Shui-Dong Zhang

List of Publications by Year
in descending order

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Version: 2024-02-01

62 papers	1,876 citations	279798 23 h-index	276875 41 g-index
63 all docs	63 docs citations	63 times ranked	1876 citing authors

#	Article	IF	Citations
1	A facile structural manipulation strategy to prepare ultra-strong, super-tough, and thermally stable polylactide/nucleating agent composites. Advanced Composites and Hybrid Materials, 2022, 5, 948-959.	21.1	46
2	Fabrication of microcellular epoxidized natural rubber foam with superior ductility by designable chemical and physical crosslinking networks. Journal of Supercritical Fluids, 2022, 181, 105508.	3.2	8
3	Ultrasound-activable piezoelectric membranes for accelerating wound healing. Biomaterials Science, 2022, 10, 692-701.	5.4	25
4	Fabrication and Properties of Polyimide/Carbon Fiber Aerogel and the Derivative Carbon Aerogel. Industrial & Engineering Chemistry Research, 2022, 61, 3952-3961.	3.7	15
5	Adopting Intrinsic Hydrophilic Thermoplastic Starch Composites to Fabricate Antifogging Sustainable Films with High Antibiosis and Transparency. ACS Sustainable Chemistry and Engineering, 2022, 10, 3661-3672.	6.7	14
6	Study on the mechanism of enlarged spherulite diameter for aliphatic polyester ionomers. Polymer, 2022, 246, 124759.	3.8	1
7	Biodegradable-Renewable Vitrimer Fabrication by Epoxidized Natural Rubber and Oxidized Starch with Robust Ductility and Elastic Recovery. ACS Sustainable Chemistry and Engineering, 2022, 10, 7942-7953.	6.7	23
8	Facile strategy to improve thermal conductivity of anisotropic poly(butylene succinate) phosphorusâ€containing ionomer films via compression molding. Polymers for Advanced Technologies, 2021, 32, 1194-1204.	3.2	2
9	Cobalt phosphide supported by two-dimensional molybdenum carbide (MXene) for the hydrogen evolution reaction, oxygen evolution reaction, and overall water splitting. Journal of Materials Chemistry A, 2021, 9, 21259-21269.	10.3	66
10	Oxidized regenerated celluloses to fabricate high fire safety for epoxy resin with super expansion char layer. Cellulose, 2021, 28, 2995-3015.	4.9	19
11	Improved antibacterial and mechanical performances of carboxylated nitrile butadiene rubber via interface reaction of oxidized starch. Carbohydrate Polymers, 2021, 259, 117739.	10.2	23
12	Green fabrication of thermally-stable oxidized cellulose nanocrystals by evolved Fenton reaction and in-situ nanoreinforced thermoplastic starch. Cellulose, 2021, 28, 8405-8418.	4.9	8
13	Sustainabilityâ€guided lifeâ€cycle design and assessment for bioâ€based composite foams: Integrate flame retardancy/lightweight in usage and energy utilization after service. Journal of Applied Polymer Science, 2021, 138, 51330.	2.6	1
14	Tailoring flexibility and dispersity of thermoplastic starch gel by controlling intermolecular structure for improving folding endurance of polylactide. European Polymer Journal, 2021, 159, 110731.	5.4	8
15	Oxidized cellulose nanocrystal as sustainable crosslinker to fabricate carboxylated nitrile rubber composites with antibiosis, wearing and irradiation aging resistance. Composites Part B: Engineering, 2021, 225, 109253.	12.0	20
16	Using cellulose nanocrystals as sustainable additive to enhance mechanical and shape memory properties of PLA/ENR thermoplastic vulcanizates. Carbohydrate Polymers, 2020, 230, 115618.	10.2	76
17	Fabrication of bimodal open-porous poly (butylene succinate)/cellulose nanocrystals composite scaffolds for tissue engineering application. International Journal of Biological Macromolecules, 2020, 147, 1164-1173.	7.5	52
18	Poly(propylene carbonate)/poly(3â€hydroxybutyrate)â€based bionanocomposites reinforced with cellulose nanocrystal for potential application as a packaging material. Polymers for Advanced Technologies, 2020, 31, 853-863.	3.2	13

