

De-Yi Wang

List of Publications by Year in descending order

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249
papers

13,941
citations

12322

69
h-index

31818

101
g-index

252
all docs

252
docs citations

252
times ranked

7386
citing authors

#	ARTICLE	IF	CITATIONS
1	Carbon-family materials for flame retardant polymeric materials. <i>Progress in Polymer Science</i> , 2017, 69, 22-46.	11.8	406
2	Highly thermally conductive flame-retardant epoxy nanocomposites with reduced ignitability and excellent electrical conductivities. <i>Composites Science and Technology</i> , 2017, 139, 83-89.	3.8	356
3	Synergistic effect of ammonium polyphosphate and layered double hydroxide on flame retardant properties of poly(vinyl alcohol). <i>Polymer Degradation and Stability</i> , 2008, 93, 1323-1331.	2.7	221
4	A sustainable, eugenol-derived epoxy resin with high biobased content, modulus, hardness and low flammability: Synthesis, curing kinetics and structure–property relationship. <i>Chemical Engineering Journal</i> , 2016, 284, 1080-1093.	6.6	218
5	Functionalized layered double hydroxide-based epoxy nanocomposites with improved flame retardancy and mechanical properties. <i>Journal of Materials Chemistry A</i> , 2015, 3, 6819-6826.	5.2	215
6	A novel biobased epoxy resin with high mechanical stiffness and low flammability: synthesis, characterization and properties. <i>Journal of Materials Chemistry A</i> , 2015, 3, 21907-21921.	5.2	209
7	Simultaneously improving the fire safety and mechanical properties of epoxy resin with Fe-CNTs via large-scale preparation. <i>Journal of Materials Chemistry A</i> , 2018, 6, 6376-6386.	5.2	183
8	Preparation and burning behaviors of flame retarding biodegradable poly(lactic acid) nanocomposite based on zinc aluminum layered double hydroxide. <i>Polymer Degradation and Stability</i> , 2010, 95, 2474-2480.	2.7	181
9	Renewable Cardanol-Based Surfactant Modified Layered Double Hydroxide as a Flame Retardant for Epoxy Resin. <i>ACS Sustainable Chemistry and Engineering</i> , 2015, 3, 3281-3290.	3.2	174
10	Few layered Co(OH) ₂ ultrathin nanosheet-based polyurethane nanocomposites with reduced fire hazard: from eco-friendly flame retardance to sustainable recycling. <i>Green Chemistry</i> , 2016, 18, 3066-3074.	4.6	171
11	A flame-retardant epoxy resin based on a reactive phosphorus-containing monomer of DODPP and its thermal and flame-retardant properties. <i>Polymer Degradation and Stability</i> , 2008, 93, 1308-1315.	2.7	167
12	Ultrastiff Biobased Epoxy Resin with High <i>T_g</i> and Low Permittivity: From Synthesis to Properties. <i>ACS Sustainable Chemistry and Engineering</i> , 2016, 4, 2869-2880.	3.2	161
13	Fire retardancy of a reactively extruded intumescent flame retardant polyethylene system enhanced by metal chelates. <i>Polymer Degradation and Stability</i> , 2007, 92, 1592-1598.	2.7	157
14	Metal compound-enhanced flame retardancy of intumescent epoxy resins containing ammonium polyphosphate. <i>Polymer Degradation and Stability</i> , 2009, 94, 625-631.	2.7	154
15	Synthesis of Organo Cobalt–Aluminum Layered Double Hydroxide via a Novel Single-Step Self-Assembling Method and Its Use as Flame Retardant Nanofiller in PP. <i>Langmuir</i> , 2010, 26, 14162-14169.	1.6	153
16	Flame-retardant and anti-dripping effects of a novel char-forming flame retardant for the treatment of poly(ethylene terephthalate) fabrics. <i>Polymer Degradation and Stability</i> , 2005, 88, 349-356.	2.7	147
17	Simultaneously improving flame retardancy and dynamic mechanical properties of epoxy resin nanocomposites through layered copper phenylphosphate. <i>Composites Science and Technology</i> , 2018, 154, 136-144.	3.8	146
18	Flame-Retardant Effect of Sepiolite on an Intumescent Flame-Retardant Polypropylene System. <i>Industrial & Engineering Chemistry Research</i> , 2011, 50, 2047-2054.	1.8	142

