffusion and Growth. *ACS Macro Letters*, **2012**, 1, 718-722	6.6	23
65	Noncovalent Method for Improving the Interaction between Reduced Graphene Oxide and Poly(ε-caprolactone). *Industrial & Engineering Chemistry Research*, **2013**, 52, 15824-15828	3.9	21
64	Synthesis and characterization of triblock copolymer PLA-b-PBT-b-PLA and its effect on the crystallization of PLA. *RSC Advances*, **2013**, 3, 18464	3.7	19
63	The influence of epitaxial crystallization on the mechanical properties of a high density polyethylene/reduced graphene oxide nanocomposite injection bar. *RSC Advances*, **2017**, 7, 21918-21925	3.7	18
62	Effects of a semi-bio-based triazine derivative on intumescent flame-retardant polypropylene. *Polymers for Advanced Technologies*, **2019**, 30, 1259-1268	3.2	18
61	Facile fabrication of conductive ultrahigh molecular weight polyethylene fibers via mussel-inspired deposition. *Journal of Applied Polymer Science*, **2013**, 128, 1030-1035	2.9	18

60	An in situ small-angle X-ray scattering study of the structural effects of temperature and draw ratio of the hot-drawing process on ultra-high molecular weight polyethylene fibers. *RSC Advances*, **2016**, 6, 51125-51134	3.7	17
59	Morphological Control of Polymer Spherulites via Manipulating Radial Lamellar Organization upon Evaporative Crystallization: A Mini Review. *Crystals*, **2017**, 7, 115	2.3	17
58	Ultra-strong gel-spun ultra-high molecular weight polyethylene fibers filled with chitin nanocrystals. *RSC Advances*, **2016**, 6, 20629-20636	3.7	15
57	High-density polyethylene crystals with double melting peaks induced by ultra-high-molecular-weight polyethylene fibre. *Royal Society Open Science*, **2018**, 5, 180394	3.3	14
56	Coupling between crystallization and evaporation dynamics: Periodically nonlinear growth into concentric ringed spherulites. *Polymer*, **2013**, 54, 6628-6635	3.9	14
55	In-situ investigation of multiple endothermic peaks in isomorphous poly(3-hydroxybutyrate-co-3-hydroxyvalerate) with low HV content by synchrotron radiation. *Polymer*, **2019**, 169, 1-10	3.9	13
54	Effect of Gel Solution Concentration on the Structure and Properties of Gel-Spun Ultrahigh Molecular Weight Polyethylene Fibers. *Industrial & Engineering Chemistry Research*, **2016**, 55, 8357-8363	3.9	13
53	The Influence of Epitaxial Crystallization on the Mechanical Properties of Polyamide 66/Reduced Graphene Oxide Nanocomposite Injection Bar. *Crystals*, **2017**, 7, 384	2.3	12
52	The influence of short chain branch on formation of shear induced crystals in bimodal polyethylene at high shear temperatures. *European Polymer Journal*, **2018**, 105, 359-369	5.2	12
51	Structural development of gel-spinning UHMWPE fibers through industrial hot-drawing process analyzed by small/wide-angle X-ray scattering. *Polymer Bulletin*, **2017**, 74, 721-736	2.4	12
50	Ultrastretchable, Highly Transparent, Self-Adhesive, and 3D-Printable Ionic Hydrogels for Multimode Tactical Sensing. *Chemistry of Materials*, **2021**, 33, 6731-6742	9.6	12
49	Dramatic Toughness Enhancement of Polydicyclopentadiene Composites by Incorporating Low Amounts of Vinyl-Functionalized SiO2. *Industrial & Engineering Chemistry Research*, **2017**, 56, 4750-4757	3.9	10
48	The influence of short chain branch on formation of shish-kebab crystals in bimodal polyethylene under shear at high temperatures. *Journal of Polymer Science, Part B: Polymer Physics*, **2018**, 56, 786-794	2.6	9
47	Multiple endothermic peaks resulted from different crystal structures in an isomorphous copolymer poly(3-hydroxybutyrate-co-3-hydroxyvalerate). *Chinese Journal of Polymer Science (English Edition)*, **2016**, 34, 1510-1522	3.5	9
46	Enhance understanding of rhythmic crystallization in confined evaporating polymer solution films: from environment to solution film and then to one period. *RSC Advances*, **2016**, 6, 45241-45249	3.7	9
45	Effect of epitaxial crystallization on the structural evolution of PCL/RGO nanocomposites during stretching by in-situ synchrotron radiation. *Polymer*, **2018**, 159, 106-115	3.9	9
44	Structural Effects of Residual Groups of Graphene Oxide on Poly(□Caprolactone)/Graphene Oxide Nanocomposite. *Crystals*, **2018**, 8, 270	2.3	8
