Chul B Park

List of Publications by Year
in descending order

353 papers	23,820 citations	5574 82 h-index	12946 131 g-index
362 all docs	362 docs citations	362 times ranked	8712 citing authors

#	Article	IF	Citations
1	Poly(lactic acid) crystallization. Progress in Polymer Science, 2012, 37, 1657-1677.	24.7	1,190
2	Electrical properties and electromagnetic interference shielding effectiveness of polypropylene/carbon fiber composite foams. Carbon, 2013, 60, 379-391.	10.3	484
3	Poly (lactic acid) foaming. Progress in Polymer Science, 2014, 39, 1721-1741.	24.7	401
4	Effect of the pressure drop rate on cell nucleation in continuous processing of microcellular polymers. Polymer Engineering and Science, 1995, 35, 432-440.	3.1	377
5	Polypropylene/carbon nanotube nano/microcellular structures with high dielectric permittivity, low dielectric loss, and low percolation threshold. Carbon, 2014, 71, 206-217.	10.3	361
6	Lightweight Polypropylene/Stainless-Steel Fiber Composite Foams with Low Percolation for Efficient Electromagnetic Interference Shielding. ACS Applied Materials & Interfaces, 2014, 6, 11091-11100.	8.0	295
7	A study of cell nucleation in the extrusion of polypropylene foams. Polymer Engineering and Science, 1997, 37, 1-10.	3.1	285
8	Flexible, Ultrathin, and High-Efficiency Electromagnetic Shielding Properties of Poly(Vinylidene) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 46	8.0	264
9	Effect of the crystallinity and morphology on the microcellular foam structure of semicrystalline polymers. Polymer Engineering and Science, 1996, 36, 2645-2662.	3.1	263
10	Low density microcellular foam processing in extrusion using CO2. Polymer Engineering and Science, 1998, 38, 1812-1823.	3.1	248
11	Strategies for achieving ultra low-density polypropylene foams. Polymer Engineering and Science, 2002, 42, 1481-1492.	3.1	243
12	Ultralow-Threshold and Lightweight Biodegradable Porous PLA/MWCNT with Segregated Conductive Networks for High-Performance Thermal Insulation and Electromagnetic Interference Shielding Applications. ACS Applied Materials & Interfaces, 2018, 10, 1195-1203.	8.0	241
13	Processing and characterization of microcellular foamed high-density polythylene/isotactic polypropylene blends. Polymer Engineering and Science, 1998, 38, 1205-1215.	3.1	237
14	Fundamental foaming mechanisms governing the volume expansion of extruded polypropylene foams. Journal of Applied Polymer Science, 2004, 91, 2661-2668.	2.6	236
15	Cell morphology and property relationships of microcellular foamed pvc/wood-fiber composites. Polymer Engineering and Science, 1998, 38, 1862-1872.	3.1	223
16	A microcellular processing study of poly(ethylene terephthalate) in the amorphous and semicrystalline states. Part I: Microcell nucleation. Polymer Engineering and Science, 1996, 36, 1437-1445.	3.1	207
17	Past and present developments in polymer bead foams and bead foaming technology. Polymer, 2015, 56, 5-19.	3.8	189
18	Advances in electromagnetic shielding properties of composite foams. Journal of Materials Chemistry A, 2021, 9, 8896-8949.	10.3	184

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19	A Study of the Crystallization, Melting, and Foaming Behaviors of Polylactic Acid in Compressed CO2. International Journal of Molecular Sciences, 2009, 10, 5381-5397.	4.1	182
20	Processing and cell morphology relationships for microcellular foamed PVC/wood-fiber composites. Polymer Engineering and Science, 1997, 37, 1137-1147.	3.1	180
21	Crystallization Kinetics of Linear and Long-Chain-Branched Polylactide. Industrial & Engineering Chemistry Research, 2011, 50, 13789-13798.	3.7	179
22	Effects of die geometry on cell nucleation of PS foams blown with CO2. Polymer Engineering and Science, 2003, 43, 1378-1390.	3.1	176
23	Mechanism of extensional stress-induced cell formation in polymeric foaming processes with the presence of nucleating agents. Journal of Supercritical Fluids, 2012, 63, 187-198.	3.2	174
24	Fundamental mechanisms of cell nucleation in polypropylene foaming with supercritical carbon dioxideâ€"Effects of extensional stresses and crystals. Journal of Supercritical Fluids, 2013, 79, 142-151.	3.2	174
25	Synergism between carbon materials and Ni chains in flexible poly(vinylidene fluoride) composite films with high heat dissipation to improve electromagnetic shielding properties. Carbon, 2018, 127, 469-478.	10.3	169
26	Ultra-tough and super thermal-insulation nanocellular PMMA/TPU. Chemical Engineering Journal, 2017, 325, 632-646.	12.7	165
27	Incorporating a microcellular structure into PVDF/grapheneâ€"nanoplatelet composites to tune their electrical conductivity and electromagnetic interference shielding properties. Journal of Materials Chemistry C, 2018, 6, 10292-10300.	5.5	165
28	Filamentary extrusion of microcellular polymers using a rapid decompressive element. Polymer Engineering and Science, 1996, 36, 34-48.	3.1	161
29	High thermal insulation and compressive strength polypropylene foams fabricated by high-pressure foam injection molding and mold opening of nano-fibrillar composites. Materials and Design, 2017, 131, 1-11.	7.0	161
30	Heat transfer in microcellular polystyrene/multi-walled carbon nanotube nanocomposite foams. Carbon, 2015, 93, 819-829.	10.3	158
31	Continuous processing of low-density, microcellular poly(lactic acid) foams with controlled cell morphology and crystallinity. Chemical Engineering Science, 2012, 75, 390-399.	3.8	157
32	Poly(lactic acid)-Based in Situ Microfibrillar Composites with Enhanced Crystallization Kinetics, Mechanical Properties, Rheological Behavior, and Foaming Ability. Biomacromolecules, 2015, 16, 3925-3935.	5.4	157
33	Enhanced Electrical and Electromagnetic Interference Shielding Properties of Polymerâ€"Graphene Nanoplatelet Composites Fabricated via Supercritical-Fluid Treatment and Physical Foaming. ACS Applied Materials & Interfaces, 2018, 10, 30752-30761.	8.0	156
34	Development of high void fraction polylactide composite foams using injection molding: Mechanical and thermal insulation properties. Composites Science and Technology, 2014, 90, 88-95.	7.8	155
35	Extruded PLA/clay nanocomposite foams blown with supercritical CO2. Polymer, 2014, 55, 4077-4090.	3.8	155
36	Lightweight and tough nanocellular PP/PTFE nanocomposite foams with defect-free surfaces obtained using in situ nanofibrillation and nanocellular injection molding. Chemical Engineering Journal, 2018, 350, 1-11.	12.7	154

