Gui-long Wang

List of Publications by Year
in descending order

108 papers	5,138 citations	70961 41 h-index	102304 66 g-index
111 all docs	111 docs citations	111 times ranked	2411 citing authors

#	Article	IF	Citations
1	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
2	Magnetic Ni/graphene connected with conductive carbon nano-onions or nanotubes by atomic layer deposition for lightweight and low-frequency microwave absorption. Chemical Engineering Journal, 2020, 382, 122980.	6.6	181
3	Ultra-tough and super thermal-insulation nanocellular PMMA/TPU. Chemical Engineering Journal, 2017, 325, 632-646.	6.6	165
4	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
5	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
6	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
7	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
8	Advanced bimodal polystyrene/multi-walled carbon nanotube nanocomposite foams for thermal insulation. Carbon, 2017, 120, 1-10.	5.4	124
9	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
10	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
11	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
12	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
13	The construction of carbon-coated Fe3O4 yolk-shell nanocomposites based on volume shrinkage from the release of oxygen anions for wide-band electromagnetic wave absorption. Journal of Colloid and Interface Science, 2018, 511, 307-317.	5.0	111
14	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
15	Glass fiber reinforced PLA composite with enhanced mechanical properties, thermal behavior, and foaming ability. Polymer, 2019, 181, 121803.	1.8	102
16	Strong and thermal-resistance glass fiber-reinforced polylactic acid (PLA) composites enabled by heat treatment. International Journal of Biological Macromolecules, 2019, 129, 448-459.	3.6	101
17	Ultra-lightweight, super thermal-insulation and strong PP/CNT microcellular foams. Composites Science and Technology, 2020, 191, 108084.	3.8	97
18	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

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19	Lightweight and strong microcellular injection molded PP/talc nanocomposite. Composites Science and Technology, 2018, 168, 38-46.	3.8	89
20	Highly effective synthesis of NiO/CNT nanohybrids by atomic layer deposition for high-rate and long-life supercapacitors. Dalton Transactions, 2016, 45, 13779-13786.	1.6	78
21	A novel gas-assisted microcellular injection molding method for preparing lightweight foams with superior surface appearance and enhanced mechanical performance. Materials and Design, 2017, 127, 115-125.	3.3	73
22	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
23	BCN nanosheets derived from coconut shells with outstanding microwave absorption and thermal conductive properties. Chemical Engineering Journal, 2022, 437, 135285.	6.6	67
24	Research of thermal response simulation and mold structure optimization for rapid heat cycle molding processes, respectively, with steam heating and electric heating. Materials & Design, 2010, 31, 382-395.	5.1	66
25	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
26	Lightweight and strong fibrillary PTFE reinforced polypropylene composite foams fabricated by foam injection molding. European Polymer Journal, 2019, 119, 22-31.	2.6	65
27	Research on the reduction of sink mark and warpage of the molded part in rapid heat cycle molding process. Materials & Design, 2013, 47, 779-792.	5.1	64
28	Research on optimization design of the heating/cooling channels for rapid heat cycle molding based on response surface methodology and constrained particle swarm optimization. Expert Systems With Applications, 2011, 38, 6705-6719.	4.4	63
29	Fabrication of high-expansion microcellular PLA foams based on pre-isothermal cold crystallization and supercritical CO2 foaming. Polymer Degradation and Stability, 2018, 156, 75-88.	2.7	63
30	Research on a New Variotherm Injection Molding Technology and its Application on the Molding of a Large LCD Panel. Polymer-Plastics Technology and Engineering, 2009, 48, 671-681.	1.9	62
31	Ultra-high expansion linear polypropylene foams prepared in a semi-molten state under supercritical CO2. Journal of Supercritical Fluids, 2019, 145, 140-150.	1.6	62
32	High-expansion polypropylene foam prepared in non-crystalline state and oil adsorption performance of open-cell foam. Journal of Colloid and Interface Science, 2019, 542, 233-242.	5.0	56
33	Research and application of a new rapid heat cycle molding with electric heating and coolant cooling to improve the surface quality of large LCD TV panels. Polymers for Advanced Technologies, 2011, 22, 476-487.	1.6	55
34	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
35	Research on formation mechanisms and control of external and inner bubble morphology in microcellular injection molding. Polymer Engineering and Science, 2015, 55, 807-835.	1.5	53
36	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

