Yijing Nie

List of Publications by Year
in descending order

82 papers	2,116 citations	236833 25 h-index	265120 42 g-index
83 all docs	83 docs citations	83 times ranked	1569 citing authors

#	Article	IF	Citations
1	Strain-induced crystallization of natural rubber/zinc dimethacrylate composites studied using synchrotron X-ray diffraction and molecular simulation. Journal of Polymer Research, 2015, 22, 1.	1.2	147
2	Cure kinetics and morphology of natural rubber reinforced by the <i>in situ</i> polymerization of zinc dimethacrylate. Journal of Applied Polymer Science, 2010, 115, 99-106.	1.3	115
3	An eco-friendly molecularly imprinted fluorescence composite material based on carbon dots for fluorescent detection of 4-nitrophenol. Mikrochimica Acta, 2016, 183, 2197-2203.	2.5	110
4	Competition of crystal nucleation to fabricate the oriented semi-crystalline polymers. Polymer, 2013, 54, 3402-3407.	1.8	100
5	New insights into thermodynamic description of strain-induced crystallization of peroxide cross-linked natural rubber filled with clay by tube model. Polymer, 2011, 52, 3234-3242.	1.8	75
6	Large-Scale Orientation in a Vulcanized Stretched Natural Rubber Network: Proved by In Situ Synchrotron X-ray Diffraction Characterization. Journal of Physical Chemistry B, 2010, 114, 7179-7188.	1.2	65
7	Shish-Kebab Crystallites Initiated by Shear Fracture in Bulk Polymers. Macromolecules, 2018, 51, 480-487.	2.2	65
8	Design of Self-Healing Rubber by Introducing Ionic Interaction To Construct a Network Composed of Ionic and Covalent Cross-Linking. Industrial & Engineering Chemistry Research, 2019, 58, 14848-14858.	1.8	65
9	Synergistic reinforcement of nanoclay and carbon black in natural rubber. Polymer International, 2010, 59, 1397-1402.	1.6	60
10	Features of strain-induced crystallization of natural rubber revealed by experiments and simulations. Polymer Journal, 2017, 49, 309-317.	1.3	59
11	Variable trends of chain-folding in separate stages of strain-induced crystallization of bulk polymers. Polymer, 2014, 55, 1267-1272.	1.8	56
12	Surface modification and ratiometric fluorescence dual function enhancement for visual and fluorescent detection of glucose based on dual-emission quantum dots hybrid. Sensors and Actuators B: Chemical, 2016, 230, 70-76.	4.0	56
13	Remarkable reinforcement of natural rubber by deformation-induced crystallization in the presence of organophilic montmorillonite. Acta Materialia, 2009, 57, 5053-5060.	3.8	48
14	Thermodynamics of strain-induced crystallization of random copolymers. Soft Matter, 2014, 10, 343-347.	1.2	46
15	Nucleation details of nanohybrid shish-kebabs in polymer solutions studied by molecular simulations. Polymer, 2015, 76, 1-7.	1.8	46
16	Dynamic Monte Carlo simulations of effects of nanoparticle on polymer crystallization in polymer solutions. Computational Materials Science, 2018, 147, 217-226.	1.4	44
17	Using Two-Dimensional Correlation Dynamic Mechanical Spectroscopy to Detect Different Modes of Molecular Motions in the Glassâˆ’Rubber Transition Region in Polyisobutylene. Journal of Physical Chemistry B, 2011, 115, 1775-1779.	1.2	31
18	Crack initiation and evolution in vulcanized natural rubber under high temperature fatigue. Polymer Degradation and Stability, 2011, 96, 2221-2228.	2.7	31

