## Bin Yu

## List of Publications by Year in descending order

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117	11,056	60	103
papers	citations	h-index	g-index
118	118	118	5376
all docs	docs citations	times ranked	citing authors

#	Article	IF	CITATIONS
1	Phosphorus-containing flame retardant epoxy thermosets: Recent advances and future perspectives. Progress in Polymer Science, 2021, 114, 101366.	24.7	421
2	Flame retardant polymeric nanocomposites through the combination of nanomaterials and conventional flame retardants. Progress in Materials Science, 2020, 114, 100687.	32.8	415
3	Enhanced thermal and flame retardant properties of flame-retardant-wrapped graphene/epoxy resin nanocomposites. Journal of Materials Chemistry A, 2015, 3, 8034-8044.	10.3	371
4	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.	10.3	346
5	Interface decoration of exfoliated MXene ultra-thin nanosheets for fire and smoke suppressions of thermoplastic polyurethane elastomer. Journal of Hazardous Materials, 2019, 374, 110-119.	12.4	301
6	Lignin-derived bio-based flame retardants toward high-performance sustainable polymeric materials. Green Chemistry, 2020, 22, 2129-2161.	9.0	249
7	Robust, Lightweight, Hydrophobic, and Fire-Retarded Polyimide/MXene Aerogels for Effective Oil/Water Separation. ACS Applied Materials & Interfaces, 2019, 11, 40512-40523.	8.0	230
8	Self-assembly of Ni–Fe layered double hydroxide/graphene hybrids for reducing fire hazard in epoxy composites. Journal of Materials Chemistry A, 2013, 1, 4383.	10.3	227
9	Interface engineering of MXene towards super-tough and strong polymer nanocomposites with high ductility and excellent fire safety. Chemical Engineering Journal, 2020, 399, 125829.	12.7	226
10	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.	12.4	223
11	Polyphosphoramide-intercalated MXene for simultaneously enhancing thermal stability, flame retardancy and mechanical properties of polylactide. Chemical Engineering Journal, 2020, 397, 125336.	12.7	207
12	Bioinspired, Highly Adhesive, Nanostructured Polymeric Coatings for Superhydrophobic Fire-Extinguishing Thermal Insulation Foam. ACS Nano, 2021, 15, 11667-11680.	14.6	195
13	Strengthening, toughing and thermally stable ultra-thin MXene nanosheets/polypropylene nanocomposites via nanoconfinement. Chemical Engineering Journal, 2019, 378, 122267.	12.7	191
14	Functionalization of graphene with grafted polyphosphamide for flame retardant epoxy composites: synthesis, flammability and mechanism. Polymer Chemistry, 2014, 5, 1145-1154.	3.9	190
15	Functionalized graphene oxide/phosphoramide oligomer hybrids flame retardant prepared via in situ polymerization for improving the fire safety of polypropylene. RSC Advances, 2014, 4, 31782.	3.6	184
16	Graphitic carbon nitride/phosphorus-rich aluminum phosphinates hybrids as smoke suppressants and flame retardants for polystyrene. Journal of Hazardous Materials, 2017, 332, 87-96.	12.4	179
17	Highly Effective P–P Synergy of a Novel DOPO-Based Flame Retardant for Epoxy Resin. Industrial & Engineering Chemistry Research, 2017, 56, 1245-1255.	3.7	176
18	MXene/chitosan nanocoating for flexible polyurethane foam towards remarkable fire hazards reductions. Journal of Hazardous Materials, 2020, 381, 120952.	12.4	174

#	Article	IF	CITATIONS
10	Economical and environment-friendly synthesis of a novel hyperbranched poly(aminomethylphosphine) Tj ETQq1 I		
19	temperature and toughness of epoxy resins. Chemical Engineering Journal, 2017, 322, 618-631.	12.7	169
20	Organic/inorganic flame retardants containing phosphorus, nitrogen and silicon: Preparation and their performance on the flame retardancy of epoxy resins as a novel intumescent flame retardant system. Materials Chemistry and Physics, 2014, 143, 1243-1252.	4.0	168