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37	Measurements and modeling of PS/supercritical CO2 solution viscosities. Polymer Engineering and Science, 1999, 39, 99-109.	3.1	152
38	Effects of nano-/micro-sized additives on the crystallization behaviors of PLA andÂPLA/CO2 mixtures. Polymer, 2013, 54, 2382-2391.	3.8	150
39	Extruded Open-Cell Foams Using Two Semicrystalline Polymers with Different Crystallization Temperatures. Industrial & Engineering Chemistry Research, 2006, 45, 175-181.	3.7	148
40	Cell Structure Evolution and the Crystallization Behavior of Polypropylene/Clay Nanocomposites Foams Blown in Continuous Extrusion. Industrial & Engineering Chemistry Research, 2010, 49, 9834-9845.	3.7	147
41	Mechanical and bead foaming behavior of PLA-PBAT and PLA-PBSA blends with different morphologies. European Polymer Journal, 2017, 90, 231-244.	5.4	147
42	Microcellular extrusionâ€foaming of polylactide with chainâ€extender. Polymer Engineering and Science, 2009, 49, 1653-1660.	3.1	146
43	Superhydrophobic and Oleophilic Open-Cell Foams from Fibrillar Blends of Polypropylene and Polytetrafluoroethylene. ACS Applied Materials & Interfaces, 2014, 6, 21131-21140.	8.0	145
44	Development of polylactide bead foams with double crystal melting peaks. Polymer, 2015, 69, 83-94.	3.8	142
45	Tunable electromagnetic shielding properties of conductive poly(vinylidene fluoride)/Ni chain composite films with negative permittivity. Journal of Materials Chemistry C, 2017, 5, 6954-6961.	5.5	139
46	Lightweight and flexible graphene/SiC-nanowires/ poly(vinylidene fluoride) composites for electromagnetic interference shielding and thermal management. Carbon, 2020, 156, 58-66.	10.3	138
47	Low-density and structure-tunable microcellular PMMA foams with improved thermal-insulation and compressive mechanical properties. European Polymer Journal, 2017, 95, 382-393.	5.4	136
48	Injection-molded microcellular PLA/graphite nanocomposites with dramatically enhanced mechanical and electrical properties for ultra-efficient EMI shielding applications. Journal of Materials Chemistry C, 2018, 6, 6847-6859.	5.5	136
49	A microcellular processing study of poly(ethylene terephthalate) in the amorphous and semicrystalline states. Part II: Cell growth and process design. Polymer Engineering and Science, 1996, 36, 1446-1453.	3.1	129
50	Development of PLA/cellulosic fiber composite foams using injection molding: Crystallization and foaming behaviors. Composites Part A: Applied Science and Manufacturing, 2016, 83, 130-139.	7.6	129
51	Advanced bimodal polystyrene/multi-walled carbon nanotube nanocomposite foams for thermal insulation. Carbon, 2017, 120, 1-10.	10.3	124
52	Modelling of thermal transport through a nanocellular polymer foam: toward the generation of a new superinsulating material. Nanoscale, 2017, 9, 5996-6009.	5.6	124
53	Tailoring poly(lactic acid) for packaging applications via the production of fully bio-based in situ microfibrillar composite films. Chemical Engineering Journal, 2017, 308, 772-782.	12.7	123
54	Lightweight, super-elastic, and thermal-sound insulation bio-based PEBA foams fabricated by high-pressure foam injection molding with mold-opening. European Polymer Journal, 2018, 103, 68-79.	5.4	120

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55	Achieving wideband microwave absorption properties in PVDF nanocomposite foams with an ultra-low MWCNT content by introducing a microcellular structure. Journal of Materials Chemistry C, 2020, 8, 58-70.	5.5	120
56	In situ fibrillation of CO2-philic polymers: Sustainable route to polymer foams in a continuous process. Polymer, 2013, 54, 4645-4652.	3.8	118
57	Development of high thermal insulation and compressive strength BPP foams using mold-opening foam injection molding with in-situ fibrillated PTFE fibers. European Polymer Journal, 2018, 98, 1-10.	5.4	117
58	Enhanced Thermal Conductivity of Graphene Nanoplateletâ€“Polymer Nanocomposites Fabricated via Supercritical Fluid-Assisted in Situ Exfoliation. ACS Applied Materials & Interfaces, 2018, 10, 1225-1236.	8.0	114
59	Double Crystal Melting Peak Generation for Expanded Polypropylene Bead Foam Manufacturing. Industrial & Engineering Chemistry Research, 2013, 52, 2297-2303.	3.7	113
60	Use of stereocomplex crystallites for fully-biobased microcellular low-density poly(lactic acid) foams for green packaging. Chemical Engineering Journal, 2017, 327, 1151-1162.	12.7	112
61	An Effective Design Strategy for the Sandwich Structure of PVDF/GNP-Ni-CNT Composites with Remarkable Electromagnetic Interference Shielding Effectiveness. ACS Applied Materials & Interfaces, 2020, 12, 36568-36577.	8.0	112
62	Extrusion of PE/PS blends with supercritical carbon dioxide. Polymer Engineering and Science, 1998, 38, 1112-1120.	3.1	111
63	A versatile foaming platform to fabricate polymer/carbon composites with high dielectric permittivity and ultra-low dielectric loss. Journal of Materials Chemistry A, 2019, 7, 133-140.	10.3	111
64	Poly(vinylidene fluoride) foams: a promising low-<i>k</i> dielectric and heat-insulating material. Journal of Materials Chemistry C, 2018, 6, 3065-3073.	5.5	110
65	Change in the critical nucleation radius and its impact on cell stability during polymeric foaming processes. Chemical Engineering Science, 2009, 64, 4899-4907.	3.8	109
66	The effects of extensional stresses on the foamability of polystyreneâ€“talc composites blown with carbon dioxide. Chemical Engineering Science, 2012, 75, 49-62.	3.8	109
67	Computer Simulation of Bubble-Growth Phenomena in Foaming. Industrial & Engineering Chemistry Research, 2006, 45, 7823-7831.	3.7	108
68	A facile method to increase the charge storage capability of polymer nanocomposites. Nano Energy, 2015, 15, 54-65.	16.0	108
69	Fiber-spun polypropylene/polyethylene terephthalate microfibrillar composites with enhanced tensile and rheological properties and foaming ability. Polymer, 2017, 110, 139-148.	3.8	103
70	Strong and super thermally insulating in-situ nanofibrillar PLA/PET composite foam fabricated by high-pressure microcellular injection molding. Chemical Engineering Journal, 2020, 390, 124520.	12.7	103
71	A novel technology to manufacture biodegradable polylactide bead foam products. Materials and Design, 2015, 83, 413-421.	7.0	101
72	Evidence of a dual network/spherulitic crystalline morphology in PLA stereocomplexes. Polymer, 2012, 53, 5816-5824.	3.8	100

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73	An extrusion system for the processing of microcellular polymer sheets: Shaping and cell growth control. Polymer Engineering and Science, 1996, 36, 1425-1435.	3.1	99
74	Advances in precursor system for silica-based aerogel production toward improved mechanical properties, customized morphology, and multifunctionality: A review. Advances in Colloid and Interface Science, 2020, 276, 102101.	14.7	99
75	Ultra-lightweight, super thermal-insulation and strong PP/CNT microcellular foams. Composites Science and Technology, 2020, 191, 108084.	7.8	97
76	A Microcellular Foaming Simulation System with a High Pressure-Drop Rate. Industrial & Engineering Chemistry Research, 2006, 45, 6153-6161.	3.7	95
77	Crystallization of hard segment domains with the presence of butane for microcellular thermoplastic polyurethane foams. Polymer, 2014, 55, 651-662.	3.8	94
78	Surface-engineered sponges for recovery of crude oil microdroplets from wastewater. Nature Sustainability, 2020, 3, 136-143.	23.7	94
79	Role of elastic strain energy in cell nucleation of polymer foaming and its application for fabricating sub-microcellular TPU microfilms. Polymer, 2017, 119, 28-39.	3.8	91
80	Lightweight and strong microcellular injection molded PP/talc nanocomposite. Composites Science and Technology, 2018, 168, 38-46.	7.8	89
81	Facile production of biodegradable PCL/PLA in situ nanofibrillar composites with unprecedented compatibility between the blend components. Chemical Engineering Journal, 2018, 351, 976-984.	12.7	88
82	Foaming of PS/wood fiber composites using moisture as a blowing agent. Polymer Engineering and Science, 2000, 40, 2124-2132.	3.1	85
83	Comparison of melting and crystallization behaviors of polylactide under high-pressure CO2, N2, and He. Polymer, 2013, 54, 6471-6478.	3.8	85
84	Dispersed polypropylene fibrils improve the foaming ability of a polyethylene matrix. Polymer, 2014, 55, 4199-4205.	3.8	83
85	Critical processing parameters for foamed bead manufacturing in a lab-scale autoclave system. Chemical Engineering Journal, 2013, 214, 180-188.	12.7	82
86	Rheological and foaming behavior of linear and branched polylactides. Rheologica Acta, 2014, 53, 779-790.	2.4	81
87	Tuning viscoelastic and crystallization properties of polypropylene containing in-situ generated high aspect ratio polyethylene terephthalate fibrils. Polymer, 2015, 68, 83-91.	3.8	80
88	Process-microstructure-electrical conductivity relationships in injection-molded polypropylene/carbon nanotube nanocomposite foams. Composites Part A: Applied Science and Manufacturing, 2017, 96, 28-36.	7.6	80
89	Steam-Chest Molding of Expanded Polypropylene Foams. 2. Mechanism of Interbead Bonding. Industrial & Engineering Chemistry Research, 2011, 50, 5523-5531.	3.7	79
90	Ultralight Microcellular Polymerâ€"Graphene Nanoplatelet Foams with Enhanced Dielectric Performance. ACS Applied Materials & Interfaces, 2018, 10, 19987-19998.	8.0	79

