Kunpeng Cui

List of Publications by Year
in descending order

49	2,115	186265 28	233421 45
papers	citations	h-index	g-index

50	50	50	1662
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Multiscale and Multistep Ordering of Flow-Induced Nucleation of Polymers. Chemical Reviews, 2018, 118, 1840-1886.	47.7	212
2	Stretch-Induced Crystalâ€“Crystal Transition of Polybutene-1: An in Situ Synchrotron Radiation Wide-Angle X-ray Scattering Study. Macromolecules, 2012, 45, 2764-2772.	4.8	137
3	Multiscale Energy Dissipation Mechanism in Tough and Self-Healing Hydrogels. Physical Review Letters, 2018, 121, 185501.	7.8	104
4	Bulk Energy Dissipation Mechanism for the Fracture of Tough and Self-Healing Hydrogels. Macromolecules, 2017, 50, 2923-2931.	4.8	102
5	Mesoscale bicontinuous networks in self-healing hydrogels delay fatigue fracture. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 7606-7612.	7.1	86
6	Correlation between Flow-Induced Nucleation Morphologies and Strain in Polyethylene: From Uncorrelated Oriented Point-Nuclei, Scaffold-Network, and Microshish to Shish. Macromolecules, 2013, 46, 3435-3443.	4.8	77
7	Hydrogels as dynamic memory with forgetting ability. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 18962-18968.	7.1	76
8	Extension-Induced Nucleation under Near-Equilibrium Conditions: The Mechanism on the Transition from Point Nucleus to Shish. Macromolecules, 2014, 47, 6813-6823.	4.8	75
9	Self-Acceleration of Nucleation and Formation of Shish in Extension-Induced Crystallization with Strain Beyond Fracture. Macromolecules, 2012, 45, 5477-5486.	4.8	71
10	Facile synthesis of novel elastomers with tunable dynamics for toughness, self-healing and adhesion. Journal of Materials Chemistry A, 2019, 7, 17334-17344.	10.3	70
11	Supertough Lignin Hydrogels with Multienergy Dissipative Structures and Ultrahigh Antioxidative Activities. ACS Applied Materials & Interfaces, 2020, 12, 39892-39901.	8.0	66
12	Nonequilibrium Nature of Flow-Induced Nucleation in Isotactic Polypropylene. Macromolecules, 2015, 48, 694-699.	4.8	63
13	Kinetic Process of Shish Formation: From Stretched Network to Stabilized Nuclei. Macromolecules, 2015, 48, 5276-5285.	4.8	58
14	Extension Flow Induced Crystallization of Poly(ethylene oxide). Macromolecules, 2011, 44, 7704-7712.	4.8	57
15	Phase Separation Behavior in Tough and Self-Healing Polyampholyte Hydrogels. Macromolecules, 2020, 53, 5116-5126.	4.8	49
16	Stretching-induced ion complexation in physical polyampholyte hydrogels. Soft Matter, 2016, 12, 8833-8840.	2.7	47
17	The non-equilibrium phase diagrams of flow-induced crystallization and melting of polyethylene. Scientific Reports, 2016, 6, 32968.	3.3	47
18	Tough and Selfâ€Recoverable Thin Hydrogel Membranes for Biological Applications. Advanced Functional Materials, 2018, 28, 1801489.	14.9	47

