Julia A Kornfield

List of Publications by Year
in descending order

78	4,734	117625	95266
papers	citations	34 h-index	68 g-index

78	78	78	4053
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Molecular Basis of the Shish-Kebab Morphology in Polymer Crystallization. Science, 2007, 316, 1014-1017.	12.6	381
2	Shear-Enhanced Crystallization in Isotactic Polypropylene. 1. Correspondence between in Situ Rheo-Optics and ex Situ Structure Determination. Macromolecules, 1999, 32, 7537-7547.	4.8	345
3	Shear-Mediated Crystallization of Isotactic Polypropylene:Â The Role of Long Chainâ^'Long Chain Overlap. Macromolecules, 2002, 35, 2583-2594.	4.8	335
4	Efficient Synthesis of Narrowly Dispersed Brush Polymers via Living Ring-Opening Metathesis Polymerization of Macromonomers. Macromolecules, 2009, 42, 3761-3766.	4.8	293
5	Tuning the erosion rate of artificial protein hydrogels through control of network topology. Nature Materials, 2006, 5, 153-158.	27.5	274
6	Shear-Enhanced Crystallization in Isotactic Polypropylene. 3. Evidence for a Kinetic Pathway to Nucleation. Macromolecules, 2002, 35, 1762-1769.	4.8	217
7	Yielding Behavior in Injectable Hydrogels from Telechelic Proteins. Macromolecules, 2010, 43, 9094-9099.	4.8	184
8	Linear Rheological Response of a Series of Densely Branched Brush Polymers. Macromolecules, 2011, 44, 6935-6943.	4.8	184
9	Recent Advances in Understanding Flow Effects on Polymer Crystallization. Industrial & Engineering Chemistry Research, 2002, 41, 6383-6392.	3.7	148
10	Shear-Enhanced Crystallization in Isotactic Polypropylene. In-Situ Synchrotron SAXS and WAXD. Macromolecules, 2004, 37, 9005-9017.	4.8	132
11	Assembly of an Artificial Protein Hydrogel through Leucine Zipper Aggregation and Disulfide Bond Formation. Macromolecules, 2005, 38, 3909-3916.	4.8	116
12	Facile, Efficient Routes to Diverse Protected Thiols and to Their Deprotection and Addition to Create Functional Polymers by Thiolâ^'Ene Coupling. Macromolecules, 2008, 41, 1151-1161.	4.8	112
13	Flow-induced alignment of lamellar block copolymer melts. Polymer, 1998, 39, 4679-4699.	3.8	102
14	Evolution of Microstructure and Viscoelasticity during Flow Alignment of a Lamellar Diblock Copolymer. Macromolecules, 1994, 27, 1177-1186.	4.8	97
15	Columnar Discotic Liquid-Crystalline Oxadiazoles as Electron-Transport Materialsâ€. Langmuir, 2003, 19, 6534-6536.	3.5	82
16	Structure and mechanical properties of artificial protein hydrogels assembled through aggregation of leucine zipper peptide domains. Soft Matter, 2007, 3, 99-107.	2.7	80
17	Self-assembled liquid-crystalline gels designed from the bottom up. Nature Materials, 2004, 3, 177-182.	27.5	76
18	Sustained release of human growth hormone from in situ forming hydrogels using self-assembly of fluoroalkyl-ended poly(ethylene glycol). Biomaterials, 2005, 26, 5259-5266.	11.4	73

