Benjamin S Hsiao

List of Publications by Year
in descending order

468 papers	37,958 citations	1614 105 h-index	4645 170 g-index
477 all docs	477 docs citations	477 times ranked	24382 citing authors

#	Article	IF	Citations
1	Structure and process relationship of electrospun bioabsorbable nanofiber membranes. Polymer, 2002, 43, 4403-4412.	3.8	1,671
2	Functional electrospun nanofibrous scaffolds for biomedical applications. Advanced Drug Delivery Reviews, 2007, 59, 1392-1412.	13.7	861
3	Incorporation and controlled release of a hydrophilic antibiotic using poly(lactide-co-glycolide)-based electrospun nanofibrous scaffolds. Journal of Controlled Release, 2004, 98, 47-56.	9.9	707
4	Electrospun fine-textured scaffolds for heart tissue constructs. Biomaterials, 2005, 26, 5330-5338.	11.4	597
5	NANOFIBROUS MATERIALS AND THEIR APPLICATIONS. Annual Review of Materials Research, 2006, 36, 333-368.	9.3	573
6	Control of degradation rate and hydrophilicity in electrospun non-woven poly(d,l-lactide) nanofiber scaffolds for biomedical applications. Biomaterials, 2003, 24, 4977-4985.	11.4	524
7	High flux ultrafiltration membranes based on electrospun nanofibrous PAN scaffolds and chitosan coating. Polymer, 2006, 47, 2434-2441.	3.8	503
8	Structure Development during Shear Flow-Induced Crystallization of i-PP:â€‰ In-Situ Small-Angle X-ray Scattering Study. Macromolecules, 2000, 33, 9385-9394.	4.8	465
9	Flow-induced shish-kebab precursor structures in entangled polymer melts. Polymer, 2005, 46, 8587-8623.	3.8	427
10	Functional nanofibers for environmental applications. Journal of Materials Chemistry, 2008, 18, 5326.	6.7	388
11	Crystallization Temperature-Dependent Crystal Orientations within Nanoscale Confined Lamellae of a Self-Assembled Crystallineâ^'Amorphous Diblock Copolymer. Journal of the American Chemical Society, 2000, 122, 5957-5967.	13.7	387
12	Structure Development during Shear Flow Induced Crystallization of i-PP:Â In Situ Wide-Angle X-ray Diffraction Study. Macromolecules, 2001, 34, 5902-5909.	4.8	385
13	Antithrombogenic property of bone marrow mesenchymal stem cells in nanofibrous vascular grafts. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 11915-11920.	7.1	360
14	Small-Angle X-ray Scattering of Polymers. Chemical Reviews, 2001, 101, 1727-1762.	47.7	348
15	High Flux Filtration Medium Based on Nanofibrous Substrate with Hydrophilic Nanocomposite Coating. Environmental Science & Technology, 2005, 39, 7684-7691.	10.0	348
16	Bioactive Nanofibers:Â Synergistic Effects of Nanotopography and Chemical Signaling on Cell Guidance. Nano Letters, 2007, 7, 2122-2128.	9.1	339
17	Isothermal Crystallization of Poly(<scp>l</scp>-lactide) Induced by Graphene Nanosheets and Carbon Nanotubes: A Comparative Study. Macromolecules, 2010, 43, 5000-5008.	4.8	308
18	Electro-Spinning and Electro-Blowing of Hyaluronic Acid. Biomacromolecules, 2004, 5, 1428-1436.	5.4	300

#	Article	IF	Citations
19	Myotube Assembly on Nanofibrous and Micropatterned Polymers. Nano Letters, 2006, 6, 537-542.	9.1	293
20	Orientation and Crystallization of Natural Rubber Network As Revealed by WAXD Using Synchrotron Radiation. Macromolecules, 2004, 37, 3299-3309.	4.8	273
21	Polymeric nanostructured materials for biomedical applications. Progress in Polymer Science, 2016, 60, 86-128.	24.7	257
22	Unexpected Shish-Kebab Structure in a Sheared Polyethylene Melt. Physical Review Letters, 2005, 94, 117802.	7.8	254
23	Optimization and Characterization of Dextran Membranes Prepared by Electrospinning. Biomacromolecules, 2004, 5, 326-333.	5.4	253
24	Electrospun nanofibrous membranes for high flux microfiltration. Journal of Membrane Science, 2012, 392-393, 167-174.	8.2	253
25	Effects of organoclays on morphology and thermal and rheological properties of polystyrene and poly(methyl methacrylate) blends. Journal of Polymer Science, Part B: Polymer Physics, 2003, 41, 44-54.	2.1	250