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19	Multifunctional intercalation in layered double hydroxide: toward multifunctional nanohybrids for epoxy resin. <i>Journal of Materials Chemistry A</i> , 2016, 4, 2147-2157.	5.2	131
20	One-Step Synthesis of Organic LDH and Its Comparison with Regeneration and Anion Exchange Method. <i>Chemistry of Materials</i> , 2009, 21, 4490-4497.	3.2	124
21	A novel phosphorus-containing poly(lactic acid) toward its flame retardation. <i>Polymer</i> , 2011, 52, 233-238.	1.8	123
22	Biobased Epoxy Resin with Low Electrical Permissivity and Flame Retardancy: From Environmental Friendly High-Throughput Synthesis to Properties. <i>ACS Sustainable Chemistry and Engineering</i> , 2018, 6, 8856-8867.	3.2	119
23	A novel charring agent containing caged bicyclic phosphate and its application in intumescent flame retardant polypropylene systems. <i>Journal of Industrial and Engineering Chemistry</i> , 2008, 14, 589-595.	2.9	117
24	A method for simultaneously improving the flame retardancy and toughness of PLA. <i>Polymers for Advanced Technologies</i> , 2011, 22, 2295-2301.	1.6	117
25	New Superefficiently Flame-Retardant Bioplastic Poly(lactic acid): Flammability, Thermal Decomposition Behavior, and Tensile Properties. <i>ACS Sustainable Chemistry and Engineering</i> , 2016, 4, 202-209.	3.2	111
26	Effect of phosphorus-containing inorganic-organic hybrid coating on the flammability of cotton fabrics: Synthesis, characterization and flammability. <i>Chemical Engineering Journal</i> , 2016, 294, 167-175.	6.6	108
27	Polydopamine induced natural fiber surface functionalization: a way towards flame retardancy of flax/poly(lactic acid) biocomposites. <i>Composites Part B: Engineering</i> , 2018, 154, 56-63.	5.9	108
28	Intumescent multilayer hybrid coating for flame retardant cotton fabrics based on layer-by-layer assembly and sol-gel process. <i>RSC Advances</i> , 2015, 5, 10647-10655.	1.7	107
29	Synthesis of a novel dual layered double hydroxide hybrid nanomaterial and its application in epoxy nanocomposites. <i>Chemical Engineering Journal</i> , 2020, 381, 122777.	6.6	106
30	Green Synthesis of Biomass Phytic Acid-Functionalized UiO-66-NH ₂ Hierarchical Hybrids toward Fire Safety of Epoxy Resin. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 994-1003.	3.2	106
31	A New Approach to Reducing the Flammability of Layered Double Hydroxide (LDH)-Based Polymer Composites: Preparation and Characterization of Dye Structure-Intercalated LDH and Its Effect on the Flammability of Polypropylene-Grafted Maleic Anhydride/d-LDH Composites. <i>ACS Applied Materials & Interfaces</i> , 2013, 5, 8991-8997.	4.0	104
32	Polyamide-enhanced flame retardancy of ammonium polyphosphate on epoxy resin. <i>Journal of Applied Polymer Science</i> , 2008, 108, 2644-2653.	1.3	103
33	Synthesis and characterization of functional eugenol derivative based layered double hydroxide and its use as a nanoflame-retardant in epoxy resin. <i>Journal of Materials Chemistry A</i> , 2015, 3, 3471-3479.	5.2	103
34	Epoxy thermosets and materials derived from bio-based monomeric phenols: Transformations and performances. <i>Progress in Polymer Science</i> , 2020, 108, 101287.	11.8	102
35	Ultrafine nickel nanocatalyst-engineering of an organic layered double hydroxide towards a super-efficient fire-safe epoxy resin via interfacial catalysis. <i>Journal of Materials Chemistry A</i> , 2018, 6, 8488-8498.	5.2	101
36	Preparation of zinc oxide free, transparent rubber nanocomposites using a layered double hydroxide filler. <i>Journal of Materials Chemistry</i> , 2011, 21, 7194.	6.7	100