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91	Nanosilica Addition Dramatically Improves the Cell Morphology and Expansion Ratio of Polypropylene Heterophasic Copolymer Foams Blown in Continuous Extrusion. Industrial & Engineering Chemistry Research, 2011, 50, 7282-7289.	3.7	78
92	Strategies to Achieve a Uniform Cell Structure with a High Void Fraction in Advanced Structural Foam Molding. Industrial & Engineering Chemistry Research, 2008, 47, 9457-9464.	3.7	77
93	A batch foaming visualization system with extensional stress-inducing ability. Chemical Engineering Science, 2011, 66, 55-63.	3.8	77
94	Mechanisms of nanoclay-enhanced plastic foaming processes: effects of nanoclay intercalation and exfoliation. Journal of Nanoparticle Research, 2013, 15, 1.	1.9	77
95	Novel separator skimmer for oil spill cleanup and oily wastewater treatment: From conceptual system design to the first pilot-scale prototype development. Environmental Technology and Innovation, 2020, 18, 100598.	6.1	77
96	Layered Foam/Film Polymer Nanocomposites with Highly Efficient EMI Shielding Properties and Ultralow Reflection. Nano-Micro Letters, 2022, 14, 19.	27.0	76
97	Design and development of novel bio-based functionally graded foams for enhanced acoustic capabilities. Journal of Materials Science, 2015, 50, 1248-1256.	3.7	74
98	Scalable Fabrication of Thermally Insulating Mechanically Resilient Hierarchically Porous Polymer Foams. ACS Applied Materials & Interfaces, 2018, 10, 38410-38417.	8.0	74
99	Mechanical and morphological properties of injection molded linear and branched-polylactide (PLA) nanocomposite foams. European Polymer Journal, 2015, 73, 455-465.	5.4	73
100	Structure-tunable thermoplastic polyurethane foams fabricated by supercritical carbon dioxide foaming and their compressive mechanical properties. Journal of Supercritical Fluids, 2019, 149, 127-137.	3.2	73
101	Challenge to Extrusion of Low-Density Microcellular Polycarbonate Foams Using Supercritical Carbon Dioxide. Industrial & Engineering Chemistry Research, 2005, 44, 92-99.	3.7	72
102	Dependence of electromagnetic interference shielding ability of conductive polymer composite foams with hydrophobic properties on cellular structure. Journal of Materials Chemistry C, 2020, 8, 7401-7410.	5.5	70
103	Effect of Processing Parameters on the Mechanical Properties of Injection Molded Thermoplastic Polyolefin (TPO) Cellular Foams. Macromolecular Materials and Engineering, 2008, 293, 605-613.	3.6	69
104	Effect of Unexpected CO₂â€™s Phase Transition on the High-Pressure Differential Scanning Calorimetry Performance of Various Polymers. ACS Sustainable Chemistry and Engineering, 2016, 4, 1810-1818.	6.7	69
105	Effect of Supercritical Gas on Crystallization of Linear and Branched Polypropylene Resins with Foaming Additives. Industrial & Engineering Chemistry Research, 2005, 44, 6685-6691.	3.7	68
106	HDPE-Clay Nanocomposite Foams Blown with Supercritical CO2. Journal of Cellular Plastics, 2005, 41, 487-502.	2.4	67
107	The synergy of supercritical CO2 and supercritical N2 in foaming of polystyrene for cell nucleation. Journal of Supercritical Fluids, 2014, 90, 35-43.	3.2	67
108	Enhancing the electrical conductivity of PP/CNT nanocomposites through crystal-induced volume exclusion effect with a slow cooling rate. Composites Part B: Engineering, 2020, 183, 107663.	12.0	67

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109	A review on physical foaming of thermoplastic and vulcanized elastomers. Polymer Reviews, 2022, 62, 95-141.	10.9	66
110	Enhanced electromagnetic wave absorption performance of polymer/SiC-nanowire/MXene (Ti3C2Tx) composites. Carbon, 2021, 179, 408-416.	10.3	66
111	Study of the bubble nucleation and growth mechanisms in high-pressure foam injection molding through in-situ visualization. European Polymer Journal, 2016, 76, 2-13.	5.4	65
112	Lightweight and strong fibrillary PTFE reinforced polypropylene composite foams fabricated by foam injection molding. European Polymer Journal, 2019, 119, 22-31.	5.4	65
113	Determination of carbon dioxide solubility in polylactide acid with accurate PVT properties. Journal of Chemical Thermodynamics, 2014, 70, 13-23.	2.0	64
114	Transition from microcellular to nanocellular PLA foams by controlling viscosity, branching and crystallization. European Polymer Journal, 2017, 91, 283-296.	5.4	64
115	Processing of microcellular preceramics using carbon dioxide. Composites Science and Technology, 2003, 63, 2371-2377.	7.8	63
116	Characterization of the Structure, Acoustic Property, Thermal Conductivity, and Mechanical Property of Highly Expanded Openâ€Cell Polycarbonate Foams. Macromolecular Materials and Engineering, 2015, 300, 48-56.	3.6	63
117	Microcellular extrusion foaming of poly(lactide)/poly(butylene adipate-co-terephthalate) blends. Materials Science and Engineering C, 2010, 30, 255-262.	7.3	62
118	Sustainable and efficient technologies for removal and recovery of toxic and valuable metals from wastewater: Recent progress, challenges, and future perspectives. Chemosphere, 2022, 292, 133102.	8.2	62
119	Steam-Chest Molding of Expanded Polypropylene Foams. 1. DSC Simulation of Bead Foam Processing. Industrial & Engineering Chemistry Research, 2010, 49, 9822-9829.	3.7	61
120	Steam-chest molding of expanded thermoplastic polyurethane bead foams and their mechanical properties. Chemical Engineering Science, 2017, 174, 337-346.	3.8	61
121	Processing and characterization of solid and foamed injection-molded polylactide with talc. Journal of Cellular Plastics, 2013, 49, 351-374.	2.4	60
122	Rheology, thermal properties, and foaming behavior of high <scp>d</scp>-content polylactic acid/cellulose nanofiber composites. RSC Advances, 2015, 5, 91544-91557.	3.6	60
123	Fabrication and Characterization of Closed-Cell Rubber Foams Based on Natural Rubber/Carbon Black by One-Step Foam Processing. Industrial & Engineering Chemistry Research, 2016, 55, 2407-2416.	3.7	60
124	Characterization of hard-segment crystalline phase of poly(ether- block -amide) (PEBAX Â®) thermoplastic elastomers in the presence of supercritical CO 2 and its impact on foams. Polymer, 2017, 114, 15-27.	3.8	60
125	A comprehensive review of cell structure variation and general rules for polymer microcellular foams. Chemical Engineering Journal, 2022, 430, 132662.	12.7	60
126	Foaming Poly(vinyl alcohol)/Microfibrillated Cellulose Composites with CO₂ and Water as Co-blowing Agents. Industrial & Engineering Chemistry Research, 2014, 53, 11962-11972.	3.7	59

