Wei Chen

List of Publications by Year
in descending order

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88	2,471	236925 25	223800 46
papers	citations	h-index	g-index

89	89	89	2981
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Polymer crystallization under external flow. Reports on Progress in Physics, 2022, 85, 036601.	20.1	12
2	Nanoparticle deposition pattern during colloidal droplet evaporation as in-situ investigated by Low-Field NMR: The critical role of bound water. Journal of Colloid and Interface Science, 2022, 613, 709-719.	9.4	6
3	Liquid Crystal-Based Organosilicone Elastomers with Supreme Mechanical Adaptability. Polymers, 2022, 14, 789.	4.5	4
4	Strain-Rate-Dependent Phase Transition Mechanism in Polybutene-1 during Uniaxial Stretching: From Quasi-Static to Dynamic Loading Conditions. Macromolecules, 2022, 55, 2333-2344.	4.8	14
5	An in situ stretching instrument combined with low field nuclear magnetic resonance (NMR): Rheo-Spin NMR. Review of Scientific Instruments, 2022, 93, 033905.	1.3	5
6	A cryo-bulge apparatus for in situ weather balloon crystallization capturing during blowing by synchrotron radiation x-ray scattering. Review of Scientific Instruments, 2022, 93, 053901.	1.3	0
7	Review: Current progresses of small-angle neutron scattering on soft-matters investigation. , 2022, 1, 100011.		11
8	Structural Evolution of LLDPE-LMW/HMW Blend during Uniaxial Deformation as Revealed by In Situ Synchrotron Radiation X-ray Scattering. Chinese Journal of Polymer Science (English Edition), 2021, 39, 102-112.	3.8	2
9	How the Aggregates Determine Bound Rubber Models in Silicone Rubber? A Contrast Matching Neutron Scattering Study. Chinese Journal of Polymer Science (English Edition), 2021, 39, 365-376.	3.8	10
10	Stretch-induced structural evolution of dichromatic substance with poly (vinyl alcohol) at different concentrations of boric acid: An in-situ synchrotron radiation small- and wide-angle X-ray scattering study. Polymer, 2021, 212, 123297.	3.8	9
11	Stretch-induced structural evolution of pre-oriented isotactic polypropylene films: An in-situ synchrotron radiation SAXS/WAXS study. Polymer, 2021, 214, 123234.	3.8	17
12	Network structure of swollen iodine-doped poly(vinyl alcohol) amorphous domain as characterized by low field NMR. Soft Matter, 2021, 17, 8973-8981.	2.7	5
13	Chain dynamics and crystalline network structure of poly[R-3-hydroxybutyrate-co-4-hydroxybutyrate] as revealed by solid-state NMR. Soft Matter, 2021, 17, 4195-4203.	2.7	5
14	Strain Softening of Bimodal Isoprene Rubber Vulcanizates. Macromolecular Materials and Engineering, 2021, 306, 2000802.	3.6	9
15	The formation of crystal cross-linked network in sequential biaxial stretching of poly(ethylene) Tj ETQq1 1 0.784314 rgBT /Overlock 1	4.8	3
16	Simultaneously Toughening and Stiffening Elastomers with Octuple Hydrogen Bonding. Advanced Materials, 2021, 33, e2008523.	21.0	92
17	A novel carboxylated polyacrylonitrile nanofibrous membrane with high adsorption capacity for fluoride removal from water. Journal of Hazardous Materials, 2021, 411, 125113.	12.4	37
18	Stretch-induced structural transition of linear low-density polyethylene during uniaxial stretching under different strain rates. Polymer, 2021, 226, 123795.	3.8	15