#	Article	IF	Citations
19	Molecular simulations of crystallization behaviors of polymers grafted on two-dimensional filler. Polymer, 2016, 100, 10-18.	1.8	31
20	Relaxation and Crystallization of Oriented Polymer Melts with Anisotropic Filler Networks. Journal of Physical Chemistry B, 2017, 121, 1426-1437.	1.2	30
21	Molecular simulations of microscopic mechanism of the effects of chain length on stereocomplex formation in polymer blends. Computational Materials Science, 2020, 172, 109297.	1.4	30
22	Controllability of Polymer Crystal Orientation Using Heterogeneous Nucleation of Deformed Polymer Loops Grafted on Two-Dimensional Nanofiller. Journal of Physical Chemistry B, 2017, 121, 6685-6690.	1.2	29
23	Examining the effect of hydroxyl groups on the thermal properties of polybenzoxazines: using molecular design and Monte Carlo simulation. RSC Advances, 2018, 8, 18038-18050.	1.7	28
24	Self-healing Polyurethane Elastomer Based on Molecular Design: Combination of Reversible Hydrogen Bonds and High Segment Mobility. Journal of Inorganic and Organometallic Polymers and Materials, 2021, 31, 683-694.	1.9	28
25	Improved resistance to crack growth of natural rubber by the inclusion of nanoclay. Polymers for Advanced Technologies, 2012, 23, 85-91.	1.6	26
26	Molecular motions in glass-rubber transition region in polyisobutylene investigated by two-dimensional correlation dielectric relaxation spectroscopy. Applied Physics Letters, 2011, 99, .	1.5	25
27	Intrinsic correlations between dynamic heterogeneity and conformational transition in polymers during glass transition. Journal of Chemical Physics, 2014, 141, 074901.	1.2	25
28	Polymer Nanocomposites: Role of modified filler content and interfacial interaction on crystallization. European Polymer Journal, 2022, 162, 110894.	2.6	25
29	Effect of the polymer-substrate interactions on crystal nucleation of polymers grafted on a flat solid substrate as studied by molecular simulations. Polymer, 2017, 123, 169-178.	1.8	24
30	Molecular dynamics simulations of nucleation details in stretched polyethylene. Polymer, 2020, 195, 122442.	1.8	24
31	Effect of comonomer sizes on the strain-induced crystal nucleation of random copolymers. European Polymer Journal, 2016, 81, 34-42.	2.6	22
32	Dynamic Monte Carlo simulations of competition in crystallization of mixed polymers grafted on a substrate. Journal of Polymer Science, Part B: Polymer Physics, 2019, 57, 89-97.	2.4	21
33	Dynamic crossover of the sub-Rouse modes in the glassâ€"rubber transition region in poly(n-alkyl) Tj ETQq1 1 0.784314 rgBT /Overlock	1.2	20
34	Monte Carlo simulations of stereocomplex formation in multiblock copolymers. Physical Chemistry Chemical Physics, 2019, 21, 13296-13303.	1.3	20
35	Blocked crystallization in capped ultrathin polymer films studied by molecular simulations. Polymer International, 2019, 68, 218-224.	1.6	19
36	Polymer crystal nucleation with confinement-enhanced orientation dominating the formation of nanohybrid shish-kebabs with multiple shish. RSC Advances, 2016, 6, 50451-50459.	1.7	18

