

Xia Liao

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

98
papers

1,865
citations

28
h-index

38
g-index

100
ext. papers

2,365
ext. citations

4.2
avg, IF

5.23
L-index

| # | Paper | IF | Citations |
|----|--|------|-----------|
| 98 | Design of lightweight silicone rubber foam for outstanding deformation recoverability based on supercritical CO ₂ foaming technology. <i>Journal of Materials Science</i> , 2022 , 57, 2292-2304 | 4.3 | 1 |
| 97 | Generating porous polymer microspheres with cellular surface via a gas-diffusion confined scCO ₂ foaming technology to endow the super-hydrophobic coating with hierarchical roughness. <i>Chemical Engineering Journal</i> , 2022 , 442, 136192 | 14.7 | 0 |
| 96 | Cellular structure design by controlling the dissolution and diffusion behavior of gases in silicon rubber. <i>Journal of Supercritical Fluids</i> , 2022 , 105610 | 4.2 | 1 |
| 95 | Effect of Molecular Chain Mobility Induced by High-Pressure CO ₂ on Crystallization Memory Behavior of Poly(d-lactic Acid). <i>Crystal Growth and Design</i> , 2021 , 21, 7116-7127 | 3.5 | 0 |
| 94 | The crystallization morphology and process of stereocomplex crystallites of polylactide under CO ₂ : the effect of H-bonding and chain diffusion. <i>CrystEngComm</i> , 2021 , 23, 8601-8611 | 3.3 | 0 |
| 93 | Flexible TPU/MWCNTs/BN composites for frequency-selective electromagnetic shielding and enhanced thermal conductivity. <i>Composites Communications</i> , 2021 , 28, 100953 | 6.7 | 5 |
| 92 | Heterogeneous silicon rubber composite foam with gradient porous structure for highly absorbed ultra-efficient electromagnetic interference shielding. <i>Composites Science and Technology</i> , 2021 , 206, 108663 | 8.6 | 25 |
| 91 | Efficient electrical conductivity and electromagnetic interference shielding performance of double percolated polymer composite foams by phase coarsening in supercritical CO ₂ . <i>Composites Science and Technology</i> , 2021 , 213, 108895 | 8.6 | 3 |
| 90 | Heat insulating PLA/HNTs foams with enhanced compression performance fabricated by supercritical carbon dioxide. <i>Journal of Supercritical Fluids</i> , 2021 , 177, 105344 | 4.2 | 2 |
| 89 | Reinforcement of Mechanical Properties of Silicone Rubber Foam by Functionalized Graphene Using Supercritical CO ₂ Foaming Technology. <i>Industrial & Engineering Chemistry Research</i> , 2020 , 59, 22132-22143 | 3.9 | 10 |
| 88 | Cellular structure design by controlling rheological property of silicone rubber in supercritical CO ₂ . <i>Journal of Supercritical Fluids</i> , 2020 , 164, 104913 | 4.2 | 11 |
| 87 | Gradient structure design of lightweight and flexible silicone rubber nanocomposite foam for efficient electromagnetic interference shielding. <i>Chemical Engineering Journal</i> , 2020 , 390, 124589 | 14.7 | 53 |
| 86 | Thermoplastic polyurethane/polytetrafluoroethylene composite foams with enhanced mechanical properties and anti-shrinkage capability fabricated with supercritical carbon dioxide. <i>Journal of Supercritical Fluids</i> , 2020 , 163, 104861 | 4.2 | 15 |
| 85 | Influence of surface modified graphene oxide on the mechanical performance and curing kinetics of epoxy resin. <i>Polymers for Advanced Technologies</i> , 2020 , 31, 1865-1874 | 3.2 | 8 |
| 84 | Facile Fabrication of Lightweight Shape Memory Thermoplastic Polyurethane/Polylactide Foams by Supercritical Carbon Dioxide Foaming. <i>Industrial & Engineering Chemistry Research</i> , 2020 , 59, 7611-7623 | 3.9 | 24 |
| 83 | Fabrication of lightweight and flexible silicon rubber foams with ultra-efficient electromagnetic interference shielding and adjustable low reflectivity. <i>Journal of Materials Chemistry C</i> , 2020 , 8, 147-157 | 7.1 | 32 |
| 82 | Effect of Macromolecular Chain Movement and the Interchain Interaction on Crystalline Nucleation and Spherulite Growth of Polylactic Acid under High-Pressure CO ₂ . <i>Macromolecules</i> , 2020 , 53, 312-322 | 5.5 | 16 |