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37	Preparation and characterisation of a novel fire retardant PET/zirconium phosphate nanocomposite. <i>Polymer Degradation and Stability</i> , 2009, 94, 544-549.	2.7	99
38	Char-forming mechanism of a novel polymeric flame retardant with char agent. <i>Polymer Degradation and Stability</i> , 2007, 92, 1046-1052.	2.7	98
39	Preparation and investigation of the combustion behavior of polypropylene/organomodified MgAl-LDH micro-nanocomposite. <i>Journal of Alloys and Compounds</i> , 2011, 509, 3497-3501.	2.8	97
40	Core-shell flame retardant/graphene oxide hybrid: a self-assembly strategy towards reducing fire hazard and improving toughness of polylactic acid. <i>Composites Science and Technology</i> , 2018, 165, 161-167.	3.8	97
41	Thermal oxidative degradation behaviours of flame-retardant copolyesters containing phosphorous linked pendent group/montmorillonite nanocomposites. <i>Polymer Degradation and Stability</i> , 2005, 87, 171-176.	2.7	96
42	Effect of a phosphorus-containing flame retardant on the thermal properties and ease of ignition of poly(lactic acid). <i>Polymer Degradation and Stability</i> , 2011, 96, 1557-1561.	2.7	96
43	Bioinspired iron-loaded polydopamine nanospheres as green flame retardants for epoxy resin via free radical scavenging and catalytic charring. <i>Journal of Materials Chemistry A</i> , 2020, 8, 2529-2538.	5.2	94
44	Constructing multifunctional nanofiller with reactive interface in PLA/CB-g-DOPO composites for simultaneously improving flame retardancy, electrical conductivity and mechanical properties. <i>Composites Science and Technology</i> , 2020, 188, 107988.	3.8	94
45	A novel efficient halogen-free flame retardant system for polycarbonate. <i>Polymer Degradation and Stability</i> , 2011, 96, 320-327.	2.7	93
46	Structural characteristics and flammability of fire retarding EPDM/layered double hydroxide (LDH) nanocomposites. <i>RSC Advances</i> , 2012, 2, 3927.	1.7	91
47	Bimetallic metal-organic frameworks and graphene oxide nano-hybrids for enhanced fire retardant epoxy composites: A novel carbonization mechanism. <i>Carbon</i> , 2019, 153, 407-416.	5.4	91
48	Facile fabrication of biobased P N C-containing nano-layered hybrid: Preparation, growth mechanism and its efficient fire retardancy in epoxy. <i>Polymer Degradation and Stability</i> , 2019, 159, 153-162.	2.7	91
49	Understanding the reinforcing behavior of expanded clay particles in natural rubber compounds. <i>Soft Matter</i> , 2013, 9, 3798.	1.2	90
50	Impact of halogen-free flame retardant with varied phosphorus chemical surrounding on the properties of diglycidyl ether of bisphenol-A type epoxy resin: synthesis, fire behaviour, flame-retardant mechanism and mechanical properties. <i>RSC Advances</i> , 2016, 6, 59226-59236.	1.7	89
51	Ultrathin iron phenyl phosphonate nanosheets with appropriate thermal stability for improving fire safety in epoxy. <i>Composites Science and Technology</i> , 2019, 182, 107748.	3.8	88
52	Effect of metal chelates on the ignition and early flaming behaviour of intumescent fire-retarded polyethylene systems. <i>Polymer Degradation and Stability</i> , 2008, 93, 1024-1030.	2.7	87
53	Structure-Property Relationships of Nanocomposites Based on Polypropylene and Layered Double Hydroxides. <i>Macromolecules</i> , 2011, 44, 4342-4354.	2.2	87
54	Interfacial growth of MOF-derived layered double hydroxide nanosheets on graphene slab towards fabrication of multifunctional epoxy nanocomposites. <i>Chemical Engineering Journal</i> , 2017, 330, 1222-1231.	6.6	84

