

Gregory C Rutledge

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.

175
papers

13,019
citations

56
h-index

112
g-index

186
ext. papers

14,146
ext. citations

7.1
avg, IF

6.7
L-index

#	Paper	IF	Citations
175	Aerosol filtration performance of electrospun membranes comprising polyacrylonitrile and cellulose nanocrystals. <i>Journal of Membrane Science</i> , 2022 , 650, 120392	9.6	1
174	Competitive Wetting: A New Approach to Prevent Liquid Penetration through Porous Materials with Superior Synergistic Effect. <i>Small</i> , 2021 , 17, e2103695	11	
173	Bottom-up design toward dynamically robust polyurethane elastomers. <i>Polymer</i> , 2021 , 218, 123518	3.9	6
172	Examination of Nanoparticle Filtration by Filtering Facepiece Respirators During the COVID-19 Pandemic. <i>ACS Applied Nano Materials</i> , 2021 , 4, 3675-3685	5.6	2
171	Metastable wetting model of electrospun mats with wrinkled fibers. <i>Applied Surface Science</i> , 2021 , 551, 149147	6.7	0
170	Measuring Flow-Induced Crystallization Kinetics of Polyethylene after Processing. <i>Macromolecules</i> , 2021 , 54, 2101-2112	5.5	4
169	Electrospun polyimide fiber membranes for separation of oil-in-water emulsions. <i>Separation and Purification Technology</i> , 2021 , 270, 118825	8.3	9
168	Rheology of Crystallizing LLDPE. <i>Journal of Rheology</i> , 2020 , 64,	4.1	3
167	Flow-induced inhomogeneity and enhanced nucleation in a long alkane melt. <i>Polymer</i> , 2020 , 200, 122605.9	5.9	11
166	Atomistic Modeling of Plastic Deformation in Semicrystalline Polyethylene: Role of Interphase Topology, Entanglements, and Chain Dynamics. <i>Macromolecules</i> , 2020 , 53, 4605-4617	5.5	11
165	A slip-link model for rheology of entangled polymer melts with crystallization. <i>Journal of Rheology</i> , 2020 , 64, 213-222	4.1	7
164	Spectroscopic analysis in molecular simulations with discretized Wiener-Khinchin theorem for Fourier-Laplace transformation. <i>Physical Review E</i> , 2020 , 102, 063302	2.4	0
163	Chemical separation in a binary liquid aerosol by filtration using electrospun membranes. <i>Chemical Engineering Journal</i> , 2020 , 382, 122924	14.7	4
162	An assessment of models for flow-enhanced nucleation in an n-alkane melt by molecular simulation. <i>Journal of Rheology</i> , 2019 , 63, 465-475	4.1	24
161	Direct Three-Dimensional Visualization of Membrane Fouling by Confocal Laser Scanning Microscopy. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 17001-17008	9.5	17
160	Functionalization of Electrospun Membranes with Polyelectrolytes for Separation of Oil-In-Water Emulsions. <i>Advanced Materials Interfaces</i> , 2019 , 6, 1901285	4.6	11
159	Molecular Simulation of Thermoplastic Polyurethanes under Large Tensile Deformation. <i>Macromolecules</i> , 2018 , 51, 1850-1864	5.5	24

