Patrick C Lee

List of Publications by Year
in descending order

67 papers	1,414 citations	304602 22 h-index	377752 34 g-index
69 all docs	69 docs citations	69 times ranked	1206 citing authors

#	Article	IF	Citations
1	Supercritical fluid foaming of nanoscale phase patterned structures: An approach to lightweight hierarchical porous foams with superior thermal insulation. Chemical Engineering Journal, 2022, 431, 133490.	6.6	3
2	Determination of CO2 solubility in semi-crystalline polylactic acid with consideration of rigid amorphous fraction. International Journal of Biological Macromolecules, 2022, 204, 274-283.	3.6	9
3	Generation of Tough, Stiff Polylactide Nanocomposites through the <i>In Situ</i> Nanofibrillation of Thermoplastic Elastomer. ACS Applied Materials & Interfaces, 2022, 14, 14422-14434.	4.0	20
4	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.	6.6	19
5	Extruded polypropylene foams with radially gradient porous structures and selective filtration property via supercritical CO2 foaming. Journal of CO2 Utilization, 2022, 60, 101995.	3.3	12
6	Tuning High and Low Temperature Foaming Behavior of Linear and Long-Chain Branched Polypropylene via Partial and Complete Melting. Polymers, 2022, 14, 44.	2.0	7
7	Foaming Performance of Linear Polypropylene Ionomers. Macromolecules, 2022, 55, 5645-5655.	2.2	10
8	Controlling stereocomplex crystal morphology in poly(lactide) through chain alignment. International Journal of Biological Macromolecules, 2022, 218, 22-32.	3.6	10
9	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.	1.8	12
10	Exploration of Polymer Calorimetric Glass Transition Phenomenology by Two-Dimensional Correlation Analysis. Macromolecules, 2021, 54, 473-487.	2.2	3
11	Nanofibrillated polymer systems: Design, application, and current state of the art. Progress in Polymer Science, 2021, 113, 101346.	11.8	47
12	Linking ethylene co-monomer content and stereostructure to polycrystallinity and foam density of random copolymers of polypropylene. Polymer, 2021, 212, 123123.	1.8	11
13	Recent progress in microâ€/nanoâ€fibrillar reinforced polymeric composite foams. Polymer Engineering and Science, 2021, 61, 926-941.	1.5	35
14	<i>In-Situ</i> Monitoring of Solidification Process of PVA Solution by Fiber Optic Sensor Technique. IEEE Sensors Journal, 2021, 21, 6170-6178.	2.4	5
15	Cyclic olefin copolymer foam: A promising thermal insulation material. Chemical Engineering Journal, 2021, 409, 128251.	6.6	21
16	Improved Cell Morphology and Surface Roughness in High-Temperature Foam Injection Molding Using a Long-Chain Branched Polypropylene. Polymers, 2021, 13, 2404.	2.0	10
17	Development of alginate and gelatin-based pleural and tracheal sealants. Acta Biomaterialia, 2021, 131, 222-235.	4.1	13
18	Electrically percolated nanofibrillar composites with core-sheath structures from completely wet ternary polymer blends. Chemical Engineering Journal, 2021, 419, 129603.	6.6	5

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19	Two-Dimensional Correlation Analysis of iPP Bead Foaming Thermal Features Modeled by Fast Scanning Calorimetry. ACS Macro Letters, 2021, 10, 1280-1286.	2.3	3
20	Highly expanded, highly insulating polypropylene/polybutylene-terephthalate composite foams manufactured by nano-fibrillation technology. Materials and Design, 2020, 188, 108450.	3.3	39
21	Tunable Tensile Properties of Polypropylene and Polyethylene Terephthalate Fibrillar Blends through Micro-/Nanolayered Extrusion Technology. Polymers, 2020, 12, 2585.	2.0	10
22	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.	2.2	18
23	Effects of pressure drop rate and CO2 content on the foaming behavior of newly developed high-melt-strength polypropylene in continuous extrusion. Journal of Cellular Plastics, 2020, , 0021955X2094311.	1.2	11
24	Toughening mechanism of long chain branched polyamide 6. Materials and Design, 2020, 196, 109173.	3.3	24
25	A novel method to characterize thermal properties of the polymer and gas/supercritical fluid mixture using dielectric measurements. Polymer Testing, 2020, 92, 106861.	2.3	3
26	Effect of temperature on gelation and cross-linking of gelatin methacryloyl for biomedical applications. Physics of Fluids, 2020, 32, .	1.6	30
27	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
28	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.	3.6	33
29	Challenge in manufacturing nanofibril composites with low matrix viscosity: Effects of matrix viscosity and fibril content. European Polymer Journal, 2019, 121, 109310.	2.6	30
30	Enhanced Foamability with Shrinking Microfibers in Linear Polymer. Polymers, 2019, 11, 211.	2.0	9
31	Interlaminar prestressing reinforcement of epoxy/glass fiber composites. Smart Materials and Structures, 2019, 28, 025006.	1.8	0
32	Kinetics study of oil sorption with openâ€cell polypropylene/polyolefin elastomer blend foams prepared via continuous extrusion foaming. Polymers for Advanced Technologies, 2018, 29, 1313-1321.	1.6	25
33	Development of nanocomposite coatings with improved mechanical, thermal, and corrosion protection properties. Journal of Composite Materials, 2018, 52, 1045-1060.	1.2	13
34	In situ shrinking fibers enhance strain hardening and foamability of linear polymers. Polymer, 2018, 136, 1-5.	1.8	12
35	A Single-Use Microthruster Concept for Small Satellite Attitude Control in Formation-Flying Applications. Aerospace, 2018, 5, 119.	1.1	6
36	Characterization of Long Period Grating With a Screw Shape Fabricated by a Single-Path Scanning of Femtosecond Laser. , 2018, , .		0