26	Ultra-fine cellulose nanofibers: new nano-scale materials for water purification. Journal of Materials Chemistry, 2011, 21, 7507.	6.7	250
27	Micro-nano structure poly(ether sulfones)/poly(ethyleneimine) nanofibrous affinity membranes for adsorption of anionic dyes and heavy metal ions in aqueous solution. Chemical Engineering Journal, 2012, 197, 88-100.	12.7	250
28	Structure and Morphology Changes during in Vitro Degradation of Electrospun Poly(glycolide-co-lactide) Nanofiber Membrane. Biomacromolecules, 2003, 4, 416-423.	5.4	248
29	New Insights into Structural Development in Natural Rubber during Uniaxial Deformation by In Situ Synchrotron X-ray Diffraction. Macromolecules, 2002, 35, 6578-6584.	4.8	242
30	High flux nanofiltration membranes based on interfacially polymerized polyamide barrier layer on polyacrylonitrile nanofibrous scaffolds. Journal of Membrane Science, 2009, 326, 484-492.	8.2	237
31	In-Situ Studies of Structure Development during Deformation of a Segmented Poly(urethaneâˆ’urea) Elastomer. Macromolecules, 2003, 36, 1940-1954.	4.8	236
32	Temperature dependence of polymer crystalline morphology in nylon 6/montmorillonite nanocomposites. Polymer, 2001, 42, 09975-09985.	3.8	234
33	High performance ultrafiltration composite membranes based on poly(vinyl alcohol) hydrogel coating on crosslinked nanofibrous poly(vinyl alcohol) scaffold. Journal of Membrane Science, 2006, 278, 261-268.	8.2	225
34	Mineralization of hydroxyapatite in electrospun nanofibrous poly(L-lactic acid) scaffolds. Journal of Biomedical Materials Research - Part A, 2006, 79A, 307-317.	4.0	220
35	Shear-Induced Precursor Structures in Isotactic Polypropylene Melt by in-Situ Rheo-SAXS and Rheo-WAXD Studies. Macromolecules, 2002, 35, 9096-9104.	4.8	219
36	Shear-Enhanced Crystallization in Isotactic Polypropylene. 3. Evidence for a Kinetic Pathway to Nucleation. Macromolecules, 2002, 35, 1762-1769.	4.8	217

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37	Nanofibrous microfiltration membranes capable of removing bacteria, viruses and heavy metal ions. Journal of Membrane Science, 2013, 446, 376-382.	8.2	215
38	Ultrafine Polysaccharide Nanofibrous Membranes for Water Purification. Biomacromolecules, 2011, 12, 970-976.	5.4	212
39	Thiol-modified cellulose nanofibrous composite membranes for chromium (VI) and lead (II) adsorption. Polymer, 2014, 55, 1167-1176.	3.8	211
40	Control of structure, morphology and property in electrospun poly(glycolide-co-lactide) non-woven membranes via post-draw treatments. Polymer, 2003, 44, 4959-4967.	3.8	207
41	Nanofibrous Microfiltration Membrane Based on Cellulose Nanowhiskers. Biomacromolecules, 2012, 13, 180-186.	5.4	201
42	Electrospun nanofiber membranes. Current Opinion in Chemical Engineering, 2016, 12, 62-81.	7.8	200
43	Shear-Induced Crystallization Precursor Studies in Model Polyethylene Blends by in-Situ Rheo-SAXS and Rheo-WAXD. Macromolecules, 2004, 37, 4845-4859.	4.8	197
44	Ultrafine Cellulose Nanofibers as Efficient Adsorbents for Removal of UO₂²⁺ in Water. ACS Macro Letters, 2012, 1, 213-216.	4.8	187
45	Nanoscale reinforcement of polyhedral oligomeric silsesquioxane (POSS) in polyurethane elastomer. Polymer International, 2000, 49, 437-440.	3.1	182
46	Hard and soft confinement effects on polymer crystallization in microphase separated cylinder-forming PEO-b-PS/PS blends. Polymer, 2001, 42, 9121-9131.	3.8	179
47	Shear-Induced Molecular Orientation and Crystallization in Isotactic Polypropylene: Effects of the Deformation Rate and Strain. Macromolecules, 2005, 38, 1244-1255.	4.8	179
48	Prevention of Postsurgery-Induced Abdominal Adhesions by Electrospun Bioabsorbable Nanofibrous Poly(lactide-co-glycolide)-Based Membranes. Annals of Surgery, 2004, 240, 910-915.	4.2	178