158	Empirical potential for molecular simulation of graphene nanoplatelets. <i>Journal of Chemical Physics</i> , 2018 , 148, 144709	3.9	3
157	Magnet-responsive, superhydrophobic fabrics from waterborne, fluoride-free coatings.. <i>RSC Advances</i> , 2018 , 8, 717-723	3.7	28
156	All-atomic and coarse-grained molecular dynamics investigation of deformation in semi-crystalline lamellar polyethylene. <i>Polymer</i> , 2018 , 153, 305-316	3.9	18
155	Energetically efficient electrochemically tunable affinity separation using multicomponent polymeric nanostructures for water treatment. <i>Energy and Environmental Science</i> , 2018 , 11, 2954-2963	35.4	19
154	Ultrafine high performance polyethylene fibers. <i>Journal of Materials Science</i> , 2018 , 53, 3049-3063	4.3	42
153	Molecular Simulation of Thermoplastic Polyurethanes under Large Compressive Deformation. <i>Macromolecules</i> , 2018 , 51, 9306-9316	5.5	8
152	Heterogeneous nucleation of an n-alkane on graphene-like materials. <i>European Polymer Journal</i> , 2018 , 104, 64-71	5.2	12
151	Separation of oil-in-water emulsions stabilized by different types of surfactants using electrospun fiber membranes. <i>Journal of Membrane Science</i> , 2018 , 563, 247-258	9.6	41
150	Heterogeneous Nucleation of an n-Alkane on Tetrahedrally Coordinated Crystals. <i>Journal of Physical Chemistry B</i> , 2017 , 121, 904-911	3.4	19
149	Effect of Short Chain Branching on the Interlamellar Structure of Semicrystalline Polyethylene. <i>Macromolecules</i> , 2017 , 50, 1206-1214	5.5	24
148	Molecular Dynamics Simulation of the Effects of Layer Thickness and Chain Tilt on Tensile Deformation Mechanisms of Semicrystalline Polyethylene. <i>Macromolecules</i> , 2017 , 50, 1700-1712	5.5	39
147	Vibrational Analysis of Semicrystalline Polyethylene Using Molecular Dynamics Simulation. <i>Macromolecules</i> , 2017 , 50, 6690-6701	5.5	9
146	Deformation mechanisms of thermoplastic elastomers: Stress-strain behavior and constitutive modeling. <i>Polymer</i> , 2017 , 128, 87-99	3.9	42
145	Atomistic Simulation of a Thermoplastic Polyurethane and Micromechanical Modeling. <i>Macromolecules</i> , 2017 , 50, 7399-7409	5.5	19
144	50th Anniversary Perspective: Advanced Polymer Fibers: High Performance and Ultrafine. <i>Macromolecules</i> , 2017 , 50, 5627-5642	5.5	76
143	Durable, self-healing, superhydrophobic fabrics from fluorine-free, waterborne, polydopamine/alkyl silane coatings. <i>RSC Advances</i> , 2017 , 7, 33986-33993	3.7	48
142	Aerosol filtration using electrospun cellulose acetate fibers. <i>Journal of Materials Science</i> , 2016 , 51, 204-213	4.3	68
141	Engineering the Mechanics of Heterogeneous Soft Crystals. <i>Advanced Functional Materials</i> , 2016 , 26, 6938-6949	15.6	18

140	Atomistic Simulation of the Structure and Mechanics of a Semicrystalline Polyether. <i>Macromolecules</i> , 2016 , 49, 5714-5726	5.5	20
139	Simulation of the structure and mechanics of crystalline 4,4'-diphenylmethane diisocyanate (MDI) with n-butanediol (BDO) as chain extender. <i>Polymer</i> , 2016 , 107, 233-239	3.9	12
138	Coaxial electrospinning of WO ₃ nanotubes functionalized with bio-inspired Pd catalysts and their superior hydrogen sensing performance. <i>Nanoscale</i> , 2016 , 8, 9159-66	7.7	120
137	Protein-Encapsulated Catalysts: WO ₃ Nanofiber-Based Biomarker Detectors Enabled by Protein-Encapsulated Catalyst Self-Assembled on Polystyrene Colloid Templates (Small 7/2016). <i>Small</i> , 2016 , 12, 964-964	11	1
136	Free surface electrospinning of aqueous polymer solutions from a wire electrode. <i>Chemical Engineering Journal</i> , 2016 , 289, 203-211	14.7	34
135	Advances in electrospun carbon fiber-based electrochemical sensing platforms for bioanalytical applications. <i>Analytical and Bioanalytical Chemistry</i> , 2016 , 408, 1307-26	4.4	24
134	Enhanced Redox Transformation Efficiency in Unconjugated Electroactive Polymer/Carbon Nanotube Hybrids. <i>Chemistry of Materials</i> , 2016 , 28, 543-548	9.6	8
133	WO ₃ Nanofiber-Based Biomarker Detectors Enabled by Protein-Encapsulated Catalyst Self-Assembled on Polystyrene Colloid Templates. <i>Small</i> , 2016 , 12, 911-20	11	62
132	Analysis of nucleation using mean first-passage time data from molecular dynamics simulation. <i>Journal of Chemical Physics</i> , 2016 , 144, 134105	3.9	12
131	Molecular simulation of flow-enhanced nucleation in n-eicosane melts under steady shear and uniaxial extension. <i>Journal of Chemical Physics</i> , 2016 , 145, 244903	3.9	48
130	Molecular Dynamics Simulation of Surface Nucleation during Growth of an Alkane Crystal. <i>Macromolecules</i> , 2016 , 49, 3619-3629	5.5	21
129	Kinetic Model for Layer-by-Layer Crystal Growth in Chain Molecules. <i>Macromolecules</i> , 2016 , 49, 3956-3964	4.5	4
128	Remarkably High Heterogeneous Electron Transfer Activity of Carbon-Nanotube-Supported Reduced Graphene Oxide. <i>Chemistry of Materials</i> , 2016 , 28, 7422-7432	9.6	15
127	Electrochemically responsive heterogeneous catalysis for controlling reaction kinetics. <i>Journal of the American Chemical Society</i> , 2015 , 137, 1348-55	16.4	23
126	Mechanical and Structural Characterization of Semicrystalline Polyethylene under Tensile Deformation by Molecular Dynamics Simulations. <i>Macromolecules</i> , 2015 , 48, 4228-4239	5.5	80
125	Microwave-Assisted Oxidation of Electrospun Turbostratic Carbon Nanofibers for Tailoring Energy Storage Capabilities. <i>Chemistry of Materials</i> , 2015 , 27, 4574-4585	9.6	14
124	Separation of oil-in-water emulsions using electrospun fiber membranes and modeling of the fouling mechanism. <i>Journal of Membrane Science</i> , 2015 , 486, 229-238	9.6	63
123	Desalination by Membrane Distillation using Electrospun Polyamide Fiber Membranes with Surface Fluorination by Chemical Vapor Deposition. <i>ACS Applied Materials & Interfaces</i> , 2015 , 7, 8225-32	9.5	113

