Wei Yu

List of Publications by Year
in descending order

126	3,240	172457	189892
papers	citations	29 h-index	50 g-index

130	130	130	2461
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Isothermal cold crystallization kinetics of polylactide/nucleating agents. Journal of Applied Polymer Science, 2007, 104, 310-317.	2.6	177
2	Long chain branching polylactide: Structures and properties. Polymer, 2010, 51, 5186-5197.	3.8	175
3	A Self-Cross-Linking Supramolecular Polymer Network Enabled by Crown-Ether-Based Molecular Recognition. Journal of the American Chemical Society, 2020, 142, 2051-2058.	13.7	108
4	Phase Behavior and its Viscoelastic Responses of Poly(methyl methacrylate) and Poly(styrene-co-maleic anhydride) Blend Systems. Polymer Bulletin, 2006, 56, 455-466.	3.3	99
5	Modeling of oscillatory shear flow of emulsions under small and large deformation fields. Journal of Rheology, 2002, 46, 1401-1418.	2.6	93
6	Mechanically Interlocked Vitrimers. Journal of the American Chemical Society, 2022, 144, 872-882.	13.7	89
7	Quantitative relationship between rheology and morphology in emulsions. Journal of Rheology, 2002, 46, 1381-1399.	2.6	86
8	Biomimetic Impact Protective Supramolecular Polymeric Materials Enabled by Quadruple H-Bonding. Journal of the American Chemical Society, 2021, 143, 1162-1170.	13.7	85
9	Crystallization behaviors of linear and long chain branched polypropylene. Journal of Applied Polymer Science, 2007, 104, 3592-3600.	2.6	80
10	General stress decomposition in nonlinear oscillatory shear flow. Journal of Rheology, 2009, 53, 215-238.	2.6	77
11	Linear viscoelasticity of polymer blends with co-continuous morphology. Polymer, 2010, 51, 2091-2098.	3.8	76
12	Muscle-Mimetic Synergistic Covalent and Supramolecular Polymers: Phototriggered Formation Leads to Mechanical Performance Boost. Journal of the American Chemical Society, 2021, 143, 902-911.	13.7	71
13	Rheological Characterization of Dropletâ€Matrix versus Coâ€Continuous Morphology. Journal of Macromolecular Science - Physics, 2006, 45, 889-898.	1.0	70
14	Phase separation of poly (methyl methacrylate) / poly (styrene-co-acrylonitrile) blends in the presence of silica nanoparticles. Polymer, 2012, 53, 1772-1782.	3.8	67
15	The preparation and crystallization of long chain branching polylactide made by melt radicals reaction. Journal of Applied Polymer Science, 2013, 129, 1959-1970.	2.6	66
16	Solvents effects in the formation and viscoelasticity of DBS organogels. Soft Matter, 2013, 9, 864-874.	2.7	64
17	Synergistic Covalent and Supramolecular Polymers for Mechanically Robust but Dynamic Materials. Angewandte Chemie - International Edition, 2020, 59, 12139-12146.	13.8	63
18	Crystallization Kinetics of Linear and Longâ€Chain Branched Polypropylene. Journal of Macromolecular Science - Physics, 2006, 45, 969-985.	1.0	57