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55	Organically modified rectorite toughened poly(lactic acid): Nanostructures, crystallization and mechanical properties. <i>European Polymer Journal</i> , 2009, 45, 2996-3003.	2.6	83
56	The synergistic flame-retardant effect of O ₂ -MMT on the intumescent flame-retardant PP/CA/APP systems. <i>Polymers for Advanced Technologies</i> , 2010, 21, 789-796.	1.6	83
57	Role of lignin nanoparticles in UV resistance, thermal and mechanical performance of PMMA nanocomposites prepared by a combined free-radical graft polymerization/masterbatch procedure. <i>Composites Part A: Applied Science and Manufacturing</i> , 2018, 107, 61-69.	3.8	83
58	Synthesis of organo-modified Î±-zirconium phosphate and its effect on the flame retardancy of IFR poly(lactic acid) systems. <i>Polymer Degradation and Stability</i> , 2011, 96, 771-777.	2.7	82
59	Bio-based barium alginate film: Preparation, flame retardancy and thermal degradation behavior. <i>Carbohydrate Polymers</i> , 2016, 139, 106-114.	5.1	82
60	Kinetics of thermal degradation of flame retardant copolyesters containing phosphorus linked pendent groups. <i>Polymer Degradation and Stability</i> , 2003, 80, 135-140.	2.7	81
61	Modeling Lightning Impact Thermo-Mechanical Damage on Composite Materials. <i>Applied Composite Materials</i> , 2014, 21, 149-164.	1.3	80
62	Covalent assembly of MCM-41 nanospheres on graphene oxide for improving fire retardancy and mechanical property of epoxy resin. <i>Composites Part B: Engineering</i> , 2018, 138, 101-112.	5.9	79
63	Influence of eco-friendly calcium gluconate on the intumescent flame-retardant epoxy resin: Flame retardancy, smoke suppression and mechanical properties. <i>Composites Part B: Engineering</i> , 2019, 176, 107200.	5.9	78
64	Large-scale converting waste coffee grounds into functional carbon materials as high-efficient adsorbent for organic dyes. <i>Bioresource Technology</i> , 2019, 272, 92-98.	4.8	78
65	Flame-retardant strategy and mechanism of fiber reinforced polymeric composite: A review. <i>Composites Part B: Engineering</i> , 2022, 233, 109663.	5.9	78
66	Size tailored bimetallic metal-organic framework (MOF) on graphene oxide with sandwich-like structure as functional nano-hybrids for improving fire safety of epoxy. <i>Composites Part B: Engineering</i> , 2020, 188, 107881.	5.9	77
67	An in situ polymerization approach for functionalized MoS ₂ /nylon-6 nanocomposites with enhanced mechanical properties and thermal stability. <i>Journal of Materials Chemistry A</i> , 2015, 3, 24112-24120.	5.2	75
68	Synthesis of a Fe ₃ O ₄ Nanosphere@Mg-Al Layered-Double-Hydroxide Hybrid and Application in the Fabrication of Multifunctional Epoxy Nanocomposites. <i>Industrial & Engineering Chemistry Research</i> , 2016, 55, 6634-6642.	1.8	73
69	Nickel Metal-Organic Framework Derived Hierarchically Mesoporous Nickel Phosphate toward Smoke Suppression and Mechanical Enhancement of Intumescent Flame Retardant Wood Fiber/Poly(lactic acid) Composites. <i>Journal of Applied Polymer Science</i> , 2021, 164, 51101.	1.0	73
70	Effect of Cu-doped graphene on the flammability and thermal properties of epoxy composites. <i>Composites Part B: Engineering</i> , 2016, 89, 108-116.	5.9	72
71	Simultaneous Improvement of Mechanical and Fire-Safety Properties of Polymer Composites with Phosphonate-Loaded MOF Additives. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 20325-20332.	4.0	71
72	A Novel Phosphorus-Containing Poly(ethylene terephthalate) Nanocomposite with Both Flame Retardancy and Anti-Dripping Effects. <i>Macromolecular Materials and Engineering</i> , 2006, 291, 638-645.	1.7	70