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19	Stress-Induced Crystallization of the Metastable Î²-Form of Poly((R)-3-hydroxybutyrate-co-4-hydroxybutyrate). ACS Applied Polymer Materials, 2021, 3, 4109-4117.	4.4	3
20	A Unified Thermodynamic Model of Flow-induced Crystallization of Polymer. Chinese Journal of Polymer Science (English Edition), 2021, 39, 1489-1495.	3.8	14
21	Structural Origin of Double Yielding: The Critical Role of Crystallite Aggregate Heterogeneity. Macromolecules, 2021, 54, 8381-8392.	4.8	6
22	Strain Rate Dependence of Stretch-Induced Crystallization and Crystal Transition of Poly(dimethylsiloxane). Macromolecules, 2021, 54, 9204-9216.	4.8	13
23	Abnormal brittle-ductile transition for glassy polymers after free and constrained melt stretching: The role of molecular alignment. Polymer, 2021, 233, 124199.	3.8	11
24	Polyvinyl alcohol (PVA) based super-hydrophilic anti-fogging layer assisted by plasma spraying for low density polyethylene (LDPE) greenhouse films. Progress in Organic Coatings, 2021, 159, 106412.	3.9	16
25	Microstructural Origin of the Double Yield Points of the Metallocene Linear Low-Density Polyethylene (mLLDPE) Precursor Film under Uniaxial Tensile Deformation. Polymers, 2021, 13, 126.	4.5	3
26	Biaxial Stretch-Induced Crystallization of Polymers: A Molecular Dynamics Simulation Study. Macromolecules, 2021, 54, 9794-9803.	4.8	23
27	Reconstructing the mechanical response of polybutadiene rubber based on micro-structural evolution in strain-temperature space: entropic elasticity and strain-induced crystallization as the bridges. Soft Matter, 2020, 16, 447-455.	2.7	16
28	In situ observation of void evolution in 1,3,5-triamino-2,4,6-trinitrobenzene under compression by synchrotron radiation X-ray nano-computed tomography. Journal of Synchrotron Radiation, 2020, 27, 127-133.	2.4	12
29	Understanding the brittle-ductile transition of glass polymer on mesoscopic scale by in-situ small angle X-ray scattering. Polymer, 2020, 209, 122985.	3.8	15
30	Hierarchical Structure with an Unusual Honeycomb Fullerene Scaffold by a Fullereneâ€“Triphenylene Shape Amphiphile. Macromolecules, 2020, 53, 6056-6062.	4.8	5
31	Stretch-Induced Reverse Brill Transition in Polyamide 46. Macromolecules, 2020, 53, 11153-11165.	4.8	21
32	Adsorption of arsenite by coreâ€“shell K-OMS-2@UiO-66 microspheres: performance and mechanism. New Journal of Chemistry, 2020, 44, 14389-14400.	2.8	7
33	In-situ tracking polymer crystallization during film blowing by synchrotron radiation X-ray scattering: The critical role of network. Polymer, 2020, 198, 122492.	3.8	22
34	Molecular and thermodynamics descriptions of flow-induced crystallization in semi-crystalline polymers. Journal of Applied Physics, 2020, 127, .	2.5	9
35	Elucidation of the relationships of structure-process-property for different ethylene/Î±-olefin copolymers during film blowing: An in-situ synchrotron radiation X-ray scattering study. Polymer Testing, 2020, 85, 106439.	4.8	19
36	Stretch-Induced Intermediate Structures and Crystallization of Poly(dimethylsiloxane): The Effect of Filler Content. Macromolecules, 2020, 53, 719-730.	4.8	23

