

Shimin Zhang

List of Publications by Year in descending order

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86
papers

5,087
citations

109321

35
h-index

88630

70
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86
all docs

86
docs citations

86
times ranked

5052
citing authors

#	ARTICLE	IF	CITATIONS
1	Low percolation thresholds of electrical conductivity and rheology in poly(ethylene terephthalate) through the networks of multi-walled carbon nanotubes. <i>Polymer</i> , 2006, 47, 480-488.	3.8	434
2	Mechanical, thermal and flammability properties of polyethylene/clay nanocomposites. <i>Polymer Degradation and Stability</i> , 2005, 87, 183-189.	5.8	320
3	Flame retardant mechanism of polymer/clay nanocomposites based on polypropylene. <i>Polymer</i> , 2005, 46, 8386-8395.	3.8	230
4	Thermal stability and flammability of polypropylene/montmorillonite composites. <i>Polymer Degradation and Stability</i> , 2004, 85, 807-813.	5.8	223
5	Synthesis and characterization of multi-walled carbon nanotubes reinforced polyamide 6 via in situ polymerization. <i>Polymer</i> , 2005, 46, 5125-5132.	3.8	209
6	Thermal stability and flammability of polyamide 66/montmorillonite nanocomposites. <i>Polymer</i> , 2003, 44, 7533-7538.	3.8	197
7	Crystallization behaviors of polypropylene/montmorillonite nanocomposites. <i>Journal of Applied Polymer Science</i> , 2002, 83, 1978-1985.	2.6	196
8	Photo-oxidative degradation of polyethylene/montmorillonite nanocomposite. <i>Polymer Degradation and Stability</i> , 2003, 81, 497-500.	5.8	155
9	Immobilization of TiO ₂ nanoparticles in polymeric substrates by chemical bonding for multi-cycle photodegradation of organic pollutants. <i>Journal of Hazardous Materials</i> , 2012, 227-228, 185-194.	12.4	140
10	Photo-oxidative degradation of polypropylene/montmorillonite nanocomposites. <i>Polymer</i> , 2005, 46, 3149-3156.	3.8	130
11	Degradation of poly(ethylene terephthalate)/clay nanocomposites during melt extrusion: Effect of clay catalysis and chain extension. <i>Polymer Degradation and Stability</i> , 2009, 94, 113-123.	5.8	128
12	Graphene Networks with Low Percolation Threshold in ABS Nanocomposites: Selective Localization and Electrical and Rheological Properties. <i>ACS Applied Materials & Interfaces</i> , 2014, 6, 12252-12260.	8.0	128
13	Functionalized carbon nanotubes containing isocyanate groups. <i>Journal of Solid State Chemistry</i> , 2004, 177, 4394-4398.	2.9	117
14	The influence of interlayer cations on the photo-oxidative degradation of polyethylene/montmorillonite composites. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2004, 42, 3006-3012.	2.1	109
15	Influence of the nano-hybrid pour point depressant on flow properties of waxy crude oil. <i>Fuel</i> , 2016, 167, 40-48.	6.4	100
16	Anatase TiO ₂ nanoparticles/carbon nanotubes nanofibers: preparation, characterization and photocatalytic properties. <i>Journal of Materials Science</i> , 2007, 42, 7162-7170.	3.7	96
17	Synthesis and properties of poly(methyl methacrylate)/montmorillonite (PMMA/MMT) nanocomposites. <i>Polymer International</i> , 2003, 52, 892-898.	3.1	95
18	Immobilization of antioxidant on nanosilica and the antioxidative behavior in low density polyethylene. <i>Polymer</i> , 2007, 48, 7309-7315.	3.8	94