49	The role of interlamellar chain entanglement in deformation-induced structure changes during uniaxial stretching of isotactic polypropylene. Polymer, 2007, 48, 6867-6880.	3.8	173
50	Structure, crystallization and morphology of poly (aryl ether ketone ketone). Polymer, 1992, 33, 2483-2495.	3.8	172
51	Structural and Morphological Studies of Isotactic Polypropylene Fibers during Heat/Draw Deformation by in-Situ Synchrotron SAXS/WAXD. Macromolecules, 2001, 34, 2569-2578.	4.8	172
52	Improved barrier properties of poly(lactic acid) with randomly dispersed graphene oxide nanosheets. Journal of Membrane Science, 2014, 464, 110-118.	8.2	170
53	Formation and Stability of Shear-Induced Shish-Kebab Structure in Highly Entangled Melts of UHMWPE/HDPE Blends. Macromolecules, 2008, 41, 4766-4776.	4.8	162
54	Crystal Orientation Changes in Two-Dimensionally Confined Nanocylinders in a Poly(ethylene) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 62 T	4.8	160

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55	Physical gelation in ethyleneâ€“propylene copolymer melts induced by polyhedral oligomeric silsesquioxane (POSS) molecules. Polymer, 2003, 44, 1499-1506.	3.8	160
56	Graphene Nanosheets and Shear Flow Induced Crystallization in Isotactic Polypropylene Nanocomposites. Macromolecules, 2011, 44, 2808-2818.	4.8	160
57	Time-resolved X-ray study of poly(aryl ether ether ketone) crystallization and melting behaviour: 1. Crystallization. Polymer, 1993, 34, 3986-3995.	3.8	157
58	Formation of functional polyethersulfone electrospun membrane for water purification by mixed solvent and oxidation processes. Polymer, 2009, 50, 2893-2899.	3.8	156
59	Probing the Early Stages of Melt Crystallization in Polypropylene by Simultaneous Small- and Wide-Angle X-ray Scattering and Laser Light Scattering. Macromolecules, 2000, 33, 978-989.	4.8	154
60	Highly Permeable Polymer Membranes Containing Directed Channels for Water Purification. ACS Macro Letters, 2012, 1, 723-726.	4.8	154
61	Initial-Stage Growth Controlled Crystal Orientations in Nanoconfined Lamellae of a Self-Assembled Crystallineâ^'Amorphous Diblock Copolymer. Macromolecules, 2001, 34, 1244-1251.	4.8	152
62	Effective chromium removal from water by polyaniline-coated electrospun adsorbent membrane. Chemical Engineering Journal, 2019, 372, 341-351.	12.7	151
63	Continuous polymer nanofiber yarns prepared by self-bundling electrospinning method. Polymer, 2008, 49, 2755-2761.	3.8	150
64	Fabrication and characterization of cellulose nanofiber based thin-film nanofibrous composite membranes. Journal of Membrane Science, 2014, 454, 272-282.	8.2	150
65	Unprecedented Access to Strong and Ductile Poly(lactic acid) by Introducing In Situ Nanofibrillar Poly(butylene succinate) for Green Packaging. Biomacromolecules, 2014, 15, 4054-4064.	5.4	149
66	Effect of Nanoclay on Natural Rubber Microstructure. Macromolecules, 2008, 41, 6763-6772.	4.8	144
67	Functionalized electrospun nanofibrous microfiltration membranes for removal of bacteria and viruses. Journal of Membrane Science, 2014, 452, 446-452.	8.2	142
68	Shear-Induced Crystallization in Novel Long Chain Branched Polypropylenes by in Situ Rheo-SAXS and -WAXD. Macromolecules, 2003, 36, 5226-5235.	4.8	141
69	Dual-Biomimetic Superhydrophobic Electrospun Polystyrene Nanofibrous Membranes for Membrane Distillation. ACS Applied Materials & Interfaces, 2014, 6, 2423-2430.	8.0	141
70	Mechanism of strain-induced crystallization in filled and unfilled natural rubber vulcanizates. Journal of Applied Physics, 2005, 97, 103529.	2.5	140
71	Low-dimensional carbonaceous nanofiller induced polymer crystallization. Progress in Polymer Science, 2014, 39, 555-593.	24.7	140