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19	Mesophase Separation and Rheology of Olefin Multiblock Copolymers. Macromolecules, 2014, 47, 807-820.	4.8	55
20	Mechanically interlocked networks cross-linked by a molecular necklace. Nature Communications, 2022, 13, 1393.	12.8	52
21	Structure and linear viscoelasticity of polymer nanocomposites with agglomerated particles. Polymer, 2016, 98, 190-200.	3.8	51
22	Influence of catalyst on transesterification between poly(lactic acid) andÂpolycarbonate under flow field. Polymer, 2013, 54, 310-319.	3.8	49
23	Effect of flocculated structure on rheology of poly(butylene terephthalate)/clay nanocomposites. Journal of Polymer Science, Part B: Polymer Physics, 2005, 43, 2807-2818.	2.1	47
24	Highly Stretchable and Self-Healing Strain Sensor Based on Gellan Gum Hybrid Hydrogel for Human Motion Monitoring. ACS Applied Polymer Materials, 2020, 2, 1325-1334.	4.4	47
25	Linear and nonlinear viscoelasticity of polymer/silica nanocomposites: an understanding from modulus decomposition. Rheologica Acta, 2016, 55, 37-50.	2.4	33
26	Polymer chain topological map as determined by linear viscoelasticity. Journal of Rheology, 2011, 55, 545-570.	2.6	32
27	Effect of thermally reduced graphite oxide (TrGO) on the polymerization kinetics of poly(butylene) Tj ETQq1 1 0.784314 rgBT /Overlo butylene terephthalate. Polymer, 2013, 54, 1603-1611.	3.8	32
28	A coalescence mechanism for the coarsening behavior of polymer blends during a quiescent annealing process. I. Monodispersed particle system. Journal of Polymer Science, Part B: Polymer Physics, 2000, 38, 2378-2389.	2.1	31
29	Control of the dispersed-to-continuous transition in polymer blends by viscoelastic asymmetry. Polymer, 2018, 134, 254-262.	3.8	31
30	Onset Reduction and Stabilization of Cocontinuous Morphology in Immiscible Polymer Blends by Snowmanlike Janus Nanoparticles. Langmuir, 2018, 34, 11092-11100.	3.5	31
31	Mechanism of Mechanical Reinforcement for Weakly Attractive Nanocomposites in Glassy and Rubbery States. Macromolecules, 2021, 54, 824-834.	4.8	31
32	Viscoelastic and Dielectric Behavior of a Polyisoprene/Poly(4-tert-butyl styrene) Miscible Blend. Macromolecules, 2007, 40, 5389-5399.	4.8	27
33	Control on the topological structure of polyolefin elastomer by reactive processing. Polymer, 2009, 50, 547-552.	3.8	27
34	Simultaneously improved strength and toughness in Î²-carrageenan/polyacrylamide double network hydrogel via synergistic interaction. Carbohydrate Polymers, 2020, 230, 115596.	10.2	27
35	Recyclable ethylene-vinyl acetate copolymer vitrimer foams. Polymer, 2021, 222, 123662.	3.8	27
36	Dynamic rheological properties of wood polymer composites: from linear to nonlinear behaviors. Polymer Bulletin, 2011, 66, 683-701.	3.3	26

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37	Slow Linear Viscoelastic Relaxation of Polymer Nanocomposites: Contribution from Confined Diffusion of Nanoparticles. Macromolecules, 2019, 52, 9094-9104.	4.8	26
38	Role of Chain Dynamics in the Melt Memory Effect of Crystallization. Macromolecules, 2020, 53, 7887-7898.	4.8	25
39	Stress bifurcation in large amplitude oscillatory shear of yield stress fluids. Journal of Rheology, 2018, 62, 89-106.	2.6	24
40	Synthesis and properties of polystyrene-clay nanocomposites viain situ intercalative polymerization. Journal of Applied Polymer Science, 2005, 97, 201-207.	2.6	23
41	A simple constitutive equation for immiscible blends. Journal of Rheology, 2007, 51, 179-194.	2.6	23
42	Dynamic wall slip behavior of yield stress fluids under large amplitude oscillatory shear. Journal of Rheology, 2017, 61, 627-641.	2.6	23
43	Mechanical reinforcement in poly(propylene carbonate) nanocomposites using double percolation networks by dual volume exclusions. Composites Science and Technology, 2018, 167, 364-370.	7.8	23
44	Decoupled Polymer Dynamics in Weakly Attractive Poly(methyl methacrylate)/Silica Nanocomposites. Macromolecules, 2021, 54, 5484-5497.	4.8	23
45	Correlations between local flow mechanism and macroscopic rheology in concentrated suspensions under oscillatory shear. Soft Matter, 2011, 7, 2433.	2.7	22
46	Rheokinetics of the cross-linking of melt polyethylene initiated by peroxide. Polymer Engineering and Science, 2005, 45, 560-567.	3.1	21
47	Liquidâ€“liquid phase separation and its effect on the crystallization in polylactic acid/poly(ethylene glycol) blends. RSC Advances, 2014, 4, 55435-55444.	3.6	21
48	Cluster size distribution of spherical nanoparticles in polymer nanocomposites: rheological quantification and evidence of phase separation. Soft Matter, 2017, 13, 4088-4098.	2.7	21
49	Functionalized Graphene Oxideâ€Reinforced Chitosan Hydrogel as Biomimetic Dressing for Wound Healing. Macromolecular Bioscience, 2021, 21, e2000432.	4.1	21
50	Investigation of Phase Separation in a Partially Miscible Polymer Blend by Rheology. Journal of Macromolecular Science - Physics, 2007, 46, 1051-1062.	1.0	19
51	Bioinspired Anisotropic Chitosan Hybrid Hydrogel. ACS Applied Bio Materials, 2020, 3, 6959-6966.	4.6	19
52	Dynamics of droplet with viscoelastic interface. Soft Matter, 2011, 7, 6337.	2.7	18
53	Three-Dimensional Simulation of the Non-Isothermal Cast Film Process of Polymer Melts. Journal of Polymer Research, 2006, 13, 433-440.	2.4	17
54	Coalescence of droplets in viscoelastic matrix with diffuse interface under simple shear flow. Journal of Polymer Science, Part B: Polymer Physics, 2007, 45, 1856-1869.	2.1	17