21	Self-standing cuprous oxide nanoparticles on silica@ polyphosphazene nanospheres: 3D nanostructure for enhancing the flame retardancy and toxic effluents elimination of epoxy resins via synergistic catalytic effect. Chemical Engineering Journal, 2017, 309, 802-814.	12.7	164
22	Novel organic–inorganic flame retardants containing exfoliated graphene: preparation and their performance on the flame retardancy of epoxy resins. Journal of Materials Chemistry A, 2013, 1, 6822.	10.3	163
23	Surface-coating engineering for flame retardant flexible polyurethane foams: A critical review. Composites Part B: Engineering, 2019, 176, 107185.	12.0	163
24	Biomimetic structural cellulose nanofiber aerogels with exceptional mechanical, flame-retardant and thermal-insulating properties. Chemical Engineering Journal, 2020, 389, 124449.	12.7	163
25	MXene as emerging nanofillers for high-performance polymer composites: A review. Composites Part B: Engineering, 2021, 217, 108867.	12.0	161
26	Influence of g-C <sub>3</sub> N <sub>4</sub> Nanosheets on Thermal Stability and Mechanical Properties of Biopolymer Electrolyte Nanocomposite Films: A Novel Investigation. ACS Applied Materials & Samp; Interfaces, 2014, 6, 429-437.	8.0	159
27	Design of reduced graphene oxide decorated with DOPO-phosphanomidate for enhanced fire safety of epoxy resin. Journal of Colloid and Interface Science, 2018, 521, 160-171.	9.4	157
28	Engineering MXene surface with POSS for reducing fire hazards of polystyrene with enhanced thermal stability. Journal of Hazardous Materials, 2021, 401, 123342.	12.4	151
29	Phosphorus and Nitrogen-Containing Polyols: Synergistic Effect on the Thermal Property and Flame Retardancy of Rigid Polyurethane Foam Composites. Industrial & Engineering Chemistry Research, 2016, 55, 10813-10822.	3.7	150
30	Creating MXene/reduced graphene oxide hybrid towards highly fire safe thermoplastic polyurethane nanocomposites. Composites Part B: Engineering, 2020, 203, 108486.	12.0	145
31	In situ preparation of reduced graphene oxide/DOPO-based phosphonamidate hybrids towards high-performance epoxy nanocomposites. Composites Part B: Engineering, 2017, 123, 154-164.	12.0	142
32	Manufacturing, mechanical and flame retardant properties of poly(lactic acid) biocomposites based on calcium magnesium phytate and carbon nanotubes. Composites Part A: Applied Science and Manufacturing, 2018, 110, 227-236.	7.6	136
33	Functionalizing MXene towards highly stretchable, ultratough, fatigue- and fire-resistant polymer nanocomposites. Chemical Engineering Journal, 2021, 424, 130338.	12.7	130
34	Novel CuCo2O4/graphitic carbon nitride nanohybrids: Highly effective catalysts for reducing CO generation and fire hazards of thermoplastic polyurethane nanocomposites. Journal of Hazardous Materials, 2015, 293, 87-96.	12.4	125
35	Hyper-branched polymer grafting graphene oxide as an effective flame retardant and smoke suppressant for polystyrene. Journal of Hazardous Materials, 2015, 300, 58-66.	12.4	122
36	Facile preparation of layered melamine-phytate flame retardant via supramolecular self-assembly technology. Journal of Colloid and Interface Science, 2019, 553, 364-371.	9.4	116

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37	Multifunctional MXene/natural rubber composite films with exceptional flexibility and durability. Composites Part B: Engineering, 2020, 188, 107875.	12.0	111
38	The effect of metal oxide decorated graphene hybrids on the improved thermal stability and the reduced smoke toxicity in epoxy resins. Chemical Engineering Journal, 2014, 250, 214-221.	12.7	109
39	Surface modification of ammonium polyphosphate by supramolecular assembly for enhancing fire safety properties of polypropylene. Composites Part B: Engineering, 2020, 181, 107588.	12.0	106