#	Article	IF	Citations
37	Stereocomplex formation in mixed polymers filled with two-dimensional nanofillers. Physical Chemistry Chemical Physics, 2019, 21, 6443-6452.	1.3	18
38	Improved electrochemical and mechanical performance of epoxy-based electrolytes doped with mesoporous TiO2. Materials Chemistry and Physics, 2018, 205, 23-28.	2.0	17
39	One-dimensional nanofiller induced crystallization in random copolymers studied by dynamic Monte Carlo simulations. Molecular Simulation, 2020, 46, 669-677.	0.9	17
40	Preparation and properties study of waterborne polyurethane synthesized by mixing polyester diols and isocyanates. Journal of Applied Polymer Science, 2020, 137, 49314.	1.3	17
41	The effect of molecular weight of polymers grafted in two-dimensional filler on crystallization behaviors studied by dynamic Monte Carlo simulations. Computational Materials Science, 2018, 155, 144-150.	1.4	16
42	Formation mechanism of reverse kebab structure inside hollow nanotubes studied by molecular simulations. Computational Materials Science, 2018, 153, 348-355.	1.4	16
43	Molecular simulation of crystallization of polymers confined in cylindrical nanodomain. Polymer, 2020, 206, 122818.	1.8	16
44	Strainâ€induced crystallization behavior of polychloroprene rubber. Journal of Applied Polymer Science, 2011, 121, 37-42.	1.3	15
45	Study on the selfâ€crosslinking behavior based on polychloroprene rubber and epoxidized natural rubber. Journal of Applied Polymer Science, 2012, 125, 1084-1090.	1.3	15
46	Effect of interface on bulk polymer: control of glass transition temperature of rubber. Journal of Polymer Research, 2018, 25, 1.	1.2	15
47	Correlation between molecular weight and confined crystallization behavior of polymers grafted onto a zero-dimensional filler. CrystEngComm, 2020, 22, 1779-1788.	1.3	15
48	Blending polar rubber with polyurethane to construct self-healing rubber with multiple hydrogen bond networks. Polymer, 2022, 246, 124768.	1.8	15
49	Epitaxial orientation and localized microphase separation prior to formation of nanohybrid shish-kebabs induced by one-dimensional nanofiller in miscible diblock copolymers with selective interaction. Polymer, 2019, 166, 72-80.	1.8	14
50	Insights into the Crystallization of Polymer Nanocomposite Systems Blended with Grafted and Free Chains Studied by Molecular Simulation. Crystal Growth and Design, 2021, 21, 2243-2254.	1.4	14
51	Strainâ€induced crystallization behavior of natural rubber and transâ€1,4â€polyisoprene crosslinked blends. Journal of Applied Polymer Science, 2011, 120, 1346-1354.	1.3	13
52	The Distribution of Glass Transition Temperatures in Ultrathin Polymer Films Controlled by Segment Density or Interfacial Interaction. Macromolecular Theory and Simulations, 2016, 25, 187-195.	0.6	13
53	Structural characteristics of a cooperatively rearranging region during the glass transition of a polymer system. RSC Advances, 2015, 5, 17726-17731.	1.7	12
54	Segmental dynamics in interfacial region of composite materials. Monatshefte FÃ¼r Chemie, 2017, 148, 1285-1293.	0.9	12

