Xin Wang

List of Publications by Citations

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 metal□rganic framework-derived bifunctional oxygen electrocatalyst. *Nature Energy*, **2016**, 1,	62.3	1622
100	Recent Development of Molybdenum Sulfides as Advanced Electrocatalysts for Hydrogen Evolution Reaction. *ACS Catalysis*, **2014**, 4, 1693-1705	13.1	678
99	Flame retardancy and thermal degradation mechanism of epoxy resin composites based on a DOPO substituted organophosphorus oligomer. *Polymer*, **2010**, 51, 2435-2445	3.9	407
98	In situ polymerization of graphene nanosheets and polyurethane with enhanced mechanical and thermal properties. *Journal of Materials Chemistry*, **2011**, 21, 4222		330
97	Carbon-family materials for flame retardant polymeric materials. *Progress in Polymer Science*, **2017**, 69, 22-46	29.6	275
96	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. *Journal of Materials Chemistry A*, **2016**, 4, 7330-7340	13	265
95	Simultaneous reduction and surface functionalization of graphene oxide with POSS for reducing fire hazards in epoxy composites. *Journal of Materials Chemistry*, **2012**, 22, 22037		200
94	Self-assembly of Ni□e layered double hydroxide/graphene hybrids for reducing fire hazard in epoxy composites. *Journal of Materials Chemistry A*, **2013**, 1, 4383	13	196
93	Melamine-containing polyphosphazene wrapped ammonium polyphosphate: A novel multifunctional organic-inorganic hybrid flame retardant. *Journal of Hazardous Materials*, **2018**, 344, 839-848	12.8	162
92	A novel biobased epoxy resin with high mechanical stiffness and low flammability: synthesis, characterization and properties. *Journal of Materials Chemistry A*, **2015**, 3, 21907-21921	13	155
91	Flame-retardant-wrapped polyphosphazene nanotubes: A novel strategy for enhancing the flame retardancy and smoke toxicity suppression of epoxy resins. *Journal of Hazardous Materials*, **2017**, 325, 327-339	12.8	149
90	Renewable Cardanol-Based Surfactant Modified Layered Double Hydroxide as a Flame Retardant for Epoxy Resin. *ACS Sustainable Chemistry and Engineering*, **2015**, 3, 3281-3290	8.3	143
89	Flame Retardancy and Thermal Degradation of Intumescent Flame Retardant Poly(lactic acid)/Starch Biocomposites. *Industrial & Engineering Chemistry Research*, **2011**, 50, 713-720	3.9	136
88	Thermal Degradation and Flame Retardance of Biobased Polylactide Composites Based on Aluminum Hypophosphite. *Industrial & Engineering Chemistry Research*, **2012**, 51, 12009-12016	3.9	132
87	Renewable Cardanol-Based Phosphate as a Flame Retardant Toughening Agent for Epoxy Resins. *ACS Sustainable Chemistry and Engineering*, **2017**, 5, 3409-3416	8.3	131
86	The effect of graphene presence in flame retarded epoxy resin matrix on the mechanical and flammability properties of glass fiber-reinforced composites. *Composites Part A: Applied Science and Manufacturing*, **2013**, 53, 88-96	8.4	121
85	Synthesis and characterization of a DOPO-substitued organophosphorus oligomer and its application in flame retardant epoxy resins. *Progress in Organic Coatings*, **2011**, 71, 72-82	4.8	118

84	Cobalt oxide/graphene composite for highly efficient CO oxidation and its application in reducing the fire hazards of aliphatic polyesters. *Journal of Materials Chemistry*, **2012**, 22, 3426		110
83	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. *Journal of Hazardous Materials*, **2018**, 352, 57-69	12.8	108
82	Thermal degradation mechanism of flame retarded epoxy resins with a DOPO-substitued organophosphorus oligomer by TG-FTIR and DP-MS. *Journal of Analytical and Applied Pyrolysis*, **2011**, 92, 164-170	6	108