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127	Characterization of hard-segment crystalline phase of thermoplastic polyurethane in the presence of butane and glycerol monosterate and its impact on mechanical property and microcellular morphology. Polymer, 2017, 112, 208-218.	3.8	59
128	Evaluation and modeling of electrical conductivity in conductive polymer nanocomposite foams with multiwalled carbon nanotube networks. Chemical Engineering Journal, 2021, 411, 128382.	12.7	59
129	Production of low-density LLDPE foams in rotational molding. Polymer Engineering and Science, 1998, 38, 1997-2009.	3.1	58
130	Acidâ€"Base Polymeric Foams for the Adsorption of Micro-oil Droplets from Industrial Effluents. Environmental Science & Technology, 2017, 51, 8552-8560.	10.0	57
131	A novel systematic multi-objective optimization to achieve high-efficiency and low-emission waste polymeric foam gasification using response surface methodology and TOPSIS method. Chemical Engineering Journal, 2022, 430, 132958.	12.7	57
132	The orientation of carbon nanotubes in poly(ethyleneâ€<i>co</i>â€octene) microcellular foaming and its suppression effect on cell coalescence. Polymer Engineering and Science, 2012, 52, 2078-2089.	3.1	56
133	Ultrasonic Irradiation Enhanced Cell Nucleation in Microcellular Poly(lactic Acid): A Novel Approach to Reduce Cell Size Distribution and Increase Foam Expansion. Industrial & Engineering Chemistry Research, 2011, 50, 13840-13847.	3.7	55
134	Lightweight, thermally insulating, and low dielectric microcellular high-impact polystyrene (HIPS) foams fabricated by high-pressure foam injection molding with mold opening. Journal of Materials Chemistry C, 2018, 6, 12294-12305.	5.5	55
135	Structure to properties relations of BPDA and PMDA backbone hybrid diamine polyimide aerogels. Polymer, 2019, 176, 213-226.	3.8	54
136	The rheological and physical properties of linear and branched polypropylene blends. Polymer Engineering and Science, 2007, 47, 1133-1140.	3.1	53
137	The foamability of low-melt-strength linear polypropylene with nanoclay and coupling agent. Journal of Cellular Plastics, 2012, 48, 271-287.	2.4	53
138	The effects of viscoelastic properties on the cellular morphology of silicone rubber foams generated by supercritical carbon dioxide. RSC Advances, 2015, 5, 106981-106988.	3.6	53
139	Effect of foam processing parameters on bubble nucleation and growth dynamics in high-pressure foam injection molding. Chemical Engineering Science, 2016, 155, 27-37.	3.8	53
140	Conductive network formation and destruction in polypropylene/carbon nanotube composites via crystal control using supercritical carbon dioxide. Polymer, 2017, 129, 179-188.	3.8	53
141	Solubility and diffusivity of CO2 and N2 in TPU and their effects on cell nucleation in batch foaming. Journal of Supercritical Fluids, 2019, 154, 104623.	3.2	53
142	Nanocellular poly(ether-<i>block</i>-amide)/MWCNT nanocomposite films fabricated by stretching-assisted microcellular foaming for high-performance EMI shielding applications. Journal of Materials Chemistry C, 2021, 9, 1245-1258.	5.5	53
143	Hydrophobic Porous Polypropylene with Hierarchical Structures for Ultrafast and Highly Selective Oil/Water Separation. ACS Applied Materials & Interfaces, 2021, 13, 16859-16868.	8.0	53
144	Lightweight and tough PP/talc composite foam with bimodal nanoporous structure achieved by microcellular injection molding. Materials and Design, 2020, 195, 109051.	7.0	52

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145	Bi-cellular Foam Structure of Polystyrene from Extrusion Foaming Process. Journal of Cellular Plastics, 2009, 45, 539-553.	2.4	51
146	Non-isothermal crystallization behaviors of poly(lactic acid)/cellulose nanofiber composites in the presence of CO2. European Polymer Journal, 2015, 71, 231-247.	5.4	51
147	Experimental observation and modeling of fiber rotation and translation during foam injection molding of polymer composites. Composites Part A: Applied Science and Manufacturing, 2016, 88, 67-74.	7.6	51
148	The effects of clay dispersion on the mechanical, physical, and flameâ€retarding properties of wood fiber/polyethylene/clay nanocomposites. Journal of Applied Polymer Science, 2010, 118, 452-461.	2.6	50
149	Determination of Solubilities of CO₂ in Linear and Branched Polypropylene Using a Magnetic Suspension Balance and a <i>PVT</i> Apparatus. Journal of Chemical & Engineering Data, 2010, 55, 4885-4895.	1.9	50
150	Enhancing the mechanical performance of PA6 based composites by altering their crystallization and rheological behavior via in-situ generated PPS nanofibrils. Composites Part B: Engineering, 2020, 195, 108067.	12.0	50
151	Use of Nitrogen as a Blowing Agent for the Production of Fine-Celled High-Density Polyethylene Foams. Macromolecular Materials and Engineering, 2006, 291, 1233-1244.	3.6	49
152	Effects of clay dispersion and content on the rheological, mechanical properties, and flame retardance of HDPE/clay nanocomposites. Journal of Applied Polymer Science, 2007, 105, 1993-1999.	2.6	49
153	Chain extension of polyamide 6 using multifunctional chain extenders and reactive extrusion for melt foaming. European Polymer Journal, 2017, 96, 210-220.	5.4	49
154	Development of high-porosity resorcinol formaldehyde aerogels with enhanced mechanical properties through improved particle necking under CO 2 supercritical conditions. Journal of Colloid and Interface Science, 2017, 485, 65-74.	9.4	49
155	Environmentally Friendly Polylactic Acid-Based Thermal Insulation Foams Blown with Supercritical CO₂. Industrial & Engineering Chemistry Research, 2018, 57, 5464-5471.	3.7	49
156	Highly stretchable conductive thermoplastic vulcanizate/carbon nanotube nanocomposites with segregated structure, low percolation threshold and improved cyclic electromechanical performance. Journal of Materials Chemistry C, 2018, 6, 350-359.	5.5	48
157	CVD carbon-coated carbonized loofah sponge loaded with a directionally arrayed MXene aerogel for electromagnetic interference shielding. Journal of Materials Chemistry A, 2021, 9, 358-370.	10.3	48
158	Increase of open-cell content by plasticizing soft regions with secondary blowing agent. Polymer Engineering and Science, 2005, 45, 1445-1451.	3.1	47
159	Effect of nanoclay addition on the foaming behavior of linear polypropyleneâ€based soft thermoplastic polyolefin foam blown in continuous extrusion. Polymer Engineering and Science, 2011, 51, 2387-2397.	3.1	47
160	Preparation and characterization of high melt strength thermoplastic polyester elastomer with different topological structure using a two-step functional group reaction. Polymer, 2019, 179, 121628.	3.8	47
161	Highly Compressible Polymer Composite Foams with Thermal Heating-Boosted Electromagnetic Wave Absorption Abilities. ACS Applied Materials & Interfaces, 2020, 12, 50793-50802.	8.0	47
162	Nanofibrillated polymer systems: Design, application, and current state of the art. Progress in Polymer Science, 2021, 113, 101346.	24.7	47

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163	Microcellular sheet extrusion system process design models for shaping and cell growth control. Polymer Engineering and Science, 1998, 38, 674-688.	3.1	46
164	Ideal surface geometries of nucleating agents to enhance cell nucleation in polymeric foaming processes. Journal of Applied Polymer Science, 2008, 108, 3997-4003.	2.6	46
165	Origins of the failure of classical nucleation theory for nanocellular polymer foams. Soft Matter, 2011, 7, 7351.	2.7	46
166	Characterization of Expanded Polypropylene Bead Foams with Modified Steam-Chest Molding. Industrial & Engineering Chemistry Research, 2013, 52, 8236-8247.	3.7	46
167	Non-crosslinked thermoplastic reticulated polymer foams from crystallization-induced structural heterogeneities. Polymer, 2018, 135, 185-192.	3.8	46
168	Structural Impact of Graphene Nanoribbon on Mechanical Properties and Anti-corrosion Performance of Polyurethane Nanocomposites. Chemical Engineering Journal, 2021, 405, 126858.	12.7	46
169	Friction of Ti₃C₂T_{<i>x</i>} MXenes. Nano Letters, 2022, 22, 3356-3363.	9.1	46
170	The Thermal Behavior of Polylactide with Different <scp>D</scp>â€Lactide Content in the Presence of Dissolved CO₂. Macromolecular Materials and Engineering, 2014, 299, 1232-1239.	3.6	45
171	Effect of the melt compressibility and the pressure drop rate on the cell-nucleation behavior in foam injection molding with mold opening. European Polymer Journal, 2017, 92, 314-325.	5.4	45
172	Rotational foam molding of polypropylene with control of melt strength. Advances in Polymer Technology, 2003, 22, 280-296.	1.7	44
173	Effect of nucleation and plasticization on the stereocomplex formation between enantiomeric poly(lactic acid)s. Polymer, 2013, 54, 5762-5770.	3.8	44
174	Effects of CO2 and Talc Contents on Foaming Behavior of Recyclable High-melt-strength PP. Journal of Cellular Plastics, 2006, 42, 405-428.	2.4	43
175	Development, characterization, and modeling of environmentally friendly openâ€cell acoustic foams. Polymer Engineering and Science, 2013, 53, 1979-1989.	3.1	43
176	Development of polylactide openâ€cell foams with bimodal structure for highâ€acoustic absorption. Journal of Applied Polymer Science, 2014, 131, .	2.6	43
177	The Effects of Exfoliated Nano-clay on the Extrusion Microcellular Foaming of Amorphous and Crystalline Nylon. Journal of Cellular Plastics, 2006, 42, 271-288.	2.4	42
178	Introduction of a long-chain branching structure by ultraviolet-induced reactive extrusion to improve cell morphology and processing properties of polylactide foam. RSC Advances, 2017, 7, 6266-6277.	3.6	42
179	Effect of Boric Acid on the Foaming Properties and Cell Structure of Poly(vinyl alcohol) Foam Prepared by Supercritical-CO₂ Thermoplastic Extrusion Foaming. Industrial & Engineering Chemistry Research, 2017, 56, 6655-6663.	3.7	42
180	Electrically and thermally graded microcellular polymer/graphene nanoplatelet composite foams and their EMI shielding properties. Carbon, 2022, 187, 153-164.	10.3	42