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73	Combined effects of ammonium polyphosphate and talc on the fire and mechanical properties of epoxy/glass fabric composites. <i>Composites Part B: Engineering</i> , 2017, 113, 381-390.	5.9	70
74	Comparison of thermal and dielectric spectroscopy for nanocomposites based on polypropylene and Layered Double Hydroxide – Proof of interfaces. <i>European Polymer Journal</i> , 2014, 55, 48-56.	2.6	69
75	Bioinspired polydopamine-induced assembly of ultrafine Fe(OH) ₃ nanoparticles on halloysite toward highly efficient fire retardancy of epoxy resin via an action of interfacial catalysis. <i>Polymer Chemistry</i> , 2017, 8, 3926-3936.	1.9	69
76	Organophosphorus heteroaromatic compound towards mechanically reinforced and low-flammability epoxy resin. <i>Composites Part B: Engineering</i> , 2019, 168, 458-466.	5.9	69
77	A strategy to construct multifunctional ammonium polyphosphate for epoxy resin with simultaneously high fire safety and mechanical properties. <i>Composites Part A: Applied Science and Manufacturing</i> , 2021, 149, 106529.	3.8	67
78	Preparation and flammability of a novel intumescent flame-retardant poly(ethylene-co-vinyl acetate) system. <i>Polymer Degradation and Stability</i> , 2008, 93, 2186-2192.	2.7	65
79	Thermal degradation behaviors of a novel nanocomposite based on polypropylene and Co-Al layered double hydroxide. <i>Polymer Degradation and Stability</i> , 2011, 96, 285-290.	2.7	65
80	Confined Dispersion of Zinc Hydroxystannate Nanoparticles into Layered Bimetallic Hydroxide Nanocapsules and Its Application in Flame-Retardant Epoxy Nanocomposites. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 40951-40960.	4.0	65
81	An eco-friendly way to fire retardant flexible polyurethane foam: layer-by-layer assembly of fully bio-based substances. <i>RSC Advances</i> , 2014, 4, 46164-46169.	1.7	64
82	A novel intumescent flame-retardant system containing metal chelates for polyvinyl alcohol. <i>Polymer Degradation and Stability</i> , 2007, 92, 1555-1564.	2.7	63
83	Comparative study of the synergistic effect of binary and ternary LDH with intumescent flame retardant on the properties of polypropylene composites. <i>RSC Advances</i> , 2015, 5, 78979-78985.	1.7	63
84	A novel oligomer containing DOPO and ferrocene groups: Synthesis, characterization, and its application in fire retardant epoxy resin. <i>Polymer Degradation and Stability</i> , 2018, 156, 111-124.	2.7	63
85	Synthesis of aromatic-aliphatic polyamide acting as adjuvant in polylactic acid (PLA)/ammonium polyphosphate (APP) system. <i>Polymer Degradation and Stability</i> , 2013, 98, 1036-1042.	2.7	61
86	Bio-based nickel alginate and copper alginate films with excellent flame retardancy: preparation, flammability and thermal degradation behavior. <i>RSC Advances</i> , 2015, 5, 64125-64137.	1.7	61
87	A novel phosphorus-containing copolyester/montmorillonite nanocomposites with improved flame retardancy. <i>European Polymer Journal</i> , 2007, 43, 2882-2890.	2.6	60
88	Inclusion complex between beta-cyclodextrin and phenylphosphonicdiamide as novel bio-based flame retardant to epoxy: Inclusion behavior, characterization and flammability. <i>Materials and Design</i> , 2017, 114, 623-632.	3.3	60
89	Structure-property relationships of nanocomposites based on polylactide and MgAl layered double hydroxides. <i>European Polymer Journal</i> , 2015, 68, 338-354.	2.6	59
90	Cu(0) and Cu(II) decorated graphene hybrid on improving fireproof efficiency of intumescent flame-retardant epoxy resins. <i>Composites Part B: Engineering</i> , 2019, 175, 107189.	5.9	59