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19	Flow-Induced Precursors of Isotactic Polypropylene: An in Situ Time and Space Resolved Study with Synchrotron Radiation Scanning X-ray Microdiffraction. Macromolecules, 2014, 47, 4408-4416.	4.8	46
20	Mixing Assisted Direct Formation of Isotactic Poly(1-butene) Form Iâ€² Crystals from Blend Melt of Isotactic Poly(1-butene)/Polypropylene. Macromolecules, 2016, 49, 1761-1769.	4.8	46
21	Extensional rheometer for in situ x-ray scattering study on flow-induced crystallization of polymer. Review of Scientific Instruments, 2011, 82, 045104.	1.3	42
22	Effect of Structure Heterogeneity on Mechanical Performance of Physical Polyampholytes Hydrogels. Macromolecules, 2019, 52, 7369-7378.	4.8	42
23	Investigation on the recovery performance of olefin block copolymer/hexadecane form stable phase change materials with shape memory properties. Solar Energy Materials and Solar Cells, 2015, 132, 632-639.	6.2	41
24	Aggregated structures and their functionalities in hydrogels. Aggregate, 2021, 2, e33.	9.9	39
25	Extension-Induced Crystallization of Poly(ethylene oxide) Bidisperse Blends: An Entanglement Network Perspective. Macromolecules, 2014, 47, 677-686.	4.8	38
26	Multimorphological Crystallization of Shish-Kebab Structures in Isotactic Polypropylene: Quantitative Modeling of Parentâ€“Daughter Crystallization Kinetics. Macromolecules, 2014, 47, 5152-5162.	4.8	38
27	Effect of mesoscale phase contrast on fatigue-delaying behavior of self-healing hydrogels. Science Advances, 2021, 7, .	10.3	37
28	Stress Relaxation and Underlying Structure Evolution in Tough and Self-Healing Hydrogels. ACS Macro Letters, 2020, 9, 1582-1589.	4.8	31
29	A simple constrained uniaxial tensile apparatus for in situ investigation of film stretching processing. Review of Scientific Instruments, 2013, 84, 115104.	1.3	28
30	Tough Hydrogels with Dynamic H-Bonds: Structural Heterogeneities and Mechanical Performances. Macromolecules, 0, , .	4.8	23
31	Molecular mechanism of abnormally large nonsoftening deformation in a tough hydrogel. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	21
32	Molecular mechanism leading to memory effect of mesomorphic isotactic polypropylene. Journal of Polymer Science, Part B: Polymer Physics, 2016, 54, 1573-1580.	2.1	19
33	A novel apparatus combining polymer extrusion processing and x-ray scattering. Polymer Testing, 2014, 33, 40-47.	4.8	17
34	Constrained and free uniaxial stretching induced crystallization of polyethylene film: A comparative study. Polymer Testing, 2014, 36, 110-118.	4.8	17
35	The thermodynamic properties of flow-induced precursor of polyethylene. Science China Chemistry, 2015, 58, 1570-1578.	8.2	16
36	Structure Frustration Enables Thermal History-Dependent Responsive Behavior in Self-Healing Hydrogels. Macromolecules, 2021, 54, 9927-9936.	4.8	16

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37	Disentanglement decelerating flow-induced nucleation. Polymer, 2013, 54, 942-947.	3.8	12
38	Tough, self-recovery and self-healing polyampholyte hydrogels. Polymer Science - Series C, 2017, 59, 11-17.	1.7	12
39	Relaxation Dynamics and Underlying Mechanism of a Thermally Reversible Gel from Symmetric Triblock Copolymer. Macromolecules, 2019, 52, 8651-8661.	4.8	12
40	Constitutive modeling of bond breaking and healing kinetics of physical Polyampholyte (PA) gel. Extreme Mechanics Letters, 2021, 43, 101184.	4.1	12
41	Polymer crystallization under external flow. Reports on Progress in Physics, 2022, 85, 036601.	20.1	12
42	Relaxation propelled long period change in the extension induced crystallization of polyethylene oxide. Soft Matter, 2013, 9, 10759.	2.7	9
43	A small-angle x-ray scattering system with a vertical layout. Review of Scientific Instruments, 2014, 85, 125110.	1.3	9
44	Confined crystallization in end-linked PEO network under uniaxial extension. Polymer, 2013, 54, 7088-7093.	3.8	8
45	High-Fidelity Hydrogel Thin Films Processed from Deep Eutectic Solvents. ACS Applied Materials & Interfaces, 2020, 12, 43191-43200.	8.0	8
46	Lamellar Bilayer to Fibril Structure Transformation of Tough Photonic Hydrogel under Elongation. Macromolecules, 2020, 53, 4711-4721.	4.8	7
47	Constitutive modeling of strain-dependent bond breaking and healing kinetics of chemical polyampholyte (PA) gel. Soft Matter, 2021, 17, 4161-4169.	2.7	6
48	Tough and Self-Healing Hydrogels from Polyampholytes. Advances in Polymer Science, 2020, , 295-317.	0.8	4
49	A New Three-Dimensional (3D) Multilayer Organic Material: Synthesis, Swelling, Exfoliation, and Application. Langmuir, 2013, 29, 3813-3820.	3.5	3