#	Article	IF	Citations
19	Novel flow apparatus for investigating shear-enhanced crystallization and structure development in semicrystalline polymers. Review of Scientific Instruments, 1999, 70, 2097-2104.	1.3	66
20	When Ends Meet: Circular DNA Stretches Differently in Elongational Flows. Macromolecules, 2015, 48, 5997-6001.	4.8	66
21	Visible-Light-Initiated Thiolâ€“Acrylate Photopolymerization of Heparin-Based Hydrogels. Biomacromolecules, 2015, 16, 497-506.	5.4	66
22	Megasupramolecules for safer, cleaner fuel by end association of long telechelic polymers. Science, 2015, 350, 72-75.	12.6	65
23	Mechanism for Shish Formation under Shear Flow: An Interpretation from an in Situ Morphological Study. Macromolecules, 2013, 46, 1528-1542.	4.8	64
24	Rheology of side-group liquid-crystalline polymers: effect of isotropic-nematic transition and evidence of flow alignment. Macromolecules, 1993, 26, 2050-2056.	4.8	58
25	Ordering Transitions of Fluoroalkyl-Ended Poly(ethylene glycol):â€‰ Rheology and SANS. Macromolecules, 2002, 35, 4448-4457.	4.8	58
26	Dynamics and Shear Orientation Behavior of a Main-Chain Thermotropic Liquid Crystalline Polymer. Macromolecules, 1999, 32, 5581-5593.	4.8	57
27	Dynamic Properties of Artificial Protein Hydrogels Assembled through Aggregation of Leucine Zipper Peptide Domains. Macromolecules, 2007, 40, 689-692.	4.8	57
28	Hydrogels with Controlled, Surface Erosion Characteristics from Self-Assembly of Fluoroalkyl-Ended Poly(ethylene glycol). Macromolecules, 2001, 34, 6409-6419.	4.8	56
29	pH-responsive aqueous/LC interfaces using SGLCP-b-polyacrylic acid block copolymers. Soft Matter, 2010, 6, 1964.	2.7	55
30	Effect of Mesophase Order and Molecular Weight on the Dynamics of Nematic and Smectic Side-Group Liquid-Crystalline Polymers. Macromolecules, 1995, 28, 3521-3530.	4.8	54
31	Effect of Long Chains on the Threshold Stresses for Flow-Induced Crystallization in iPP: Shish Kebabs vs Sausages. Macromolecules, 2012, 45, 6557-6570.	4.8	53
32	Perdeuterated cyanobiphenyl liquid crystals for infrared applications. Journal of Applied Physics, 2002, 92, 7146-7148.	2.5	41
33	Multiplicity of morphologies in poly (<scp>l</scp> -lactide) bioresorbable vascular scaffolds. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 11670-11675.	7.1	38
34	Transient molecular orientation and rheology in flow aligning thermotropic liquid crystalline polymers. Journal of Rheology, 2001, 45, 1029-1063.	2.6	35
35	Orientational Proliferation and Successive Twinning from Thermoreversible Hexagonalâ^'Body-Centered Cubic Transitions. Macromolecules, 2002, 35, 785-794.	4.8	34
36	Stressâ€optical manifestations of molecular and microstructural dynamics in complex polymer melts. Journal of Rheology, 1994, 38, 1127-1150.	2.6	31

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37	Real-time depth sectioning: Isolating the effect of stress on structure development in pressure-driven flow. Journal of Rheology, 2009, 53, 1229-1254.	2.6	31
38	Shear Aligning Properties of a Main-Chain Thermotropic Liquid Crystalline Polymer. Macromolecules, 2001, 34, 3654-3660.	4.8	29
39	Internal Tension: A Novel Hypothesis Concerning the Mechanical Properties of the Vitreous Humor. Macromolecular Symposia, 2005, 227, 183-190.	0.7	26
40	Polarization modulation laser scanning microscopy: A powerful tool to image molecular orientation and order. Review of Scientific Instruments, 1994, 65, 2823-2828.	1.3	21
41	Rheological study of structural transitions in triblock copolymers in a liquid crystal solvent. Soft Matter, 2006, 2, 422.	2.7	20
42	Shear-Induced Alignment of Smectic Side Group Liquid Crystalline Polymers. Macromolecules, 2007, 40, 6624-6630.	4.8	20
43	Simultaneous birefringence, small- and wide-angle X-ray scattering to detect precursors and characterize morphology development during flow-induced crystallization of polymers. Journal of Synchrotron Radiation, 2008, 15, 185-190.	2.4	20
44	Fabrication of Active Surfaces with Metastable Microgel Layers Formed during Breath Figure Templating. ACS Applied Materials & Interfaces, 2017, 9, 4177-4183.	8.0	20
45	Dynamics of flowâ€induced alignment of sideâ€group liquidâ€crystalline polymers. Journal of Rheology, 1994, 38, 1609-1622.	2.6	19
46	Humidity-Dependent Wetting Properties of High Hysteresis Surfaces. Langmuir, 2007, 23, 3-7.	3.5	19
47	Stratified morphology of a polypropylene/elastomer blend following channel flow. Journal of Polymer Science, Part B: Polymer Physics, 2002, 40, 2842-2859.	2.1	18
48	Anomalous Sorption in Thin Films of Fluoroalkyl-Ended Poly(ethylene glycol)s. Langmuir, 2002, 18, 8241-8245.	3.5	16
49	Single-particle levitation system for automated study of homogeneous solute nucleation. Review of Scientific Instruments, 2006, 77, 073901.	1.3	16
50	Buckling Instability in Liquid Crystalline Physical Gels. Physical Review Letters, 2006, 96, 147802.	7.8	16
51	Effects of Pairwise, Self-Associating Functional Side Groups on Polymer Solubility, Solution Viscosity, and Mist Control. Macromolecules, 2009, 42, 1380-1391.	4.8	16
52	The linear rheological responses of wedgeâ€type polymers. Journal of Polymer Science, Part B: Polymer Physics, 2015, 53, 899-906.	2.1	16
53	Third normal stress difference and component relaxation spectra for bidisperse melts under oscillatory shear. Macromolecules, 1991, 24, 5429-5441.	4.8	15
54	Molecular orientation of a commercial thermotropic liquid crystalline polymer in simple shear and complex flow. Rheologica Acta, 2005, 44, 446-456.	2.4	15