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91	Flame-retardant wood polymer composites (WPCs) as potential fire safe bio-based materials for building products: Preparation, flammability and mechanical properties. <i>Fire Safety Journal</i> , 2019, 107, 210-216.	1.4	59
92	Dry synthesis of mesoporous nanosheet assembly constructed by cyclomatrix polyphosphazene frameworks and its application in flame retardant polypropylene. <i>Chemical Engineering Journal</i> , 2020, 395, 125076.	6.6	59
93	Interfacial engineering of layered double hydroxide toward epoxy resin with improved fire safety and mechanical property. <i>Composites Part B: Engineering</i> , 2018, 152, 336-346.	5.9	58
94	Rationally designed zinc borate@ZIF-8 core-shell nanorods for curing epoxy resins along with low flammability and high mechanical property. <i>Composites Part B: Engineering</i> , 2020, 200, 108349.	5.9	58
95	Metal organic frameworks enabled rational design of multifunctional PEO-based solid polymer electrolytes. <i>Chemical Engineering Journal</i> , 2021, 414, 128702.	6.6	58
96	Effect of manganese and cobalt ions on flame retardancy and thermal degradation of bio-based alginate films. <i>Journal of Materials Science</i> , 2016, 51, 1052-1065.	1.7	57
97	Synthesis of functionalized β -zirconium phosphate modified with intumescent flame retardant and its application in poly(lactic acid). <i>Polymer Degradation and Stability</i> , 2013, 98, 1731-1737.	2.7	56
98	A facile and robust route to polyvinyl alcohol-based triboelectric nanogenerator containing flame-retardant polyelectrolyte with improved output performance and fire safety. <i>Nano Energy</i> , 2021, 81, 105656.	8.2	56
99	Rubberâ€“Clay Nanocomposites: Some Recent Results. <i>Advances in Polymer Science</i> , 2010, , 85-166.	0.4	55
100	Influence of exfoliated graphite nanoplatelets on the flammability and thermal properties of polyethylene terephthalate/polypropylene nanocomposites. <i>Polymer Degradation and Stability</i> , 2014, 110, 137-148.	2.7	55
101	A novel intumescent flameâ€“retardant LDPE system and its thermoâ€“oxidative degradation and flameâ€“retardant mechanisms. <i>Polymers for Advanced Technologies</i> , 2008, 19, 1566-1575.	1.6	54
102	Crystallization behavior of nanocomposites based on poly(l-lactide) and MgAl layered double hydroxides â€“ Unbiased determination of the rigid amorphous phases due to the crystals and the nanofiller. <i>Polymer</i> , 2017, 108, 257-264.	1.8	54
103	Bio-based layered double hydroxide nanocarrier toward fire-retardant epoxy resin with efficiently improved smoke suppression. <i>Chemical Engineering Journal</i> , 2019, 378, 122046.	6.6	54
104	Effect of oxidized wood flour as functional filler on the mechanical, thermal and flame-retardant properties of polylactide biocomposites. <i>Industrial Crops and Products</i> , 2019, 130, 301-309.	2.5	54
105	In-situ coprecipitation formed Fe/Zn-layered double hydroxide/ammonium polyphosphate hybrid material for flame retardant epoxy resin via synergistic catalytic charring. <i>Composites Part A: Applied Science and Manufacturing</i> , 2022, 155, 106841.	3.8	54
106	A novel method for preparing poly(ethylene terephthalate)/BaSO ₄ nanocomposites. <i>European Polymer Journal</i> , 2005, 41, 2569-2574.	2.6	53
107	Synergistic Effect of Carbon Nanotube and Polyethersulfone on Flame Retardancy of Carbon Fiber Reinforced Epoxy Composites. <i>Industrial & Engineering Chemistry Research</i> , 2014, 53, 1040-1047.	1.8	53
108	Phosphorusâ€“containing telechelic polyesterâ€“based ionomer: Facile synthesis and antidripping effects. <i>Journal of Polymer Science Part A</i> , 2008, 46, 2994-3006.	2.5	51