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37	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
38	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
39	Strong and thermally insulating polylactic acid/glass fiber composite foam fabricated by supercritical carbon dioxide foaming. International Journal of Biological Macromolecules, 2019, 138, 144-155.	3.6	48
40	A new core-back foam injection molding method with chemical blowing agents. Materials and Design, 2018, 144, 331-342.	3.3	43
41	A green strategy to regulate cellular structure and crystallization of poly(lactic acid) foams based on pre-isothermal cold crystallization and CO2 foaming. International Journal of Biological Macromolecules, 2019, 129, 171-180.	3.6	43
42	Development and evaluation of a new rapid mold heating and cooling method for rapid heat cycle molding. International Journal of Heat and Mass Transfer, 2014, 78, 99-111.	2.5	42
43	rGO/Fe₃O₄ hybrid induced ultra-efficient EMI shielding performance of phenolic-based carbon foam. RSC Advances, 2019, 9, 20643-20651.	1.7	41
44	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.	6.5	41
45	Microcellular injection molded outstanding oleophilic and sound-insulating PP/PTFE nanocomposite foam. Composites Part B: Engineering, 2021, 215, 108786.	5.9	40
46	Super-elastic and structure-tunable poly(ether-block-amide) foams achieved by microcellular foaming. Journal of CO2 Utilization, 2022, 55, 101807.	3.3	38
47	Heating/cooling channels design for an automotive interior part and its evaluation in rapid heat cycle molding. Materials & Design, 2014, 59, 310-322.	5.1	37
48	Influence of relative low gas counter pressure on melt foaming behavior and surface quality of molded parts in microcellular injection molding process. Journal of Cellular Plastics, 2014, 50, 415-435.	1.2	36
49	Mechanical and EMI shielding properties of solid and microcellular TPU/nanographite composite membranes. Polymer Testing, 2021, 93, 106891.	2.3	36
50	Microcellular PLA/PMMA foam fabricated by CO2 foaming with outstanding shape-memory performance. Journal of CO2 Utilization, 2021, 49, 101553.	3.3	36
51	Effects of cavity surface temperature on reinforced plastic part surface appearance in rapid heat cycle moulding. Materials & Design, 2013, 44, 509-520.	5.1	35
52	Effects of cavity surface temperature on mechanical properties of specimens with and without a weld line in rapid heat cycle molding. Materials & Design, 2013, 46, 457-472.	5.1	34
53	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
54	Strong and Flexible Carbon Fiber Fabric Reinforced Thermoplastic Polyurethane Composites for Highâ€Performance EMI Shielding Applications. Macromolecular Materials and Engineering, 2020, 305, 1900829.	1.7	32

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55	Wrong expectation of superinsulation behavior from largely-expanded nanocellular foams. Nanoscale, 2020, 12, 13064-13085.	2.8	32
56	Formation mechanism of porous structure in plastic parts injected by microcellular injection molding technology with variable mold temperature. Applied Thermal Engineering, 2017, 114, 484-497.	3.0	29
57	Lightweight and flexible poly(ether-block-amide)/multiwalled carbon nanotube composites with porous structure and segregated conductive networks for electromagnetic shielding applications. Composites Part A: Applied Science and Manufacturing, 2021, 144, 106356.	3.8	28
58	Green fabrication method of layered and open-cell polylactide foams for oil-sorption via pre-crystallization and supercritical CO2-induced melting. Journal of Supercritical Fluids, 2020, 162, 104854.	1.6	27
59	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.	3.3	27
60	Anti-shrinkage, high-elastic, and strong thermoplastic polyester elastomer foams fabricated by microcellular foaming with CO2 & N2 as blowing agents. Journal of CO2 Utilization, 2022, 62, 102076.	3.3	27
61	Large cyclic deformability of microcellular TPU/MWCNT composite film with conductive stability, and electromagnetic interference shielding and self-cleaning performance. Composites Science and Technology, 2020, 197, 108247.	3.8	26
62	Titanium niobate (Ti2Nb10O29) anchored on nitrogen-doped carbon foams as flexible and self-supported anode for high-performance lithium ion batteries. Journal of Colloid and Interface Science, 2021, 587, 622-632.	5.0	26
63	Fabrication of high porosity Nanocellular polymer foams based on PMMA/PVDF blends. Materials and Design, 2020, 195, 109002.	3.3	25
64	Super Highâ€Expansion Poly(Lactic Acid) Foams with Excellent Oilâ€Adsorption and Thermalâ€Insulation Properties Fabricated by Supercritical CO₂ Foaming. Advanced Sustainable Systems, 2021, 5, 2000295.	2.7	25
65	Lightweight and strong glass fiber reinforced polypropylene composite foams achieved by mold-opening microcellular injection molding. Journal of Materials Research and Technology, 2021, 14, 2920-2931.	2.6	25
66	Research on optimum heating system design for rapid thermal response mold with electric heating based on response surface methodology and particle swarm optimization. Journal of Applied Polymer Science, 2011, 119, 902-921.	1.3	24
67	Experimental research on the effects of cavity surface temperature on surface appearance properties of the moulded part in rapid heat cycle moulding process. International Journal of Advanced Manufacturing Technology, 2013, 68, 1293-1310.	1.5	24
68	Injection Molded Strong Polypropylene Composite Foam Reinforced with Rubber and Talc. Macromolecular Materials and Engineering, 2020, 305, 1900630.	1.7	24
69	Bubble morphological evolution and surface defect formation mechanism in the microcellular foam injection molding process. RSC Advances, 2015, 5, 70032-70050.	1.7	23
70	Research on temperature and pressure responses in the rapid mold heating and cooling method based on annular cooling channels and electric heating. International Journal of Heat and Mass Transfer, 2018, 116, 1192-1203.	2.5	23
71	Thermalâ€Insulation, Electrical, and Mechanical Properties of Highlyâ€Expanded PMMA/MWCNT Nanocomposite Foams Fabricated by Supercritical CO₂ Foaming. Macromolecular Materials and Engineering, 2019, 304, 1800789.	1.7	23
72	Fibrosis mechanism, crystallization behavior and mechanical properties of in-situ fibrillary PTFE reinforced PP composites. Materials and Design, 2021, 211, 110157.	3.3	23