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19	Preparation, structure and thermomechanical properties of nylon-6 nanocomposites with lamella-type and fiber-type sepiolite. <i>Composites Science and Technology</i> , 2007, 67, 2334-2341.	7.8	91
20	Core-shell expandable graphite @ aluminum hydroxide as a flame-retardant for rigid polyurethane foams. <i>Polymer Degradation and Stability</i> , 2017, 146, 267-276.	5.8	80
21	Pervaporation Membranes. <i>Separation Science and Technology</i> , 1995, 30, 1-31.	2.5	75
22	Antioxidant behaviour of a nanosilica-immobilized antioxidant in polypropylene. <i>Polymer Degradation and Stability</i> , 2008, 93, 1467-1471.	5.8	69
23	Effects of processing history and annealing on polymorphic structure of nylon-6/montmorillonite nanocomposites. <i>Polymer</i> , 2005, 46, 5417-5427.	3.8	68
24	On the coupling effect in pervaporation. <i>Journal of Membrane Science</i> , 1993, 81, 43-55.	8.2	61
25	Conjugation-Grafted-TiO ₂ Nanohybrid for High Photocatalytic Efficiency under Visible Light. <i>ACS Applied Materials & Interfaces</i> , 2014, 6, 2370-2376.	8.0	60
26	Effect of clay on the morphology of blends of poly(propylene) and polyamide 6/clay nanocomposites. <i>Polymer International</i> , 2004, 53, 1529-1537.	3.1	58
27	The effect of nanohybrid materials on the pour-point and viscosity depressing of waxy crude oil. <i>Science Bulletin</i> , 2011, 56, 14-17.	1.7	58
28	Polypropylene/montmorillonite composites and their application in hybrid fiber preparation by melt-spinning. <i>Journal of Applied Polymer Science</i> , 2004, 92, 552-558.	2.6	52
29	Synergistic effect of DOPO immobilized silica nanoparticles in the intumescent flame retarded polypropylene composites. <i>Polymers for Advanced Technologies</i> , 2013, 24, 732-739.	3.2	52
30	Transparent epoxy/ZnO/CdS nanocomposites with tunable UV and blue light-shielding capabilities. <i>Journal of Materials Chemistry C</i> , 2015, 3, 5065-5072.	5.5	50
31	Improvement of thermal stability of polypropylene using DOPO-immobilized silica nanoparticles. <i>Colloid and Polymer Science</i> , 2012, 290, 1371-1380.	2.1	49
32	Preparation and characterization of montmorillonite-silica nanocomposites: A sol-gel approach to modifying clay surfaces. <i>Physica B: Condensed Matter</i> , 2008, 403, 3231-3238.	2.7	45
33	A polycarbonate/magnesium oxide nanocomposite with high flame retardancy. <i>Journal of Applied Polymer Science</i> , 2012, 123, 1085-1093.	2.6	45
34	Influence of annealing treatment on the heat distortion temperature of nylon-6/montmorillonite nanocomposites. <i>Polymer Engineering and Science</i> , 2005, 45, 1247-1253.	3.1	41
35	Sol-gel immobilization of SiO ₂ /TiO ₂ on hydrophobic clay and its removal of methyl orange from water. <i>Journal of Sol-Gel Science and Technology</i> , 2008, 46, 195-200.	2.4	36
36	Recovery of pyridine from aqueous solution by membrane pervaporation. <i>Journal of Membrane Science</i> , 1993, 80, 309-318.	8.2	35