122	Thermoregulated gas transport through electrospun nanofiber membranes. <i>Chemical Engineering Science</i> , 2015 , 123, 557-563	4.4	6
121	Electrochemically Nanostructured Polyvinylferrocene/Polypyrrole Hybrids with Synergy for Energy Storage. <i>Advanced Functional Materials</i> , 2015 , 25, 4803-4813	15.6	54
120	Slit-surface electrospinning: a novel process developed for high-throughput fabrication of core-sheath fibers. <i>PLoS ONE</i> , 2015 , 10, e0125407	3.7	33
119	Three-dimensional imaging of electrospun fiber mats using confocal laser scanning microscopy and digital image analysis. <i>Journal of Materials Science</i> , 2015 , 50, 3014-3030	4.3	16
118	Electrospun Polyaniline Fibers as Highly Sensitive Room Temperature Chemiresistive Sensors for Ammonia and Nitrogen Dioxide Gases. <i>Advanced Functional Materials</i> , 2014 , 24, 4005-4014	15.6	127
117	Permeability of electrospun fiber mats under hydraulic flow. <i>Journal of Membrane Science</i> , 2014 , 451, 111-116	9.6	29
116	Nanocarbon-based electrochemical systems for sensing, electrocatalysis, and energy storage. <i>Nano Today</i> , 2014 , 9, 405-432	17.9	81
115	Plastic Deformation of Semicrystalline Polyethylene under Extension, Compression, and Shear Using Molecular Dynamics Simulation. <i>Macromolecules</i> , 2014 , 47, 2515-2528	5.5	73
114	Ultra-wide-range electrochemical sensing using continuous electrospun carbon nanofibers with high densities of states. <i>ACS Applied Materials & Interfaces</i> , 2014 , 6, 3394-405	9.5	57
113	Spray-Layer-by-Layer Carbon Nanotube/Electrospun Fiber Electrodes for Flexible Chemiresistive Sensor Applications. <i>Advanced Functional Materials</i> , 2014 , 24, 492-502	15.6	129
112	Electrospun magnetic carbon composite fibers: Synthesis and electromagnetic wave absorption characteristics. <i>Journal of Applied Polymer Science</i> , 2013 , 127, 4288-4295	2.9	26
111	Flow-Induced Crystallization 2013 , 399-432		24
110	Crystallization in Processing Conditions 2013 , 433-462		6
109	Overall Crystallization Kinetics 2013 , 215-236		8
108	Polymer Nucleation 2013 , 125-164		6
107	Growth of Polymer Crystals 2013 , 165-196		3
106	Computer Modeling of Polymer Crystallization 2013 , 197-214		5
105	Compressibility of electrospun fiber mats. <i>Journal of Materials Science</i> , 2013 , 48, 7827-7836	4.3	19