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55	Effect of Mesophase Order on the Dynamics of Side Group Liquid Crystalline Polymers. Macromolecules, 2005, 38, 6946-6953.	4.8	15
56	Manipulation of Athermal Nuclei in Aqueous Poly(ethylene oxide) by Scanning Activity Gravimetric Analysis. Macromolecules, 2006, 39, 8419-8427.	4.8	15
57	Shear-induced orientation of side-group liquid-crystalline polymers. Advanced Materials, 1994, 6, 214-216.	21.0	14
58	Director dynamics in liquid-crystal physical gels. Soft Matter, 2007, 3, 993.	2.7	13
59	Crimping-induced structural gradients explain the lasting strength of poly <scp>l</scp> -lactide bioresorbable vascular scaffolds during hydrolysis. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 10239-10244.	7.1	13
60	Tube Expansion Deformation Enables In Situ Synchrotron X-ray Scattering Measurements during Extensional Flow-Induced Crystallization of Poly l-Lactide Near the Glass Transition. Polymers, 2018, 10, 288.	4.5	13
61	Properties of small molecular drug loading and diffusion in a fluorinated PEG hydrogel studied by 1H molecular diffusion NMR and 19F spin diffusion NMR. Colloid and Polymer Science, 2010, 288, 1655-1663.	2.1	12
62	Chain Anisotropy of Side-Group Liquid Crystalline Polymers in Nematic Solvents. Macromolecules, 2004, 37, 8730-8738.	4.8	9
63	Synthesis and Phase Behavior of Side-Group Liquid Crystalline Polymers in Nematic Solvents. Macromolecules, 2004, 37, 3569-3575.	4.8	9
64	Scanning Activity Gravimetric Analysis. Macromolecules, 2006, 39, 5946-5951.	4.8	9
65	Self-Assembly of Coil/Liquid-Crystalline Diblock Copolymers in a Liquid Crystal Solvent. Macromolecules, 2009, 42, 299-307.	4.8	9
66	Using the â€œSwitchableâ€•Quality of Liquid Crystal Solvents To Mediate Segregation between Coil and Liquid Crystalline Polymers. Macromolecules, 2006, 39, 3921-3926.	4.8	8
67	Synergistic Ordering of Sideâ€Group Liquid Crystal Polymer and Small Molecule Liquid Crystal: Order and Phase Behavior of Nematic Polymer Solutions. Macromolecular Chemistry and Physics, 2007, 208, 2242-2253.	2.2	8
68	Tungsten disulfide nanotubes enhance flow-induced crystallization and radio-opacity of polylactide without adversely affecting in vitro toxicity. Acta Biomaterialia, 2022, 138, 313-326.	8.3	8
69	Study the property of double-ended fluoroalkyl poly(ethylene glycol) hydrogel as a depot for hydrophobic drug delivery using electron paramagnetic resonance technique and cell proliferation assay. Journal of Sol-Gel Science and Technology, 2008, 45, 269-278.	2.4	7
70	Effects of pairwise, donorâ€“acceptor functional groups on polymer solubility, solution viscosity and mist control. Polymer, 2009, 50, 6323-6330.	3.8	7
71	Interaction of Poly L-Lactide and Tungsten Disulfide Nanotubes Studied by In Situ X-ray Scattering during Expansion of PLLA/WS2NT Nanocomposite Tubes. Polymers, 2021, 13, 1764.	4.5	6
72	PolyDODT: a macrocyclic elastomer with unusual properties. Polymer Chemistry, 2022, 13, 668-676.	3.9	5

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73	Tunable Temperature-Sensitive Transcriptional Activation Based on Lambda Repressor. ACS Synthetic Biology, 2022, 11, 2518-2522.	3.8	5
74	Effect of tungsten disulfide (WS2) nanotubes on structural, morphological and mechanical properties of poly(L-lactide) (PLLA) films. AIP Conference Proceedings, 2018, , .	0.4	4
75	WS₂ Nanotubes as a 1D Functional Filler for Melt Mixing with Poly(lactic) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 56	5.0	4
76	Network Formation and Sieving Performance of Self-Assembling Hydrogels. Macromolecules, 2003, 36, 9154-9161.	4.8	2
77	Ballistic delivery of compounds to inner layers of the cornea is limited by tough mechanical properties of stromal tissue. Journal of the Mechanical Behavior of Biomedical Materials, 2021, 115, 104246.	3.1	1
78	Response to â€œComments on the use of rheometers with rough surfaces or surfaces with protrusionsâ€• Journal of Rheology, 2005, 49, 1157-1158.	2.6	0