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37	The β -crystalline form of isotactic polypropylene in blends of isotactic polypropylene and polyamide-6/clay nanocomposites. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2004, 42, 3428-3438.	2.1	34
38	Efficient grafting of polypropylene onto silica nanoparticles and the properties of PP/PP-g-SiO ₂ nanocomposites. <i>Polymer</i> , 2018, 151, 242-249.	3.8	34
39	Zero-order kinetics of the thermal degradation of polypropylene/clay nanocomposites. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2005, 43, 3713-3719.	2.1	33
40	Preparation of nanosilica-immobilized antioxidant and the antioxidative behavior in low density polyethylene. <i>Polymer Degradation and Stability</i> , 2017, 135, 1-7.	5.8	33
41	Antioxidant functionalized silica-coated TiO ₂ nanorods to enhance the thermal and photo stability of polypropylene. <i>Applied Surface Science</i> , 2019, 476, 682-690.	6.1	32
42	Crystallization behavior of poly(ethylene terephthalate)/multiwalled carbon nanotubes composites. <i>Journal of Applied Polymer Science</i> , 2008, 108, 4080-4089.	2.6	31
43	Thermal-oxidative effect of a co-condensed nanosilica-based antioxidant in polypropylene. <i>Polymer</i> , 2017, 112, 369-376.	3.8	31
44	Porous polyphenylene sulfide membrane with high durability against solvents by the thermally induced phase-separation method. <i>Journal of Applied Polymer Science</i> , 2006, 102, 2959-2966.	2.6	29
45	The thermal conductivity of Nylon 6/clay nanocomposites. <i>Journal of Applied Polymer Science</i> , 2008, 108, 3822-3827.	2.6	29
46	Tensile fracture morphologies of nylon-6/montmorillonite nanocomposites. <i>Polymer International</i> , 2005, 54, 1673-1680.	3.1	28
47	Melt blending of polypropylene-blend- polyamide 6-blend-organoclay systems. <i>Polymer International</i> , 2007, 56, 50-56.	3.1	28
48	Preparation, characterization and properties of a halogen-free phosphorous flame-retarded poly(butylene terephthalate) composite based on a DOPO derivative. <i>Journal of Applied Polymer Science</i> , 2013, 130, 1301-1307.	2.6	28
49	The Effect of Encapsulation of Nano Zinc Oxide with Silica on the UV Resistance of Polypropylene. <i>Polymer-Plastics Technology and Engineering</i> , 2011, 50, 1375-1382.	1.9	27
50	Preparation and characterization of high-performance dehydrating pervaporation alginate membranes. <i>Journal of Applied Polymer Science</i> , 1998, 68, 959-968.	2.6	26
51	In-situ growth of titania nanoparticles in electrospun polymer nanofibers at low temperature. <i>Materials Letters</i> , 2009, 63, 1401-1403.	2.6	26
52	Preparation of photodegradable polypropylene/clay composites based on nanoscaled TiO ₂ immobilized organoclay. <i>Polymer Composites</i> , 2009, 30, 543-549.	4.6	25
53	Photo- and thermo-oxidative aging of polypropylene filled with surface modified fumed nanosilica. <i>Composites Communications</i> , 2017, 3, 51-58.	6.3	25
54	Effect of the grafted silane on the dispersion and orientation of clay in polyethylene nanocomposites. <i>Polymer Composites</i> , 2009, 30, 1234-1242.	4.6	24

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55	Non-contact percolation of unstable graphene networks in poly(styrene-co-acrylonitrile) nanocomposites: Electrical and rheological properties. <i>Composites Science and Technology</i> , 2018, 155, 41-49.	7.8	24
56	Expandable graphite encapsulated by magnesium hydroxide nanosheets as an intumescent flame retardant for rigid polyurethane foams. <i>Journal of Applied Polymer Science</i> , 2018, 135, 46749.	2.6	24
57	Highly Exfoliated Poly(Ethylene Terephthalate)/Clay Nanocomposites via Melt Compounding: Effects of Silane Grafting. <i>Polymer-Plastics Technology and Engineering</i> , 2011, 50, 362-371.	1.9	23
58	Polymer dots grafted TiO ₂ nanohybrids as high performance visible light photocatalysts. <i>Chemosphere</i> , 2018, 197, 526-534.	8.2	23
59	Magnesium hydroxide nanoparticles grafted by DOPO and its flame retardancy in ethylene vinyl acetate copolymers. <i>Journal of Applied Polymer Science</i> , 2021, 138, .	2.6	22
60	<i>In situ</i> synthesis of ZnO nanocrystal/PET hybrid nanofibers via electrospinning. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2011, 49, 1360-1368.	2.1	20
61	Photostabilization of polypropylene by surface modified rutile TiO ₂ nanorods. <i>Journal of Applied Polymer Science</i> , 2014, 131, .	2.6	20
62	Facile fabrication of hybrid PA6-decorated TiO ₂ fabrics with excellent photocatalytic, anti-bacterial, UV light-shielding, and super hydrophobic properties. <i>RSC Advances</i> , 2017, 7, 52375-52381.	3.6	20
63	Preparation and characterization of cyclodextrin microencapsulated ammonium polyphosphate and its application in flame retardant polypropylene. <i>Journal of Applied Polymer Science</i> , 2020, 137, 49001.	2.6	20
64	Synthesis and characterization of poly(propylene)/montmorillonite nanocomposites by simultaneous grafting-intercalation. <i>Journal of Applied Polymer Science</i> , 2004, 94, 1018-1023.	2.6	19
65	Nanosilica-immobilized UVA absorber: synthesis and photostability of polyolefins. <i>Polymer International</i> , 2015, 64, 1053-1059.	3.1	18
66	Synthesis of a heat-resistant DOPO derivative and its application as flame retardant in engineering plastics. <i>Journal of Applied Polymer Science</i> , 2017, 134, .	2.6	17
67	Crosslinking of cyclodextrin and combining with ammonium polyphosphate for flame retardant polypropylene. <i>Journal of Applied Polymer Science</i> , 2020, 137, 48320.	2.6	16
68	Isothermal crystallization of polypropylene/surface modified silica nanocomposites. <i>Science China Chemistry</i> , 2016, 59, 1283-1290.	8.2	15
69	Effects of silane grafting on the morphology and thermal stability of poly(ethylene Terephthalate). <i>Journal of Applied Polymer Science</i> , 2017, 134, 46749.	4.6	14
70	The yield stress of model waxy oil after incorporation of organic montmorillonite. <i>Fuel</i> , 2017, 203, 570-578.	6.4	14
71	Synthesis of nanoparticle-immobilized antioxidants and their antioxidative performances in polymer matrices: a review. <i>Polymer International</i> , 2018, 67, 356-373.	3.1	14
72	Synergistic effect of cocondensed nanosilica in intumescent flame retardant polypropylene. <i>Polymers for Advanced Technologies</i> , 2019, 30, 1116-1125.	3.2	14