72	Phase transformation in quenched mesomorphic isotactic polypropylene. Polymer, 2001, 42, 7561-7566.	3.8	138

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73	High flux ultrafiltration nanofibrous membranes based on polyacrylonitrile electrospun scaffolds and crosslinked polyvinyl alcohol coating. Journal of Membrane Science, 2009, 338, 145-152.	8.2	138
74	Nanocellulose from Spinifex as an Effective Adsorbent to Remove Cadmium(II) from Water. ACS Sustainable Chemistry and Engineering, 2018, 6, 3279-3290.	6.7	138
75	Formation of water-resistant hyaluronic acid nanofibers by blowing-assisted electro-spinning and non-toxic post treatments. Polymer, 2005, 46, 4853-4867.	3.8	136
76	Crystallization studies of isotactic polypropylene containing nanostructured polyhedral oligomeric silsesquioxane molecules under quiescent and shear conditions. Journal of Polymer Science, Part B: Polymer Physics, 2001, 39, 2727-2739.	2.1	135
77	Electrospinning of Hyaluronic Acid (HA) and HA/Gelatin Blends. Macromolecular Rapid Communications, 2006, 27, 114-120.	3.9	134
78	Shear-Enhanced Crystallization in Isotactic Polypropylene. In-Situ Synchrotron SAXS and WAXD. Macromolecules, 2004, 37, 9005-9017.	4.8	132
79	Entanglements and Networks to Strain-Induced Crystallization and Stressâ€“Strain Relations in Natural Rubber and Synthetic Polyisoprene at Various Temperatures. Macromolecules, 2013, 46, 5238-5248.	4.8	132
80	Mesophase as the Precursor for Strain-Induced Crystallization in Amorphous Poly(ethylene) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 462 Tc	4.8	131
81	Confinement Size Effect on Crystal Orientation Changes of Poly(ethylene oxide) Blocks in Poly(ethylene oxide)-b-polystyrene Diblock Copolymers. Macromolecules, 2004, 37, 3689-3698.	4.8	130
82	Structure and Morphology Changes in Absorbable Poly(glycolide) and Poly(glycolide-co-lactide) during in Vitro Degradation. Macromolecules, 1999, 32, 8107-8114.	4.8	128
83	Competitive Growth of Î±- and Î²-Crystals in Î²-Nucleated Isotactic Polypropylene under Shear Flow. Macromolecules, 2010, 43, 6760-6771.	4.8	128
84	Formation of Shish-Kebabs in Injection-Molded Poly(<scp>l</scp>-lactic acid) by Application of an Intense Flow Field. ACS Applied Materials & Interfaces, 2012, 4, 6774-6784.	8.0	128
85	High-flux microfiltration filters based on electrospun polyvinylalcohol nanofibrous membranes. Polymer, 2013, 54, 548-556.	3.8	128
86	Self-assembly and crystallization behavior of a double-crystalline polyethylene-block-poly(ethylene) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	3.8	127
87	Patterning Polyethylene Oligomers on Carbon Nanotubes Using Physical Vapor Deposition. Nano Letters, 2006, 6, 1007-1012.	9.1	126
88	Block Copolymers with a Twist. Journal of the American Chemical Society, 2009, 131, 18533-18542.	13.7	126
89	Phase structures and morphologies determined by competitions among self-organization, crystallization, and vitrification in a disordered poly(ethylene oxide)-b-polystyrene diblock copolymer. Physical Review B, 1999, 60, 10022-10031.	3.2	125
90	High-flux thin-film nanofibrous composite ultrafiltration membranes containing cellulose barrier layer. Journal of Materials Chemistry, 2010, 20, 4692.	6.7	125

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91	In-Situ Simultaneous Synchrotron Small- and Wide-Angle X-ray Scattering Measurement of Poly(vinylidene fluoride) Fibers under Deformation. Macromolecules, 2000, 33, 1765-1777.	4.8	124
92	Perforated Layer Structures in Liquid Crystalline Rodâ^'Coil Block Copolymers. Journal of the American Chemical Society, 2005, 127, 15481-15490.	13.7	124
93	A Simple Approach to Prepare Carboxycellulose Nanofibers from Untreated Biomass. Biomacromolecules, 2017, 18, 2333-2342.	5.4	124
94	Structure Study of Cellulose Fibers Wet-Spun from Environmentally Friendly NaOH/Urea Aqueous Solutions. Biomacromolecules, 2007, 8, 1918-1926.	5.4	121
