# Kunpeng Cui

## List of Publications by Year in descending order

Source: https://exaly.com/author-pdf/4067034/publications.pdf

Version: 2024-02-01

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|---|---|---|---|
| 49 papers | 2,115 citations | 185998 28 h-index | 233125 45 g-index |
| 50 all docs | 50 docs citations | 50 times ranked | 1662 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Multiscale and Multistep Ordering of Flow-Induced Nucleation of Polymers. Chemical Reviews, 2018, 118, 1840-1886. | 23.0 | 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. | 2.2 | 137 |
| 3 | Multiscale Energy Dissipation Mechanism in Tough and Self-Healing Hydrogels. Physical Review Letters, 2018, 121, 185501. | 2.9 | 104 |
| 4 | Bulk Energy Dissipation Mechanism for the Fracture of Tough and Self-Healing Hydrogels. Macromolecules, 2017, 50, 2923-2931. | 2.2 | 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. | 3.3 | 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. | 2.2 | 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. | 3.3 | 76 |
| 8 | Extension-Induced Nucleation under Near-Equilibrium Conditions: The Mechanism on the Transition from Point Nucleus to Shish. Macromolecules, 2014, 47, 6813-6823. | 2.2 | 75 |
| 9 | Self-Acceleration of Nucleation and Formation of Shish in Extension-Induced Crystallization with Strain Beyond Fracture. Macromolecules, 2012, 45, 5477-5486. | 2.2 | 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. | 5.2 | 70 |
| 11 | Supertough Lignin Hydrogels with Multienergy Dissipative Structures and Ultrahigh Antioxidative Activities. ACS Applied Materials & Interfaces, 2020, 12, 39892-39901. | 4.0 | 66 |
| 12 | Nonequilibrium Nature of Flow-Induced Nucleation in Isotactic Polypropylene. Macromolecules, 2015, 48, 694-699. | 2.2 | 63 |
| 13 | Kinetic Process of Shish Formation: From Stretched Network to Stabilized Nuclei. Macromolecules, 2015, 48, 5276-5285. | 2.2 | 58 |
| 14 | Extension Flow Induced Crystallization of Poly(ethylene oxide). Macromolecules, 2011, 44, 7704-7712. | 2.2 | 57 |
| 15 | Phase Separation Behavior in Tough and Self-Healing Polyampholyte Hydrogels. Macromolecules, 2020, 53, 5116-5126. | 2.2 | 49 |
| 16 | Stretching-induced ion complexation in physical polyampholyte hydrogels. Soft Matter, 2016, 12, 8833-8840. | 1.2 | 47 |
| 17 | The non-equilibrium phase diagrams of flow-induced crystallization and melting of polyethylene. Scientific Reports, 2016, 6, 32968. | 1.6 | 47 |
| 18 | Tough and Selfâ€Recoverable Thin Hydrogel Membranes for Biological Applications. Advanced Functional Materials, 2018, 28, 1801489. | 7.8 | 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. | 2.2 | 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. | 2.2 | 46 |
| 21 | Extensional rheometer for in situ x-ray scattering study on flow-induced crystallization of polymer. Review of Scientific Instruments, 2011, 82, 045104. | 0.6 | 42 |
| 22 | Effect of Structure Heterogeneity on Mechanical Performance of Physical Polyampholytes Hydrogels. Macromolecules, 2019, 52, 7369-7378. | 2.2 | 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. | 3.0 | 41 |
| 24 | Aggregated structures and their functionalities in hydrogels. Aggregate, 2021, 2, e33. | 5.2 | 39 |
| 25 | Extension-Induced Crystallization of Poly(ethylene oxide) Bidisperse Blends: An Entanglement Network Perspective. Macromolecules, 2014, 47, 677-686. | 2.2 | 38 |
| 26 | Multimorphological Crystallization of Shish-Kebab Structures in Isotactic Polypropylene: Quantitative Modeling of Parentâ€“Daughter Crystallization Kinetics. Macromolecules, 2014, 47, 5152-5162. | 2.2 | 38 |
| 27 | Effect of mesoscale phase contrast on fatigue-delaying behavior of self-healing hydrogels. Science Advances, 2021, 7, . | 4.7 | 37 |
| 28 | Stress Relaxation and Underlying Structure Evolution in Tough and Self-Healing Hydrogels. ACS Macro Letters, 2020, 9, 1582-1589. | 2.3 | 31 |
| 29 | A simple constrained uniaxial tensile apparatus for in situ investigation of film stretching processing. Review of Scientific Instruments, 2013, 84, 115104. | 0.6 | 28 |
| 30 | Tough Hydrogels with Dynamic H-Bonds: Structural Heterogeneities and Mechanical Performances. Macromolecules, 0, , . | 2.2 | 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, . | 3.3 | 21 |
| 32 | Molecular mechanism leading to memory effect of mesomorphic isotactic polypropylene. Journal of Polymer Science, Part B: Polymer Physics, 2016, 54, 1573-1580. | 2.4 | 19 |
| 33 | A novel apparatus combining polymer extrusion processing and x-ray scattering. Polymer Testing, 2014, 33, 40-47. | 2.3 | 17 |
| 34 | Constrained and free uniaxial stretching induced crystallization of polyethylene film: A comparative study. Polymer Testing, 2014, 36, 110-118. | 2.3 | 17 |
| 35 | The thermodynamic properties of flow-induced precursor of polyethylene. Science China Chemistry, 2015, 58, 1570-1578. | 4.2 | 16 |
| 36 | Structure Frustration Enables Thermal History-Dependent Responsive Behavior in Self-Healing Hydrogels. Macromolecules, 2021, 54, 9927-9936. | 2.2 | 16 |