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73	Fiber breakage and dispersion in carbon fiber reinforced nylon 6/clay nanocomposites. <i>Journal of Applied Polymer Science</i> , 2007, 106, 1751-1756.	2.6	13
74	Anti-aging behavior of amino-containing co-condensed nanosilica in polyethylene. <i>Polymer Degradation and Stability</i> , 2018, 154, 137-148.	5.8	13
75	Conductive TiO ₂ nanorods via surface coating by antimony doped tin dioxide. <i>Materials Chemistry and Physics</i> , 2019, 225, 181-186.	4.0	13
76	Low temperature synthesis and mechanism of finely dispersed nanorod rutile titanium dioxide. <i>RSC Advances</i> , 2015, 5, 62160-62166.	3.6	12
77	Conductive composites with segregated structure and ultralow percolation threshold via flocculation-assembled PVDF/graphene core-shell particles. <i>Materials Letters</i> , 2015, 158, 428-431.	2.6	11
78	Morphology control of rutile TiO ₂ with tunable bandgap by preformed FeOOH nanoparticles. <i>Nanotechnology</i> , 2018, 29, 125602.	2.6	8
79	Double Phase Inversion of Pickering Emulsion Induced by Magnesium Hydroxide Nanosheets Adsorbed with Sodium Dodecyl Sulfate. <i>Langmuir</i> , 2021, 37, 4082-4090.	3.5	7
80	Modeling the thermal conductivity of exfoliated polymer/clay nanocomposites. <i>Journal of Applied Physics</i> , 2007, 102, 084312.	2.5	5
81	Enhanced foamability of isotactic polypropylene/polypropylene-grafted nanosilica nanocomposites in supercritical carbon dioxide. <i>Polymer Engineering and Science</i> , 2020, 60, 1353-1364.	3.1	5
82	A green intumescent flame retardant system using an inositol-based carbon source: preparation and characteristics in polypropylene. <i>Polymer International</i> , 2021, 70, 1559-1569.	3.1	4
83	Nanoparticle layer via UV-induced directional migration of iron-doped titania nanoparticles in polyvinyl butyral films and superior UV-stability. <i>Polymer</i> , 2022, 254, 125107.	3.8	4
84	Photo-oxidation of Polyolefin/Clay Composites. <i>Studies in Surface Science and Catalysis</i> , 2006, , 233-236.	1.5	3
85	Effect of Clay Modification on Photooxidation of Polyethylene/Clay Nanocomposites. <i>Polymers and Polymer Composites</i> , 2008, 16, 535-546.	1.9	2
86	Effect of silica-coated TiO ₂ nanorods on the foamability of polypropylene and photostability of foamed polypropylene. <i>Polymers for Advanced Technologies</i> , 2021, 32, 3242-3252.	3.2	1