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| 81 | Green and High-Expansion PLLA/PDLA Foams with Excellent Thermal Insulation and Enhanced Compressive Properties. <i>Industrial & Engineering Chemistry Research</i> , 2020 , 59, 19244-19251 | 3.9 | 7 |
| 80 | A two-step process for the preparation of thermoplastic polyurethane/graphene aerogel composite foams with multi-stage networks for electromagnetic shielding. <i>Composites Communications</i> , 2020 , 21, 100416 | 6.7 | 30 |
| 79 | A promising strategy for efficient electromagnetic interference shielding by designing a porous double-percolated structure in MWCNT/polymer-based composites. <i>Composites Part A: Applied Science and Manufacturing</i> , 2020 , 138, 106059 | 8.4 | 19 |
| 78 | Mechanism of Microstructural Change of High-Density Polyethylene Under Different Outdoor Climates in China. <i>Journal of Polymers and the Environment</i> , 2020 , 28, 2616-2630 | 4.5 | 0 |
| 77 | Light-weight and flexible silicone rubber/MWCNTs/Fe ₃ O ₄ nanocomposite foams for efficient electromagnetic interference shielding and microwave absorption. <i>Composites Science and Technology</i> , 2019 , 181, 107670 | 8.6 | 98 |
| 76 | Flexible thermoplastic polyurethane/reduced graphene oxide composite foams for electromagnetic interference shielding with high absorption characteristic. <i>Composites Part A: Applied Science and Manufacturing</i> , 2019 , 123, 310-319 | 8.4 | 72 |
| 75 | Facile and Green Method To Structure Ultralow-Threshold and Lightweight Polystyrene/MWCNT Composites with Segregated Conductive Networks for Efficient Electromagnetic Interference Shielding. <i>ACS Sustainable Chemistry and Engineering</i> , 2019 , 7, 9904-9915 | 8.3 | 64 |
| 74 | Influences of Hyperbranched Polyester Modification on the Crystallization Kinetics of Isotactic Polypropylene/Graphene Oxide Composites. <i>Polymers</i> , 2019 , 11, | 4.5 | 3 |
| 73 | Effect of structure regulation of hyper-branched polyester modified carbon nanotubes on toughening performance of epoxy/carbon nanotube nanocomposites.. <i>RSC Advances</i> , 2019 , 9, 12864-12876 | 3.7 | 4 |
| 72 | Creating orientated cellular structure in thermoplastic polyurethane through strong interfacial shear interaction and supercritical carbon dioxide foaming for largely improving the foam compression performance. <i>Journal of Supercritical Fluids</i> , 2019 , 153, 104577 | 4.2 | 19 |
| 71 | Frequency-selective and tunable electromagnetic shielding effectiveness via the sandwich structure of silicone rubber/graphene composite. <i>Composites Science and Technology</i> , 2019 , 184, 107847 | 8.6 | 42 |
| 70 | Structure and Properties of Poly(Oxypropylene) Diamine Intercalated Montmorillonite/Epoxy Composites. <i>Journal of Macromolecular Science - Physics</i> , 2019 , 58, 877-889 | 1.4 | 2 |
| 69 | Confined crystallization morphology of poly(ϵ -caprolactone) block within poly(ϵ -caprolactone)/poly(L-lactide) copolymers. <i>Polymer International</i> , 2019 , 68, 1992-2003 | 3.3 | 1 |
| 68 | Mechanical-Microstructure Relationship and Cellular Failure Mechanism of Silicone Rubber Foam by the Cell Microstructure Designed in Supercritical CO ₂ . <i>Journal of Physical Chemistry C</i> , 2019 , 123, 26947-26958 | 2.8 | 28 |
| 67 | Green Method to Widen the Foaming Processing Window of PLA by Introducing Stereocomplex Crystallites. <i>Industrial & Engineering Chemistry Research</i> , 2019 , 58, 21466-21475 | 3.9 | 17 |
| 66 | Realizing simultaneous toughening and reinforcement in polypropylene blends via solid die-drawing. <i>Polymer</i> , 2019 , 161, 109-121 | 3.9 | 12 |
| 65 | Carbon nanotube-reinforced silicone rubber nanocomposites and the foaming behavior in supercritical carbon dioxide. <i>Journal of Supercritical Fluids</i> , 2018 , 141, 78-87 | 4.2 | 33 |
| 64 | Disclosing the crystallization behavior and morphology of poly(ϵ -caprolactone) within poly(ϵ -caprolactone)/poly(L-lactide) blends. <i>Polymer International</i> , 2018 , 67, 566-576 | 3.3 | 4 |