104	Polyvinylferrocene for noncovalent dispersion and redox-controlled precipitation of carbon nanotubes in nonaqueous media. <i>Langmuir</i> , 2013 , 29, 9626-34	4	39
103	Crystal Structures of Polymers 2013 , 31-72		7
102	Crystallization in Polymer Composites and Nanocomposites 2013 , 379-398		6
101	Structure of Polycrystalline Aggregates 2013 , 73-124		1
100	Electrospun carbon nanofiber webs with controlled density of states for sensor applications. <i>Advanced Materials</i> , 2013 , 25, 1309-14	24	70
99	Mechanical and transport properties of layer-by-layer electrospun composite proton exchange membranes for fuel cell applications. <i>ACS Applied Materials & Interfaces</i> , 2013 , 5, 8155-64	9.5	31
98	Crystallization in Nano-Confined Polymeric Systems 2013 , 347-378		14
97	Metallocene/carbon hybrids prepared by a solution process for supercapacitor applications. <i>Journal of Materials Chemistry A</i> , 2013 , 1, 13120	13	30
96	Production of core/shell fibers by electrospinning from a free surface. <i>Chemical Engineering Science</i> , 2013 , 104, 250-259	4.4	51
95	Structural, mechanical, and tribological properties of electrospun poly(hexamethylene adipamide) fiber mats. <i>Wear</i> , 2013 , 305, 58-68	3.5	2
94	Molecular Dynamics Simulation of Homogeneous Crystal Nucleation in Polyethylene. <i>Macromolecules</i> , 2013 , 46, 4723-4733	5.5	141
93	Plastic Deformation of Semicrystalline Polyethylene by X-ray Scattering: Comparison with Atomistic Simulations. <i>Macromolecules</i> , 2013 , 46, 5279-5289	5.5	34
92	Spray Layer-by-Layer Electrospun Composite Proton Exchange Membranes. <i>Advanced Functional Materials</i> , 2013 , 23, 3087-3095	15.6	50
91	Epitaxial Crystallization of Polymers: Means and Issues 2013 , 237-264		6
90	Melting 2013 , 265-286		7
89	Crystallization of Polymer Blends 2013 , 287-326		10
88	Crystallization in Copolymers 2013 , 327-346		7
87	Hyperelastic characterization of the interlamellar domain and interphase layer in semicrystalline polyethylene. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2013 , 51, 1692-1704	2.6	5

86	Micromechanical characterization of the interphase layer in semi-crystalline polyethylene. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2013 , 51, 1228-1243	2.6	18
85	Elastic-plastic behavior of non-woven fibrous mats. <i>Journal of the Mechanics and Physics of Solids</i> , 2012 , 60, 295-318	5	89
84	Polyacrylonitrile-based electrospun carbon paper for electrode applications. <i>Journal of Applied Polymer Science</i> , 2012 , 124, 3861-3870	2.9	47
83	Mechanical and tribological properties of electrospun PA 6(3)T fiber mats. <i>Polymer</i> , 2012 , 53, 3017-3025	3.9	28
82	Molecular origins of homogeneous crystal nucleation. <i>Annual Review of Chemical and Biomolecular Engineering</i> , 2012 , 3, 157-82	8.9	31
81	Electrical Conductivity of Electrospun Polyaniline and Polyaniline-Blend Fibers and Mats. <i>Macromolecules</i> , 2012 , 45, 4238-4246	5.5	110
80	Free surface electrospinning from a wire electrode. <i>Chemical Engineering Journal</i> , 2012 , 183, 492-503	14.7	120
79	Plastic Deformation of Semicrystalline Polyethylene by Molecular Simulation. <i>Macromolecules</i> , 2011 , 44, 3096-3108	5.5	105
78	Molecular simulation of bundle-like crystal nucleation from n-eicosane melts. <i>Journal of Chemical Physics</i> , 2011 , 135, 024903	3.9	62
77	Electrospun polyurethane fibers for absorption of volatile organic compounds from air. <i>ACS Applied Materials & Interfaces</i> , 2011 , 3, 3902-9	9.5	103
76	On the importance of fiber curvature to the elastic moduli of electrospun nonwoven fiber meshes. <i>Polymer</i> , 2011 , 52, 6126-6133	3.9	75
75	Highly porous electrospun polyvinylidene fluoride (PVDF)-based carbon fiber. <i>Carbon</i> , 2011 , 49, 3395-3403	3.4	108
74	Mechanical properties of individual electrospun PA 6(3)T fibers and their variation with fiber diameter. <i>Polymer</i> , 2011 , 52, 2295-2301	3.9	107
73	Multifunctional Electrospun Fabrics via Layer-by-Layer Electrostatic Assembly for Chemical and Biological Protection. <i>Chemistry of Materials</i> , 2010 , 22, 1429-1436	9.6	68
72	Predicting polymer nanofiber interactions via molecular simulations. <i>ACS Applied Materials & Interfaces</i> , 2010 , 2, 1164-72	9.5	25
71	Gyroid-Forming Diblock Copolymers Confined in Cylindrical Geometry: A Case of Extreme Makeover for Domain Morphology. <i>Macromolecules</i> , 2010 , 43, 3061-3071	5.5	59
70	Growth of metal-organic frameworks on polymer surfaces. <i>Journal of the American Chemical Society</i> , 2010 , 132, 15687-91	16.4	133
69	Enhanced Photocatalytic Activity using Layer-by-Layer Electrospun Constructs for Water Remediation. <i>Advanced Functional Materials</i> , 2010 , 20, 2424-2429	15.6	49