#	Article	IF	Citations
181	Role of Processing Temperature in Polystyrene and Polycarbonate Foaming with Carbon Dioxide. Industrial & Engineering Chemistry Research, 2007, 46, 7107-7116.	3.7	41
182	rGO/Fe₃O₄ hybrid induced ultra-efficient EMI shielding performance of phenolic-based carbon foam. RSC Advances, 2019, 9, 20643-20651.	3.6	41
183	Fabrication of outstanding thermal-insulating, mechanical robust and superhydrophobic PP/CNT/sorbitol derivative nanocomposite foams for efficient oil/water separation. Journal of Hazardous Materials, 2021, 418, 126295.	12.4	41
184	Effects of polymer-filler interactions on controlling the conductive network formation in polyamide 6/multi-Walled carbon nanotube composites. Polymer, 2019, 178, 121684.	3.8	40
185	Effect of chain topological structure on the crystallization, rheological behavior and foamability of TPEE using supercritical CO2 as a blowing agent. Journal of Supercritical Fluids, 2019, 147, 48-58.	3.2	40
186	Microcellular injection molded outstanding oleophilic and sound-insulating PP/PTFE nanocomposite foam. Composites Part B: Engineering, 2021, 215, 108786.	12.0	40
187	The effect of graphene-nanoplatelets on gelation and structural integrity of a polyvinyltrimethoxysilane-based aerogel. RSC Advances, 2019, 9, 11503-11520.	3.6	39
188	Highly expanded, highly insulating polypropylene/polybutylene-terephthalate composite foams manufactured by nano-fibrillation technology. Materials and Design, 2020, 188, 108450.	7.0	39
189	Study of Shear and Extensional Viscosities of Biodegradable PBS/CO2 Solutions. Journal of Cellular Plastics, 2001, 37, 109-148.	2.4	38
190	In situ oils/organic solvents cleanup and recovery using advanced oil-water separation system. Chemosphere, 2020, 260, 127586.	8.2	38
191	Theoretical modeling and experimental verification of percolation threshold with MWCNTsâ€™ rotation and translation around a growing bubble in conductive polymer composite foams. Composites Science and Technology, 2020, 199, 108345.	7.8	38
192	Enhanced electrical and mechanical properties of graphene nano-ribbon/thermoplastic polyurethane composites. Carbon, 2021, 174, 305-316.	10.3	38
193	Environmentally Friendly and Zero-Formamide EVA/LDPE Microcellular Foams via Supercritical Carbon Dioxide Solid Foaming. ACS Applied Polymer Materials, 2021, 3, 4213-4222.	4.4	38
194	Computational Optimizing the Electromagnetic Wave Reflectivity of Doubleâ€Layered Polymer Nanocomposites. Small Methods, 2022, 6, e2101510.	8.6	38
195	Effects of Nucleating Agentsâ€™ Shapes and Interfacial Properties on Cell Nucleation. Journal of Cellular Plastics, 2010, 46, 441-460.	2.4	37
196	The effect of dispersed elastomer particle size on heterogeneous nucleation of TPO with N2 foaming. Chemical Engineering Science, 2011, 66, 3675-3686.	3.8	37
197	Novel and simple design of nanostructured, super-insulative and flexible hybrid silica aerogel with a new macromolecular polyether-based precursor. Journal of Colloid and Interface Science, 2020, 561, 890-901.	9.4	37
198	Effect of die geometry on foaming behaviors of highâ€meltâ€strength polypropylene with CO₂. Journal of Applied Polymer Science, 2008, 109, 3122-3132.	2.6	36

#	Article	IF	Citations
199	Mechanical properties and foaming behavior of cellulose fiber reinforced highâ€density polyethylene composites. Polymer Engineering and Science, 2009, 49, 2179-2188.	3.1	36
200	Extrusion of microcellular open-cell LDPE-based sheet foams. Journal of Applied Polymer Science, 2006, 102, 3376-3384.	2.6	35
201	Improvement of Cell Opening by Maintaining a High Temperature Difference in the Surface and Core of a Foam Extrudate. Journal of Cellular Plastics, 2007, 43, 431-444.	2.4	35
202	Preparation of microcellular poly(ethyleneâ€<i>co</i>â€octene) rubber foam with supercritical carbon dioxide. Journal of Applied Polymer Science, 2010, 116, 1994-2004.	2.6	35
203	In-situ visualization of PLA crystallization and crystal effects on foaming in extrusion. European Polymer Journal, 2017, 96, 505-519.	5.4	35
204	Double Dianhydride Backbone Polyimide Aerogels with Enhanced Thermal Insulation for Highâ€Temperature Applications. Macromolecular Materials and Engineering, 2020, 305, 1900777.	3.6	35
205	Recent progress in microâ€/nanoâ€fibrillar reinforced polymeric composite foams. Polymer Engineering and Science, 2021, 61, 926-941.	3.1	35
206	Novel, flexible, and transparent thin film polyimide aerogels with enhanced thermal insulation and high service temperature. Journal of Materials Chemistry C, 2022, 10, 5088-5108.	5.5	35
207	Crystallization and foaming of coagent-modified polypropylene: Nucleation effects of cross-linked nanoparticles. Polymer, 2013, 54, 4814-4819.	3.8	34
208	Nanostructure to thermal property relationship of resorcinol formaldehyde aerogels using the fractal technique. Nanoscale, 2018, 10, 10564-10575.	5.6	34
209	Investigation of the mold-filling phenomenon in high-pressure foam injection molding and its effects on the cellular structure in expanded foams. Polymer, 2019, 160, 43-52.	3.8	34
210	Insight into the Directional Thermal Transport of Hexagonal Boron Nitride Composites. ACS Applied Materials & Interfaces, 2019, 11, 41726-41735.	8.0	33
211	Highly expanded fine-cell foam of polylactide/polyhydroxyalkanoate/nano-fibrillated polytetrafluoroethylene composites blown with mold-opening injection molding. International Journal of Biological Macromolecules, 2020, 155, 286-292.	7.5	33
212	Interfacial tension of linear and branched PP in supercritical carbon dioxide. Journal of Supercritical Fluids, 2010, 55, 386-394.	3.2	32
213	Wrong expectation of superinsulation behavior from largely-expanded nanocellular foams. Nanoscale, 2020, 12, 13064-13085.	5.6	32
214	Percolation mechanism and effective conductivity of mechanically deformed 3-dimensional composite networks: Computational modeling and experimental verification. Composites Part B: Engineering, 2021, 207, 108552.	12.0	32
215	Modification of iPP microcellular foaming behavior by thermal history control and nucleating agent at compressed CO2. Journal of Supercritical Fluids, 2018, 133, 383-392.	3.2	31
216	Effect of branching on flow-induced crystallization of poly (lactic acid). European Polymer Journal, 2019, 119, 410-420.	5.4	31