95	Molecular orientation and structural development in vulcanized polyisoprene rubbers during uniaxial deformation by in situ synchrotron X-ray diffraction. Polymer, 2003, 44, 6003-6011.	3.8	120
96	Nanocelluloseâ€Enabled Membranes for Water Purification: Perspectives. Advanced Sustainable Systems, 2020, 4, 1900114.	5.3	118
97	Electrospun polystyrene nanofibrous membranes for direct contact membrane distillation. Journal of Membrane Science, 2016, 515, 86-97.	8.2	114
98	Characterization of Nanocellulose Using Small-Angle Neutron, X-ray, and Dynamic Light Scattering Techniques. Journal of Physical Chemistry B, 2017, 121, 1340-1351.	2.6	112
99	Deformation-Induced Phase Transition and Superstructure Formation in Poly(ethylene terephthalate). Macromolecules, 2005, 38, 91-103.	4.8	111
100	Development of hydrophilic barrier layer on nanofibrous substrate as composite membrane via a facile route. Journal of Membrane Science, 2010, 356, 110-116.	8.2	111
101	High performance thin-film nanofibrous composite hemodialysis membranes with efficient middle-molecule uremic toxin removal. Journal of Membrane Science, 2017, 523, 173-184.	8.2	111
102	Glass transition, crystallization, and morphology relationships in miscible poly(aryl ether ketones) and poly(ether imide) blends. Journal of Polymer Science, Part B: Polymer Physics, 1993, 31, 901-915.	2.1	110
103	Time-resolved X-ray study of poly(aryl ether ether ketone) crystallization and melting behaviour: 2. Melting. Polymer, 1993, 34, 3996-4003.	3.8	110
104	Nanofiltration membranes prepared by interfacial polymerization on thin-film nanofibrous composite scaffold. Polymer, 2014, 55, 1358-1366.	3.8	109
105	Precursors of primary nucleation induced by flow in isotactic polypropylene. Physica A: Statistical Mechanics and Its Applications, 2002, 304, 145-157.	2.6	107
106	X-ray studies of regenerated cellulose fibers wet spun from cotton linter pulp in NaOH/thiourea aqueous solutions. Polymer, 2006, 47, 2839-2848.	3.8	107
107	New insights into the relationship between network structure and strain-induced crystallization in un-vulcanized and vulcanized natural rubber by synchrotron X-ray diffraction. Polymer, 2009, 50, 2142-2148.	3.8	107
108	Nanofibrous polydopamine complex membranes for adsorption of Lanthanum (III) ions. Chemical Engineering Journal, 2014, 244, 307-316.	12.7	106

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109	Time-resolved shear behavior of end-tethered Nylon 6â€“clay nanocomposites followed by non-isothermal crystallization. Polymer, 2001, 42, 9015-9023.	3.8	105
110	Nature of Strain-Induced Structures in Natural and Synthetic Rubbers under Stretching. Macromolecules, 2003, 36, 5915-5917.	4.8	104
111	In vitro non-viral gene delivery with nanofibrous scaffolds. Nucleic Acids Research, 2005, 33, e170-e170.	14.5	102
112	Thermal Stability of Shear-Induced Shish-Kebab Precursor Structure from High Molecular Weight Polyethylene Chains. Macromolecules, 2006, 39, 2209-2218.	4.8	102
113	Super-Robust Polylactide Barrier Films by Building Densely Oriented Lamellae Incorporated with Ductile in Situ Nanofibrils of Poly(butylene adipate-co-terephthalate). ACS Applied Materials & Interfaces, 2016, 8, 8096-8109.	8.0	102
114	Crystallization-Induced Undulated Morphology in Polystyrene-b-Poly(l-lactide) Block Copolymer. Macromolecules, 2004, 37, 5985-5994.	4.8	99
115	Debranching and crystallization of waxy maize starch in relation to enzyme digestibility. Carbohydrate Polymers, 2010, 81, 385-393.	10.2	99
116	Fabrication of thin-film nanofibrous composite membranes by interfacial polymerization using ionic liquids as additives. Journal of Membrane Science, 2010, 365, 52-58.	8.2	98