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55	Rheological properties of immiscible polymer blends under parallel superposition shear flow. Journal of Polymer Science, Part B: Polymer Physics, 2008, 46, 431-440.	2.1	17
56	Study on the Thermal Degradation Kinetics of Biodegradable Poly(propylene carbonate) during Melt Processing by Population Balance Model and Rheology. Industrial & Engineering Chemistry Research, 2014, 53, 18411-18419.	3.7	17
57	Contribution of the Initially Entangled State and Particle Size to the Sintering Kinetics of UHMWPE. Macromolecules, 2022, 55, 1310-1320.	4.8	17
58	Determination of interfacial tension by the retraction method of highly deformed drop. Rheologica Acta, 2004, 43, 342.	2.4	16
59	A geometric average interpretation on the nonlinear oscillatory shear. Journal of Rheology, 2013, 57, 1147-1175.	2.6	16
60	Nonlinear rheological behavior of multiblock copolymers under large amplitude oscillatory shear. Journal of Rheology, 2016, 60, 1161-1179.	2.6	16
61	Rheology and relaxation processes in a melting thermotropic liquidâ€“crystalline polymer. Journal of Applied Polymer Science, 2007, 104, 3780-3787.	2.6	15
62	Isothermal Crystallization Kinetics of Highly Filled Wood Plastic Composites: Effect of Wood Particles Content and Compatibilizer. Journal of Macromolecular Science - Physics, 2011, 50, 2271-2289.	1.0	15
63	Rheology of miscible polymer blends with viscoelastic asymmetry and concentration fluctuation. Polymer, 2012, 53, 881-890.	3.8	15
64	A coalescence mechanism for the coarsening behavior of polymer blends during a quiescent annealing process. II. Polydispersed particle system. Journal of Polymer Science, Part B: Polymer Physics, 2000, 38, 2390-2399.	2.1	14
65	Stability of flow-induced precursors in poly-1-butene and copolymer of 1-butene and ethylene. Journal of Rheology, 2018, 62, 725-737.	2.6	14
66	The formation of Î³â€crystal in longâ€chain branched polypropylene under supercritical carbon dioxide. Journal of Polymer Science, Part B: Polymer Physics, 2008, 46, 441-451.	2.1	13
67	Entropicallyâ€driven ringâ€opening polymerization of cyclic butylene terephthalate: Rheology and kinetics. Polymer Engineering and Science, 2012, 52, 91-101.	3.1	13
68	Influence of Phase Separation on Performance of Graft Acrylic Pressure-Sensitive Adhesives with Various Copolyester Side Chains. ACS Omega, 2018, 3, 6945-6954.	3.5	13
69	Molecular Dynamics of Azobenzene Polymer with Photoreversible Glass Transition. Macromolecules, 2022, 55, 3711-3722.	4.8	13
70	Decoupling hydrodynamic and entanglement effects on the modulus reinforcement of grafted silica filled nanocomposites through Thermal and rheological features. Polymer, 2021, 213, 123323.	3.8	12
71	Weak Shear-Induced Slowdown in Crystallization of Less-Entangled Poly(Îµ-caprolactone). Macromolecules, 2021, 54, 3347-3357.	4.8	12
72	Shear-induced breakdown and agglomeration in nanoparticles filled polymer: The shift of phase boundary and kinetics. Journal of Rheology, 2021, 65, 291-309.	2.6	12

