

# Kunpeng Cui

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

48  
papers

1,505  
citations

25  
h-index

38  
g-index

50  
ext. papers

1,817  
ext. citations

7.6  
avg, IF

4.77  
L-index

#	Paper	IF	Citations
48	Molecular mechanism of abnormally large nonsoftening deformation in a tough hydrogel. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2021</b> , 118,	11.5	10
47	Effect of mesoscale phase contrast on fatigue-delaying behavior of self-healing hydrogels. <i>Science Advances</i> , <b>2021</b> , 7,	14.3	16
46	Constitutive modeling of strain-dependent bond breaking and healing kinetics of chemical polyampholyte (PA) gel. <i>Soft Matter</i> , <b>2021</b> , 17, 4161-4169	3.6	2
45	Constitutive modeling of bond breaking and healing kinetics of physical Polyampholyte (PA) gel. <i>Extreme Mechanics Letters</i> , <b>2021</b> , 43, 101184	3.9	5
44	Aggregated structures and their functionalities in hydrogels. <i>Aggregate</i> , <b>2021</b> , 2, e33	22.9	15
43	Lamellar Bilayer to Fibril Structure Transformation of Tough Photonic Hydrogel under Elongation. <i>Macromolecules</i> , <b>2020</b> , 53, 4711-4721	5.5	4
42	Mesoscale bicontinuous networks in self-healing hydrogels delay fatigue fracture. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2020</b> , 117, 7606-7612	11.5	48
41	Phase Separation Behavior in Tough and Self-Healing Polyampholyte Hydrogels. <i>Macromolecules</i> , <b>2020</b> , 53, 5116-5126	5.5	25
40	Tough and Self-Healing Hydrogels from Polyampholytes. <i>Advances in Polymer Science</i> , <b>2020</b> , 295-317	1.3	2
39	Stress Relaxation and Underlying Structure Evolution in Tough and Self-Healing Hydrogels. <i>ACS Macro Letters</i> , <b>2020</b> , 9, 1582-1589	6.6	15
38	Hydrogels as dynamic memory with forgetting ability. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2020</b> , 117, 18962-18968	11.5	37
37	Supertough Lignin Hydrogels with Multienergy Dissipative Structures and Ultrahigh Antioxidative Activities. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2020</b> , 12, 39892-39901	9.5	32
36	High-Fidelity Hydrogel Thin Films Processed from Deep Eutectic Solvents. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2020</b> , 12, 43191-43200	9.5	4
35	Effect of Structure Heterogeneity on Mechanical Performance of Physical Polyampholytes Hydrogels. <i>Macromolecules</i> , <b>2019</b> , 52, 7369-7378	5.5	28
34	Facile synthesis of novel elastomers with tunable dynamics for toughness, self-healing and adhesion. <i>Journal of Materials Chemistry A</i> , <b>2019</b> , 7, 17334-17344	13	37
33	Relaxation Dynamics and Underlying Mechanism of a Thermally Reversible Gel from Symmetric Triblock Copolymer. <i>Macromolecules</i> , <b>2019</b> , 52, 8651-8661	5.5	11
32	Multiscale and Multistep Ordering of Flow-Induced Nucleation of Polymers. <i>Chemical Reviews</i> , <b>2018</b> , 118, 1840-1886	68.1	153