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37	Recent advances in post-stretching processing of polymer films with in situ synchrotron radiation X-ray scattering. Soft Matter, 2020, 16, 3599-3612.	2.7	29
38	The recovery of nano-sized carbon black filler structure and its contribution to stress recovery in rubber nanocomposites. Nanoscale, 2020, 12, 24527-24542.	5.6	14
39	Structural evolution of cellulose triacetate film during stretching deformation: An in-situ synchrotron radiation wide-angle X-Ray scattering study. Polymer, 2019, 182, 121815.	3.8	12
40	Structural evolution and phase transition of uniaxially stretched poly(butylene) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 627 Td (adipate- small and wide angle X-ray scattering. CrystEngComm, 2019, 21, 118-127.	2.6	18
41	Structural evolution of hard-elastic polyethylene cast film in temperature-strain space: An in-situ SAXS and WAXS study. Polymer, 2019, 184, 121930.	3.8	15
42	Preparation of Polyethylene and Ethylene/Methacrylic Acid Copolymer Blend Films with Tunable Surface Properties through Manipulating Processing Parameters during Film Blowing. Polymers, 2019, 11, 1565.	4.5	13
43	Manipulation of Chain Entanglement and Crystal Networks of Biodegradable Poly(butylene) Tj ETQq1 1 0.784314 rgBT /Overlock 10 T Extender: An In Situ Synchrotron Radiation X-ray Scattering Study. Biomacromolecules, 2019, 20, 3895-3907.	5.4	16
44	In situ characterization of strain-induced crystallization of natural rubber by synchrotron radiation wide-angle X-ray diffraction: construction of a crystal network at low temperatures. Soft Matter, 2019, 15, 734-743.	2.7	27
45	Deformation mechanism of hard elastic polyethylene film during uniaxial stretching: Effect of stretching speed. Polymer, 2019, 178, 121579.	3.8	23
46	Intramolecular and Intermolecular Packing in Polymer Crystallization. Macromolecules, 2019, 52, 4739-4748.	4.8	33
47	Stretch-induced structural evolution of poly (vinyl alcohol) at different concentrations of boric acid: An in-situ synchrotron radiation small- and wide- angle X-ray scattering study. Polymer Testing, 2019, 77, 105913.	4.8	7
48	Synergistic and Competitive Effects of Temperature and Flow on Crystallization of Polyethylene during Film Blowing. ACS Applied Polymer Materials, 2019, 1, 1590-1603.	4.4	22
49	Strain-induced crystal growth and molecular orientation of poly(isobutylene-isoprene) rubber at low temperatures. Soft Matter, 2019, 15, 4363-4370.	2.7	10
50	The Tough Journey of Polymer Crystallization: Battling with Chain Flexibility and Connectivity. Macromolecules, 2019, 52, 3575-3591.	4.8	147
51	Construction of Hierarchical Fe₃O₄@HKUST-1/MIL-100(Fe) Microparticles with Large Surface Area through Layer-by-Layer Deposition and Epitaxial Growth Methods. Inorganic Chemistry, 2019, 58, 3564-3568.	4.0	32
52	Structural origin for the strain rate dependence of mechanical response of fluoroelastomer F2314. Journal of Polymer Science, Part B: Polymer Physics, 2019, 57, 607-620.	2.1	11
53	Frustrating Strain-Induced Crystallization of Natural Rubber with Biaxial Stretch. ACS Applied Materials & Interfaces, 2019, 11, 47535-47544.	8.0	43
54	The effect of water absorption on stretch-induced crystallization of poly(ethylene terephthalate): An in-situ synchrotron radiation wide angle X-ray scattering study. Polymer, 2019, 162, 91-99.	3.8	28

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55	Common but differentiated flexible MIL-53(Al): role of metal sources in synthetic protocol for tuning the adsorption characteristics. Journal of Materials Science, 2019, 54, 6174-6185.	3.7	14
56	Multiscale characterization of semicrystalline polymeric materials by synchrotron radiation Xâ€ray and neutron scattering. Polymer Crystallization, 2019, 2, 10043.	0.8	17
57	Elucidation of the hierarchical structure of natural eumelanins. Journal of the Royal Society Interface, 2018, 15, 20180045.	3.4	47
58	Characterization of the Slow Molecular Dynamics of Poly(<scp>l</scp>â€Lactic Acid) in Î± and Î±â€² Phases, in a Glassy State, and in a Complex with Poly(<scp>d</scp>â€Lactic Acid) by Solidâ€State NMR. Macromolecular Chemistry and Physics, 2018, 219, 1700451.	2.2	21
59	Green synthesis and evaluation of an iron-based metalâ€“organic framework MIL-88B for efficient decontamination of arsenate from water. Dalton Transactions, 2018, 47, 2222-2231.	3.3	119
60	Retardation behavior of hydration of calcium sulfate hemihydrate (bassanite) induced by sodium trimetaphosphate (STMP). CrystEngComm, 2018, 20, 1662-1668.	2.6	9
61	Stretch-induced structural evolution of poly (vinyl alcohol) film in water at different temperatures: An in-situ synchrotron radiation small- and wide-angle X-ray scattering study. Polymer, 2018, 142, 233-243.	3.8	34
62	Flow-induced density fluctuation assisted nucleation in polyethylene. Journal of Chemical Physics, 2018, 149, 224901.	3.0	24
63	Structural Unit of Polymer Crystallization in Dilute Solution As Studied by Solid-State NMR and ¹³C Isotope Labeling. Macromolecules, 2018, 51, 8729-8737.	4.8	26
64	Stretch-Induced Crystallization and Phase Transitions of Poly(dimethylsiloxane) at Low Temperatures: An in Situ Synchrotron Radiation Wide-Angle X-ray Scattering Study. Macromolecules, 2018, 51, 8424-8434.	4.8	25
65	Origin of gypsum growth habit difference as revealed by molecular conformations of surface-bound citrate and tartrate. CrystEngComm, 2018, 20, 3581-3589.	2.6	11
66	Stoichiometry and Packing Structure of Poly(lactic acid) Stereocomplex as Revealed by Solid-State NMR and ¹³C Isotope Labeling. ACS Macro Letters, 2018, 7, 667-671.	4.8	25
67	Chain Trajectory, Chain Packing, and Molecular Dynamics of Semicrystalline Polymers as Studied by Solid-State NMR. Polymers, 2018, 10, 775.	4.5	7
68	Chain Trajectory of Semicrystalline Polymers as Revealed by 13C-13C Double Quantum NMR. , 2018, , 783-791.		0
69	Intracrystalline Jump Motion in Poly(ethylene oxide) Lamellae of Variable Thickness: A Comparison of NMR Methods. Macromolecules, 2017, 50, 3890-3902.	4.8	28
70	Controllable Modular Growth of Hierarchical MOFâ€onâ€MOF Architectures. Angewandte Chemie - International Edition, 2017, 56, 15658-15662.	13.8	246
71	Solid-State NMR Study of the Chain Trajectory and Crystallization Mechanism of Poly(<scp>l</scp>-lactic acid) in Dilute Solution. Macromolecules, 2017, 50, 6404-6414.	4.8	25
72	Controlling the enthalpyâ€“entropy competition in supramolecular fullerene liquid crystals by tuning the flexible chain length. Chemical Communications, 2017, 53, 8336-8339.	4.1	9