68	Effect of fiber diameter, pore size and seeding method on growth of human dermal fibroblasts in electrospun poly(epsilon-caprolactone) fibrous mats. <i>Biomaterials</i> , 2010 , 31, 491-504	15.6	333
67	Characterization by Mercury Porosimetry of Nonwoven Fiber Media with Deformation. <i>Journal of Engineered Fibers and Fabrics</i> , 2009 , 4, 155892500900400	0.9	2
66	Molecular simulation of crystal nucleation in n-octane melts. <i>Journal of Chemical Physics</i> , 2009 , 131, 134902	3.9	69
65	Evaluating the transferability of coarse-grained, density-dependent implicit solvent models to mixtures and chains. <i>Journal of Chemical Physics</i> , 2009 , 130, 034904	3.9	41
64	Highly Reactive Multilayer-Assembled TiO ₂ Coating on Electrospun Polymer Nanofibers. <i>Advanced Materials</i> , 2009 , 21, 1252-1256	24	137
63	Continuous concentric lamellar block copolymer nanofibers with long range order. <i>Nano Letters</i> , 2009 , 9, 1678-83	11.5	75
62	Mechanical Properties of Glassy Polyethylene Nanofibers via Molecular Dynamics Simulations. <i>Macromolecules</i> , 2009 , 42, 4887-4895	5.5	32
61	Modular functionalization of carbon nanotubes and fullerenes. <i>Journal of the American Chemical Society</i> , 2009 , 131, 8446-54	16.4	70
60	Morphology of Porous and Wrinkled Fibers of Polystyrene Electrospun from Dimethylformamide. <i>Macromolecules</i> , 2009 , 42, 2102-2114	5.5	211
59	Wrinkled surface topographies of electrospun polymer fibers. <i>Applied Physics Letters</i> , 2009 , 94, 151916	3.4	79
58	Chemical protection fabrics via surface oximation of electrospun polyacrylonitrile fiber mats. <i>Journal of Materials Chemistry</i> , 2009 , 19, 2432		47
57	Spraying asymmetry into functional membranes layer-by-layer. <i>Nature Materials</i> , 2009 , 8, 512-8	27	254
56	Molecular Dynamics Simulation of Thermomechanical Properties of Montmorillonite Crystal. II. Hydrated Montmorillonite Crystal. <i>Journal of Physical Chemistry C</i> , 2008 , 112, 17056-17062	3.8	33
55	A novel algorithm for creating coarse-grained, density dependent implicit solvent models. <i>Journal of Chemical Physics</i> , 2008 , 128, 154115	3.9	67
54	A Review of Recent Results on Superhydrophobic Materials Based on Micro- and Nanofibers. <i>Journal of Adhesion Science and Technology</i> , 2008 , 22, 1799-1817	2	132
53	Processes and applications of electrostatic fiber formation. <i>Journal of Physics: Conference Series</i> , 2008 , 142, 012026	0.3	
52	Estimation of Macromolecular Configurational Properties from Atomistic Simulations of Oligomers under Nonequilibrium Conditions. <i>Macromolecular Theory and Simulations</i> , 2008 , 17, 23-31	1.5	1
51	Tuning the Rate-Dependent Stiffness of Materials by Exploiting Néel Relaxation of Magnetic Nanoparticles. <i>Advanced Functional Materials</i> , 2008 , 18, 462-469	15.6	3

