Chul B Park

List of Publications by Year
in descending order

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353 papers	23,820 citations	5558 82 h-index	13338 130 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.	11.8	1,190
2	Electrical properties and electromagnetic interference shielding effectiveness of polypropylene/carbon fiber composite foams. Carbon, 2013, 60, 379-391.	5.4	484
3	Poly (lactic acid) foaming. Progress in Polymer Science, 2014, 39, 1721-1741.	11.8	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.	1.5	377
5	Polypropylene/carbon nanotube nano/microcellular structures with high dielectric permittivity, low dielectric loss, and low percolation threshold. Carbon, 2014, 71, 206-217.	5.4	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.	4.0	295
7	A study of cell nucleation in the extrusion of polypropylene foams. Polymer Engineering and Science, 1997, 37, 1-10.	1.5	285
8	Flexible, Ultrathin, and High-Efficiency Electromagnetic Shielding Properties of Poly(Vinylidene) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 462	4.0	264
9	Effect of the crystallinity and morphology on the microcellular foam structure of semicrystalline polymers. Polymer Engineering and Science, 1996, 36, 2645-2662.	1.5	263
10	Low density microcellular foam processing in extrusion using CO2. Polymer Engineering and Science, 1998, 38, 1812-1823.	1.5	248
11	Strategies for achieving ultra low-density polypropylene foams. Polymer Engineering and Science, 2002, 42, 1481-1492.	1.5	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.	4.0	241
13	Processing and characterization of microcellular foamed high-density polythylene/isotactic polypropylene blends. Polymer Engineering and Science, 1998, 38, 1205-1215.	1.5	237
14	Fundamental foaming mechanisms governing the volume expansion of extruded polypropylene foams. Journal of Applied Polymer Science, 2004, 91, 2661-2668.	1.3	236
15	Cell morphology and property relationships of microcellular foamed pvc/wood-fiber composites. Polymer Engineering and Science, 1998, 38, 1862-1872.	1.5	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.	1.5	207
17	Past and present developments in polymer bead foams and bead foaming technology. Polymer, 2015, 56, 5-19.	1.8	189
18	Advances in electromagnetic shielding properties of composite foams. Journal of Materials Chemistry A, 2021, 9, 8896-8949.	5.2	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.	1.8	182
20	Processing and cell morphology relationships for microcellular foamed PVC/wood-fiber composites. Polymer Engineering and Science, 1997, 37, 1137-1147.	1.5	180
21	Crystallization Kinetics of Linear and Long-Chain-Branched Polylactide. Industrial & Engineering Chemistry Research, 2011, 50, 13789-13798.	1.8	179
22	Effects of die geometry on cell nucleation of PS foams blown with CO2. Polymer Engineering and Science, 2003, 43, 1378-1390.	1.5	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.	1.6	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.	1.6	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.	5.4	169
26	Ultra-tough and super thermal-insulation nanocellular PMMA/TPU. Chemical Engineering Journal, 2017, 325, 632-646.	6.6	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.	2.7	165
28	Filamentary extrusion of microcellular polymers using a rapid decompressive element. Polymer Engineering and Science, 1996, 36, 34-48.	1.5	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.	3.3	161
30	Heat transfer in microcellular polystyrene/multi-walled carbon nanotube nanocomposite foams. Carbon, 2015, 93, 819-829.	5.4	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.	1.9	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.	2.6	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.	4.0	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.	3.8	155
35	Extruded PLA/clay nanocomposite foams blown with supercritical CO2. Polymer, 2014, 55, 4077-4090.	1.8	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.	6.6	154

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37	Measurements and modeling of PS/supercritical CO2 solution viscosities. Polymer Engineering and Science, 1999, 39, 99-109.	1.5	152
38	Effects of nano-/micro-sized additives on the crystallization behaviors of PLA andÂPLA/CO2 mixtures. Polymer, 2013, 54, 2382-2391.	1.8	150
39	Extruded Open-Cell Foams Using Two Semicrystalline Polymers with Different Crystallization Temperatures. Industrial & Engineering Chemistry Research, 2006, 45, 175-181.	1.8	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.	1.8	147
