Ruoyu Zhang

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#	Paper	IF	Citations
73	Synthesis and properties of full bio-based thermosetting resins from rosin acid and soybean oil: the role of rosin acid derivatives. <i>Green Chemistry</i> , 2013 , 15, 1300	10	114
72	Synthesis of graphene from biomass: A green chemistry approach. <i>Materials Letters</i> , 2015 , 161, 476-479	3.3	104
71	The properties of poly(lactic acid)/starch blends with a functionalized plant oil: tung oil anhydride. <i>Carbohydrate Polymers</i> , 2013 , 95, 77-84	10.3	89
70	Waterproof, Highly Tough, and Fast Self-Healing Polyurethane for Durable Electronic Skin. <i>ACS Applied Materials & Description (Materials & Description (Materials & Description) (Materials & Descripti</i>	9.5	68
69	Highly recoverable rosin-based shape memory polyurethanes. <i>Journal of Materials Chemistry A</i> , 2013 , 1, 3263	13	67
68	Graphene synthesis: a Review. <i>Materials Science-Poland</i> , 2015 , 33, 566-578	0.6	60
67	Surface hydrophobic modification of starch with bio-based epoxy resins to fabricate high-performance polylactide composite materials. <i>Composites Science and Technology</i> , 2014 , 94, 16-22	8.6	60
66	Bio-based shape memory polyurethanes (Bio-SMPUs) with short side chains in the soft segment. Journal of Materials Chemistry A, 2014 , 2, 11490	13	55
65	A Multiscale Investigation on the Mechanism of Shape Recovery for IPDI to PPDI Hard Segment Substitution in Polyurethane. <i>Macromolecules</i> , 2016 , 49, 5931-5944	5.5	54
64	Phase Separation Mechanism of Polybutadiene/Polyisoprene Blends under Oscillatory Shear Flow. <i>Macromolecules</i> , 2008 , 41, 6818-6829	5.5	53
63	A Perspective on PEF Synthesis, Properties, and End-Life. Frontiers in Chemistry, 2020, 8, 585	5	48
62	Research progress in the heat resistance, toughening and filling modification of PLA. <i>Science China Chemistry</i> , 2016 , 59, 1355-1368	7.9	47
61	Designing bio-based plasticizers: Effect of alkyl chain length on plasticization properties of isosorbide diesters in PVC blends. <i>Materials and Design</i> , 2017 , 126, 29-36	8.1	46
60	Comprehensive review on plant fiber-reinforced polymeric biocomposites. <i>Journal of Materials Science</i> , 2021 , 56, 7231-7264	4.3	46
59	A mild method to prepare high molecular weight poly(butylene furandicarboxylate-co-glycolate) copolyesters: effects of the glycolate content on thermal, mechanical, and barrier properties and biodegradability. <i>Green Chemistry</i> , 2019 , 21, 3013-3022	10	45
58	Tensile Property Balanced and Gas Barrier Improved Poly(lactic acid) by Blending with Biobased Poly(butylene 2,5-furan dicarboxylate). ACS Sustainable Chemistry and Engineering, 2017 , 5, 9244-9253	8.3	45
57	Isosorbide dioctoate as a green[plasticizer for poly(lactic acid). <i>Materials and Design</i> , 2016 , 91, 262-268	8.1	43

(2016-2018)