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| 63 | Synergistic effect of multiwalled carbon nanotubes and carbon black on rheological behaviors and electrical conductivity of hybrid polypropylene nanocomposites. <i>Polymer Composites</i> , 2018 , 39, E723-E732 | | 6 |
| 62 | Preparation and toughening performance investigation of epoxy resins containing carbon nanotubes modified with hyperbranched polyester. <i>Polymer Bulletin</i> , 2018 , 75, 1013-1026 | 2.4 | 26 |
| 61 | Role of dicumyl peroxide on the morphology and mechanical performance of polypropylene random copolymer in microinjection molding. <i>Polymers for Advanced Technologies</i> , 2018 , 29, 171-181 | 3.2 | 7 |
| 60 | Structure evolution and orientation mechanism of isotactic polypropylene during the two-stage solid die drawing process. <i>Journal of Applied Polymer Science</i> , 2018 , 135, 46581 | 2.9 | 6 |
| 59 | Investigation on cure kinetics of epoxy resin containing carbon nanotubes modified with hyper-branched polyester.. <i>RSC Advances</i> , 2018 , 8, 29830-29839 | 3.7 | 17 |
| 58 | The distinctive nucleation of polystyrene composites with differently shaped carbon-based nanoparticles as nucleating agent in the supercritical CO ₂ foaming process. <i>Polymer International</i> , 2018 , 67, 1488-1501 | 3.3 | 12 |
| 57 | Strategy to Enhance Conductivity of Polystyrene/Graphene Composite Foams via Supercritical Carbon Dioxide Foaming Process. <i>Journal of Supercritical Fluids</i> , 2018 , 142, 52-63 | 4.2 | 28 |
| 56 | Nonisothermal and isothermal crystallization behavior of isotactic polypropylene/chemically reduced graphene nanocomposites. <i>Polymer Composites</i> , 2017 , 38, E342-E350 | 3 | 4 |
| 55 | Effect of nanoparticles on the morphology and properties of PET/PP in situ microfibrillar reinforced composites. <i>Polymer Composites</i> , 2017 , 38, 2718-2726 | 3 | 9 |
| 54 | Introduction of a long-chain branching structure by ultraviolet-induced reactive extrusion to improve cell morphology and processing properties of polylactide foam. <i>RSC Advances</i> , 2017 , 7, 6266-6277 | 3.7 | 35 |
| 53 | Crystallization and morphological transition of poly(L-lactide)/poly(ϵ -caprolactone) diblock copolymers with different block length ratios. <i>RSC Advances</i> , 2017 , 7, 22515-22523 | 3.7 | 27 |
| 52 | A novel route to the generation of porous scaffold based on the phase morphology control of co-continuous poly(ϵ -caprolactone)/polylactide blend in supercritical CO ₂ . <i>Polymer</i> , 2017 , 118, 163-172 | 3.9 | 28 |
| 51 | Effects of Process Temperatures on the Flow-Induced Crystallization of Isotactic Polypropylene/Poly(ethylene terephthalate) Blends in Microinjection Molding. <i>Industrial & Engineering Chemistry Research</i> , 2017 , 56, 9467-9477 | 3.9 | 13 |
| 50 | Crystals in Situ Induced by Supercritical CO ₂ as Bubble Nucleation Sites on Spherulitic PLLA Foam Structure Controlling. <i>Industrial & Engineering Chemistry Research</i> , 2017 , 56, 11111-11124 | 3.9 | 44 |
| 49 | Control of the cell structure of microcellular silicone rubber/nanographite foam for enhanced mechanical performance. <i>Materials and Design</i> , 2017 , 133, 288-298 | 8.1 | 47 |
| 48 | Microcellular nanocomposites based on millable polyurethane and nano-silica by two-step curing and solid-state supercritical CO ₂ foaming: Preparation, high-pressure viscoelasticity and mechanical properties. <i>Journal of Supercritical Fluids</i> , 2017 , 130, 198-209 | 4.2 | 27 |
| 47 | Effective enhancement of the creep resistance in isotactic polypropylene by elevated concentrations of DMDBS. <i>RSC Advances</i> , 2016 , 6, 84801-84809 | 3.7 | 4 |
| 46 | Thermal oxidative and ozone oxidative stabilization effect of hybridized functional graphene oxide in a silica-filled solution styrene butadiene elastomer. <i>Physical Chemistry Chemical Physics</i> , 2016 , 18, 29423-29434 | 3.6 | 34 |