50	Electrospun cellulose acetate fibers containing chlorhexidine as a bactericide. <i>Polymer</i> , 2008 , 49, 1266-1275	3.75	115
49	Semi-Grand Canonical Monte Carlo (SGMC) Simulations to Interpret Experimental Data on Processed Polymer Melts and Glasses. <i>Macromolecules</i> , 2007 , 40, 4691-4702	5.5	11
48	Molecular Simulation of Strain Dependence of Vibrational Frequencies for Montmorillonite Clay and Analysis of Strain Transfer in a Polymer/Clay Nanocomposite. <i>Macromolecules</i> , 2007 , 40, 140-144	5.5	15
47	Molecular Dynamics Simulation of Size-Dependent Structural and Thermal Properties of Polymer Nanofibers. <i>Macromolecules</i> , 2007 , 40, 8483-8489	5.5	55
46	Catalytic hydrolysis of p-nitrophenyl acetate by electrospun polyacrylamidoxime nanofibers. <i>Polymer</i> , 2007 , 48, 4675-4682	3.9	44
45	Formation of fibers by electrospinning. <i>Advanced Drug Delivery Reviews</i> , 2007 , 59, 1384-91	18.5	480
44	Simulation of mechanical properties of oriented glassy polystyrene. <i>Polymer</i> , 2007 , 48, 7211-7220	3.9	10
43	Monte Carlo simulation in the semi-grand canonical ensemble as a thermodynamic reverse Monte Carlo technique, with application to a polymer melt. <i>Journal of Physics Condensed Matter</i> , 2007 , 19, 3352-18	2.8	1
42	Monte Carlo Simulations of Semicrystalline Polyethylene: Interlamellar Domain and Crystal-Melt Interface 2007 , 261-284		3
41	Electrospinning 2007 ,		2
40	Monte Carlo Simulation of Interlamellar Isotactic Polypropylene. <i>Macromolecules</i> , 2007 , 40, 5187-5195	5.5	23
39	Designing superoleophobic surfaces. <i>Science</i> , 2007 , 318, 1618-22	33.3	2287
38	Atomistic Simulation of Polymer Melt Crystallization by Molecular Dynamics 2007 , 457-480		7
37	Temperature-Dependent Thermal and Elastic Properties of the Interlamellar Phase of Semicrystalline Polyethylene by Molecular Simulation. <i>Macromolecules</i> , 2006 , 39, 439-447	5.5	58
36	Production of Submicron Diameter Silk Fibers under Benign Processing Conditions by Two-Fluid Electrospinning. <i>Macromolecules</i> , 2006 , 39, 1102-1107	5.5	111
35	Electrospun polymer nanofibers with internal periodic structure obtained by microphase separation of cylindrically confined block copolymers. <i>Nano Letters</i> , 2006 , 6, 2969-72	11.5	153
34	Polyethylene {201} crystal surface: interface stresses and thermodynamics. <i>Polymer</i> , 2006 , 47, 5494-5504	3.9	28
33	The role of elasticity in the formation of electrospun fibers. <i>Polymer</i> , 2006 , 47, 4789-4797	3.9	312