81	Multifunctional intercalation in layered double hydroxide: toward multifunctional nanohybrids for epoxy resin. *Journal of Materials Chemistry A*, **2016**, 4, 2147-2157	13	105
80	MoS2/Polymer Nanocomposites: Preparation, Properties, and Applications. *Polymer Reviews*, **2017**, 57, 440-466	14	99
79	Studies on Synthesis of Electrochemically Exfoliated Functionalized Graphene and Polylactic Acid/Ferric Phytate Functionalized Graphene Nanocomposites as New Fire Hazard Suppression Materials. *ACS Applied Materials & Interfaces*, **2016**, 8, 25552-62	9.5	92
78	Liquid-exfoliated MoS2 by chitosan and enhanced mechanical and thermal properties of chitosan/MoS2 composites. *Composites Science and Technology*, **2014**, 93, 76-82	8.6	81
77	Construction of durable flame-retardant and robust superhydrophobic coatings on cotton fabrics for water-oil separation application. *Chemical Engineering Journal*, **2020**, 398, 125661	14.7	77
76	Nano-fibrillated cellulose-hydroxyapatite based composite foams with excellent fire resistance. *Carbohydrate Polymers*, **2018**, 195, 71-78	10.3	73
75	Cardanol derived benzoxazine in combination with boron-doped graphene toward simultaneously improved toughening and flame retardant epoxy composites. *Composites Part A: Applied Science and Manufacturing*, **2019**, 116, 13-23	8.4	70
74	Large-scale production of simultaneously exfoliated and Functionalized Mxenes as promising flame retardant for polyurethane. *Composites Part B: Engineering*, **2019**, 179, 107486	10	62
73	Multi-functional hydroxyapatite/polyvinyl alcohol composite aerogels with self-cleaning, superior fire resistance and low thermal conductivity. *Composites Science and Technology*, **2018**, 158, 128-136	8.6	58
72	A green approach to constructing multilayered nanocoating for flame retardant treatment of polyamide 66 fabric from chitosan and sodium alginate. *Carbohydrate Polymers*, **2017**, 166, 131-138	10.3	57
71	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. *Journal of Colloid and Interface Science*, **2020**, 561, 32-45	9.3	57
70	Intrinsically flame retardant bio-based epoxy thermosets: A review. *Composites Part B: Engineering*, **2019**, 179, 107487	10	55
69	Integrated effect of supramolecular self-assembled sandwich-like melamine cyanurate/MoS hybrid sheets on reducing fire hazards of polyamide 6 composites. *Journal of Hazardous Materials*, **2016**, 320, 252-264	12.8	52
68	Highly-aligned cellulose fibers reinforced epoxy composites derived from bulk natural bamboo. *Industrial Crops and Products*, **2019**, 129, 434-439	5.9	52
67	An eco-friendly way to fire retardant flexible polyurethane foam: layer-by-layer assembly of fully bio-based substances. *RSC Advances*, **2014**, 4, 46164-46169	3.7	50

66	Finishing of cotton fabrics by multi-layered coatings to improve their flame retardancy and water repellency. *Cellulose*, **2018**, 25, 4791-4803	5.5	50
65	Construction of SiO2@UiO-66 core–shell microarchitectures through covalent linkage as flame retardant and smoke suppressant for epoxy resins. *Composites Part B: Engineering*, **2019**, 176, 107261	10	49
64	Construction of flame retardant coating on polyamide 6.6 via UV grafting of phosphorylated chitosan and sol-gel process of organo-silane. *Carbohydrate Polymers*, **2018**, 181, 833-840	10.3	49
63	Hypophosphorous acid cross-linked layer-by-layer assembly of green polyelectrolytes on polyester-cotton blend fabrics for durable flame-retardant treatment. *Carbohydrate Polymers*, **2018**, 201, 1-8	10.3	41
62	Construction of hierarchical MoS2@TiO2 structure for the high performance bimaleimide system with excellent fire safety and mechanical properties. *Chemical Engineering Journal*, **2019**, 369, 451-462	14.7	38
61	Two-dimensional cardanol-derived zirconium phosphate hybrid as flame retardant and smoke suppressant for epoxy resin. *Polymer Degradation and Stability*, **2018**, 151, 172-180	4.7	37