56	Fully bio-based poly(propylene succinate-co-propylene furandicarboxylate) copolyesters with proper mechanical, degradation and barrier properties for green packaging applications. <i>European Polymer Journal</i> , 2018 , 102, 101-110	5.2	42	
55	Effect of shear flow on multi-component polymer mixtures. <i>Polymer</i> , 2006 , 47, 3271-3286	3.9	42	
54	Improvement in toughness of polylactide by melt blending with bio-based poly(ester)urethane. <i>Chinese Journal of Polymer Science (English Edition)</i> , 2014 , 32, 1099-1110	3.5	37	
53	Asynchronous fracture of hierarchical microstructures in hard domain of thermoplastic polyurethane elastomer: Effect of chain extender. <i>Polymer</i> , 2018 , 138, 242-254	3.9	36	
52	Synthesis and Structure Property Relationship of Biobased Biodegradable Poly(butylene carbonate-co-furandicarboxylate). ACS Sustainable Chemistry and Engineering, 2018, 6, 7488-7498	8.3	35	
51	Bio-based poly(butylene 2,5-furandicarboxylate)-b-poly(ethylene glycol) copolymers with adjustable degradation rate and mechanical properties: Synthesis and characterization. <i>European Polymer Journal</i> , 2018 , 106, 42-52	5.2	34	
50	Modification of Poly(butylene 2,5-furandicarboxylate) with Lactic Acid for Biodegradable Copolyesters with Good Mechanical and Barrier Properties. <i>Industrial & Damp; Engineering Chemistry Research</i> , 2018 , 57, 11020-11030	3.9	33	
49	Effect of Liquid[liquid Phase Separation on the Lamellar Crystal Morphology in PEH/PEB Blend. <i>Macromolecules</i> , 2006 , 39, 9285-9290	5.5	33	
48	Soft segment free thermoplastic polyester elastomers with high performance. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 13637-13641	13	31	
47	Origin of highly recoverable shape memory polyurethanes (SMPUs) with non-planar ring structures: a single molecule force spectroscopy investigation. <i>Journal of Materials Chemistry A</i> , 2014 , 2, 20010-20	o 1 ể	29	
46	Design and structural study of a triple-shape memory PCL/PVC blend. <i>Polymer</i> , 2016 , 104, 115-122	3.9	29	
45	Free radical competitions in polylactide/bio-based thermoplastic polyurethane/ free radical initiator ternary blends and their final properties. <i>Polymer</i> , 2015 , 64, 69-75	3.9	28	
44	Diisocyanate free and melt polycondensation preparation of bio-based unsaturated poly(ester-urethane)s and their properties as UV curable coating materials. <i>RSC Advances</i> , 2014 , 4, 494	74-494	7 7 7	
43	A Biologically Muscle-Inspired Polyurethane with Super-Tough, Thermal Reparable and Self-Healing Capabilities for Stretchable Electronics. <i>Advanced Functional Materials</i> , 2021 , 31, 2009869	15.6	27	
42	Preparation of Biobased Monofunctional Compatibilizer from Cardanol To Fabricate Polylactide/Starch Blends with Superior Tensile Properties. <i>Industrial & Damp; Engineering Chemistry Research</i> , 2014 , 53, 10653-10659	3.9	26	
41	Toward Biobased, Biodegradable, and Smart Barrier Packaging Material: Modification of Poly(Neopentyl Glycol 2,5-Furandicarboxylate) with Succinic Acid. <i>ACS Sustainable Chemistry and Engineering</i> , 2019 , 7, 4255-4265	8.3	21	
40	A toughened PLA/Nanosilica composite obtained in the presence of epoxidized soybean oil. <i>Journal of Applied Polymer Science</i> , 2015 , 132,	2.9	20	
39	Non-planar ring contained polyester modifying polylactide to pursue high toughness. <i>Composites Science and Technology</i> , 2016 , 128, 41-48	8.6	20	

38	Liquid Diquid Phase Separation and Crystallization in Thin Films of a Polyolefin Blend. <i>Macromolecules</i> , 2008 , 41, 2311-2314	5.5	20
37	A polyurethane integrating self-healing, anti-aging and controlled degradation for durable and eco-friendly E-skin. <i>Chemical Engineering Journal</i> , 2021 , 410, 128363	14.7	20
36	Epoxy resins toughened with in situ azidellkyne polymerized polysulfones. <i>Journal of Applied Polymer Science</i> , 2018 , 135, 45790	2.9	18
35	Reexamination of the microphase separation in MDI and PTMG based polyurethane: Fast and continuous association/dissociation processes of hydrogen bonding. <i>Polymer</i> , 2019 , 185, 121943	3.9	18
34	Nucleation/Growth in the Metastable and Unstable Phase Separation Regions under Oscillatory Shear Flow for an Off-critical Polymer Blend. <i>Macromolecules</i> , 2009 , 42, 2873-2876	5.5	18
33	Toughening polylactide by direct blending of cellulose nanocrystals and epoxidized soybean oil. Journal of Applied Polymer Science, 2019 , 136, 48221	2.9	16
32	Biodegradable Elastomer from 2,5-Furandicarboxylic Acid and Ecaprolactone: Effect of Crystallization on Elasticity. <i>ACS Sustainable Chemistry and Engineering</i> , 2019 , 7, 17778-17788	8.3	16
31	Initiating Highly Effective Hydrolysis of Regenerated Cellulose by Controlling Transition of Crystal Form with Sulfolane under Microwave Radiation. <i>ACS Sustainable Chemistry and Engineering</i> , 2016 , 4, 1507-1511	8.3	15
30	Retroreflection in binary bio-based PLA/PBF blends. <i>Polymer</i> , 2017 , 125, 138-143	3.9	14
29	Sustainable and rapidly degradable poly(butylene carbonate-co-cyclohexanedicarboxylate): influence of composition on its crystallization, mechanical and barrier properties. <i>Polymer Chemistry</i> , 2019 , 10, 1812-1822	4.9	13
28	Experimental and Theoretical Study on Glycolic Acid Provided Fast Bio/Seawater-Degradable Poly(Butylene Succinate-co-Glycolate). <i>ACS Sustainable Chemistry and Engineering</i> , 2021 , 9, 3850-3859	8.3	12
27	Rheological and optical investigation of the gelation with and without phase separation in PAN/DMSO/H2O ternary blends. <i>Polymer</i> , 2016 , 84, 243-253	3.9	11
26	Rheological manifestation of the second self-similar structure in gelation process of PAN/DMSO/H2O system. <i>Polymer</i> , 2015 , 73, 149-155	3.9	11
25	An anti-stress relaxation, anti-fatigue, mildew proof and self-healing poly(thiourethane-urethane) for durably stretchable electronics. <i>Chemical Engineering Journal</i> , 2021 , 420, 127691	14.7	10
24	Nanoparticle Mobility within Permanently Cross-Linked Polymer Networks. <i>Macromolecules</i> , 2020 , 53, 4172-4184	5.5	8
23	Formation of crystal-like structure and effective hard domain in a thermoplastic polyurethane. <i>Polymer</i> , 2020 , 210, 123012	3.9	8
22	A High Performance Copolyester with <code>llockedlB</code> iodegradability: Solid Stability and Controlled Degradation Enabled by Acid-Labile Acetal. <i>ACS Sustainable Chemistry and Engineering</i> , 2021 , 9, 2280-22	2903	7
21	Synthesis and shape memory property of segmented poly(ester urethane) with poly(butylene 1,4-cyclohexanedicarboxylate) as the soft segment. <i>RSC Advances</i> , 2016 , 6, 95527-95534	3.7	5