40	UV-Curable Functionalized Graphene Oxide/Polyurethane Acrylate Nanocomposite Coatings with Enhanced Thermal Stability and Mechanical Properties. Industrial & Engineering Chemistry Research, 2012, 51, 14629-14636.	3.7	104
41	Surface decoration of Halloysite nanotubes with POSS for fire-safe thermoplastic polyurethane nanocomposites. Journal of Materials Science and Technology, 2022, 101, 107-117.	10.7	96
42	A lava-inspired micro/nano-structured ceramifiable organic-inorganic hybrid fire-extinguishing coating. Matter, 2022, 5, 911-932.	10.0	96
43	Functionalization of MXene Nanosheets for Polystyrene towards High Thermal Stability and Flame Retardant Properties. Polymers, 2019, 11, 976.	4.5	93
44	Comparative study on the synergistic effect of POSS and graphene with melamine phosphate on the flame retardance of poly(butylene succinate). Thermochimica Acta, 2012, 543, 156-164.	2.7	92
45	Enhanced thermal and mechanical properties of functionalized graphene/thiol-ene systems by photopolymerization technology. Chemical Engineering Journal, 2013, 228, 318-326.	12.7	91
46	Highly efficient flame retardant and smoke suppression mechanism of boron modified graphene Oxide/Poly(Lactic acid) nanocomposites. Carbon, 2019, 150, 8-20.	10.3	91
47	Cyclodextrin microencapsulated ammonium polyphosphate: Preparation and its performance on the thermal, flame retardancy and mechanical properties of ethylene vinyl acetate copolymer. Composites Part B: Engineering, 2015, 69, 22-30.	12.0	87
48	Facile Synthesis of a Highly Efficient, Halogen-Free, and Intumescent Flame Retardant for Epoxy Resins: Thermal Properties, Combustion Behaviors, and Flame-Retardant Mechanisms. Industrial & Engineering Chemistry Research, 2016, 55, 10868-10879.	3.7	86
49	Comparative study on the flame retarded efficiency of melamine phosphate, melamine phosphite and melamine hypophosphite on poly(butylene succinate) composites. Polymer Degradation and Stability, 2014, 105, 248-256.	5.8	85
50	Bio-inspired, sustainable and mechanically robust graphene oxide-based hybrid networks for efficient fire protection and warning. Chemical Engineering Journal, 2022, 439, 134516.	12.7	81
51	Fire Intumescent, High-Temperature Resistant, Mechanically Flexible Graphene Oxide Network for Exceptional Fire Shielding and Ultra-Fast Fire Warning. Nano-Micro Letters, 2022, 14, 92.	27.0	79
52	Synthesis of MnO 2 nanoparticles with different morphologies and application for improving the fire safety of epoxy. Composites Part A: Applied Science and Manufacturing, 2017, 95, 173-182.	7.6	72
53	Advances in Flame Retardant Poly(Lactic Acid). Polymers, 2018, 10, 876.	4.5	70
54	A facile one-step synthesis of highly efficient melamine salt reactive flame retardant for epoxy resin. Journal of Materials Science, 2020, 55, 12836-12847.	3.7	70

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55	Aluminum hypophosphite in combination with expandable graphite as a novel flame retardant system for rigid polyurethane foams. Polymers for Advanced Technologies, 2014, 25, 1034-1043.	3.2	67
56	Silicon nanoparticle decorated graphene composites: preparation and their reinforcement on the fire safety and mechanical properties of polyurea. Journal of Materials Chemistry A, 2013, 1, 9827.	10.3	65
57	A novel boron–nitrogen intumescent flame retardant coating on cotton with improved washing durability. Cellulose, 2018, 25, 843-857.	4.9	64
58	A reactive copper-organophosphate-MXene heterostructure enabled antibacterial, self-extinguishing and mechanically robust polymer nanocomposites. Chemical Engineering Journal, 2022, 430, 132712.	12.7	64
59	Effect of borates on thermal degradation and flame retardancy of epoxy resins using polyhedral oligomeric silsesquioxane as a curing agent. Thermochimica Acta, 2012, 535, 71-78.	2.7	63