60	Molybdenum disulfide nanosheets as barrier enhancing nanofillers in thermal decomposition of polypropylene composites. *Chemical Engineering Journal*, **2016**, 295, 278-287	14.7	37
59	Multifunctional epoxy composites with highly flame retardant and effective electromagnetic interference shielding performances. *Composites Part B: Engineering*, **2020**, 192, 107990	10	36
58	Borate cross-linked layer-by-layer assembly of green polyelectrolytes on polyamide 66 fabrics for flame-retardant treatment. *Progress in Organic Coatings*, **2018**, 121, 173-181	4.8	34
57	Effect of phytic acid–modified layered double hydroxide on flammability and mechanical properties of intumescent flame retardant polypropylene system. *Fire and Materials*, **2018**, 42, 213-220	1.8	34
56	An operable platform towards functionalization of chemically inert boron nitride nanosheets for flame retardancy and toxic gas suppression of thermoplastic polyurethane. *Composites Part B: Engineering*, **2019**, 178, 107462	10	30
55	Highly flame retardant zeolitic imidazole framework-8@cellulose composite aerogels as absorption materials for organic pollutants. *Cellulose*, **2020**, 27, 2237-2251	5.5	30
54	Metal-organic frameworks for flame retardant polymers application: A critical review. *Composites Part A: Applied Science and Manufacturing*, **2020**, 139, 106113	8.4	30
53	Synthesis of Phosphorylated Graphene Oxide Based Multilayer Coating: Self-Assembly Method and Application for Improving the Fire Safety of Cotton Fabrics. *Industrial & Engineering Chemistry Research*, **2017**, 56, 6664-6670	3.9	29
52	Effect of aluminum diethylphosphinate on the thermal stability and flame retardancy of flexible polyurethane foams. *Fire Safety Journal*, **2019**, 106, 72-79	3.3	29
51	Processing bulk natural bamboo into a strong and flame-retardant composite material. *Industrial Crops and Products*, **2019**, 138, 111478	5.9	27
50	Zeolitic imidazolate framework-8/polyvinyl alcohol hybrid aerogels with excellent flame retardancy. *Composites Part A: Applied Science and Manufacturing*, **2020**, 129, 105720	8.4	27
49	A fully bio-based coating made from alginate, chitosan and hydroxyapatite for protecting flexible polyurethane foam from fire. *Carbohydrate Polymers*, **2020**, 246, 116641	10.3	25

48	Effect of metal-based nanoparticles decorated graphene hybrids on flammability of epoxy nanocomposites. *Composites Part A: Applied Science and Manufacturing*, **2020**, 129, 105694	8.4	25
47	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. *Progress in Organic Coatings*, **2019**, 129, 318-326	4.8	24
46	Preparation, mechanical properties, and thermal degradation of flame retarded epoxy resins with an organophosphorus oligomer. *Polymer Bulletin*, **2011**, 67, 859-873	2.4	24
45	Chitosan-based flame retardant coatings for polyamide 66 textiles: One-pot deposition versus layer-by-layer assembly. *International Journal of Biological Macromolecules*, **2020**, 143, 1-10	7.9	21
44	Phosphorus-Free Vanillin-Derived Intrinsically Flame-Retardant Epoxy Thermoset with Extremely Low Heat Release Rate and Smoke Emission. *ACS Sustainable Chemistry and Engineering*, **2021**, 9, 5268-5277	8.3	21
43	A high performance fully bio-based epoxy thermoset from a syringaldehyde-derived epoxy monomer cured by furan-derived amine. *Green Chemistry*, **2021**, 23, 501-510	10	21
42	Lightweight, hydrophobic and recyclable carbon foam derived from lignin–resorcinol–glyoxal resin for oil and solvent spill capture. *Journal of Materials Research and Technology*, **2020**, 9, 4655-4664	5.5	20
