

Xin Wang

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.

101
papers

7,712
citations

39
h-index

87
g-index

103
ext. papers

9,429
ext. citations

8.5
avg, IF

6.59
L-index

#	Paper	IF	Citations
101	A Furan-based Phosphaphenanthrene-containing Derivative as a Highly Efficient Flame-retardant Agent for Epoxy Thermosets without Deteriorating Thermomechanical Performances. <i>Chinese Journal of Polymer Science (English Edition)</i> , 2022 , 40, 233-240	3.5	1
100	Eco-friendly thermally insulating cellulose aerogels with exceptional flame retardancy, mechanical property and thermal stability. <i>Journal of the Taiwan Institute of Chemical Engineers</i> , 2022 , 131, 104159	5.3	1
99	Fabrication of zirconium phenylphosphonate/epoxy composites with simultaneously enhanced mechanical strength, anti-flammability and smoke suppression. <i>Composites Part A: Applied Science and Manufacturing</i> , 2022 , 155, 106837	8.4	0
98	Integration of black phosphorene and MXene to improve fire safety and mechanical properties of waterborne polyurethane. <i>Applied Surface Science</i> , 2022 , 581, 152386	6.7	3
97	Hierarchical core-shell SiO@COFs@metallic oxide architecture: An efficient flame retardant and toxic smoke suppression for polystyrene. <i>Journal of Colloid and Interface Science</i> , 2022 , 605, 241-252	9.3	5
96	Cicada wing-inspired solar transmittance enhancement and hydrophobicity design for graphene-based solar steam generation: A novel gas phase deposition approach. <i>Applied Energy</i> , 2022 , 320, 119322	10.7	1
95	A phosphaphenanthrene-containing vanillin derivative as co-curing agent for flame-retardant and antibacterial epoxy thermoset. <i>Polymer</i> , 2021 , 217, 123460	3.9	8
94	Phosphorus-Free Vanillin-Derived Intrinsically Flame-Retardant Epoxy Thermoset with Extremely Low Heat Release Rate and Smoke Emission. <i>ACS Sustainable Chemistry and Engineering</i> , 2021 , 9, 5268-5277	8.2	21
93	Facile synthesis of a novel zinc-triazole complex for simultaneous improvement in fire safety and mechanical properties of epoxy resins. <i>Composites Part A: Applied Science and Manufacturing</i> , 2021 , 143, 106284	8.4	16
92	Organic-inorganic hybridization of isoreticular metal-organic framework-3 with melamine for efficiently reducing the fire risk of epoxy resin. <i>Composites Part B: Engineering</i> , 2021 , 211, 108606	10	13
91	Intrinsically flame retardant cardanol-based epoxy monomer for high-performance thermosets. <i>Polymer Degradation and Stability</i> , 2021 , 186, 109519	4.7	12
90	Recent Progress in Two-dimensional Nanomaterials Following Graphene for Improving Fire Safety of Polymer (Nano)composites. <i>Chinese Journal of Polymer Science (English Edition)</i> , 2021 , 39, 935-956	3.5	9
89	A desoxyanisoin- and furfurylamine-derived high-performance benzoxazine thermoset with high glass transition temperature and excellent anti-flammability. <i>Polymer Degradation and Stability</i> , 2021 , 189, 109604	4.7	3
88	Thermogravimetric analysis and kinetics characteristics of typical grains. <i>Journal of Thermal Analysis and Calorimetry</i> , 2021 , 143, 647-659	4.1	6
87	The effect of triphenyl phosphate inhibition on flame propagation over cast PMMA slabs. <i>Proceedings of the Combustion Institute</i> , 2021 , 38, 4635-4644	5.9	2
86	Self-floating black phosphorous nanosheets as a carry-on solar vapor generator. <i>Journal of Colloid and Interface Science</i> , 2021 , 582, 496-505	9.3	13
85	A high performance fully bio-based epoxy thermoset from a syringaldehyde-derived epoxy monomer cured by furan-derived amine. <i>Green Chemistry</i> , 2021 , 23, 501-510	10	21