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73	Lightweight, strong, flame-retardant PVDF/PMMA microcellular foams for thermal insulation fabricated by supercritical CO2 foaming. Composites Part B: Engineering, 2022, 230, 109554.	5.9	21
74	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.	3.8	21
75	Polypropylene/talc foams with high weight-reduction and improved surface quality fabricated by mold-opening microcellular injection molding. Journal of Materials Research and Technology, 2021, 12, 74-86.	2.6	20
76	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.	3.3	20
77	Ultralight and hydrophobic PVDF/PMMA open-cell foams with outstanding heat-insulation and oil-adsorption performances fabricated by CO2 molten foaming. Journal of CO2 Utilization, 2022, 63, 102108.	3.3	20
78	Investigation on bubble morphological evolution and plastic part surface quality of microcellular injection molding process based on a multiphase-solid coupled heat transfer model. International Journal of Heat and Mass Transfer, 2017, 104, 1246-1258.	2.5	19
79	Fabrication of super-hydrophilic and highly open-porous poly (lactic acid) scaffolds using supercritical carbon dioxide foaming. International Journal of Biological Macromolecules, 2022, 205, 740-748.	3.6	18
80	Polylactic acid/UV-crosslinked in-situ ethylene-propylene-diene terpolymer nanofibril composites with outstanding mechanical and foaming performance. Chemical Engineering Journal, 2022, 447, 137509.	6.6	18
81	Investigation of the influence of pressurized CO₂ on the crystal growth of poly(<scp>l</scp>-lactic acid) by using an in situ high-pressure optical system. Soft Matter, 2019, 15, 5714-5727.	1.2	15
82	Microcellular injection molded lightweight and tough poly (L-lactic acid)/in-situ polytetrafluoroethylene nanocomposite foams with enhanced surface quality and thermally-insulating performance. International Journal of Biological Macromolecules, 2022, 215, 57-66.	3.6	15
83	Structure-gradient thermoplastic polyurethane foams with enhanced resilience derived by microcellular foaming. Journal of Supercritical Fluids, 2022, 188, 105667.	1.6	15
84	The cell forming process of microcellular injectionâ€molded parts. Journal of Applied Polymer Science, 2014, 131, .	1.3	14
85	Fabrication of macroporous carbon monoliths with controllable structure via supercritical CO2 foaming of polyacrylonitrile. Journal of CO2 Utilization, 2019, 33, 330-340.	3.3	14
86	Novel Method of Fabricating Free-Standing and Nitrogen-Doped 3D Hierarchically Porous Carbon Monoliths as Anodes for High-Performance Sodium-Ion Batteries by Supercritical CO₂ Foaming. ACS Applied Materials & Interfaces, 2019, 11, 9125-9135.	4.0	14
87	Morphology Evolution and Elimination Mechanism of Bubble Marks on Surface of Microcellular Injection-Molded Parts with Dynamic Mold Temperature Control. Industrial & Engineering Chemistry Research, 2018, 57, 1089-1101.	1.8	13
88	Foaming Mechanism of Polypropylene in Gas-Assisted Microcellular Injection Molding. Industrial & Engineering Chemistry Research, 2018, 57, 4710-4720.	1.8	11
89	Investigation on the growth of snowflake-shaped Poly(l-Lactic acid) crystal by in-situ high-pressure microscope. Polymer, 2019, 177, 25-34.	1.8	11
90	On the fracture behaviour of aerospace-grade Polyether-ether-ketone composite-to-aluminium adhesive joints. Composites Communications, 2022, 30, 101098.	3.3	11