41	Mechanical and bead foaming behavior of PLA-PBAT and PLA-PBSA blends with different morphologies. European Polymer Journal, 2017, 90, 231-244.	2.6	147
42	Microcellular extrusionâ€foaming of polylactide with chainâ€extender. Polymer Engineering and Science, 2009, 49, 1653-1660.	1.5	146
43	Superhydrophobic and Oleophilic Open-Cell Foams from Fibrillar Blends of Polypropylene and Polytetrafluoroethylene. ACS Applied Materials & Interfaces, 2014, 6, 21131-21140.	4.0	145
44	Development of polylactide bead foams with double crystal melting peaks. Polymer, 2015, 69, 83-94.	1.8	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.	2.7	139
46	Lightweight and flexible graphene/SiC-nanowires/ poly(vinylidene fluoride) composites for electromagnetic interference shielding and thermal management. Carbon, 2020, 156, 58-66.	5.4	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.	2.6	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.	2.7	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.	1.5	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.	3.8	129
51	Advanced bimodal polystyrene/multi-walled carbon nanotube nanocomposite foams for thermal insulation. Carbon, 2017, 120, 1-10.	5.4	124
52	Modelling of thermal transport through a nanocellular polymer foam: toward the generation of a new superinsulating material. Nanoscale, 2017, 9, 5996-6009.	2.8	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.	6.6	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.	2.6	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.	2.7	120
56	In situ fibrillation of CO2-philic polymers: Sustainable route to polymer foams in a continuous process. Polymer, 2013, 54, 4645-4652.	1.8	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.	2.6	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.	4.0	114
59	Double Crystal Melting Peak Generation for Expanded Polypropylene Bead Foam Manufacturing. Industrial & Engineering Chemistry Research, 2013, 52, 2297-2303.	1.8	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.	6.6	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.	4.0	112
62	Extrusion of PE/PS blends with supercritical carbon dioxide. Polymer Engineering and Science, 1998, 38, 1112-1120.	1.5	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.	5.2	111
64	Poly(vinylidene fluoride) foams: a promising low-k dielectric and heat-insulating material. Journal of Materials Chemistry C, 2018, 6, 3065-3073.	2.7	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.	1.9	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.	1.9	109
67	Computer Simulation of Bubble-Growth Phenomena in Foaming. Industrial & Engineering Chemistry Research, 2006, 45, 7823-7831.	1.8	108
68	A facile method to increase the charge storage capability of polymer nanocomposites. Nano Energy, 2015, 15, 54-65.	8.2	108
69	Fiber-spun polypropylene/polyethylene terephthalate microfibrillar composites with enhanced tensile and rheological properties and foaming ability. Polymer, 2017, 110, 139-148.	1.8	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.	6.6	103
71	A novel technology to manufacture biodegradable polylactide bead foam products. Materials and Design, 2015, 83, 413-421.	3.3	101
72	Evidence of a dual network/spherulitic crystalline morphology in PLA stereocomplexes. Polymer, 2012, 53, 5816-5824.	1.8	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.	1.5	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.	7.0	99
75	Ultra-lightweight, super thermal-insulation and strong PP/CNT microcellular foams. Composites Science and Technology, 2020, 191, 108084.	3.8	97
76	A Microcellular Foaming Simulation System with a High Pressure-Drop Rate. Industrial & Engineering Chemistry Research, 2006, 45, 6153-6161.	1.8	95
77	Crystallization of hard segment domains with the presence of butane for microcellular thermoplastic polyurethane foams. Polymer, 2014, 55, 651-662.	1.8	94
78	Surface-engineered sponges for recovery of crude oil microdroplets from wastewater. Nature Sustainability, 2020, 3, 136-143.	11.5	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.	1.8	91
80	Lightweight and strong microcellular injection molded PP/talc nanocomposite. Composites Science and Technology, 2018, 168, 38-46.	3.8	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.	6.6	88
82	Foaming of PS/wood fiber composites using moisture as a blowing agent. Polymer Engineering and Science, 2000, 40, 2124-2132.	1.5	85
83	Comparison of melting and crystallization behaviors of polylactide under high-pressure CO2, N2, and He. Polymer, 2013, 54, 6471-6478.	1.8	85