84	Heterolayered Boron Nitride/Polyaniline/Molybdenum Disulfide Nanosheets for Flame-Retardant Epoxy Resins. <i>ACS Applied Nano Materials</i> , 2021 , 4, 8162-8172	5.6	3
83	Phosphorus-Free Ellagic Acid-Derived Epoxy Thermosets with Intrinsic Antiflammability and High Glass Transition Temperature. <i>ACS Sustainable Chemistry and Engineering</i> , 2021 , 9, 10799-10808	8.3	7
82	Intrinsically anti-flammable and self-toughened phosphorylated cardanol-derived novolac epoxy thermosets. <i>Industrial Crops and Products</i> , 2021 , 166, 113496	5.9	7
81	Highly flame retardant, low thermally conducting, and hydrophobic phytic acid-guanazole-cellulose nanofiber composite foams. <i>Cellulose</i> , 2021 , 28, 9769-9783	5.5	1
80	Combination of cardanol-derived flame retardant with SiO ₂ @MOF particles for simultaneously enhancing the toughness, anti-flammability and smoke suppression of epoxy thermosets. <i>Composites Communications</i> , 2021 , 27, 100904	6.7	3
79	Cardanol as a versatile platform for fabrication of bio-based flame-retardant epoxy thermosets as DGEBA substitutes. <i>Chemical Engineering Journal</i> , 2021 , 421, 129738	14.7	15
78	Phosphorylated cardanol-formaldehyde oligomers as flame-retardant and toughening agents for epoxy thermosets. <i>Chemical Engineering Journal</i> , 2021 , 423, 130192	14.7	12
77	Fully bio-based epoxy resin derived from vanillin with flame retardancy and degradability. <i>Reactive and Functional Polymers</i> , 2021 , 168, 105034	4.6	4
76	Synthesis of star-shaped allyl phosphazene small molecules for enhancing fire safety and toughness of high performance BMI resin. <i>Chemical Engineering Journal</i> , 2021 , 425, 130655	14.7	15
75	Self-assembly of phosphonate-metal complex for superhydrophobic and durable flame-retardant polyester cotton fabrics. <i>Cellulose</i> , 2020 , 27, 6011-6025	5.5	15
74	Construction of durable flame-retardant and robust superhydrophobic coatings on cotton fabrics for water-oil separation application. <i>Chemical Engineering Journal</i> , 2020 , 398, 125661	14.7	77
73	A fully bio-based coating made from alginate, chitosan and hydroxyapatite for protecting flexible polyurethane foam from fire. <i>Carbohydrate Polymers</i> , 2020 , 246, 116641	10.3	25
72	Lightweight, hydrophobic and recyclable carbon foam derived from lignin/Resorcinol/glyoxal resin for oil and solvent spill capture. <i>Journal of Materials Research and Technology</i> , 2020 , 9, 4655-4664	5.5	20
71	Laponite-based inorganic-organic hybrid coating to reduce fire risk of flexible polyurethane foams. <i>Applied Clay Science</i> , 2020 , 189, 105525	5.2	12
70	Hydrophobic and flame-retardant finishing of cotton fabrics for water/oil separation. <i>Cellulose</i> , 2020 , 27, 4145-4159	5.5	16
69	Multifunctional epoxy composites with highly flame retardant and effective electromagnetic interference shielding performances. <i>Composites Part B: Engineering</i> , 2020 , 192, 107990	10	36
68	Hybrid coatings for durable flame retardant and hydrophilic treatment of Polyamide 6.6 fabrics. <i>Progress in Organic Coatings</i> , 2020 , 144, 105640	4.8	7
67	Effect of metal-based nanoparticles decorated graphene hybrids on flammability of epoxy nanocomposites. <i>Composites Part A: Applied Science and Manufacturing</i> , 2020 , 129, 105694	8.4	25