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91	Lightweight and strong polypropylene/talc/polytetrafluoroethylene foams with enhanced flame-retardant performance fabricated by microcellular foam injection foaming. Materials and Design, 2022, 215, 110539.	3.3	11
92	Ultra-light, super-insulating, and strong polystyrene/carbon nanofiber nanocomposite foams fabricated by microcellular foaming. European Polymer Journal, 2022, 173, 111261.	2.6	11
93	Strong and flame-retardant thermally insulating poly(vinylidene fluoride) foams fabricated by microcellular foaming. Materials and Design, 2022, 221, 110932.	3.3	9
94	Investigation on the Î±/Î´ Crystal Transition of Poly(l-lactic Acid) with Different Molecular Weights. Polymers, 2021, 13, 3280.	2.0	7
95	Anomalous stress-strain behavior of NiTi shape memory alloy close to the border of superelastic window. Scripta Materialia, 2021, 204, 114135.	2.6	7
96	Supercritical CO2 foaming strategy to fabricate nitrogen/oxygen co-doped bi-continuous nanoporous carbon scaffold for high-performance potassium-ion storage. Journal of Power Sources, 2021, 507, 230275.	4.0	6
97	Investigation on the influence of fold conformation on PLLA lamellar splaying by film crystallization in supercritical CO₂. CrystEngComm, 2020, 22, 1459-1472.	1.3	5
98	Miscible polymethyl methacrylate/polylactide blend with enhanced foaming behavior and foam mechanical properties. Journal of CO2 Utilization, 2022, 61, 102065.	3.3	5
99	Poly(etherâ€blockâ€amide) membrane with deformability and adjustable surface hydrophilicity for water purification. Polymer Engineering and Science, 2021, 61, 2137-2146.	1.5	4
100	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.	1.5	4
101	Control of the structure and composition of nitrogen-doped carbon nanofoams derived from CO2 foamed polyacrylonitrile as anodes for high-performance potassium-ion batteries. Electrochimica Acta, 2021, 388, 138630.	2.6	4
102	Strong PP/PTFE microfibril reinforced composites achieved by enhanced crystallization under CO2 environment. Polymer Testing, 2022, 112, 107630.	2.3	4
103	Facile Fabrication of Amphiphilic and Asymmetric Films with Excellent Deformability for Efficient and Stable Adsorption Applications. Macromolecular Materials and Engineering, 2021, 306, 2000738.	1.7	3
104	Enhanced Foaming Behavior of Ultrahigh Molecular Weight Polyethylene by Blending Silicone Powder in Microcellular Foaming. Advanced Engineering Materials, 0, , 2101137.	1.6	3
105	Crystallization and Mechanical Properties of Glass Fiber Reinforced Polypropylene Composites Molded by Rapid Heat Cycle Molding. Fibers and Polymers, 2020, 21, 2915-2926.	1.1	2
106	Fabrication of Microcellular Injectionâ€Molded Polypropylene with Super High Expansion Ratio by Precision Mold Opening Technology. Macromolecular Materials and Engineering, 0, , 2200112.	1.7	1
107	Effects of dynamic mold temperature control on melt pressure, cellular structure, and mechanical properties of microcellular injection-molded parts: An experimental study. Frontiers in Forests and Global Change, 2019, 38, 111-130.	0.6	0
108	Strong breathable membrane with excellent selfâ€cleaning, waveâ€transparent, and heat dissipation performances. Journal of Applied Polymer Science, 2021, 138, 51338.	1.3	0