117	Hierarchical Assembly of a Series of Rodâ"Coil Block Copolymers:Â Supramolecular LC Phase in Nanoenviroment. Macromolecules, 2004, 37, 2854-2860.	4.8	97
118	Structure Development during the Melt Spinning of Polyethylene and Poly(vinylidene fluoride) Fibers by in Situ Synchrotron Small- and Wide-Angle X-ray Scattering Techniques. Macromolecules, 1999, 32, 8121-8132.	4.8	96
119	Crystallization and Stress Relaxation in Highly Stretched Samples of Natural Rubber and Its Synthetic Analogue. Macromolecules, 2006, 39, 5100-5105.	4.8	95
120	Shear Flow and Carbon Nanotubes Synergistically Induced Nonisothermal Crystallization of Poly(lactic acid) and Its Application in Injection Molding. Biomacromolecules, 2012, 13, 3858-3867.	5.4	95
121	Strainâ€induced crystallization and mechanical properties of functionalized graphene sheetâ€filled natural rubber. Journal of Polymer Science, Part B: Polymer Physics, 2012, 50, 718-723.	2.1	94
122	Poly(ethyleneimine) nanofibrous affinity membrane fabricated via one step wet-electrospinning from poly(vinyl alcohol)-doped poly(ethyleneimine) solution system and its application. Journal of Membrane Science, 2011, 379, 191-199.	8.2	93
123	Efficient Removal of Arsenic Using Zinc Oxide Nanocrystal-Decorated Regenerated Microfibrillated Cellulose Scaffolds. ACS Sustainable Chemistry and Engineering, 2019, 7, 6140-6151.	6.7	93
124	Understanding the Mechanistic Behavior of Highly Charged Cellulose Nanofibers in Aqueous Systems. Macromolecules, 2018, 51, 1498-1506.	4.8	92
125	UV-cured poly(vinyl alcohol) ultrafiltration nanofibrous membrane based on electrospun nanofiber scaffolds. Journal of Membrane Science, 2009, 328, 1-5.	8.2	91
126	Nanotailored Crystalline Morphology in Hexagonally Perforated Layers of a Self-Assembled PS-b-PEO Diblock Copolymer. Macromolecules, 2002, 35, 3553-3562.	4.8	90

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127	Novel nanofibrous scaffolds for water filtration with bacteria and virus removal capability. Journal of Electron Microscopy, 2011, 60, 201-209.	0.9	90
128	Effect of Network-Chain Length on Strain-Induced Crystallization of NR and IR Vulcanizates. Rubber Chemistry and Technology, 2004, 77, 711-723.	1.2	89
129	Effects of high molecular weight species on shear-induced orientation and crystallization of isotactic polypropylene. Polymer, 2006, 47, 5657-5668.	3.8	89
130	In Situ Synchrotron X-ray Scattering Study on Isotactic Polypropylene Crystallization under the Coexistence of Shear Flow and Carbon Nanotubes. Macromolecules, 2011, 44, 8080-8092.	4.8	89
131	Strong Shear Flow-Driven Simultaneous Formation of Classic Shish-Kebab, Hybrid Shish-Kebab, and Transcrystallinity in Poly(lactic acid)/Natural Fiber Biocomposites. ACS Sustainable Chemistry and Engineering, 2013, 1, 1619-1629.	6.7	89
132	Strain-Induced Crystallization of Natural Rubber: Effect of Proteins and Phospholipids. Rubber Chemistry and Technology, 2008, 81, 753-766.	1.2	88
133	Highly efficient and sustainable carboxylated cellulose filters for removal of cationic dyes/heavy metals ions. Chemical Engineering Journal, 2020, 389, 123458.	12.7	88
134	Comparison of poly(ethylene oxide) crystal orientations and crystallization behaviors in nano-confined cylinders constructed by a poly(ethylene oxide)-b-polystyrene diblock copolymer and a blend of poly(ethylene oxide)-b-polystyrene and polystyrene. Polymer, 2006, 47, 5457-5466.	3.8	87
135	Enhanced Mechanical Performance of Selfâ€Bundled Electrospun Fiber Yarns via Postâ€Treatments. Macromolecular Rapid Communications, 2008, 29, 826-831.	3.9	87
136	Isothermal thickening and thinning processes in low-molecular-weight poly(ethylene oxide) fractions crystallized from the melt. 4. End-group dependence. Macromolecules, 1993, 26, 5105-5117.	4.8	85