43	Living lamellar crystal initiating polymerization and brittleness mechanism investigations based on crystallization during the ring-opening of cyclic butylene terephthalate oligomers. *Polymer Chemistry*, **2013**, 4, 1648	4.9	8

42	Solution crystallization behavior of linear and star-shaped poly(ethylene glycol)-b-poly(e-caprolactone) block copolymers. *Chinese Journal of Polymer Science (English Edition)*, **2013**, 31, 1717-1724	3.5	8
41	The influence of chitin nanocrystals on structural evolution of ultra-high molecular weight polyethylene/chitin nanocrystal fibers in hot-drawing process. *Chinese Journal of Polymer Science (English Edition)*, **2016**, 34, 1373-1385	3.5	8
40	Epitaxial crystallization of precisely bromine-substituted polyethylene induced by carbon nanotubes and graphene. *RSC Advances*, **2017**, 7, 17640-17649	3.7	7
39	Nonbirefringent bands in thin films of a copolymer melt: rapid rhythmic crystal growth with an unusual crystal–melt interface. *CrystEngComm*, **2018**, 20, 2221-2226	3.3	7
38	Structural transformation from shish-kebab crystals to micro-fibrils through hot stretching process of gel-spun ultra-high molecular weight polyethylene fibers with high concentration solution. *Journal of Polymer Science, Part B: Polymer Physics*, **2018**, 56, 225-238	2.6	7
37	Synchronous architecture of ring-banded and non-ring-banded morphology within one spherulite based on in situ ring-opening polymerization of cyclic butylene terephthalate oligomers. *RSC Advances*, **2016**, 6, 94524-94530	3.7	7
36	Structural difference of gel-spun ultra-high molecular weight polyethylene fibers affected by cold drawing process. *Fibers and Polymers*, **2017**, 18, 549-554	2	6
35	Structural evolution of stretch deformed HDPE/RGO nanocomposites: An in-situ synchrotron SAXS and WAXD study. *Composites Science and Technology*, **2019**, 183, 107798	8.6	6
34	Crystallization and morphology of star-shaped polyethylenoxyde-b-polycaprolactone under high pressure carbon dioxide. *Chinese Journal of Polymer Science (English Edition)*, **2012**, 30, 623-631	3.5	6
33	Strong enhancement of the twisting frequency of achiral orthorhombic lamellae in poly(ε-caprolactone) banded spherulites via evaporative crystallization. *CrystEngComm*, **2017**, 19, 1210-1219	3.3	5
32	Uniaxial tensile deformation of microinjection molded PCL/SWCNTs nanocomposites: Effect of interfacial "soft epitaxy" on the structural evolution as studied by synchrotron SAXS and WAXD techniques. *Polymer*, **2020**, 198, 122526	3.9	5
31	The influence of short chain branch on formation of shear-induced crystals in bimodal polyethylene at low shear temperatures. *Polymer*, **2019**, 179, 121625	3.9	5
30	Melting behavior of polymorphic MDI/BD-block TPU investigated by using in-situ SAXS/WAXS and FTIR techniques. Hydrogen bonding formation causing the inhomogeneous melt. *Polymer Testing*, **2021**, 96, 107065	4.5	5
29	Structure and properties of gel-spun ultra-high molecular weight polyethylene fibers with high gel solution concentration. *Chinese Journal of Polymer Science (English Edition)*, **2017**, 35, 524-533	3.5	4
28	Correlation between polymerization of cyclic butylene terephthalate (CBT) and crystallization of polymerized CBT. *Chinese Journal of Polymer Science (English Edition)*, **2015**, 33, 1104-1113	3.5	4
27	Foaming of Poly(3-hydroxybutyrate--3-hydroxyvalerate) with Supercritical Carbon Dioxide: Foaming Performance and Crystallization Behavior. *ACS Omega*, **2020**, 5, 9839-9845	3.9	4
26	Effects of shear on epitaxial crystallization of poly(ε-caprolactone) on reduced graphene oxide.. *RSC Advances*, **2018**, 8, 6406-6413	3.7	4
25	Characterization of structural knot distributions in UHMWPE fibers. *Chinese Journal of Polymer Science (English Edition)*, **2016**, 34, 606-615	3.5	4

24	Origin of the double melting peaks of poly(3-hydroxybutyrate-co-3-hydroxyvalerate) with a high HV content as revealed by in situ synchrotron WAXD/SAXS analyses. *Journal of Polymer Science, Part B: Polymer Physics*, **2019**, 57, 1453-1461	2.6	4
23	Effect of Chitin Nanocrystals on the Formation of Shish-Kebab Crystals in Bimodal Polyethylene Injection Bar. *Polymer Science - Series A*, **2019**, 61, 627-634	1.2	3