#	Article	IF	Citations
217	In Situ Interface Design in Graphene-Embedded Polymeric Silica Aerogel with Organic/Inorganic Hybridization. ACS Applied Materials & Interfaces, 2020, 12, 26635-26648.	8.0	31
218	Ultra-fast degradable PBAT/PBS foams of high performance in compression and thermal insulation made from environment-friendly supercritical foaming. Journal of Supercritical Fluids, 2022, 181, 105512.	3.2	31
219	Greatly Enhanced Electromagnetic Interference Shielding Effectiveness and Mechanical Properties of Polyaniline-Grafted Ti₃C₂T_{<i>x</i>} MXeneâ€"PVDF Composites. ACS Applied Materials & Interfaces, 2022, 14, 21521-21534.	8.0	31
220	Challenge in manufacturing nanofibril composites with low matrix viscosity: Effects of matrix viscosity and fibril content. European Polymer Journal, 2019, 121, 109310.	5.4	30
221	The importance of timely polymer sintering while processing polypropylene foams in rotational molding. Polymer Engineering and Science, 2003, 43, 40-54.	3.1	29
222	Effect of well-dispersed surface-modified silica nanoparticles on crystallization behavior of poly (lactic acid) under compressed carbon dioxide. Polymer, 2016, 98, 100-109.	3.8	29
223	Effects of Compressed CO₂ and Cotton Fibers on the Crystallization and Foaming Behaviors of Polylactide. Industrial & Engineering Chemistry Research, 2018, 57, 2094-2104.	3.7	29
224	Peculiar crystallization and viscoelastic properties of polylactide/polytetrafluoroethylene composites induced by in-situ formed 3D nanofiber network. Composites Part B: Engineering, 2020, 200, 108361.	12.0	29
225	Opportunities and challenges in microwave absorption of nickelâ€"carbon composites. Physical Chemistry Chemical Physics, 2021, 23, 20795-20834.	2.8	29
226	Rheological and foaming behaviors of long-chain branched polyamide 6 with controlled branch length. Polymer, 2021, 224, 123730.	3.8	29
227	High-efficiency and low-pollutant waste polystyrene and waste polystyrene foam gasification: Comprehensive comparison analysis, multi-objective optimization and multi-criteria decision analysis. Fuel, 2022, 316, 123362.	6.4	29
228	Polyimide aerogels with novel bimodal micro and nano porous structure assembly for airborne nano filtering applications. RSC Advances, 2020, 10, 22909-22920.	3.6	28
229	Strong, highly hydrophobic, transparent, and super-insulative polyorganosiloxane-based aerogel. Chemical Engineering Journal, 2021, 413, 127488.	12.7	28
230	Microcellular foamed polyamide 6/carbon nanotube composites with superior electromagnetic wave absorption. Journal of Materials Science and Technology, 2022, 117, 215-224.	10.7	28
231	Foamability of Thermoplastic Vulcanizates Blown with Various Physical Blowing Agents. Journal of Cellular Plastics, 2008, 44, 53-67.	2.4	27
232	The effects of nanoclay on the extrusion foaming of wood fiber/polyethylene nanocomposites. Polymer Engineering and Science, 2011, 51, 1014-1022.	3.1	27
233	The interfacial tension of molten polylactide in supercritical carbon dioxide. Journal of Chemical Thermodynamics, 2014, 75, 69-76.	2.0	27
234	Poly(lactic acid) stereocomplex formation: Application to PLA rheological property modification. Journal of Applied Polymer Science, 2014, 131, .	2.6	27

#	Article	IF	Citations
235	A numerical scheme for investigating the effect of bimodal structure on acoustic behavior of polylactide foams. Applied Acoustics, 2015, 88, 75-83.	3.3	27
236	Insights into in-situ sol-gel conversion in graphene modified polymer-based silica gels for multifunctional aerogels. Chemical Engineering Journal, 2020, 392, 123813.	12.7	27
237	Nanocellular TPU composite foams achieved by stretch-assisted microcellular foaming with low-pressure gaseous CO2 as blowing agent. Journal of CO2 Utilization, 2021, 53, 101708.	6.8	27
238	Fundamental Study of CBA-blown Bubble Growth and Collapse Under Atmospheric Pressure. Journal of Cellular Plastics, 2005, 41, 519-538.	2.4	26
239	Reducing Material Costs with Microcellular/Fine-celled Foaming. Journal of Cellular Plastics, 2007, 43, 297-312.	2.4	26
240	Effect of processing parameters on the cellular morphology and mechanical properties of thermoplastic polyolefin (TPO) microcellular foams. Advances in Polymer Technology, 2007, 26, 232-246.	1.7	26
241	Effects of the die geometry on the expansion of polystyrene foams blown with carbon dioxide. Journal of Applied Polymer Science, 2008, 109, 3329-3336.	2.6	26
242	Towards maximal cell density predictions for polymeric foams. Polymer, 2011, 52, 5622-5629.	3.8	26
243	Maximal cell density predictions for compressible polymer foams. Polymer, 2013, 54, 841-845.	3.8	26
244	Dimethyl etherâ€™s plasticizing effect on carbon dioxide solubility in polystyrene. Polymer, 2016, 97, 95-103.	3.8	26
245	Study of the foaming mechanisms associated with gas counter pressure and mold opening using the pressure profiles. Chemical Engineering Science, 2017, 167, 105-119.	3.8	26
246	Foaming behavior of microcellular poly(lactic acid)/TPU composites in supercritical CO₂. Journal of Thermoplastic Composite Materials, 2018, 31, 61-78.	4.2	26
247	Modelling of Rod-Like Fillersâ€™ Rotation and Translation near Two Growing Cells in Conductive Polymer Composite Foam Processing. Polymers, 2018, 10, 261.	4.5	26
248	Determination of modified polyamide 6's foaming windows by bubble growth simulations based on rheological measurements. Journal of Applied Polymer Science, 2019, 136, 48138.	2.6	26
249	PPDA-PMDA polyimide aerogels with tailored nanostructure assembly for air filtering applications. Separation and Purification Technology, 2020, 250, 117279.	7.9	26
250	Prediction of thermal conductivity of micro/nano porous dielectric materials: Theoretical model and impact factors. Energy, 2021, 233, 121140.	8.8	26
251	Advanced structural foam molding using a continuous polymer/gas melt flow stream. Journal of Applied Polymer Science, 2008, 109, 2855-2861.	2.6	25
252	In-situ visualization of polypropylene crystallization during extrusion. Polymer Testing, 2014, 33, 57-63.	4.8	25

#	Article	IF	Citations
253	Robust, ultra-insulative and transparent polyethylene-based hybrid silica aerogel with a novel non-particulate structure. Journal of Colloid and Interface Science, 2019, 548, 206-216.	9.4	25
254	Improved cell nucleating effect of partially melted crystal structure to enhance the microcellular foaming and impact properties of isotactic polypropylene. Journal of Supercritical Fluids, 2020, 160, 104794.	3.2	25
255	Non-isothermal crystallization kinetics of polypropylene/polytetrafluoroethylene fibrillated composites. Journal of Materials Science, 2021, 56, 3562-3575.	3.7	25
256	Recent Advances in Graphene-Based Polymer Nanocomposites and Foams for Electromagnetic Interference Shielding Applications. Industrial & Engineering Chemistry Research, 2022, 61, 1545-1568.	3.7	25
257	Reinforced resorcinol formaldehyde aerogel with Co-assembled polyacrylonitrile nanofibers and graphene oxide nanosheets. Materials and Design, 2018, 151, 154-163.	7.0	24
258	Multi-dimensional analysis of micro-/nano-polymeric foams by confocal laser scanning microscopy and foam simulations. Chemical Engineering Science, 2019, 207, 892-902.	3.8	24
259	Injection Molded Strong Polypropylene Composite Foam Reinforced with Rubber and Talc. Macromolecular Materials and Engineering, 2020, 305, 1900630.	3.6	24
260	Toughening mechanism of long chain branched polyamide 6. Materials and Design, 2020, 196, 109173.	7.0	24
261	Facilitating supercritical CO2 assisted exfoliation of graphene nanoplatelets with the polymer matrix. Chemical Engineering Journal, 2020, 394, 124930.	12.7	24
262	Strategies for Achieving Microcellular LDPE Foams in Extrusion. Frontiers in Forests and Global Change, 2006, 25, 1-18.	1.1	23
263	Maintaining electrical conductivity of microcellular MWCNT/TPU composites after deformation. Composites Part B: Engineering, 2021, 223, 109113.	12.0	23
264	Adsorption of Surface-Modified Silica Nanoparticles to the Interface of Melt Poly(lactic acid) and Supercritical Carbon Dioxide. Langmuir, 2015, 31, 5571-5579.	3.5	22
265	Effect of pressure and temperature on interfacial tension of poly lactic acid melt in supercritical carbon dioxide. Thermochimica Acta, 2015, 609, 1-6.	2.7	22
266	Foaming of reactively modified polypropylene: Effects of rheology and coagent type. Journal of Cellular Plastics, 2015, 51, 505-522.	2.4	22
267	Towards the development of uniform closed cell nanocomposite foams using natural rubber containing pristine and organo-modified nanoclays. RSC Advances, 2016, 6, 53981-53990.	3.6	22
268	Entirely environment-friendly polylactide composites with outstanding heat resistance and superior mechanical performance fabricated by spunbond technology: Exploring the role of nanofibrillated stereocomplex polylactide crystals. International Journal of Biological Macromolecules, 2021, 193, 2210-2220.	7.5	22
269	A Study on the Foaming Behaviors of PP Resins with Talc as Nucleating Agent. Journal of Polymer Engineering, 2006, 26, .	1.4	21
270	Estimation of the foaming temperature of mold-opening foam injection molding process. Journal of Cellular Plastics, 2016, 52, 619-641.	2.4	21