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| 45 | Effective in situ polyamide 6 microfibrils in isotactic polypropylene under microinjection molding: significant improvement of mechanical performance. <i>Journal of Materials Science</i> , 2016 , 51, 10386-10399 | 4.3 | 12 |
| 44 | Creep-resistant behavior of beta-polypropylene with different crystalline morphologies. <i>RSC Advances</i> , 2016 , 6, 30986-30997 | 3.7 | 11 |
| 43 | Investigation of chemi-crystallization and free volume changes of high-density polyethylene weathered in a subtropical humid zone. <i>Polymer International</i> , 2016 , 65, 1474-1481 | 3.3 | 8 |
| 42 | Morphology evolution and crystalline structure of controlled-rheology polypropylene in micro-injection molding. <i>Polymers for Advanced Technologies</i> , 2016 , 27, 494-503 | 3.2 | 11 |
| 41 | Flow-induced β crystal of iPP in microinjection molding: effects of addition of UHMWPE and the processing parameters. <i>Journal of Polymer Research</i> , 2016 , 23, 1 | 2.7 | 3 |
| 40 | An Ultraviolet-Induced Reactive Extrusion To Control Chain Scission and Long-Chain Branching Reactions of Polylactide. <i>Industrial & Engineering Chemistry Research</i> , 2016 , 55, 597-605 | 3.9 | 34 |
| 39 | Effect of Unexpected CO ₂ Phase Transition on the High-Pressure Differential Scanning Calorimetry Performance of Various Polymers. <i>ACS Sustainable Chemistry and Engineering</i> , 2016 , 4, 1810-1818 | 8.3 | 52 |
| 38 | Preparation and properties of epoxy/BN highly thermal conductive composites reinforced with SiC whisker. <i>Polymer Composites</i> , 2016 , 37, 2611-2621 | 3 | 29 |
| 37 | A Green and Structure-Controlled Approach to the Generation of Silicone Rubber Foams by Means of Carbon Dioxide. <i>Frontiers in Forests and Global Change</i> , 2016 , 35, 19-32 | 1.6 | 13 |
| 36 | Poly(methyl methacrylate) nanocomposites based on graphene oxide: a comparative investigation of the effects of surface chemistry on properties and foaming behavior. <i>Polymer International</i> , 2016 , 65, 1195-1203 | 3.3 | 16 |
| 35 | Morphology and crystallization behavior of PCL/SAN blends containing nanosilica with different surface properties. <i>Journal of Applied Polymer Science</i> , 2016 , 133, | 2.9 | 8 |
| 34 | Influence of Surface-functionalized Graphene Oxide on the Cell Morphology of Poly(methyl methacrylate) Composite. <i>Journal of Materials Science and Technology</i> , 2015 , 31, 463-466 | 9.1 | 26 |
| 33 | Preparation of alumina-coated graphite for thermally conductive and electrically insulating epoxy composites. <i>RSC Advances</i> , 2015 , 5, 55170-55178 | 3.7 | 30 |
| 32 | New understanding of the hierarchical distribution of isotactic polypropylene blends formed by microinjection-molded poly(ethylene terephthalate) and β nucleating agent. <i>RSC Advances</i> , 2015 , 5, 61127-61138 | 7.7 | 38 |
| 31 | The dependence time of melting behavior on rheological aspects of disentangled polymer melt: a route to the heterogeneous melt. <i>Journal of Polymer Research</i> , 2015 , 22, 1 | 2.7 | 4 |
| 30 | Effect of confinement on glass dynamics and free volume in immiscible polystyrene/high-density polyethylene blends. <i>Polymer International</i> , 2015 , 64, 892-899 | 3.3 | 9 |
| 29 | Unusual hierarchical structures of micro-injection molded isotactic polypropylene in presence of an in situ microfibrillar network and a β nucleating agent. <i>RSC Advances</i> , 2015 , 5, 43571-43580 | 3.7 | 17 |
| 28 | Influence of Surfactant Functional Groups on Morphology and Rheology of Polypropylene/Organoclay Nanocomposites. <i>Journal of Macromolecular Science - Physics</i> , 2015 , 54, 329-347 | 1.4 | 1 |