41	An environmentally friendly approach to fabricating flame retardant, antibacterial and antifungal cotton fabrics via self-assembly of guanazole-metal complex. *Journal of Cleaner Production*, **2020**, 273, 122832	10.3	18
40	Exceptional flame-retardant cellulosic foams modified with phosphorus-hybridized graphene nanosheets. *Cellulose*, **2019**, 26, 1247-1260	5.5	18
39	Polyaniline-coupled graphene/nickel hydroxide nanohybrids as flame retardant and smoke suppressant for epoxy composites. *Polymers for Advanced Technologies*, **2019**, 30, 1959-1967	3.2	16
38	Hydrophobic and flame-retardant finishing of cotton fabrics for water–oil separation. *Cellulose*, **2020**, 27, 4145-4159	5.5	16
37	Recent advances in construction of hybrid nano-structures for flame retardant polymers application. *Applied Materials Today*, **2020**, 20, 100762	6.6	16
36	Facile synthesis of a novel zinc-triazole complex for simultaneous improvement in fire safety and mechanical properties of epoxy resins. *Composites Part A: Applied Science and Manufacturing*, **2021**, 143, 106284	8.4	16
35	Self-assembly of phosphonate-metal complex for superhydrophobic and durable flame-retardant polyester–cotton fabrics. *Cellulose*, **2020**, 27, 6011-6025	5.5	15
34	Cardanol as a versatile platform for fabrication of bio-based flame-retardant epoxy thermosets as DGEBA substitutes. *Chemical Engineering Journal*, **2021**, 421, 129738	14.7	15
33	Synthesis of star-shaped allyl phosphazene small molecules for enhancing fire safety and toughness of high performance BMI resin. *Chemical Engineering Journal*, **2021**, 425, 130655	14.7	15
32	Halogen and halogen-free flame retarded biologically-based polyamide with markedly suppressed smoke and toxic gases releases. *Composites Part B: Engineering*, **2020**, 184, 107737	10	14
31	Organic-inorganic hybridization of isoreticular metal-organic framework-3 with melamine for efficiently reducing the fire risk of epoxy resin. *Composites Part B: Engineering*, **2021**, 211, 108606	10	13

30	Self-floating black phosphorous nanosheets as a carry-on solar vapor generator. *Journal of Colloid and Interface Science*, **2021**, 582, 496-505	9.3	13
29	Laponite-based inorganic-organic hybrid coating to reduce fire risk of flexible polyurethane foams. *Applied Clay Science*, **2020**, 189, 105525	5.2	12
28	Building of hierarchical structure of functionalized montmorillonite anchored with ZnO: Toward fabricating high-performance polyethylene composite. *Applied Clay Science*, **2020**, 196, 105767	5.2	12
27	Intrinsically flame retardant cardanol-based epoxy monomer for high-performance thermosets. *Polymer Degradation and Stability*, **2021**, 186, 109519	4.7	12
26	Phosphorylated cardanol-formaldehyde oligomers as flame-retardant and toughening agents for epoxy thermosets. *Chemical Engineering Journal*, **2021**, 423, 130192	14.7	12
25	Graphene oxide/zeolitic imidazolate frameworks-8 coating for cotton fabrics with highly flame retardant, self-cleaning and efficient oil/water separation performances. *Materials Chemistry and Physics*, **2020**, 256, 123656	4.4	11
24	Application of Chitosan and DOPO derivatives in fire protection of polyamide 66 textiles: Towards a combined gas phase and condensed phase activity. *Polymer Degradation and Stability*, **2020**, 176, 109158	4.7	10
23	Substrate-versatile approach to fabricate mechanochemically robust and superhydrophobic surfaces from waste fly ash. *Progress in Organic Coatings*, **2019**, 132, 353-361	4.8	9
22	Recent Progress in Two-dimensional Nanomaterials Following Graphene for Improving Fire Safety of Polymer (Nano)composites. *Chinese Journal of Polymer Science (English Edition)*, **2021**, 39, 935-956	3.5	9
21	A phosphaphenanthrene-containing vanillin derivative as co-curing agent for flame-retardant and antibacterial epoxy thermoset. *Polymer*, **2021**, 217, 123460	3.9	8