#	Article	IF	Citations
271	Visualization of polypropylene's strain-induced crystallization under the influence of supercritical CO2 in extrusion. Polymer, 2017, 122, 312-322.	3.8	21
272	Preparation of Thermoplastic Polyurethane (TPU) Perforated Membrane via CO2 Foaming and Its Particle Separation Performance. Polymers, 2019, 11, 847.	4.5	21
273	Ultra-ductile and strong in-situ fibrillated PLA/PTFE nanocomposites with outstanding heat resistance derived by CO2 treatment. Composites Part A: Applied Science and Manufacturing, 2022, 155, 106849.	7.6	21
274	Improving the Continuous Microcellular Extrusion Foaming Ability with Supercritical CO2 of Thermoplastic Polyether Ester Elastomer through In-Situ Fibrillation of Polytetrafluoroethylene. Polymers, 2019, 11, 1983.	4.5	20
275	Ultra-elastic and super-insulating biomass PEBA nanoporous foams achieved by combining in-situ fibrillation with microcellular foaming. Journal of CO2 Utilization, 2022, 57, 101891.	6.8	20
276	Generation of Tough, Stiff Polylactide Nanocomposites through the <i>In Situ</i> Nanofibrillation of Thermoplastic Elastomer. ACS Applied Materials & Interfaces, 2022, 14, 14422-14434.	8.0	20
277	Impact of approximating the initial bubble pressure on cell nucleation in polymeric foaming processes. Journal of Applied Polymer Science, 2007, 104, 902-908.	2.6	19
278	Strategies To Estimate the Pressure Drop Threshold of Nucleation for Polystyrene Foam with Carbon Dioxide. Industrial & Engineering Chemistry Research, 2009, 48, 1921-1927.	3.7	19
279	Formation and characterization of polyethylene blends for autoclaveâ€based expandedâ€bead foams. Polymer Engineering and Science, 2010, 50, 1161-1167.	3.1	19
280	The conductivity of polydimethylsiloxane/graphene nano-ribbon foam composite with elongation. Carbon, 2020, 162, 328-338.	10.3	19
281	Scalable production of crosslinked rubber nanofibre networks as highly efficient toughening agent for isotactic polypropylene: Toughening mechanism of Non-traditional anisotropic rubber inclusion. Chemical Engineering Journal, 2022, 438, 134060.	12.7	19
282	Accurate theoretical modeling of cell growth by comparing with visualized data in high-pressure foam injection molding. European Polymer Journal, 2019, 119, 189-199.	5.4	18
283	Promotion of Form Iâ€² in the Polymorph Selection of Polybutene-1 during Crystallization under High Gas/Supercritical Fluid Pressure via Enhancing Chain Mobility. Macromolecules, 2020, 53, 10069-10077.	4.8	18
284	Using a Supercritical Fluid-Assisted Thin Cell Wall Stretchingâ€“Defoaming Method to Enhance the Nanofiller Dispersion, EMI Shielding, and Thermal Conduction Property of CNF/PVDF Nanocomposites. Industrial & Engineering Chemistry Research, 2022, 61, 3647-3659.	3.7	18
285	Polylactic acid/UV-crosslinked in-situ ethylene-propylene-diene terpolymer nanofibril composites with outstanding mechanical and foaming performance. Chemical Engineering Journal, 2022, 447, 137509.	12.7	18
286	Effect of branched PP content on the physical properties and cell growth during foaming of TPOs. Journal of Applied Polymer Science, 2008, 110, 817-824.	2.6	17
287	Planar extensional flow resistance of a foaming plastic. Journal of Rheology, 2010, 54, 95-116.	2.6	17
288	Effect of biopolymer blends on physical and Acoustical properties of biocomposite foams. Journal of Polymer Science, Part B: Polymer Physics, 2014, 52, 1002-1013.	2.1	17

#	Article	IF	Citations
289	Numerical analysis of the effect of the local variation of viscosity on bubble growth and deformation in polymer foaming. Journal of Rheology, 2019, 63, 895-903.	2.6	17
290	LDPE/MWCNT and LDPE/MWCNT/UHMWPE self-reinforced fiber-composite foams prepared via supercritical CO2: A microstructure-engineering property perspective. Journal of Supercritical Fluids, 2021, 174, 105248.	3.2	17
291	Batch foaming poly(vinyl alcohol)/microfibrillated cellulose composites with <scp>CO</scp>₂ and water as coâ€blowing agents. Journal of Applied Polymer Science, 2015, 132, .	2.6	16
292	Application of a constant hole volume Sanchezâ€“Lacombe equation of state to mixtures relevant to polymeric foaming. Soft Matter, 2018, 14, 4603-4614.	2.7	16
293	Visualization of polypropylene crystallites formed from a stressed melt in extrusion. Polymer, 2016, 101, 48-58.	3.8	15
294	Extensional Flow Resistance of 3D Fiber Networks in Plasticized Nanocomposites. Macromolecules, 2019, 52, 6467-6473.	4.8	15
295	Nanofiber fluorescence coating for evaluation of complex solid-/gas-multi-phase and nano-/micro-multi-scale nanocomposite foam structure. Progress in Organic Coatings, 2021, 154, 106183.	3.9	15
296	Synergistic Manipulation of Zero-Dimension and One-Dimension Hybrid Nanofillers in Multi-Layer Two-Dimension Thin Films to Construct Light Weight Electromagnetic Interference Material. Polymers, 2021, 13, 3278.	4.5	15
297	Fluorescence assisted visualization and destruction of particles embedded thin cell walls in polymeric foams via supercritical foaming. Journal of Supercritical Fluids, 2022, 181, 105511.	3.2	15
298	Structure-gradient thermoplastic polyurethane foams with enhanced resilience derived by microcellular foaming. Journal of Supercritical Fluids, 2022, 188, 105667.	3.2	15
299	Study of volume swelling and interfacial tension of the polystyreneâ€“carbon dioxideâ€“dimethyl ether system. Journal of Colloid and Interface Science, 2015, 456, 174-181.	9.4	13
300	Tailoring nano-fibrillated polystyrene composite with enhanced fire retarding properties for foam applications. Materials and Design, 2022, 214, 110419.	7.0	13
301	Microcellular foams simultaneous reinforcing and toughening strategy of combining nano-fibrillation network and supercritical solid-state foaming. Polymer, 2022, 252, 124928.	3.8	13
302	Reduction of polymer surface tension by crystallized polymer nanoparticles. Journal of Chemical Physics, 2010, 133, 144913.	3.0	12
303	A Polymer Visualization System with Accurate Heating and Cooling Control and High-Speed Imaging. International Journal of Molecular Sciences, 2015, 16, 9196-9216.	4.1	12
304	From micro/nano structured isotactic polypropylene to a multifunctional low-density nanoporous medium. RSC Advances, 2016, 6, 108056-108066.	3.6	12
305	In situ visualization of crystal nucleation and growth behaviors of linear and long chain branched polypropylene under shear and CO2 pressure. Polymer, 2021, 213, 123215.	3.8	12
306	Supercritical CO2 utilization for development of graded cellular structures in semicrystalline polymers. Journal of CO2 Utilization, 2021, 51, 101615.	6.8	12