#	Article	IF	Citations
55	The influences of grafting density and polymerâ€“nanoparticle interaction on crystallisation of polymer composites. Molecular Simulation, 2020, 46, 678-688.	0.9	12
56	Molecular simulation of polymer crystallization under chain and space confinement. Physical Chemistry Chemical Physics, 2021, 23, 17382-17391.	1.3	12
57	Relationship between the material properties and fatigue crackâ€growth characteristics of natural rubber filled with different carbon blacks. Journal of Applied Polymer Science, 2010, 117, 3441-3447.	1.3	11
58	Structural evolution during uniaxial deformation of natural rubber reinforced with nanoâ€alumina. Polymers for Advanced Technologies, 2011, 22, 2001-2008.	1.6	10
59	The influence of montmorillonite on the antiâ€reversion in the rubberâ€“clay composites. Journal of Applied Polymer Science, 2010, 118, 306-311.	1.3	9
60	The Effect of Grafting Density on the Crystallization Behaviors of Polymer Chains Grafted onto One-Dimensional Nanorod. Advances in Polymer Technology, 2019, 2019, 1-10.	0.8	9
61	Reinforcement and Toughening of Rubber by Bridging Graphene and Nanosilica. Journal of Inorganic and Organometallic Polymers and Materials, 2020, 30, 337-348.	1.9	9
62	Ethylene glycol assisted self-template conversion approach to synthesize hollow NiS microspheres for a high performance all-solid-state supercapacitor. Materials Chemistry Frontiers, 2022, 6, 203-212.	3.2	9
63	Intermediate state and weak intermolecular interactions of Î±-trans-1,4-Polyisoprene during the gradual cooling crystallization process investigated by In situ FTIR and two-dimensional infrared correlation spectroscopy. Macromolecular Research, 2013, 21, 493-501.	1.0	8
64	Competition Between Interfacial Interaction and Microphase Separation in Crystallization of Filled Block Copolymers. Journal of Polymer Science, Part B: Polymer Physics, 2019, 57, 1516-1526.	2.4	8
65	Precursor formation and crystal nucleation in stretched polyethylene/carbon nanotube nanocomposites. Polymer, 2022, 239, 124438.	1.8	8
66	Improved mechanical properties and special reinforcement mechanism of natural rubber reinforced by <i>in situ</i> polymerization of zinc dimethacrylate. Journal of Applied Polymer Science, 2010, 116, 920-928.	1.3	7
67	Natural rubber with low heat generation achieved by the inclusion of boron carbide. Journal of Applied Polymer Science, 2010, 118, 2050-2055.	1.3	7
68	Thermodynamic Description of Strain-Induced Crystallization of Natural Rubber by a Combination of the Tube Model and a Scaling Argument. Journal of Macromolecular Science - Physics, 2015, 54, 492-506.	0.4	7
69	Homogenization of natural rubber network induced by nanoclay. Journal of Applied Polymer Science, 2014, 131, .	1.3	6
70	Comparative Study on Dynamical Heterogeneity of Ring and Linear Polymers. Macromolecular Theory and Simulations, 2016, 25, 9-15.	0.6	6
71	The effect of grafting density on the crystallization behavior of oneâ€dimensional confined polymers. Journal of Applied Polymer Science, 2021, 138, 50064.	1.3	6
72	Studying the effects of carbon nanotube contents on stretch-induced crystallization behavior of polyethylene/carbon nanotube nanocomposites using molecular dynamics simulations. Physical Chemistry Chemical Physics, 2022, 24, 16021-16030.	1.3	6

#	Article	IF	Citations
73	The orientational orders of poly(Î²-phenethyl l-aspartate) in two opposite Î±-helical form: a molecular dynamic simulation. Monatshefte FÃ¼r Chemie, 2017, 148, 1251-1258.	0.9	5
74	Preparation of a novel magnetic and thermo-responsive composite and its application in drug release. Monatshefte FÃ¼r Chemie, 2017, 148, 1205-1213.	0.9	4
75	Molecular simulations of fragility of linear and ring polymers. Computational Materials Science, 2018, 142, 200-205.	1.4	4
76	Preparation of Epoxidized Natural Rubbers with Improved Aging Resistance by Covalently Bridging Graphene and Antioxidants. Journal of Inorganic and Organometallic Polymers and Materials, 2020, 30, 1553-1565.	1.9	4
77	Stretching-induced nucleation and crystallization of cyclic polyethylene: Insights from molecular dynamics simulation. European Polymer Journal, 2022, 173, 111232.	2.6	4
78	Dynamic Fatigue Behavior of Natural Rubber Reinforced with Nanoclay and Carbon Black. Journal of Macromolecular Science - Physics, 2011, 50, 1646-1657.	0.4	3
79	Crack initiation of natural rubber under high temperature fatigue loading. Journal of Applied Polymer Science, 2012, 124, 4274-4280.	1.3	3
80	Simulations on polymer nanocomposite crystallization. Polymer Crystallization, 2021, 4, e10214.	0.5	3
81	Theoretical Methods of the Size Distribution Function for the Products of Hyperbranched Polymerization. Macromolecular Theory and Simulations, 2021, 30, 2000039.	0.6	2
82	Molecular dynamics simulation on the crystallization behavior of cyclic polyethylene affected by functionalized carbon nanotubes. Journal of Applied Polymer Science, 0, , .	1.3	0