66	Highly flame retardant zeolitic imidazole framework-8@cellulose composite aerogels as absorption materials for organic pollutants. <i>Cellulose</i> , 2020 , 27, 2237-2251	5.5	30
65	Halogen and halogen-free flame retarded biologically-based polyamide with markedly suppressed smoke and toxic gases releases. <i>Composites Part B: Engineering</i> , 2020 , 184, 107737	10	14
64	Zeolitic imidazolate framework-8/polyvinyl alcohol hybrid aerogels with excellent flame retardancy. <i>Composites Part A: Applied Science and Manufacturing</i> , 2020 , 129, 105720	8.4	27
63	Chitosan-based flame retardant coatings for polyamide 66 textiles: One-pot deposition versus layer-by-layer assembly. <i>International Journal of Biological Macromolecules</i> , 2020 , 143, 1-10	7.9	21
62	Self-assembly followed by radical polymerization of ionic liquid for interfacial engineering of black phosphorus nanosheets: Enhancing flame retardancy, toxic gas suppression and mechanical performance of polyurethane. <i>Journal of Colloid and Interface Science</i> , 2020 , 561, 32-45	9.3	57
61	Metal-organic frameworks for flame retardant polymers application: A critical review. <i>Composites Part A: Applied Science and Manufacturing</i> , 2020 , 139, 106113	8.4	30
60	An environmentally friendly approach to fabricating flame retardant, antibacterial and antifungal cotton fabrics via self-assembly of guanazole-metal complex. <i>Journal of Cleaner Production</i> , 2020 , 273, 122832	10.3	18
59	Recent advances in construction of hybrid nano-structures for flame retardant polymers application. <i>Applied Materials Today</i> , 2020 , 20, 100762	6.6	16
58	Building of hierarchical structure of functionalized montmorillonite anchored with ZnO: Toward fabricating high-performance polyethylene composite. <i>Applied Clay Science</i> , 2020 , 196, 105767	5.2	12
57	Graphene oxide/zeolitic imidazolate frameworks-8 coating for cotton fabrics with highly flame retardant, self-cleaning and efficient oil/water separation performances. <i>Materials Chemistry and Physics</i> , 2020 , 256, 123656	4.4	11
56	Preparation and antimicrobial effect of a cinnamaldehyde-based sustained release fumigant tablet for grain storage. <i>Journal of Materials Research and Technology</i> , 2020 , 9, 14122-14130	5.5	1
55	Application of Chitosan and DOPO derivatives in fire protection of polyamide 66 textiles: Towards a combined gas phase and condensed phase activity. <i>Polymer Degradation and Stability</i> , 2020 , 176, 109158	4.7	10
54	Construction of SiO ₂ @UiO-66 core-shell microarchitectures through covalent linkage as flame retardant and smoke suppressant for epoxy resins. <i>Composites Part B: Engineering</i> , 2019 , 176, 107261	10	49
53	Large-scale production of simultaneously exfoliated and Functionalized Mxenes as promising flame retardant for polyurethane. <i>Composites Part B: Engineering</i> , 2019 , 179, 107486	10	62
52	Few layer deposition and sol-gel finishing of organic-inorganic compounds for improved flame retardant and hydrophilic properties of polyamide 66 textiles: A hybrid approach. <i>Progress in Organic Coatings</i> , 2019 , 129, 318-326	4.8	24
51	Processing bulk natural bamboo into a strong and flame-retardant composite material. <i>Industrial Crops and Products</i> , 2019 , 138, 111478	5.9	27
50	Polyaniline-coupled graphene/nickel hydroxide nanohybrids as flame retardant and smoke suppressant for epoxy composites. <i>Polymers for Advanced Technologies</i> , 2019 , 30, 1959-1967	3.2	16
49	Effect of aluminum diethylphosphinate on the thermal stability and flame retardancy of flexible polyurethane foams. <i>Fire Safety Journal</i> , 2019 , 106, 72-79	3.3	29