32	Structure and Dynamics of Blends of Polyhedral Oligomeric Silsesquioxanes and Polyethylene by Atomistic Simulation. <i>Macromolecules</i> , 2005 , 38, 6700-6709	5.5	55
31	Electrospun poly(styrene-block-dimethylsiloxane) block copolymer fibers exhibiting superhydrophobicity. <i>Langmuir</i> , 2005 , 21, 5549-54	4	43 ¹
30	Superhydrophobic Fabrics Produced by Electrospinning and Chemical Vapor Deposition. <i>Macromolecules</i> , 2005 , 38, 9742-9748	5.5	61 ₉
29	Wavelet-accelerated Monte Carlo sampling of polymer chains. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2005 , 43, 897-910	2.6	1
28	Crossover behavior in crystal growth rate from n-alkane to polyethylene. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2005 , 43, 2468-2473	2.6	11
27	Crystal shapes and crystallization in continuum modeling. <i>Physics of Fluids</i> , 2005 , 17, 014107	4.4	12
26	Characterization of polyethylene crystallization from an oriented melt by molecular dynamics simulation. <i>Journal of Chemical Physics</i> , 2004 , 121, 2823-32	3.9	99
25	Molecular response of a glassy polymer to active deformation. <i>Polymer</i> , 2004 , 45, 1391-1399	3.9	154
24	Mechanical Properties of Electrospun Silk Fibers. <i>Macromolecules</i> , 2004 , 37, 6856-6864	5.5	263
23	Controlling the fiber diameter during electrospinning. <i>Physical Review Letters</i> , 2003 , 90, 144502	7.4	69 ₁
22	Inverse Monte Carlo procedure for conformation determination of macromolecules. <i>Journal of Computational Chemistry</i> , 2003 , 24, 876-90	3.5	12
21	Molecular dynamics simulation of orientation and crystallization of polyethylene during uniaxial extension. <i>Polymer</i> , 2003 , 44, 1771-1779	3.9	145
20	Temperature-Dependent Elasticity of a Semicrystalline Interphase Composed of Freely Rotating Chains. <i>Macromolecules</i> , 2003 , 36, 7358-7365	5.5	75
19	Multiresolution analysis in statistical mechanics. II. The wavelet transform as a basis for Monte Carlo simulations on lattices. <i>Journal of Chemical Physics</i> , 2003 , 118, 4424-4431	3.9	4 ₀
18	Multiresolution analysis in statistical mechanics. I. Using wavelets to calculate thermodynamic properties. <i>Journal of Chemical Physics</i> , 2003 , 118, 4414-4423	3.9	47
17	IMPLICATIONS OF METASTABILITY FOR THE CRYSTAL/AMORPHOUS INTERFACE FROM MOLECULAR SIMULATION. <i>Journal of Macromolecular Science - Physics</i> , 2002 , 41, 909-922	1.4	11
16	Electrospinning Bombyx mori silk with poly(ethylene oxide). <i>Biomacromolecules</i> , 2002 , 3, 1233-9	6.9	62 ₃
15	Enhanced mobility accompanies the active deformation of a glassy amorphous polymer. <i>Physical Review Letters</i> , 2002 , 89, 175505	7.4	114

14	Modeling experimental data in a Monte Carlo simulation. <i>Physical Review E</i> , 2001 , 63, 021111	2.4	26
13	Asymmetric growth in micelles containing oil. <i>Journal of Chemical Physics</i> , 1999 , 110, 9673-9680	3.9	17
12	Monte Carlo simulations of a liquid crystal copolymer in the solid state. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 1998 , 36, 727-741	2.6	4
11	Molecular simulation of the intercrystalline phase of chain molecules. <i>Journal of Chemical Physics</i> , 1998 , 109, 6523-6526	3.9	66
10	General reptation and scaling of 2d athermal polymers on close-packed lattices. <i>Journal of Chemical Physics</i> , 1997 , 107, 1269-1278	3.9	30
9	On the size and shape of self-assembled micelles. <i>Journal of Chemical Physics</i> , 1997 , 107, 10777-10781	3.9	86
8	Simulation of the Structure and Properties of the Polyethylene Crystal Surface. <i>The Journal of Physical Chemistry</i> , 1996 , 100, 10689-10695		5
7	A Method for Studying Conformational Relaxations by Molecular Simulation: Conformational Defects in β -Phase Poly(vinylidene fluoride). <i>Macromolecules</i> , 1996 , 29, 5190-5199	5.5	24
6	Polymeric materials. <i>Journal of Computer-Aided Materials Design</i> , 1996 , 3, 49-55		
5	A model of crystal polarization in β -poly(vinylidene fluoride). <i>Journal of Chemical Physics</i> , 1995 , 103, 10347-10353	3.9	53
4	Temperature Dependence of Structural and Mechanical Properties of Isotactic Polypropylene. <i>Macromolecules</i> , 1995 , 28, 1115-1120	5.5	20
3	Simulation of the temperature dependence of mechanical properties of polyethylene. <i>The Journal of Physical Chemistry</i> , 1994 , 98, 1222-1231		93
2	Implications of the volume dependent convergence of anharmonic free energy methods. <i>Journal of Chemical Physics</i> , 1994 , 101, 9961-9965	3.9	18
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