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|----|---|-----|----|
| 27 | Nanocellular and needle-like structures in poly(L-lactic acid) using spherulite templates and supercritical carbon dioxide. <i>RSC Advances</i> , 2015 , 5, 36320-36324 | 3.7 | 18 |
| 26 | Effect of combined fatigue and chemical aging conditions on the mechanical property, structure, and morphology of styrene-butadiene-styrene elastomer. <i>Journal of Elastomers and Plastics</i> , 2015 , 47, 681-696 | 1.6 | 2 |
| 25 | Structural changes and crystallization kinetics of polylactide under CO ₂ investigated using high-pressure Fourier transform infrared spectroscopy. <i>Polymer International</i> , 2015 , 64, 1762-1769 | 3.3 | 28 |
| 24 | Effect of in situ poly(ethylene terephthalate) (PET) microfibrils on the morphological structure and crystallization behavior of isotactic polypropylene (iPP) under an intensive shear rate. <i>Polymers for Advanced Technologies</i> , 2015 , 26, 1275-1284 | 3.2 | 11 |
| 23 | Microstructure studies of isotactic polypropylene under natural weathering by positron annihilation lifetime spectroscopy. <i>Journal of Polymer Research</i> , 2015 , 22, 1 | 2.7 | 7 |
| 22 | Rheological behaviors and electrical conductivity of long-chain branched polypropylene/carbon black composites with different methods. <i>Journal of Polymer Research</i> , 2015 , 22, 1 | 2.7 | 5 |
| 21 | New insight into the flocculation behavior of hydrophilic silica in styrene butadiene rubber composites. <i>RSC Advances</i> , 2015 , 5, 91262-91272 | 3.7 | 7 |
| 20 | Ring-banded spherulites of six-arm star-shaped poly(ϵ -caprolactone) with different arm length via CO ₂ . <i>Colloid and Polymer Science</i> , 2015 , 293, 2311-2319 | 2.4 | 5 |
| 19 | The effects of viscoelastic properties on the cellular morphology of silicone rubber foams generated by supercritical carbon dioxide. <i>RSC Advances</i> , 2015 , 5, 106981-106988 | 3.7 | 42 |
| 18 | Effects of enhanced compatibility by transesterification on the cell morphology of poly(lactic acid)/polycarbonate blends using supercritical carbon dioxide. <i>Journal of Cellular Plastics</i> , 2015 , 51, 349-372 | 1.5 | 8 |
| 17 | Concentric ring-banded spherulites of six-arm star-shaped poly(ϵ -caprolactone) via subcritical CO ₂ . <i>RSC Advances</i> , 2014 , 4, 10144 | 3.7 | 17 |
| 16 | Unique interfacial and confined porous morphology of PLA/PS blends in supercritical carbon dioxide. <i>RSC Advances</i> , 2014 , 4, 45109-45117 | 3.7 | 45 |
| 15 | Effect of physical and chemical crosslinking structure on fatigue behavior of styrene butadiene elastomer. <i>Journal of Applied Polymer Science</i> , 2014 , 131, n/a-n/a | 2.9 | 4 |
| 14 | The rheological property and foam morphology of linear polypropylene and long chain branching polypropylene. <i>Journal Wuhan University of Technology, Materials Science Edition</i> , 2013 , 28, 798-803 | 1 | 8 |
| 13 | Novel electric conductive polylactide/carbon nanotubes foams prepared by supercritical CO ₂ . <i>Progress in Natural Science: Materials International</i> , 2013 , 23, 395-401 | 3.6 | 18 |
| 12 | Preparation of nanocellular foams from polycarbonate/poly(lactic acid) blend by using supercritical carbon dioxide. <i>Journal of Polymer Research</i> , 2013 , 20, 1 | 2.7 | 27 |
| 11 | Synthesis and characterization of a novel charring agent and its application in intumescent flame retardant polypropylene system. <i>Journal of Applied Polymer Science</i> , 2012 , 123, 1636-1644 | 2.9 | 29 |
| 10 | Solvent Free Generation of Open and Skinless Foam in Poly(l-lactic acid)/Poly(d,l-lactic acid) Blends Using Carbon Dioxide. <i>Industrial & Engineering Chemistry Research</i> , 2012 , 51, 6722-6730 | 3.9 | 33 |