48	Substrate-versatile approach to fabricate mechanochemically robust and superhydrophobic surfaces from waste fly ash. <i>Progress in Organic Coatings</i> , 2019 , 132, 353-361	4.8	9
47	Intrinsically flame retardant bio-based epoxy thermosets: A review. <i>Composites Part B: Engineering</i> , 2019 , 179, 107487	10	55
46	An operable platform towards functionalization of chemically inert boron nitride nanosheets for flame retardancy and toxic gas suppression of thermoplastic polyurethane. <i>Composites Part B: Engineering</i> , 2019 , 178, 107462	10	30
45	Construction of hierarchical MoS ₂ @TiO ₂ structure for the high performance bismaleimide system with excellent fire safety and mechanical properties. <i>Chemical Engineering Journal</i> , 2019 , 369, 451-462	14.7	38
44	Highly-aligned cellulose fibers reinforced epoxy composites derived from bulk natural bamboo. <i>Industrial Crops and Products</i> , 2019 , 129, 434-439	5.9	52
43	Exceptional flame-retardant cellulosic foams modified with phosphorus-hybridized graphene nanosheets. <i>Cellulose</i> , 2019 , 26, 1247-1260	5.5	18
42	Cardanol derived benzoxazine in combination with boron-doped graphene toward simultaneously improved toughening and flame retardant epoxy composites. <i>Composites Part A: Applied Science and Manufacturing</i> , 2019 , 116, 13-23	8.4	70
41	Nano-fibrillated cellulose-hydroxyapatite based composite foams with excellent fire resistance. <i>Carbohydrate Polymers</i> , 2018 , 195, 71-78	10.3	73
40	Multi-functional hydroxyapatite/polyvinyl alcohol composite aerogels with self-cleaning, superior fire resistance and low thermal conductivity. <i>Composites Science and Technology</i> , 2018 , 158, 128-136	8.6	58
39	Borate cross-linked layer-by-layer assembly of green polyelectrolytes on polyamide 66 fabrics for flame-retardant treatment. <i>Progress in Organic Coatings</i> , 2018 , 121, 173-181	4.8	34
38	Mussel-inspired functionalization of electrochemically exfoliated graphene: Based on self-polymerization of dopamine and its suppression effect on the fire hazards and smoke toxicity of thermoplastic polyurethane. <i>Journal of Hazardous Materials</i> , 2018 , 352, 57-69	12.8	108
37	Two-dimensional cardanol-derived zirconium phosphate hybrid as flame retardant and smoke suppressant for epoxy resin. <i>Polymer Degradation and Stability</i> , 2018 , 151, 172-180	4.7	37
36	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	1.8	34
35	Hypophosphorous acid cross-linked layer-by-layer assembly of green polyelectrolytes on polyester-cotton blend fabrics for durable flame-retardant treatment. <i>Carbohydrate Polymers</i> , 2018 , 201, 1-8	10.3	41
34	Melamine-containing polyphosphazene wrapped ammonium polyphosphate: A novel multifunctional organic-inorganic hybrid flame retardant. <i>Journal of Hazardous Materials</i> , 2018 , 344, 839-848	12.8	162
33	Construction of flame retardant coating on polyamide 6.6 via UV grafting of phosphorylated chitosan and sol-gel process of organo-silane. <i>Carbohydrate Polymers</i> , 2018 , 181, 833-840	10.3	49
32	Finishing of cotton fabrics by multi-layered coatings to improve their flame retardancy and water repellency. <i>Cellulose</i> , 2018 , 25, 4791-4803	5.5	50
31	A green approach to constructing multilayered nanocoating for flame retardant treatment of polyamide 66 fabric from chitosan and sodium alginate. <i>Carbohydrate Polymers</i> , 2017 , 166, 131-138	10.3	57