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19	Structure and improved properties of PPC/PBAT blends via controlling phase morphology based on melt viscosity. Journal of Applied Polymer Science, 2020, 137, 48924.	2.6	22
20	Facile Strategy to Construct Metalâ€“Organic Coordination Thermoplastic Starch with High Hydrophobicity, Glass-Transition Temperature, and Improved Shape Recovery. ACS Sustainable Chemistry and Engineering, 2020, 8, 8655-8663.	6.7	19
21	Formation of novel â€œcoral reef-likeâ€•structures for polycarbonate microcellular foam via asphalt-based microporous organic polymers and supercritical CO2. European Polymer Journal, 2020, 134, 109780.	5.4	8
22	Recovery of Au Nanoparticles via Highâ€Solubility Carboxylic Starch and its Significantly Improved Catalysis of Propylene Epoxidation. Starch/Staerke, 2020, 72, 1900313.	2.1	2
23	Synergetic effect of nanoclay and nano-CaCO₃ hybrid filler systems on the foaming properties and cellular structure of polystyrene nanocomposite foams using supercritical CO₂. Frontiers in Forests and Global Change, 2020, 39, 185-202.	1.1	5
24	A self-powered and arch-structured triboelectric nanogenerator for portable electronics and human-machine communication. Journal of Materials Chemistry A, 2020, 8, 8997-9005.	10.3	36
25	Facile Preparation of Supertoughened Polylactide-Based Thermoplastic Vulcanizates without Sacrificing the Stiffness Based on the Selective Distribution of Silica. Industrial & Engineering Chemistry Research, 2020, 59, 9950-9958.	3.7	20
26	Thermal, Mechanical Properties and Rheological Behavior of Poly(Propylene Carbonate)/Poly(Ethylene) Tj ETQq0 0 0 rgBT /Overlock 10 T	5.6	4
27	Nickel Metalâ€“Organic Framework Derived Hierarchically Mesoporous Nickel Phosphate toward Smoke Suppression and Mechanical Enhancement of Intumescent Flame Retardant Wood Fiber/Poly(lactic) Tj ETQq1 1 0.784314 rgBT /Overlo	8.3	33
28	Effects of tartaric acid contents on phase homogeneity, morphology and properties of poly (butyleneadipate-co-terephthalate)/thermoplastic starch bio-composities. Polymer Testing, 2019, 76, 385-395.	4.8	41
29	Fabrication of Poly(butylene succinate) phosphorus-containing ionomers microcellular foams with significantly improved thermal conductivity and compressive strength. Polymer, 2019, 185, 121967.	3.8	28
30	Elevated ductility, optical, and air barrier properties of poly (butyleneadipateâ€coâ€terephthalate) bioâ€based films via novel thermoplastic starch feature. Polymers for Advanced Technologies, 2019, 30, 852-862.	3.2	19
31	Using H2O2 to selectively oxidize recyclable cellulose yarn with high carboxyl content. Cellulose, 2019, 26, 2699-2713.	4.9	22
32	Fabrication of innovative thermoplastic starch bio-elastomer to achieve high toughness poly(butylene succinate) composites. Carbohydrate Polymers, 2019, 206, 827-836.	10.2	59
33	Effect of oxidized wood flour as functional filler on the mechanical, thermal and flame-retardant properties of polylactide biocomposites. Industrial Crops and Products, 2019, 130, 301-309.	5.2	54
34	Construction of chelation structure between Ca2+ and starch via reactive extrusion for improving the performances of thermoplastic starch. Composites Science and Technology, 2018, 159, 59-69.	7.8	37
35	Fabrication and mechanism of poly(butylene succinate) urethane ionomer microcellular foams with high thermal insulation and compressive feature. European Polymer Journal, 2018, 99, 250-258.	5.4	47
36	Fabricationâ€controlled morphology of poly(butylene succinate) nanoâ€microcellular foams by supercritical <scp>CO</scp>₂. Polymers for Advanced Technologies, 2018, 29, 1953-1965.	3.2	9