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73	Chain Trajectory of Semicrystalline Polymers as Revealed by 13C-13C Double Quantum NMR. , 2017, , 1-9.		0
74	Hierarchical Structure and Molecular Dynamics of Metal-Organic Framework as Characterized by Solid State NMR. Journal of Chemistry, 2016, 2016, 1-11.	1.9	5
75	A General Method for Growing Twoâ€Dimensional Crystals of Organic Semiconductors by â€œSolution Epitaxyâ€• Angewandte Chemie - International Edition, 2016, 55, 9519-9523.	13.8	153
76	Chain Trajectory of Semicrystalline Polymers As Revealed by Solid-State NMR Spectroscopy. ACS Macro Letters, 2016, 5, 355-358.	4.8	45
77	Isoexergonic Conformations of Surface-Bound Citrate Regulated Bioinspired Apatite Nanocrystal Growth. ACS Applied Materials & Interfaces, 2016, 8, 28116-28123.	8.0	20
78	Unfolding of Isotactic Polypropylene under Uniaxial Stretching. ACS Macro Letters, 2016, 5, 65-68.	4.8	29
79	Helical Jump Motions of Poly(<scp>l</scp>-Lactic Acid) Chains in the Î± Phase As Revealed by Solid-State NMR. Journal of Physical Chemistry B, 2015, 119, 4552-4563.	2.6	29
80	Stabilization of Atactic-Polyacrylonitrile under Nitrogen and Air As Studied by Solid-State NMR. Macromolecules, 2015, 48, 5300-5309.	4.8	57
81	Molecular Structural Basis for Stereocomplex Formation of Polylactide Enantiomers in Dilute Solution. ACS Macro Letters, 2015, 4, 1264-1267.	4.8	32
82	Porous Fe3O4/carbon composite electrode material prepared from metal-organic framework template and effect of temperature on its capacitance. Nano Energy, 2014, 8, 133-140.	16.0	232
83	The strong interaction between poly(vinyl chloride) and a new eco-friendly plasticizer: A combined experiment and calculation study. Polymer, 2014, 55, 2831-2840.	3.8	13
84	Accelerating crystalâ€“crystal transition in poly(1-butene) with two-step crystallization: An in-situ microscopic infrared imaging and microbeam X-ray diffraction study. Polymer, 2013, 54, 3408-3416.	3.8	56
85	Unique Molecular Dynamics of Structural Elements in an Asymmetric Janus Bisamide Supramolecule Characterized by Solid-State NMR. Journal of Physical Chemistry B, 2013, 117, 13698-13709.	2.6	5
86	Conformational Ordering on the Growth Front of Isotactic Polypropylene Spherulite. Macromolecules, 2012, 45, 8674-8680.	4.8	32
87	Stretch-Induced Crystallization through Single Molecular Force Generating Mechanism. Macromolecules, 2011, 44, 5878-5882.	4.8	26
88	Conformational Ordering in Growing Spherulites of Isotactic Polypropylene. Macromolecules, 2010, 43, 9859-9864.	4.8	56