31	Tough and Self-Recoverable Thin Hydrogel Membranes for Biological Applications. <i>Advanced Functional Materials</i> , <b>2018</b> , 28, 1801489	15.6	31
30	Multiscale Energy Dissipation Mechanism in Tough and Self-Healing Hydrogels. <i>Physical Review Letters</i> , <b>2018</b> , 121, 185501	7.4	63
29	Bulk Energy Dissipation Mechanism for the Fracture of Tough and Self-Healing Hydrogels. <i>Macromolecules</i> , <b>2017</b> , 50, 2923-2931	5.5	76
28	Tough, self-recovery and self-healing polyampholyte hydrogels. <i>Polymer Science - Series C</i> , <b>2017</b> , 59, 11-17.1	17.1	8
27	The non-equilibrium phase diagrams of flow-induced crystallization and melting of polyethylene. <i>Scientific Reports</i> , <b>2016</b> , 6, 32968	4.9	45
26	Mixing Assisted Direct Formation of Isotactic Poly(1-butene) Form I? Crystals from Blend Melt of Isotactic Poly(1-butene)/Polypropylene. <i>Macromolecules</i> , <b>2016</b> , 49, 1761-1769	5.5	39
25	Molecular mechanism leading to memory effect of mesomorphic isotactic polypropylene. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , <b>2016</b> , 54, 1573-1580	2.6	16
24	Stretching-induced ion complexation in physical polyampholyte hydrogels. <i>Soft Matter</i> , <b>2016</b> , 12, 8833-8840	8.40	34
23	The thermodynamic properties of flow-induced precursor of polyethylene. <i>Science China Chemistry</i> , <b>2015</b> , 58, 1570-1578	7.9	15
22	Kinetic Process of Shish Formation: From Stretched Network to Stabilized Nuclei. <i>Macromolecules</i> , <b>2015</b> , 48, 5276-5285	5.5	46
21	Investigation on the recovery performance of olefin block copolymer/hexadecane form stable phase change materials with shape memory properties. <i>Solar Energy Materials and Solar Cells</i> , <b>2015</b> , 132, 632-639	6.4	30
20	Nonequilibrium Nature of Flow-Induced Nucleation in Isotactic Polypropylene. <i>Macromolecules</i> , <b>2015</b> , 48, 694-699	5.5	49
19	Flow-Induced Precursors of Isotactic Polypropylene: An in Situ Time and Space Resolved Study with Synchrotron Radiation Scanning X-ray Microdiffraction. <i>Macromolecules</i> , <b>2014</b> , 47, 4408-4416	5.5	37
18	Extension-Induced Crystallization of Poly(ethylene oxide) Bidisperse Blends: An Entanglement Network Perspective. <i>Macromolecules</i> , <b>2014</b> , 47, 677-686	5.5	35
17	Extension-Induced Nucleation under Near-Equilibrium Conditions: The Mechanism on the Transition from Point Nucleus to Shish. <i>Macromolecules</i> , <b>2014</b> , 47, 6813-6823	5.5	61
16	Multimorphological Crystallization of Shish-Kebab Structures in Isotactic Polypropylene: Quantitative Modeling of Parent/Daughter Crystallization Kinetics. <i>Macromolecules</i> , <b>2014</b> , 47, 5152-5162	5.5	36
15	A novel apparatus combining polymer extrusion processing and x-ray scattering. <i>Polymer Testing</i> , <b>2014</b> , 33, 40-47	4.5	17
14	Constrained and free uniaxial stretching induced crystallization of polyethylene film: A comparative study. <i>Polymer Testing</i> , <b>2014</b> , 36, 110-118	4.5	15

13	A small-angle x-ray scattering system with a vertical layout. <i>Review of Scientific Instruments</i> , <b>2014</b> , 85, 125110	1.7	8
12	Confined crystallization in end-linked PEO network under uniaxial extension. <i>Polymer</i> , <b>2013</b> , 54, 7088-7093	3.3	8
11	Disentanglement decelerating flow-induced nucleation. <i>Polymer</i> , <b>2013</b> , 54, 942-947	3.9	10
10	Relaxation propelled long period change in the extension induced crystallization of polyethylene oxide. <i>Soft Matter</i> , <b>2013</b> , 9, 10759	3.6	8
9	A new three-dimensional (3D) multilayer organic material: synthesis, swelling, exfoliation, and application. <i>Langmuir</i> , <b>2013</b> , 29, 3813-20	4	3
8	Correlation between Flow-Induced Nucleation Morphologies and Strain in Polyethylene: From Uncorrelated Oriented Point-Nuclei, Scaffold-Network, and Microshish to Shish. <i>Macromolecules</i> , <b>2013</b> , 46, 3435-3443	5.5	65
7	A simple constrained uniaxial tensile apparatus for in situ investigation of film stretching processing. <i>Review of Scientific Instruments</i> , <b>2013</b> , 84, 115104	1.7	25
6	Self-Acceleration of Nucleation and Formation of Shish in Extension-Induced Crystallization with Strain Beyond Fracture. <i>Macromolecules</i> , <b>2012</b> , 45, 5477-5486	5.5	66
5	Stretch-Induced Crystal Transition of Polybutene-1: An in Situ Synchrotron Radiation Wide-Angle X-ray Scattering Study. <i>Macromolecules</i> , <b>2012</b> , 45, 2764-2772	5.5	109
4	Extension Flow Induced Crystallization of Poly(ethylene oxide). <i>Macromolecules</i> , <b>2011</b> , 44, 7704-7712	5.5	50
3	Extensional rheometer for in situ x-ray scattering study on flow-induced crystallization of polymer. <i>Review of Scientific Instruments</i> , <b>2011</b> , 82, 045104	1.7	41
2	Tough Hydrogels with Dynamic H-Bonds: Structural Heterogeneities and Mechanical Performances. <i>Macromolecules</i> ,	5.5	7
1	Tough Hydrogels Based on Sacrificial Bond Principle1-28		