20	A Self-Healing and Ionic Liquid Affiliative Polyurethane toward a Piezo 2 Protein Inspired Ionic Skin. Advanced Functional Materials, 2106341	15.6	5
19	Fully Bio-based Micro-cellulose Incorporated Poly(butylene 2,5-furandicarboxylate) Transparent Composites: Preparation and Characterization. <i>Fibers and Polymers</i> , 2020 , 21, 1550-1559	2	5
18	Nucleation and crystallization of poly(propylene 2,5-furan dicarboxylate) by direct blending of microcrystalline cellulose: improved tensile and barrier properties. <i>Cellulose</i> , 2020 , 27, 9423-9436	5.5	5
17	The interplay between gelation and phase separation in PAN/DMSO/H2O blends and the resulted critical gels. <i>European Polymer Journal</i> , 2017 , 92, 40-50	5.2	4
16	Bio-based poly(butylene furandicarboxylate)-b-poly(ethylene glycol) copolymers: The effect of poly(ethylene glycol) molecular weight on thermal properties and hydrolysis degradation behavior. <i>Advanced Industrial and Engineering Polymer Research</i> , 2019 , 2, 167-177	7.3	4
15	Effect of aliphatic diacyl adipic dihydrazides on the crystallization of poly(lactic acid). <i>Journal of Applied Polymer Science</i> , 2015 , 132, n/a-n/a	2.9	4
14	Design of 2,5-furandicarboxylic based polyesters degraded in different environmental conditions: Comprehensive experimental and theoretical study <i>Journal of Hazardous Materials</i> , 2021 , 425, 127752	12.8	4
13	Toughening Polylactic Acid by a Biobased Poly(Butylene 2,5-Furandicarboxylate)Poly(Ethylene Glycol) Copolymer: Balanced Mechanical Properties and Potential Biodegradability. Biomacromolecules, 2021, 22, 374-385	6.9	4
12	The Consequence of Epoxidized Soybean Oil in the Toughening of Polylactide and Micro-Fibrillated Cellulose Blend. <i>Polymer Science - Series A</i> , 2019 , 61, 832-846	1.2	4
11	Design of High-Barrier and Environmentally Degradable FDCA-Based Copolyesters: Experimental and Theoretical Investigation. <i>ACS Sustainable Chemistry and Engineering</i> , 2021 , 9, 13021-13032	8.3	4
10	Thickness Dependence of LiquidIliquid Phase Separation in Thin Films of a Polyolefin Blend. <i>Macromolecules</i> , 2009 , 42, 4349-4351	5.5	3
9	Acid-triggered, degradable and high strength-toughness copolyesters: Comprehensive experimental and theoretical study <i>Journal of Hazardous Materials</i> , 2022 , 430, 128392	12.8	3
8	Enhanced degradation and gas barrier of PBAT through composition design of aliphatic units. <i>Polymer Degradation and Stability</i> , 2022 , 195, 109795	4.7	3
7	Water plasticization accelerates the underwater self-healing of hydrophobic polyurethanes. <i>Polymer</i> , 2022 , 124863	3.9	3
6	A Convenient Dual-Side Anionic Initiator Based on 2,6-Luditine/s-Butyl Lithium. <i>Macromolecular Research</i> , 2019 , 27, 601-605	1.9	2
5	Synthesis of Multifunctionalized Graft-Type Polyolefin-Based Elastomers with a High Utility Temperature. <i>Macromolecular Chemistry and Physics</i> , 2017 , 218, 1700298	2.6	2
4	Waste Cellulose Fibers Reinforced Polylactide Toughened by Direct Blending of Epoxidized Soybean Oil. <i>Fibers and Polymers</i> , 2020 , 21, 2949-2961	2	2
3	Synthesis of poly[2-(3-butenyl)-2-oxazoline] with abundant carboxylic acid functional groups as a fiber-based solgel reaction supporter for catalytic applications. <i>Journal of Industrial and Engineering Chemistry</i> , 2019 , 80, 112-121	6.3	1

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