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73	Dynamic rheology of the immiscible blends of liquid crystalline polymers and flexible chain polymers. Rheologica Acta, 2005, 45, 105-115.	2.4	11
74	Shear induced phase inversion of dilute smectic liquid crystal/polymer blends. Soft Matter, 2012, 8, 2992.	2.7	11
75	Rheology of concentrated blends with immiscible components. Journal of Polymer Science, Part B: Polymer Physics, 2005, 43, 2534-2540.	2.1	10
76	Modeling of flowâ€induced crystallization in blends of isotactic polypropylene and poly(ethyleneâ€coâ€octene). Polymer International, 2012, 61, 1389-1393.	3.1	10
77	Agglomeration of Crystals during Crystallization of Semicrystalline Polymers: A Suspension-Based Rheological Study. Macromolecules, 2019, 52, 1042-1054.	4.8	10
78	Horizontal extensional rheometry (HER) for low viscosity polymer melts. Journal of Rheology, 2020, 64, 177-190.	2.6	10
79	Synergistic Covalent and Supramolecular Polymers for Mechanically Robust but Dynamic Materials. Angewandte Chemie, 2020, 132, 12237-12244.	2.0	10
80	Dynamic interfacial properties between a flexible-chain polymer and a thermotropic liquid crystalline polymer investigated by an ellipsoidal drop retraction method. Journal of Applied Polymer Science, 2004, 94, 1404-1410.	2.6	9
81	Comparison of Various Solvents for Poly(Phenylene Sulfide) Microporous Membrane Preparation via Thermally Induced Phase Separation. Journal of Macromolecular Science - Physics, 2014, 53, 1477-1496.	1.0	9
82	Non-isothermal crystallization behavior of dynamically vulcanized long chain branched polypropylene/ethylene-propylene-diene monomer blends. Journal of Polymer Research, 2015, 22, 1.	2.4	9
83	Wall effect on the rheology of short-fiber suspensions under shear. Journal of Rheology, 2021, 65, 1169-1185.	2.6	9
84	Selectivity of shear rate on chains in polymer combination reaction. Journal of Applied Polymer Science, 2006, 100, 839-842.	2.6	8
85	Liquidâ€“solid transition in mesophase separated olefin multiblock copolymers during crystallization. RSC Advances, 2015, 5, 40607-40619.	3.6	8
86	Elongational rheology of glass fiber-filled polymer composites. Rheologica Acta, 2016, 55, 833-845.	2.4	8
87	Correlation between linear and nonlinear material functions under large amplitude oscillatory shear. Physics of Fluids, 2020, 32, .	4.0	8
88	Nonequilibrium Structure Diagram of Pendular Suspensions under Large-Amplitude Oscillatory Shear. Langmuir, 2021, 37, 6208-6218.	3.5	8
89	Vitrimer bead foams: Cell density control by cell splitting in weld-compression molding. Polymer, 2021, 232, 124159.	3.8	8
90	A biomimetic skin-like sensor with multiple sensory capabilities based on hybrid ionogel. Sensors and Actuators A: Physical, 2021, 330, 112855.	4.1	8

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91	The effect of interfacial viscosity on the droplet dynamics under flow field. Journal of Polymer Science, Part B: Polymer Physics, 2008, 46, 1505-1514.	2.1	7
92	Studies on the melt spinning process of noncircular fiber by numerical and experimental methods. Polymer Engineering and Science, 2010, 50, 1935-1944.	3.1	7
93	Effects of vibration blending on the subsequent crystallization behavior of polycarbonate/polypropylene blends. Journal of Applied Polymer Science, 2002, 85, 92-103.	2.6	6
94	Three dimensional simulation of viscoelastic polymer melts flow in a cast film process. Fibers and Polymers, 2007, 8, 50-59.	2.1	6
95	Quick Profile Die Balancing of Automotive Rubber Seal Extrusion by CAE Technology. Journal of Macromolecular Science - Pure and Applied Chemistry, 2008, 45, 1028-1036.	2.2	6
96	Liquid-to-solid transition of concentrated suspensions under complex transient shear histories. Physical Review E, 2009, 80, 061404.	2.1	6
97	Simultaneous Slowdown of Segmental and Terminal Relaxation of Both Components in Dynamically Asymmetric Poly(Îµ-caprolactone)/Poly(styrene-co-acrylonitrile) Blends. Macromolecules, 2018, 51, 7338-7349.	4.8	6
98	Selfâ€Contained Focusâ€Tunable Lenses Based on Transparent and Conductive Gels. Macromolecular Materials and Engineering, 2020, 305, 2000393.	3.6	6
99	Modeling of nonlinear extensional and shear rheology of lowâ€viscosity polymer melts. Polymer Engineering and Science, 2021, 61, 1077-1086.	3.1	6
100	Component Chain Dynamics in a Miscible Blend of Low-M Poly(p-t-butyl styrene) and Polyisoprene. Nihon Reoroji Gakkaishi, 2008, 36, 35-42.	1.0	6
101	Dynamics and rheology of immiscible polymer-liquid-crystal systems. Journal of Chemical Physics, 2005, 123, 014906.	3.0	5
102	Computerâ€Aided Optimization of the Extrusion Process of Automobile Rubber Seal. Journal of Macromolecular Science - Pure and Applied Chemistry, 2007, 44, 509-516.	2.2	5
103	Thermal oxidation of metallocene-catalyzed poly(ethylene octene) by a rheological method. Journal of Applied Polymer Science, 2007, 105, 846-852.	2.6	5
104	Key factors in mechanical reinforcement by double percolation network: Particle migration and shear stability of filler network. Polymer, 2019, 182, 121820.	3.8	5
105	Symmetry breakdown in the sol-gel transition of a Guar gum transient physical network. Carbohydrate Polymers, 2021, 258, 117689.	10.2	5
106	Stretchable Poly[2]rotaxane Elastomers. Fundamental Research, 2022, , .	3.3	5
107	Numerical Simulation of the Melt Spinning Process of Noncircular Fibers Incorporating Surface Tension. Journal of Macromolecular Science - Physics, 2006, 45, 1099-1108.	1.0	4
108	A Rheological Model for the Interface of Immiscible Polymer Melt in Blending Process. Canadian Journal of Chemical Engineering, 2003, 81, 1067-1074.	1.7	4