22	Microbeam two-dimensional small-angle X-ray scattering investigating the effects of reduced graphene oxide on local microstructures of high-density polyethylene/reduced graphene oxide nanocomposite bars. *Royal Society Open Science*, **2019**, 6, 181866	3.3	3
21	Formation and evolution of shish-kebab structure during hot stretching in gel-spun ultra-high molecular weight polyethylene fibers with high concentration gel solution. *Polymer Crystallization*, **2019**, 2, e10060	0.9	3
20	Inter-spherulitic/inner-spherulitic localization of PBSU during crystallization of PVDF in PVDF/PBSU blend. *Journal of Polymer Science*, **2020**, 58, 1699-1706	2.4	3
19	A Synchrotron in situ X-ray Study on the Multiple Melting Behaviors of Isomorphous Poly(3-hydroxybutyrate-co-3-hydroxyvalerate) (P(HB-co-HV)) with Middle HV Content. *Chinese Journal of Polymer Science (English Edition)*, **2020**, 38, 1015-1024	3.5	3
18	Morphology of Poly(Ethylene Oxide)- b-Poly(?-Caprolactone) Spherulites Formed Under Compressed CO2. *Journal of Macromolecular Science - Physics*, **2014**, 53, 1137-1144	1.4	3
17	In Situ SAXS and WAXD Investigations of Polyamide 66/Reduced Graphene Oxide Nanocomposites During Uniaxial Deformation. *ACS Omega*, **2021**, 6, 11762-11771	3.9	3
16	Epitaxial Crystallization of Poly(□caprolactone) on Reduced Graphene Oxide at a Low Shear Rate by SAXS/WAXD Methods. *ACS Omega*, **2020**, 5, 31535-31542	3.9	2
15	Formation of well-organized, concentric-ringed spherulites of four-arm star symmetric PEO-b-PCL via confined evaporative crystallization. *CrystEngComm*, **2020**, 22, 7016-7024	3.3	2
14	The Influence of Soft-Epitaxial Crystallization on Polyamide 66/Carbon Nanotubes Composite Injection Bar. *Polymer Science - Series A*, **2019**, 61, 906-912	1.2	2
13	The Influence of Space Restriction on the Mechanical Properties of Isotactic Polypropylene/Reduced Graphene Oxide Nanocomposite Injection Bars. *Polymer Science - Series A*, **2018**, 60, 663-670	1.2	2
12	Eco-Friendly Strategy to Improve the Processiblity and Properties of Poly(vinyl alcohol) Foams Based on a 3D Hydrogen-Bond Network. *Industrial & Engineering Chemistry Research*, **2020**, 59, 20011-20021	3.9	1
11	Epitaxial Crystallization of Precisely Methyl-Substituted Polyethylene Induced by Carbon Nanotubes and Graphene. *Crystals*, **2018**, 8, 168	2.3	1
10	Polymorphic microstructure of MDI/BD-block polyurethane as determined by temperature-sensitive conformation variation. *Soft Matter*, **2021**, 17, 9447-9456	3.6	1
9	Dramatic toughness improvement of poly(3-hydroxybutyrate-co-3-hydroxyvalerate) by supercritical carbon dioxide□assisted annealing. *Polymers for Advanced Technologies*, **2021**, 32, 3646-3654	3.2	1
8	Structural Evolution of Polyglycolide and Poly(glycolide--lactide) Fibers during the Heat-Setting Process. *Biomacromolecules*, **2021**, 22, 3342-3356	6.9	1
7	Structural Evolution of Polyglycolide and Poly(glycolidelactide) Fibers during In Vitro Degradation with Different Heat-Setting Temperatures. *ACS Omega*, **2021**, 6, 29254-29266	3.9	0

6	The Influence of Ethyl Branch on Formation of Shish-Kebab Crystals in Bimodal Polyethylene under Shear at Low Temperature. *Chinese Journal of Polymer Science (English Edition)*, **2021**, 39, 1050-1058	3.5	0
5	Role of the heat treatment of partial melt recrystallization method on microstructure change and toughness of poly(3-hydroxybutyrate-co-3-hydroxyvalerate) [P(HB-co-HV)]. *Polymer*, **2021**, 228, 123874	3.9	0
4	Shear-induced crystallization of unimodal/bimodal polyethylene at high temperatures affected by C4 short-branching. *Polymer*, **2021**, 233, 124203	3.9	0
3	Understanding of Growth Mechanism and Structure of Multilayer Thin Films via Layer-by-Layer Hydrogen Bonded Assembly from Polymer Brushes-Grafted Surface. *Nanoscience and Nanotechnology Letters*, **2020**, 12, 890-900	0.8	
2	Nano-Scale Pores are Formed between the Shish-Kebab Structures of Double-Mold Polyethylene by Supercritical Carbon Dioxide Foaming. *Polymer Science - Series A*, **2021**, 63, 664-671	1.2	
1	Coupling effects of boron nitride and heat treatment on crystallization, mechanical properties of poly (3-hydroxybutyrate-co-3-hydroxyvalerate) (PHBV). *Polymer*, **2022**, 252, 124967	3.9	