20	Hybrid coatings for durable flame retardant and hydrophilic treatment of Polyamide 6.6 fabrics. *Progress in Organic Coatings*, **2020**, 144, 105640	4.8	7
19	Phosphorus-Free Ellagic Acid-Derived Epoxy Thermosets with Intrinsic Antiflammability and High Glass Transition Temperature. *ACS Sustainable Chemistry and Engineering*, **2021**, 9, 10799-10808	8.3	7
18	Intrinsically anti-flammable and self-toughened phosphorylated cardanol-derived novolac epoxy thermosets. *Industrial Crops and Products*, **2021**, 166, 113496	5.9	7
17	Thermogravimetric analysis and kinetics characteristics of typical grains. *Journal of Thermal Analysis and Calorimetry*, **2021**, 143, 647-659	4.1	6
16	Hierarchical core-shell SiO@COFs@metallic oxide architecture: An efficient flame retardant and toxic smoke suppression for polystyrene. *Journal of Colloid and Interface Science*, **2022**, 605, 241-252	9.3	5
15	Fully bio-based epoxy resin derived from vanillin with flame retardancy and degradability. *Reactive and Functional Polymers*, **2021**, 168, 105034	4.6	4
14	Integration of black phosphorene and MXene to improve fire safety and mechanical properties of waterborne polyurethane. *Applied Surface Science*, **2022**, 581, 152386	6.7	3
13	A desoxyanisoin- and furfurylamine-derived high-performance benzoxazine thermoset with high glass transition temperature and excellent anti-flammability. *Polymer Degradation and Stability*, **2021**, 189, 109604	4.7	3

12	Heterolayered Boron Nitride/Polyaniline/Molybdenum Disulfide Nanosheets for Flame-Retardant Epoxy Resins. *ACS Applied Nano Materials*, **2021**, 4, 8162-8172	5.6	3
11	Combination of cardanol-derived flame retardant with SiO2@MOF particles for simultaneously enhancing the toughness, anti-flammability and smoke suppression of epoxy thermosets. *Composites Communications*, **2021**, 27, 100904	6.7	3
10	The effect of triphenyl phosphate inhibition on flame propagation over cast PMMA slabs. *Proceedings of the Combustion Institute*, **2021**, 38, 4635-4644	5.9	2
9	Flame Retardant Cellulose-Based Hybrid Hydrogels for Firefighting and Fire Prevention. *Fire Technology*,1	3	2
8	A Furan-based Phosphaphenanthrene-containing Derivative as a Highly Efficient Flame-retardant Agent for Epoxy Thermosets without Deteriorating Thermomechanical Performances. *Chinese Journal of Polymer Science (English Edition)*, **2022**, 40, 233-240	3.5	1
7	Eco-friendly thermally insulating cellulose aerogels with exceptional flame retardancy, mechanical property and thermal stability. *Journal of the Taiwan Institute of Chemical Engineers*, **2022**, 131, 104159	5.3	1
6	Preparation and antimicrobial effect of a cinnamaldehyde-based sustained release fumigant tablet for grain storage. *Journal of Materials Research and Technology*, **2020**, 9, 14122-14130	5.5	1
5	Highly flame retardant, low thermally conducting, and hydrophobic phytic acid-guanazole-cellulose nanofiber composite foams. *Cellulose*, **2021**, 28, 9769-9783	5.5	1
4	Hierarchical MoS2/polyaniline binary hybrids with high performance for improving fire safety of epoxy resin. *Polymers for Advanced Technologies*,	3.2	1
3	Cicada wing-inspired solar transmittance enhancement and hydrophobicity design for graphene-based solar steam generation: A novel gas phase deposition approach. *Applied Energy*, **2022**, 320, 119322	10.7	1
2	Fabrication of zirconium phenylphosphonate/epoxy composites with simultaneously enhanced mechanical strength, anti-flammability and smoke suppression. *Composites Part A: Applied Science and Manufacturing*, **2022**, 155, 106837	8.4	0
1	Polypropylene (PP)/Polylactic Acid-Based Biocomposites and Bionanocomposites **2017**, 85-112		