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109	Two dimensional mechanical correlation analysis on nonlinear oscillatory shear flow of yield stress fluids. Korea Australia Rheology Journal, 2016, 28, 175-180.	1.7	4
110	Strain accelerated mesophase separation during nonlinear stress relaxation of olefin multiblock copolymer. Polymer, 2017, 115, 232-238.	3.8	4
111	Abnormal crystallization behavior of high impact polypropylene under shear. Polymer, 2018, 136, 17-26.	3.8	4
112	Shear-induced crystallization of olefin multiblock copolymers: Role of mesophase separation and hard-block content. Polymer, 2020, 198, 122535.	3.8	4
113	Characteristic Rheological Behaviors in Startup Shear of Entangled Polymer Melts. Nihon Reoroji Gakkaishi, 2021, 49, 1-5.	1.0	4
114	An orientation-stretch coupled model for entangled comb polymers. Journal of Rheology, 2021, 65, 113-128.	2.6	4
115	A New Solid-like State for Liquid/Liquid/Particle Mixtures with Bicontinuous Morphology of Concentrated Emulsion and Concentrated Suspension. Langmuir, 2019, 35, 9529-9537.	3.5	3
116	Viscoelastic characterization of compatibilized polymer blends. , 2020, , 435-452.		3
117	Linear and nonlinear rheology of oil in liquid crystal emulsions. Rheologica Acta, 2020, 59, 783-795.	2.4	3
118	On-demand Direct Design of Polymeric Thermal Actuator by Machine Learning Algorithm. Chinese Journal of Polymer Science (English Edition), 2020, 38, 908-914.	3.8	3
119	Molecular constitutive equation for unentangled branch copolymers. Rheologica Acta, 2021, 60, 439-455.	2.4	3
120	A coalescence mechanism for the coarsening behavior of polymer blends during a quiescent annealing process. I. Monodispersed particle system. Journal of Polymer Science, Part B: Polymer Physics, 2000, 38, 2378-2389.	2.1	2
121	Adsorption-desorption effect on physical aging in PMMA-silica nanocomposites. Polymer, 2022, 255, 125124.	3.8	1
122	Dynamic interfacial tension between a thermotropic liquid-crystalline polymer and a flexible polymer. Journal of Applied Polymer Science, 2006, 101, 3114-3120.	2.6	0
123	Morphology and Rheology of Polymerâˆ•Liquid Crystal Blends. AIP Conference Proceedings, 2008, , .	0.4	0
124	Abnormal rotation of a deformed liquid crystal droplet immersed in an isotropic fluid after transient flow. Rheologica Acta, 2011, 50, 601-611.	2.4	0
125	Selectivity of shear flow on chains for the degradation reaction of melt polyolefin elastomer with dicumyl peroxide. Colloid and Polymer Science, 2014, 292, 3261-3269.	2.1	0
126	Dielectric Relaxation of Type-A Rouse Chains Undergoing Reversible End-Adsorption and Desorption. Nihon Reoroji Gakkaishi, 2020, 48, 27-35.	1.0	0