#	Article	IF	Citations
307	A semi-empirical model relating micro structure to acoustic properties of bimodal porous material. Journal of Applied Physics, 2015, 117, .	2.5	11
308	Polymeric Foaming Predictions from the Sanchez-Lacombe Equation of State: Application to Polypropylene-Carbon Dioxide Mixtures. Physical Review Applied, 2017, 8, .	3.8	11
309	Broadened foaming scope of iPP adjusted by its self-enhancement and nucleating agent under compressed CO2. Materials Today Communications, 2018, 17, 501-510.	1.9	11
310	LBfoam: An open-source software package for the simulation of foaming using the Lattice Boltzmann Method. Computer Physics Communications, 2021, 259, 107698.	7.5	11
311	Synthesis, structures and properties of hydrophobic Alkyltrimethoxysilane-Polyvinyltrimethoxysilane hybrid aerogels with different alkyl chain lengths. Journal of Colloid and Interface Science, 2022, 608, 720-734.	9.4	11
312	Molecular engineering of the surface of boron nitride nanotubes for manufacture of thermally conductive dielectric polymer composites. Applied Surface Science, 2022, 587, 152779.	6.1	11
313	Manufacture of Integral Skin PP Foam Composites in Rotational Molding. Journal of Cellular Plastics, 2006, 42, 139-152.	2.4	10
314	NPLIC: A machine learning approach to piecewise linear interface construction. Computers and Fluids, 2021, 223, 104950.	2.5	10
315	3D fibrillated network of compatibilized linear low density polyethylene/polyamide with high melt strength and superior foamability. Polymer, 2021, 228, 123911.	3.8	10
316	Cost-effective and reproducible technologies for fabrication of tissue engineered scaffolds: The state-of-the-art and future perspectives. Polymer, 2022, 244, 124681.	3.8	10
317	Controlling stereocomplex crystal morphology in poly(lactide) through chain alignment. International Journal of Biological Macromolecules, 2022, 218, 22-32.	7.5	10
318	Evaluating Characteristic Parameters for Carbon Dioxide in the Sanchezâ€"Lacombe Equation of State. Journal of Chemical & Engineering Data, 2017, 62, 585-595.	1.9	9
319	Mechanically robust and thermally insulating polyarylene ether nitrile with a bone-like structure. Materials and Design, 2020, 196, 109099.	7.0	9
320	Foaming Behaviors and Mechanical Properties of Injection-Molded Polylactide/Cotton-Fiber Composites. Industrial & Engineering Chemistry Research, 2020, 59, 17885-17893.	3.7	9
321	Carbon as a solution for nanocellular foam superinsulation. Carbon, 2022, 189, 319-338.	10.3	9
322	Flexible Poly(ether-block-amide)/Carbon Nanotube Composites for Electromagnetic Interference Shielding. ACS Applied Nano Materials, 2022, 5, 7598-7608.	5.0	9
323	Synergistic Effects of Modification with Nanoclay and Polystyrene on the Foaming Behavior of a Random Copolymerized Polypropylene. Frontiers in Forests and Global Change, 2011, 30, 227-238.	1.1	8
324	Effects of uniaxial and biaxial orientation on fiber percolation in conductive polymer composites. AIP Conference Proceedings, 2015, , .	0.4	8

#	Article	IF	Citations
325	The critical requirement for high-pressure foam injection molding with supercritical fluid. Polymer, 2021, 238, 124388.	3.8	8
326	Three-Dimensional Polymer Nanofiber Structures for Liquid Contamination Adsorption. ACS Applied Nano Materials, 2022, 5, 5640-5651.	5.0	8
327	Graphene-Embedded Hybrid Network Structure to Render Olefin Block Copolymer Foams with High Compression Performance. Industrial & Engineering Chemistry Research, 2022, 61, 9735-9744.	3.7	8
328	Utilization of CO2 as a physical blowing agent for foaming of high temperature sulfone polymers. Journal of CO2 Utilization, 2022, 63, 102131.	6.8	7
329	The role of interface on the toughening and failure mechanisms of thermoplastic nanocomposites reinforced with nanofibrillated rubber. Nanoscale, 2021, 13, 20248-20280.	5.6	6
330	Construction of a Two-Dimensional Response Network in Three-Dimensional Composites to Dramatically Enhance Sensor Sensitivity: A Simple, Feasible, and Green Regulating Strategy. Industrial & Engineering Chemistry Research, 2022, 61, 8069-8080.	3.7	6
331	Effect of extrusion conditions on the surface quality, mechanical properties, and morphology of cellular wood flour/high-density polyethylene composite profiles. Journal of Thermoplastic Composite Materials, 2013, 26, 1127-1144.	4.2	5
332	Visualization for measuring the PVT property of viscoelastic polystyrene/CO2 mixtures at elevated temperatures and pressures. Polymer Testing, 2016, 55, 88-96.	4.8	5
333	Synergetic effect of crystal nucleating agent and melt self-enhancement of isotactic polypropylene on its rheological and microcellular foaming properties. Journal of Cellular Plastics, 2021, 57, 101-121.	2.4	5
334	Electrically percolated nanofibrillar composites with core-sheath structures from completely wet ternary polymer blends. Chemical Engineering Journal, 2021, 419, 129603.	12.7	5
335	CO2 -induced crystal engineering of polylactide and the development of a polymeric nacreous microstructure. Polymer International, 2017, 66, 1587-1597.	3.1	4
336	CO₂â€induced crystallization of polylactide and its selfâ€templating â€˜stack of coinsâ€™ crystalline microstructure. Polymer Engineering and Science, 2017, 57, 365-373.	3.1	4
337	Bio-inspired polyethylene-based composite reinforced by thermoplastic polyurethane (TPU) fiber for aerogel production. AIP Conference Proceedings, 2019, , .	0.4	4
338	Research on cellular morphology and mechanical properties of microcellular injectionâ€“molded BCPP and its blends. International Journal of Advanced Manufacturing Technology, 2021, 116, 2223-2241.	3.0	4
339	High-Pressure Preform Foam Blow Molding. International Polymer Processing, 2017, 32, 637-647.	0.5	3
340	Exploration of Polymer Calorimetric Glass Transition Phenomenology by Two-Dimensional Correlation Analysis. Macromolecules, 2021, 54, 473-487.	4.8	3
341	Scalable Fabrication of Microcellular Openâ€Cell Polymer Foam. Advanced Engineering Materials, 0, , .	3.5	3
342	An off-lattice model of the Sanchez-Lacombe Eq. of state for polymers with finite flexibility. Polymer, 2021, 215, 123334.	3.8	2

#	Article	IF	Citations
343	Thermally conductive polymer-graphene nanoplatelet composite foams. AIP Conference Proceedings, 2019, , .	0.4	1
344	Development of Bio-Based Foams With Improved Acoustic and Mechanical Performance. , 2012, , .		0
345	The Effects of Annealing on the Crystallinity of Polylactide Foams. Applied Mechanics and Materials, 2013, 295-298, 378-381.	0.2	0
346	Modeling the acoustic absorption behaviour of polylactide open cell foams with bimodal structure for high acoustic absorption. Proceedings of Meetings on Acoustics, 2013, , .	0.3	0
347	Effects of Nanoclay and CO₂Content on Foaming Behaviors of PP/PS Alloys. Advanced Materials Research, 2014, 898, 107-110.	0.3	0
348	Simha-Somcynsky Equation of State Modeling of the PVT Behavior of PP/Clay-Nanocomposite/CO2 Mixtures. International Polymer Processing, 2014, 29, 430-439.	0.5	0
349	Foam Injection Molding of Conductive-Filler/Polymer Composites. , 2019, , 115-148.		0
350	The Effect of Foaming on the Properties of Carbon Nanotubes/Polymer Composites. , 2019, , 235-254.		0
351	A hybrid lattice Boltzmann-molecular dynamics-immersed boundary method model for the simulation of composite foams. Computational Mechanics, 0, , 1.	4.0	0
352	Closely Packed Conductive Droplets with Polygon-Like Patterns Confined at the Interface in Ternary Polymer Blends. Langmuir, 2022, 38, 3189-3201.	3.5	0
353	Sectorization of Macromolecular Single Crystals Unveiled by Probing Shear Anisotropy. ACS Macro Letters, 2022, 11, 53-59.	4.8	0