137	Probing the Nature of Strain-Induced Crystallization in Polyisoprene Rubber by Combined Thermomechanical and In Situ X-ray Diffraction Techniques. Macromolecules, 2005, 38, 7064-7073.	4.8	85
138	Design and fabrication of electrospun polyethersulfone nanofibrous scaffold for highâ€flux nanofiltration membranes. Journal of Polymer Science, Part B: Polymer Physics, 2009, 47, 2288-2300.	2.1	84
139	Thin-film nanofibrous composite membranes containing cellulose or chitin barrier layers fabricated by ionic liquids. Polymer, 2011, 52, 2594-2599.	3.8	84
140	High flux ethanol dehydration using nanofibrous membranes containing graphene oxide barrier layers. Journal of Materials Chemistry A, 2013, 1, 12998.	10.3	84
141	Self-roughened omniphobic coatings on nanofibrous membrane for membrane distillation. Separation and Purification Technology, 2018, 206, 14-25.	7.9	82
142	Nanocellulose for Sustainable Water Purification. Chemical Reviews, 2022, 122, 8936-9031.	47.7	82
143	Strain-Induced Molecular Orientation and Crystallization in Natural and Synthetic Rubbers under Uniaxial Deformation by In-situ Synchrotron X-ray Study. Rubber Chemistry and Technology, 2004, 77, 317-335.	1.2	81
144	Structural formation of amorphous poly(ethylene terephthalate) during uniaxial deformation above glass temperature. Polymer, 2004, 45, 905-918.	3.8	81

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145	Nanofibrous ultrafiltration membranes containing cross-linked poly(ethylene glycol) and cellulose nanofiber composite barrier layer. Polymer, 2014, 55, 366-372.	3.8	80
146	Nanofiltration membranes based on thin-film nanofibrous composites. Journal of Membrane Science, 2014, 469, 188-197.	8.2	80
147	Phase Diagram of a Nearly Isorefractive Polyolefin Blend. Macromolecules, 2002, 35, 1072-1078.	4.8	79
148	Crystallization and structure formation of poly(l-lactide-co-meso-lactide) random copolymers: a time-resolved wide- and small-angle X-ray scattering study. Polymer, 2003, 44, 711-717.	3.8	79
149	Efficient Removal of UO₂²⁺ from Water Using Carboxycellulose Nanofibers Prepared by the Nitro-Oxidation Method. Industrial & Engineering Chemistry Research, 2017, 56, 13885-13893.	3.7	79
150	Single Molecular Layer of Silk Nanoribbon as Potential Basic Building Block of Silk Materials. ACS Nano, 2018, 12, 11860-11870.	14.6	79
151	Lateral Packing of Mineral Crystals in Bone Collagen Fibrils. Biophysical Journal, 2008, 95, 1985-1992.	0.5	77
152	Interfacial Shish-Kebabs Lengthened by Coupling Effect of In Situ Flexible Nanofibrils and Intense Shear Flow: Achieving Hierarchy To Conquer the Conflicts between Strength and Toughness of Polylactide. ACS Applied Materials & Interfaces, 2017, 9, 10148-10159.	8.0	77
153	Comparison of crystallization kinetics in various nanoconfined geometries. Polymer, 2004, 45, 2931-2939.	3.8	76
154	The effects of endlinking network and entanglement to stressâ€“strain relation and strain-induced crystallization of un-vulcanized and vulcanized natural rubber. Polymer, 2012, 53, 3325-3330.	3.8	76
155	Synthesis and Characterization of Segmented Polyurethanes Containing Polyhedral Oligomeric Silsesquioxanes Nanostructured Molecules. High Performance Polymers, 2000, 12, 565-571.	1.8	74
156	Eco-friendly poly(acrylic acid)-sodium alginate nanofibrous hydrogel: A multifunctional platform for superior removal of Cu(II) and sustainable catalytic applications. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2018, 558, 228-241.	4.7	74
157	An in Situ X-ray Structural Study of Olefin Block and Random Copolymers under Uniaxial Deformation. Macromolecules, 2010, 43, 1922-1929.	4.8	73
158	Anionic Surfactant-Triggered Steiner Geometrical Poly(vinylidene fluoride) Nanofiber/Nanonet Air Filter for Efficient Particulate Matter Removal. ACS Applied Materials & Interfaces, 2018, 10, 42891-42904.	8.0	73
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