84	Dispersed polypropylene fibrils improve the foaming ability of a polyethylene matrix. Polymer, 2014, 55, 4199-4205.	1.8	83
85	Critical processing parameters for foamed bead manufacturing in a lab-scale autoclave system. Chemical Engineering Journal, 2013, 214, 180-188.	6.6	82
86	Rheological and foaming behavior of linear and branched polylactides. Rheologica Acta, 2014, 53, 779-790.	1.1	81
87	Tuning viscoelastic and crystallization properties of polypropylene containing in-situ generated high aspect ratio polyethylene terephthalate fibrils. Polymer, 2015, 68, 83-91.	1.8	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.	3.8	80
89	Steam-Chest Molding of Expanded Polypropylene Foams. 2. Mechanism of Interbead Bonding. Industrial & Engineering Chemistry Research, 2011, 50, 5523-5531.	1.8	79
90	Ultralight Microcellular Polymerâ€“Graphene Nanoplatelet Foams with Enhanced Dielectric Performance. ACS Applied Materials & Interfaces, 2018, 10, 19987-19998.	4.0	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.	1.8	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.	1.8	77
93	A batch foaming visualization system with extensional stress-inducing ability. Chemical Engineering Science, 2011, 66, 55-63.	1.9	77
94	Mechanisms of nanoclay-enhanced plastic foaming processes: effects of nanoclay intercalation and exfoliation. Journal of Nanoparticle Research, 2013, 15, 1.	0.8	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.	3.0	77
96	Layered Foam/Film Polymer Nanocomposites with Highly Efficient EMI Shielding Properties and Ultralow Reflection. Nano-Micro Letters, 2022, 14, 19.	14.4	76
97	Design and development of novel bio-based functionally graded foams for enhanced acoustic capabilities. Journal of Materials Science, 2015, 50, 1248-1256.	1.7	74
98	Scalable Fabrication of Thermally Insulating Mechanically Resilient Hierarchically Porous Polymer Foams. ACS Applied Materials & Interfaces, 2018, 10, 38410-38417.	4.0	74
99	Mechanical and morphological properties of injection molded linear and branched-polylactide (PLA) nanocomposite foams. European Polymer Journal, 2015, 73, 455-465.	2.6	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.	1.6	73
101	Challenge to Extrusion of Low-Density Microcellular Polycarbonate Foams Using Supercritical Carbon Dioxide. Industrial & Engineering Chemistry Research, 2005, 44, 92-99.	1.8	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.	2.7	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.	1.7	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.	3.2	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.	1.8	68
106	HDPE-Clay Nanocomposite Foams Blown with Supercritical CO2. Journal of Cellular Plastics, 2005, 41, 487-502.	1.2	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.	1.6	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.	5.9	67

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109	A review on physical foaming of thermoplastic and vulcanized elastomers. Polymer Reviews, 2022, 62, 95-141.	5.3	66
110	Enhanced electromagnetic wave absorption performance of polymer/SiC-nanowire/MXene (Ti3C2Tx) composites. Carbon, 2021, 179, 408-416.	5.4	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.	2.6	65
112	Lightweight and strong fibrillary PTFE reinforced polypropylene composite foams fabricated by foam injection molding. European Polymer Journal, 2019, 119, 22-31.	2.6	65
113	Determination of carbon dioxide solubility in polylactide acid with accurate PVT properties. Journal of Chemical Thermodynamics, 2014, 70, 13-23.	1.0	64
114	Transition from microcellular to nanocellular PLA foams by controlling viscosity, branching and crystallization. European Polymer Journal, 2017, 91, 283-296.	2.6	64
115	Processing of microcellular preceramics using carbon dioxide. Composites Science and Technology, 2003, 63, 2371-2377.	3.8	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.	1.7	63
117	Microcellular extrusion foaming of poly(lactide)/poly(butylene adipate-co-terephthalate) blends. Materials Science and Engineering C, 2010, 30, 255-262.	3.8	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.	4.2	62
119	Steam-Chest Molding of Expanded Polypropylene Foams. 1. DSC Simulation of Bead Foam Processing. Industrial & Engineering Chemistry Research, 2010, 49, 9822-9829.	1.8	61
120	Steam-chest molding of expanded thermoplastic polyurethane bead foams and their mechanical properties. Chemical Engineering Science, 2017, 174, 337-346.	1.9	61
121	Processing and characterization of solid and foamed injection-molded polylactide with talc. Journal of Cellular Plastics, 2013, 49, 351-374.	1.2	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.	1.7	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.	1.8	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.	1.8	60