60	A novel polyurethane prepolymer as toughening agent: Preparation, characterization, and its influence on mechanical and flame retardant properties of phenolic foam. Journal of Applied Polymer Science, 2013, 128, 2720-2728.	2.6	62
61	Tunable thermal, flame retardant and toxic effluent suppression properties of polystyrene based on alternating graphitic carbon nitride and multi-walled carbon nanotubes. Journal of Materials Chemistry A, 2015, 3, 17064-17073.	10.3	61
62	Unsaturated polyester resins modified with phosphorus-containing groups: Effects on thermal properties and flammability. Polymer Degradation and Stability, 2013, 98, 2033-2040.	5.8	59
63	CuO/Graphene Nanohybrids: Preparation and Enhancement on Thermal Stability and Smoke Suppression of Polypropylene. Industrial & Engineering Chemistry Research, 2013, 52, 13654-13660.	3.7	58
64	High-performance flame-retardant polycarbonate composites: Mechanisms investigation and fire-safety evaluation systems establishment. Composites Part B: Engineering, 2022, 238, 109873.	12.0	58
65	Integrated effect of NH2-functionalized/triazine based covalent organic framework black phosphorus on reducing fire hazards of epoxy nanocomposites. Chemical Engineering Journal, 2020, 401, 126058.	12.7	55
66	Graphite-like carbon nitride and functionalized layered double hydroxide filled polypropylene-grafted maleic anhydride nanocomposites: Comparison in flame retardancy, and thermal, mechanical and UV-shielding properties. Composites Part B: Engineering, 2015, 79, 277-284.	12.0	54
67	A combination of POSS and polyphosphazene for reducing fire hazards of epoxy resin. Polymers for Advanced Technologies, 2018, 29, 1242-1254.	3.2	53
68	Hierarchical assembly of polystyrene/graphitic carbon nitride/reduced graphene oxide nanocomposites toward high fire safety. Composites Part B: Engineering, 2019, 179, 107541.	12.0	51
69	Sodium alginate-templated synthesis of g-C3N4/carbon spheres/Cu ternary nanohybrids for fire safety application. Journal of Colloid and Interface Science, 2019, 539, 1-10.	9.4	51
70	Sandwichlike Coating Consisting of Alternating Montmorillonite and $\hat{I}^2$ -FeOOH for Reducing the Fire Hazard of Flexible Polyurethane Foam. ACS Sustainable Chemistry and Engineering, 2015, 3, 3214-3223.	6.7	49
71	Synthesis of anhydrous manganese hypophosphite microtubes for simultaneous flame retardant and mechanical enhancement on poly(lactic acid). Composites Science and Technology, 2018, 164, 44-50.	7.8	47
72	Highly efficient catalysts for reducing toxic gases generation change with temperature of rigid polyurethane foam nanocomposites: A comparative investigation. Composites Part A: Applied Science and Manufacturing, 2018, 112, 142-154.	7.6	47

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73	Facile synthesis of aluminum branched oligo(phenylphosphonate) submicro-particles with enhanced flame retardance and smoke toxicity suppression for epoxy resin composites. Journal of Hazardous Materials, 2020, 381, 121233.	12.4	47
74	Superior thermal and fire safety performances of epoxy-based composites with phosphorus-doped cerium oxide nanosheets. Applied Surface Science, 2020, 504, 144314.	6.1	46
75	Synthesis and application of synergistic azo-boron-BPA / polydopamine as efficient flame retardant for poly(lactic acid). Polymer Degradation and Stability, 2018, 152, 64-74.	<b>5.</b> 8	45
76	Study on thermal degradation and combustion behavior of flame retardant unsaturated polyester resin modified with a reactive phosphorus containing monomer. RSC Advances, 2016, 6, 49633-49642.	3.6	44
77	Simultaneous fire safety enhancement and mechanical reinforcement of poly(lactic acid) biocomposites with hexaphenyl (nitrilotris(ethane-2,1-diyl))tris(phosphoramidate). Journal of Hazardous Materials, 2019, 380, 120856.	12.4	43