30	Carbon-family materials for flame retardant polymeric materials. <i>Progress in Polymer Science</i> , 2017 , 69, 22-46	29.6	275
29	MoS ₂ /Polymer Nanocomposites: Preparation, Properties, and Applications. <i>Polymer Reviews</i> , 2017 , 57, 440-466	14	99
28	Synthesis of Phosphorylated Graphene Oxide Based Multilayer Coating: Self-Assembly Method and Application for Improving the Fire Safety of Cotton Fabrics. <i>Industrial & Engineering Chemistry Research</i> , 2017 , 56, 6664-6670	3.9	29
27	Renewable Cardanol-Based Phosphate as a Flame Retardant Toughening Agent for Epoxy Resins. <i>ACS Sustainable Chemistry and Engineering</i> , 2017 , 5, 3409-3416	8.3	131
26	Flame-retardant-wrapped polyphosphazene nanotubes: A novel strategy for enhancing the flame retardancy and smoke toxicity suppression of epoxy resins. <i>Journal of Hazardous Materials</i> , 2017 , 325, 327-339	12.8	149
25	Polypropylene (PP)/Polylactic Acid-Based Biocomposites and Bionanocomposites 2017 , 85-112		
24	Integrated effect of supramolecular self-assembled sandwich-like melamine cyanurate/MoS hybrid sheets on reducing fire hazards of polyamide 6 composites. <i>Journal of Hazardous Materials</i> , 2016 , 320, 252-264	12.8	52
23	A metal-organic framework-derived bifunctional oxygen electrocatalyst. <i>Nature Energy</i> , 2016 , 1,	62.3	1622
22	Multifunctional intercalation in layered double hydroxide: toward multifunctional nanohybrids for epoxy resin. <i>Journal of Materials Chemistry A</i> , 2016 , 4, 2147-2157	13	105
21	Molybdenum disulfide nanosheets as barrier enhancing nanofillers in thermal decomposition of polypropylene composites. <i>Chemical Engineering Journal</i> , 2016 , 295, 278-287	14.7	37
20	Thermal exfoliation of hexagonal boron nitride for effective enhancements on thermal stability, flame retardancy and smoke suppression of epoxy resin nanocomposites via sol-gel process. <i>Journal of Materials Chemistry A</i> , 2016 , 4, 7330-7340	13	265
19	Studies on Synthesis of Electrochemically Exfoliated Functionalized Graphene and Polylactic Acid/Ferric Phytate Functionalized Graphene Nanocomposites as New Fire Hazard Suppression Materials. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 25552-62	9.5	92
18	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	8.3	143
17	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	13	155
16	Liquid-exfoliated MoS ₂ by chitosan and enhanced mechanical and thermal properties of chitosan/MoS ₂ composites. <i>Composites Science and Technology</i> , 2014 , 93, 76-82	8.6	81
15	Recent Development of Molybdenum Sulfides as Advanced Electrocatalysts for Hydrogen Evolution Reaction. <i>ACS Catalysis</i> , 2014 , 4, 1693-1705	13.1	678
14	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	3.7	50
13	The effect of graphene presence in flame retarded epoxy resin matrix on the mechanical and flammability properties of glass fiber-reinforced composites. <i>Composites Part A: Applied Science and Manufacturing</i> , 2013 , 53, 88-96	8.4	121

12	Self-assembly of NiBe layered double hydroxide/graphene hybrids for reducing fire hazard in epoxy composites. <i>Journal of Materials Chemistry A</i> , 2013 , 1, 4383	13	196
11	Simultaneous reduction and surface functionalization of graphene oxide with POSS for reducing fire hazards in epoxy composites. <i>Journal of Materials Chemistry</i> , 2012 , 22, 22037		200
10	Cobalt oxide/graphene composite for highly efficient CO oxidation and its application in reducing the fire hazards of aliphatic polyesters. <i>Journal of Materials Chemistry</i> , 2012 , 22, 3426		110
9	Thermal Degradation and Flame Retardance of Biobased Polylactide Composites Based on Aluminum Hypophosphite. <i>Industrial & Engineering Chemistry Research</i> , 2012 , 51, 12009-12016	3.9	132
8	In situ polymerization of graphene nanosheets and polyurethane with enhanced mechanical and thermal properties. <i>Journal of Materials Chemistry</i> , 2011 , 21, 4222		330
7	Flame Retardancy and Thermal Degradation of Intumescent Flame Retardant Poly(lactic acid)/Starch Biocomposites. <i>Industrial & Engineering Chemistry Research</i> , 2011 , 50, 713-720	3.9	136
6	Synthesis and characterization of a DOPO-substituted organophosphorus oligomer and its application in flame retardant epoxy resins. <i>Progress in Organic Coatings</i> , 2011 , 71, 72-82	4.8	118
5	Preparation, mechanical properties, and thermal degradation of flame retarded epoxy resins with an organophosphorus oligomer. <i>Polymer Bulletin</i> , 2011 , 67, 859-873	2.4	24
4	Thermal degradation mechanism of flame retarded epoxy resins with a DOPO-substituted organophosphorus oligomer by TG-FTIR and DP-MS. <i>Journal of Analytical and Applied Pyrolysis</i> , 2011 , 92, 164-170	6	108
3	Flame retardancy and thermal degradation mechanism of epoxy resin composites based on a DOPO substituted organophosphorus oligomer. <i>Polymer</i> , 2010 , 51, 2435-2445	3.9	407
2	Hierarchical MoS ₂ /polyaniline binary hybrids with high performance for improving fire safety of epoxy resin. <i>Polymers for Advanced Technologies</i> ,	3.2	1
1	Flame Retardant Cellulose-Based Hybrid Hydrogels for Firefighting and Fire Prevention. <i>Fire Technology</i> , 1	3	2