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37	Avian lungs: A novel scaffold for lung bioengineering. PLoS ONE, 2018, 13, e0198956.	1.1	5
38	The effect of nozzle-exit-channel shape on resultant fiber diameter in melt-electrospinning. Materials Research Express, 2017, 4, 015302.	0.8	8
39	Reinforced cementitous composite with<i>In situ</i>shrinking microfibers. Smart Materials and Structures, 2017, 26, 03LT01.	1.8	2
40	Measurement Methods for Solubility and Diffusivity of Gases and Supercritical Fluids in Polymers and Its Applications. Polymer Reviews, 2017, 57, 695-747.	5.3	31
41	Precise through-space control of an abiotic electrophilic aromatic substitution reaction. Nature Communications, 2017, 8, 14840.	5.8	13
42	Fabricating and controlling PCL electrospun microfibers using filament feeding melt electrospinning technique. Journal of Micromechanics and Microengineering, 2017, 27, 025007.	1.5	12
43	Reinforcing cementitious structures by pH activated in-situ shrinking microfiber. , 2017, , .		0
44	Development of microlayer blown film technology by combining film die and layer multiplication concepts. Polymer Engineering and Science, 2016, 56, 598-604.	1.5	4
45	Manufacturing and characterization of encapsulated microfibers with different molecular weight poly(<i>Îµ</i>-caprolactone) (PCL) resins using a melt electrospinning technique. Materials Research Express, 2016, 3, 025301.	0.8	5
46	Design and fabrication of auxetic stretchable force sensor for hand rehabilitation. Smart Materials and Structures, 2015, 24, 075027.	1.8	46
47	Mathematical model for predicting topographical properties of poly (<i>Îµ</i>-caprolactone) melt electrospun scaffolds including the effects of temperature and linear transitional speed. Journal of Micromechanics and Microengineering, 2015, 25, 045018.	1.5	7
48	Improvements in flex oxygen barrier properties of polymeric films by microlayer coextrusion. Journal of Plastic Film and Sheeting, 2014, 30, 234-247.	1.3	6
49	The effect of confined crystallization on high-density poly(ethylene) lamellar morphology. Polymer, 2014, 55, 663-672.	1.8	21
50	The effect of confined spherulite morphology of high-density polyethylene and polypropylene on their gas barrier properties in multilayered film systems. Polymer, 2014, 55, 4521-4530.	1.8	32
51	Experimental and numerical analysis of micro/nanolayer coextrusion. Journal of Plastic Film and Sheeting, 2013, 29, 78-98.	1.3	9
52	Visualization of initial expansion behavior of butaneâ€blown lowâ€density polyethylene foam at extrusion die exit. Polymer Engineering and Science, 2011, 51, 492-499.	1.5	12
53	Novel biodegradable composites and foams of polylactide and chitin. , 2011, , .		0
54	Polymer-polymer interfacial slip by direct visualization and by stress reduction. Journal of Rheology, 2010, 54, 1207-1218.	1.3	32

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55	Polymer-polymer interfacial slip in multilayered films. Journal of Rheology, 2009, 53, 893-915.	1.3	73
56	Effect of die geometry on foaming behaviors of highâ€meltâ€strength polypropylene with CO₂. Journal of Applied Polymer Science, 2008, 109, 3122-3132.	1.3	36
57	Direct and Indirect Polymer-Polymer Interfacial Slip Measurements in Multilayered Films. AIP Conference Proceedings, 2008, , .	0.3	1
58	Deformation and Rheology of Co-Continuous Blends. AIP Conference Proceedings, 2008, , .	0.3	0
59	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.	1.2	35
60	Effects of CO2 and Talc Contents on Foaming Behavior of Recyclable High-melt-strength PP. Journal of Cellular Plastics, 2006, 42, 405-428.	1.2	43
61	Strategies for Achieving Microcellular LDPE Foams in Extrusion. Frontiers in Forests and Global Change, 2006, 25, 1-18.	0.6	23
62	Effect of CO2 Content on Foaming Behavior of Recyclable High-Melt-Strength PP. , 2006, , .		0
63	Extruded Open-Cell Foams Using Two Semicrystalline Polymers with Different Crystallization Temperatures. Industrial & Engineering Chemistry Research, 2006, 45, 175-181.	1.8	148
64	Extrusion of microcellular open-cell LDPE-based sheet foams. Journal of Applied Polymer Science, 2006, 102, 3376-3384.	1.3	35
65	A Study on the Foaming Behaviors of PP Resins with Talc as Nucleating Agent. Journal of Polymer Engineering, 2006, 26, .	0.6	21
66	Increase of open-cell content by plasticizing soft regions with secondary blowing agent. Polymer Engineering and Science, 2005, 45, 1445-1451.	1.5	47
67	Continuous Foam Extrusion of Rigid-rod Polyphenylenes. Journal of Cellular Plastics, 2005, 41, 29-39.	1.2	3