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37	Ultrathin Beta-Nickel hydroxide nanosheets grown along multi-walled carbon nanotubes: A novel nanohybrid for enhancing flame retardancy and smoke toxicity suppression of unsaturated polyester resin. Journal of Colloid and Interface Science, 2018, 509, 285-297.	9.4	23
38	Superhydrophobic SiC/CNTs Coatings with Photothermal Deicing and Passive Anti-Icing Properties. ACS Applied Materials & Interfaces, 2018, 10, 36505-36511.	8.0	200
39	Synthesis of Poly(butylene succinate) phosphorus-containing ionomers for versatile crystallization and improved thermal conductivity. Polymer, 2018, 154, 258-271.	3.8	15
40	Influence of Starch Oxidization and Modification on Interfacial Interaction, Rheological Behavior, and Properties of Poly(Propylene Carbonate)/Starch Blends. Polymer-Plastics Technology and Engineering, 2017, 56, 1084-1095.	1.9	9
41	High Oxygen Barrier Property of Poly(propylene carbonate)/Polyethylene Glycol Nanocomposites with Low Loading of Cellulose Nanocrytals. ACS Sustainable Chemistry and Engineering, 2017, 5, 11246-11254.	6.7	45
42	Fabrication of c-6 position carboxyl regenerated cotton cellulose by H 2 O 2 and its promotion in flame retardency of epoxy resin. Polymer Degradation and Stability, 2017, 142, 150-159.	5.8	11
43	Cell evolution and compressive properties of styreneâ€“butadieneâ€“styrene toughened and calcium carbonate reinforced polystyrene extrusion foams with supercritical carbon dioxide. Journal of Applied Polymer Science, 2016, 133, .	2.6	17
44	Morphology, rheological and crystallization behavior in non-covalently functionalized carbon nanotube reinforced poly(butylene succinate) nanocomposites with low percolation threshold. Polymer Testing, 2016, 50, 182-190.	4.8	56
45	Structure, and thermal and mechanical properties of poly(propylene carbonate) capped with different types of acid anhydride via reactive extrusion. RSC Advances, 2016, 6, 107547-107555.	3.6	11
46	Effect of extrusion screw type on properties of recycled glass fiber reinforced liquid crystalline polymer. Polymer Composites, 2016, 37, 370-378.	4.6	1
47	Compatibility, steady and dynamic rheological behaviors of polylactide/poly(ethylene glycol) blends. Journal of Applied Polymer Science, 2016, 133, .	2.6	22
48	Fabrication of polystyrene/nanoâ€‹<scp>C</scp>a<scp>CO</scp>₃ foams with unimodal or bimodal cell structure from extrusion foaming using supercritical carbon dioxide. Polymer Composites, 2016, 37, 1864-1873.	4.6	9
49	Thermal and Mechanical Properties of PA66 Short Fiber-Reinforced Poly(propylene carbonate) Composite via Hydrogen Bonding Interaction and Its Rheological Responses. Polymer-Plastics Technology and Engineering, 2016, 55, 138-148.	1.9	2
50	Preparation of poly(propylene carbonate)/nano calcium carbonate composites and their supercritical carbon dioxide foaming behavior. Journal of Applied Polymer Science, 2015, 132, .	2.6	8
51	Largely toughening biodegradable poly(lactic acid)/thermoplastic polyurethane blends by adding <scp>MDI</scp>. Journal of Applied Polymer Science, 2015, 132, .	2.6	22
52	Effect of polyethylene glycol on the crystallization and impact properties of polylactideâ€based blends. Polymers for Advanced Technologies, 2015, 26, 465-475.	3.2	102
53	An Investigation of the Effect of Semi-Acetal Formation on the Properties of Dialdehyde Starch and its Thermoplastic Blend with Glycerol. Journal of Macromolecular Science - Physics, 2015, 54, 836-850.	1.0	6
54	Tensile Properties of Polylactide/Poly(ethylene glycol) Blends. Journal of Polymers and the Environment, 2015, 23, 407-415.	5.0	34

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55	Relationship between screw structure and properties of recycled glass fiber reinforced flame retardant nylon 46. RSC Advances, 2015, 5, 13296-13306.	3.6	10
56	Preparing thermoplastic polyurethane/thermoplastic starch with high mechanical and biodegradable properties. RSC Advances, 2015, 5, 80884-80892.	3.6	31
57	Preparation of Novel c-6 Position Carboxyl Corn Starch by a Green Method and Its Application in Flame Retardance of Epoxy Resin. Industrial & Engineering Chemistry Research, 2015, 54, 11944-11952.	3.7	36
58	Tensile properties of polycaprolactone/nano-CaCO3 composites. Journal of Polymer Engineering, 2014, 34, 69-73.	1.4	10
59	Preparation and properties of starch oxalate half-ester with different degrees of substitution. Journal of Polymer Research, 2010, 17, 43-51.	2.4	15
60	Preparation of a new dialdehyde starch derivative and investigation of its thermoplastic properties. Journal of Polymer Research, 2010, 17, 439-446.	2.4	44
61	High Carbonyl Content Oxidized Starch Prepared by Hydrogen Peroxide and Its Thermoplastic Application. Starch/Staerke, 2009, 61, 646-655.	2.1	120
62	Modified Corn Starches with Improved Comprehensive Properties for Preparing Thermoplastics. Starch/Staerke, 2007, 59, 258-268.	2.1	92