78	Facile preparation of phosphorus containing hyperbranched polysiloxane grafted graphene oxide hybrid toward simultaneously enhanced flame retardancy and smoke suppression of thermoplastic polyurethane nanocomposites. Composites Part A: Applied Science and Manufacturing, 2021, 150, 106614.	7.6	43
79	Thermal, crystalline and mechanical properties of flame retarded Poly(lactic acid) with a PBO-like small molecule - Phenylphosphonic Bis(2-aminobenzothiazole). Polymer Degradation and Stability, 2019, 163, 76-86.	5.8	42
80	Synthesis of a Novel Triazine-Based Hyperbranched Char Foaming Agent and the Study of Its Enhancement on Flame Retardancy and Thermal Stability of Polypropylene. Industrial & Description of Engineering Chemistry Research, 2013, 52, 17015-17022.	3.7	41
81	Flexible and fire safe sandwich structured composites with superior electromagnetic interference shielding properties. Composites Part A: Applied Science and Manufacturing, 2022, 160, 107070.	7.6	41
82	Establishing pyrolysis kinetics for the modelling of the flammability and burning characteristics of solid combustible materials. Journal of Fire Sciences, 2018, 36, 494-517.	2.0	39
83	Facile flame retardant finishing of cotton fabric with hydrated sodium metaborate. Cellulose, 2019, 26, 4629-4640.	4.9	38
84	Surface Manipulation of Thermal-Exfoliated Hexagonal Boron Nitride with Polyaniline for Improving Thermal Stability and Fire Safety Performance of Polymeric Materials. ACS Omega, 2018, 3, 14942-14952.	3.5	37
85	A novel phosphorus-containing MoS2 hybrid: Towards improving the fire safety of epoxy resin. Journal of Colloid and Interface Science, 2019, 550, 210-219.	9.4	37
86	Highly Effective Flame-Retardant Rigid Polyurethane Foams: Fabrication and Applications in Inhibition of Coal Combustion. Polymers, 2019, 11, 1776.	<b>4.</b> 5	36
87	Effect of Functionalized Graphene Oxide with Organophosphorus Oligomer on the Thermal and Mechanical Properties and Fire Safety of Polystyrene. Industrial & Engineering Chemistry Research, 2015, 54, 3309-3319.	3.7	34
88	In situ fabrication of molybdenum disulfide based nanohybrids for reducing fire hazards of epoxy. Composites Part A: Applied Science and Manufacturing, 2019, 122, 77-84.	7.6	34
89	Cost-effective graphite felt and phosphorous flame retardant with extremely high electromagnetic shielding. Composites Part B: Engineering, 2022, 236, 109819.	12.0	34
90	Thermal and flame retardant properties of transparent UV-curing epoxy acrylate coatings with POSS-based phosphonate acrylate. RSC Advances, 2015, 5, 75254-75262.	3.6	33

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91	Surface treatment of two dimensional MXene for poly(vinylidene fluoride) nanocomposites with tunable dielectric permittivity. Composites Communications, 2021, 23, 100562.	6.3	33
92	Leaf vein-inspired engineering of MXene@SrSn(OH)6 nanorods towards super-tough elastomer nanocomposites with outstanding fire safety. Composites Part B: Engineering, 2022, 228, 109425.	12.0	33
93	Synthesis of a multifunctional bisphosphate and its flame retardant application in epoxy resin. Polymer Degradation and Stability, 2019, 165, 92-100.	5.8	30
94	Construction of interface-engineered two-dimensional nanohybrids towards superb fire resistance of epoxy composites. Composites Part A: Applied Science and Manufacturing, 2022, 152, 106707.	7.6	30
95	Pectin-assisted dispersion of exfoliated boron nitride nanosheets for assembled bio-composite aerogels. Composites Part A: Applied Science and Manufacturing, 2019, 119, 196-205.	7.6	29
96	Enhanced fire-retardancy of poly(ethylene vinyl acetate) electrical cable coatings containing microencapsulated ammonium polyphosphate as intumescent flame retardant. RSC Advances, 2016, 6, 85564-85573.	3.6	25