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| 9 | The sorption behaviors in PLLA-CO ₂ system and its effect on foam morphology. <i>Journal of Polymer Research</i> , 2012 , 19, 1 | 2.7 | 40 |
| 8 | Preparation of Porous Biodegradable Polymer and Its Nanocomposites by Supercritical CO ₂ Foaming for Tissue Engineering. <i>Journal of Nanomaterials</i> , 2012 , 2012, 1-12 | 3.2 | 29 |
| 7 | Light Scattering Studies of Multiphase Polymer Systems 2011 , 639-668 | | |
| 6 | Carbon dioxide-induced crystallization in poly(L-lactic acid) and its effect on foam morphologies. <i>Polymer International</i> , 2010 , 59, 1709-1718 | 3.3 | 63 |
| 5 | Study on the creep behavior of polypropylene. <i>Polymer Engineering and Science</i> , 2009 , 49, 1375-1382 | 2.3 | 13 |
| 4 | Polymer-CO ₂ systems exhibiting retrograde behavior and formation of nanofoams. <i>Polymer International</i> , 2007 , 56, 67-73 | 3.3 | 57 |
| 3 | Layered open pore poly(L-lactic acid) nanomorphology. <i>Biomacromolecules</i> , 2006 , 7, 2937-41 | 6.9 | 51 |
| 2 | The improved foaming behavior of PLA caused by the enhanced rheology properties and crystallization behavior via synergistic effect of carbon nanotubes and graphene. <i>Journal of Applied Polymer Science</i> , 51874 | 2.9 | 1 |
| 1 | Ultralow Dielectric Constant Polyarylene Ether Nitrile/Polyhedral Oligomeric Silsesquioxanes Foams with High Thermal Stabilities and Excellent Mechanical Properties Prepared by Supercritical CO ₂ . <i>Advanced Engineering Materials</i> , 2100874 | 3.5 | 0 |