| # | Article | IF | Citations |
|---|---|---|---|
| 37 | Disentanglement decelerating flow-induced nucleation. Polymer, 2013, 54, 942-947. | 1.8 | 12 |
| 38 | Tough, self-recovery and self-healing polyampholyte hydrogels. Polymer Science - Series C, 2017, 59, 11-17. | 0.8 | 12 |
| 39 | Relaxation Dynamics and Underlying Mechanism of a Thermally Reversible Gel from Symmetric Triblock Copolymer. Macromolecules, 2019, 52, 8651-8661. | 2.2 | 12 |
| 40 | Constitutive modeling of bond breaking and healing kinetics of physical Polyampholyte (PA) gel. Extreme Mechanics Letters, 2021, 43, 101184. | 2.0 | 12 |
| 41 | Polymer crystallization under external flow. Reports on Progress in Physics, 2022, 85, 036601. | 8.1 | 12 |
| 42 | Relaxation propelled long period change in the extension induced crystallization of polyethylene oxide. Soft Matter, 2013, 9, 10759. | 1.2 | 9 |
| 43 | A small-angle x-ray scattering system with a vertical layout. Review of Scientific Instruments, 2014, 85, 125110. | 0.6 | 9 |
| 44 | Confined crystallization in end-linked PEO network under uniaxial extension. Polymer, 2013, 54, 7088-7093. | 1.8 | 8 |
| 45 | High-Fidelity Hydrogel Thin Films Processed from Deep Eutectic Solvents. ACS Applied Materials & Interfaces, 2020, 12, 43191-43200. | 4.0 | 8 |
| 46 | Lamellar Bilayer to Fibril Structure Transformation of Tough Photonic Hydrogel under Elongation. Macromolecules, 2020, 53, 4711-4721. | 2.2 | 7 |
| 47 | Constitutive modeling of strain-dependent bond breaking and healing kinetics of chemical polyampholyte (PA) gel. Soft Matter, 2021, 17, 4161-4169. | 1.2 | 6 |
| 48 | Tough and Self-Healing Hydrogels from Polyampholytes. Advances in Polymer Science, 2020, , 295-317. | 0.4 | 4 |
| 49 | A New Three-Dimensional (3D) Multilayer Organic Material: Synthesis, Swelling, Exfoliation, and Application. Langmuir, 2013, 29, 3813-3820. | 1.6 | 3 |