125	A comprehensive review of cell structure variation and general rules for polymer microcellular foams. Chemical Engineering Journal, 2022, 430, 132662.	6.6	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.	1.8	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.	1.8	59
128	Evaluation and modeling of electrical conductivity in conductive polymer nanocomposite foams with multiwalled carbon nanotube networks. Chemical Engineering Journal, 2021, 411, 128382.	6.6	59
129	Production of low-density LLDPE foams in rotational molding. Polymer Engineering and Science, 1998, 38, 1997-2009.	1.5	58
130	Acidâ€“Base Polymeric Foams for the Adsorption of Micro-oil Droplets from Industrial Effluents. Environmental Science & Technology, 2017, 51, 8552-8560.	4.6	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.	6.6	57
132	The orientation of carbon nanotubes in poly(ethyleneâ€coâ€octene) microcellular foaming and its suppression effect on cell coalescence. Polymer Engineering and Science, 2012, 52, 2078-2089.	1.5	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.	1.8	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.	2.7	55
135	Structure to properties relations of BPDA and PMDA backbone hybrid diamine polyimide aerogels. Polymer, 2019, 176, 213-226.	1.8	54
136	The rheological and physical properties of linear and branched polypropylene blends. Polymer Engineering and Science, 2007, 47, 1133-1140.	1.5	53
137	The foamability of low-melt-strength linear polypropylene with nanoclay and coupling agent. Journal of Cellular Plastics, 2012, 48, 271-287.	1.2	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.	1.7	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.	1.9	53
140	Conductive network formation and destruction in polypropylene/carbon nanotube composites via crystal control using supercritical carbon dioxide. Polymer, 2017, 129, 179-188.	1.8	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.	1.6	53
142	Nanocellular poly(ether-block-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.	2.7	53
143	Hydrophobic Porous Polypropylene with Hierarchical Structures for Ultrafast and Highly Selective Oil/Water Separation. ACS Applied Materials & Interfaces, 2021, 13, 16859-16868.	4.0	53
144	Lightweight and tough PP/talc composite foam with bimodal nanoporous structure achieved by microcellular injection molding. Materials and Design, 2020, 195, 109051.	3.3	52

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145	Bi-cellular Foam Structure of Polystyrene from Extrusion Foaming Process. Journal of Cellular Plastics, 2009, 45, 539-553.	1.2	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.	2.6	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.	3.8	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.	1.3	50
149	Determination of Solubilities of CO₂ in Linear and Branched Polypropylene Using a Magnetic Suspension Balance and a PVT Apparatus. Journal of Chemical & Engineering Data, 2010, 55, 4885-4895.	1.0	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.	5.9	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.	1.7	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.	1.3	49
153	Chain extension of polyamide 6 using multifunctional chain extenders and reactive extrusion for melt foaming. European Polymer Journal, 2017, 96, 210-220.	2.6	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.	5.0	49
155	Environmentally Friendly Polylactic Acid-Based Thermal Insulation Foams Blown with Supercritical CO₂. Industrial & Engineering Chemistry Research, 2018, 57, 5464-5471.	1.8	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.	2.7	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.	5.2	48
158	Increase of open-cell content by plasticizing soft regions with secondary blowing agent. Polymer Engineering and Science, 2005, 45, 1445-1451.	1.5	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.	1.5	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.	1.8	47
161	Highly Compressible Polymer Composite Foams with Thermal Heating-Boosted Electromagnetic Wave Absorption Abilities. ACS Applied Materials & Interfaces, 2020, 12, 50793-50802.	4.0	47
162	Nanofibrillated polymer systems: Design, application, and current state of the art. Progress in Polymer Science, 2021, 113, 101346.	11.8	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.	1.5	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.	1.3	46
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