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109	Natural halloysite nanotube based functionalized nanohybrid assembled via phosphorus-containing slow release method: A highly efficient way to impart flame retardancy to polylactide. <i>European Polymer Journal</i> , 2017, 93, 458-470.	2.6	51
110	Influence of the Characteristics of Expandable Graphite on the Morphology, Thermal Properties, Fire Behaviour and Compression Performance of a Rigid Polyurethane Foam. <i>Polymers</i> , 2019, 11, 168.	2.0	50
111	Effect of phytic acid-modified layered double hydroxide on flammability and mechanical properties of intumescent flame retardant polypropylene system. <i>Fire and Materials</i> , 2018, 42, 213-220.	0.9	49
112	Hierarchically tailored hybrids via interfacial-engineering of self-assembled UiO-66 and prussian blue analogue: Novel strategy to impart epoxy high-efficient fire retardancy and smoke suppression. <i>Chemical Engineering Journal</i> , 2020, 400, 125942.	6.6	49
113	Renewable vanillin based flame retardant for poly(lactic acid): a way to enhance flame retardancy and toughness simultaneously. <i>RSC Advances</i> , 2018, 8, 42189-42199.	1.7	48
114	A bimetallic MOF@graphene oxide composite as an efficient bifunctional oxygen electrocatalyst for rechargeable Zn-air batteries. <i>Dalton Transactions</i> , 2020, 49, 5730-5735.	1.6	48
115	Inherent flame retardation of bio-based poly(lactic acid) by incorporating phosphorus linked pendent group into the backbone. <i>Polymer Degradation and Stability</i> , 2011, 96, 1669-1675.	2.7	47
116	Influence of phenylphosphonate based flame retardant on epoxy/glass fiber reinforced composites (GRE): Flammability, mechanical and thermal stability properties. <i>Composites Part B: Engineering</i> , 2017, 110, 511-519.	5.9	47
117	Bio-inspired engineering of boron nitride with iron-derived nanocatalyst toward enhanced fire retardancy of epoxy resin. <i>Polymer Degradation and Stability</i> , 2018, 157, 119-130.	2.7	47
118	Recent Progress on Metal-Organic Framework and Its Derivatives as Novel Fire Retardants to Polymeric Materials. <i>Nano-Micro Letters</i> , 2020, 12, 173.	14.4	47
119	Hierarchical nanoporous silica doped with tin as novel multifunctional hybrid material to flexible poly(vinyl chloride) with greatly improved flame retardancy and mechanical properties. <i>Chemical Engineering Journal</i> , 2016, 295, 451-460.	6.6	45
120	Polymer-based ceramifiable composites for flame retardant applications: A review. <i>Composites Communications</i> , 2020, 21, 100405.	3.3	45
121	Effect of reactive time on flame retardancy and thermal degradation behavior of bio-based zinc alginate film. <i>Polymer Degradation and Stability</i> , 2016, 127, 20-31.	2.7	44
122	Bio-based rigid polyurethane foam from castor oil with excellent flame retardancy and high insulation capacity via cooperation with carbon-based materials. <i>Journal of Materials Science</i> , 2021, 56, 2684-2701.	1.7	44
123	Crystallization and morphology of a novel biodegradable polymer system: poly(1,4-dioxan-2-one)/starch blends. <i>Acta Materialia</i> , 2004, 52, 4899-4905.	3.8	42
124	Novel Flame-Retardant and Antidripping Branched Polyesters Prepared via Phosphorus-Containing Ionic Monomer as End-Capping Agent. <i>Industrial & Engineering Chemistry Research</i> , 2010, 49, 4190-4196.	1.8	42
125	Poly(vinyl alcohol)/Ammonium Polyphosphate Systems Improved Simultaneously Both Fire Retardancy and Mechanical Properties by Montmorillonite. <i>Industrial & Engineering Chemistry Research</i> , 2011, 50, 9998-10005.	1.8	42
126	Method for Simultaneously Improving the Thermal Stability and Mechanical Properties of Poly(lactic acid)/PLA/MMT Nanocomposites. <i>Langmuir</i> , 2012, 28, 12601-12608.	1.6	42

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127	One-step hydrothermal synthesis of nano zinc carbonate and its use as a promising substitute for antimony trioxide in flame retardant flexible poly(vinyl chloride). <i>RSC Advances</i> , 2015, 5, 27837-27843.	1.7	41
128	Sustainable, Biobased Silicone with Layered Double Hydroxide Hybrid and Their Application in Natural-Fiber Reinforced Phenolic Composites with Enhanced Performance. <i>ACS Sustainable Chemistry and Engineering</i> , 2016, 4, 3113-3121.	3.2	41
129	Synthesis, characterization and properties of novel aliphatic- α -aromatic polyamide/functional carbon nanotube nanocomposites via in situ polymerization. <i>RSC Advances</i> , 2013, 3, 20738.	1.7	40
130	Arrangement of layered double hydroxide in a polyethylene matrix studied by a combination of complementary methods. <i>Polymer</i> , 2012, 53, 2245-2254.	1.8	38
131	A sustainable approach to scalable production of a graphene based flame retardant using waste fish deoxyribonucleic acid. <i>Journal of Cleaner Production</i> , 2020, 247, 119150.	4.6	38
132	A green functional nanohybrid: preparation, characterization and properties of a β -cyclodextrin based functional layered double hydroxide. <i>Journal of Materials Chemistry A</i> , 2013, 1, 11376.	5.2	37
133	Construction of chelation structure between Ca^{2+} and starch via reactive extrusion for improving the performances of thermoplastic starch. <i>Composites Science and Technology</i> , 2018, 159, 59-69.	3.8	37
134	Interfacial engineering of renewable metal organic framework derived honeycomb-like nanoporous aluminum hydroxide with tunable porosity. <i>Chemical Science</i> , 2017, 8, 3399-3409.	3.7	36
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