97	Facile Synthesis of Phosphorus and Cobalt Co-Doped Graphitic Carbon Nitride for Fire and Smoke Suppressions of Polylactide Composite. Polymers, 2020, 12, 1106.	4.5	25
98	Experimental and numerical perspective on the fire performance of MXene/Chitosan/Phytic acid coated flexible polyurethane foam. Scientific Reports, 2021, 11, 4684.	3.3	24
99	Synergistic effect of flame retardants and graphitic carbon nitride on flame retardancy of polylactide composites. Polymers for Advanced Technologies, 2020, 31, 1661-1670.	3.2	23
100	Click-chemistry approach for graphene modification: effective reinforcement of UV-curable functionalized graphene/polyurethane acrylate nanocomposites. RSC Advances, 2015, 5, 13502-13506.	3.6	21
101	Fabrication of carbon black coated flexible polyurethane foam for significantly improved fire safety. RSC Advances, 2015, 5, 55870-55878.	3.6	21
102	Surface modification of multi-scale cuprous oxide with tunable catalytic activity towards toxic fumes and smoke suppression of rigid polyurethane foam. Applied Surface Science, 2021, 556, 149792.	6.1	21
103	The influence of poorly-/well-dispersed organo-montmorillonite on interfacial compatibility, fire retardancy and smoke suppression of polypropylene/intumescent flame retardant composite system. Journal of Colloid and Interface Science, 2022, 622, 367-377.	9.4	21
104	Functionalized graphene/thermoplastic polyester elastomer nanocomposites by reactive extrusionâ€based masterbatch: preparation and properties reinforcement. Polymers for Advanced Technologies, 2014, 25, 605-612.	3.2	20
105	POSS-functionalized polyphosphazene nanotube: preparation and effective reinforcement on UV-curable epoxy acrylate nanocomposite coatings. RSC Advances, 2016, 6, 3025-3031.	3.6	20
106	Study of structure morphology and layer thickness of Ti3C2 MXene with Small-Angle Neutron Scattering (SANS). Composites Part C: Open Access, 2021, 5, 100155.	3.2	17
107	Hierarchical Ti3C2Tx@BPA@PCL for flexible polyurethane foam capable of anti-compression, self-extinguishing and flame-retardant. Journal of Colloid and Interface Science, 2022, 626, 208-220.	9.4	15
108	Controlled self-template synthesis of manganese-based cuprous oxide nanoplates towards improved fire safety properties of epoxy composites. Journal of Hazardous Materials, 2020, 387, 122006.	12.4	14

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109	Flame retardant poly (lactic acid) biocomposites based on azoâ€boron coupled 4,4′â€sulfonyldiphenol and its combination with calcium lignosulfonateâ€"Crystalline and mechanical properties. Polymers for Advanced Technologies, 2019, 30, 2207-2220.	3.2	13
110	A triazine-based hyperbranched char-forming agent for efficient intumescent flame retardant Poly(lactic acid) composites. Composites Communications, 2022, 33, 101225.	6.3	12
111	Alumina nanoflakeâ€coated graphene nanohybrid as a novel flame retardant filler for polypropylene. Polymers for Advanced Technologies, 2019, 30, 2153-2158.	3.2	11
112	Preparation of layered graphitic carbon nitride/montmorillonite nanohybrids for improving thermal stability of sodium alginate nanocomposites. RSC Advances, 2015, 5, 11761-11765.	3.6	10
113	Electrostatic-Interaction-Driven Assembly of Binary Hybrids towards Fire-Safe Epoxy Resin Nanocomposites. Polymers, 2019, 11, 229.	4.5	10
114	Preparation of UV-curable functionalized phosphazene-containing nanotube/polyurethane acrylate nanocomposite coatings with enhanced thermal and mechanical properties. RSC Advances, 2015, 5, 73775-73782.	3.6	9
115	Insight into Hyper-Branched Aluminum Phosphonate in Combination with Multiple Phosphorus Synergies for Fire-Safe Epoxy Resin Composites. Polymers, 2020, 12, 64.	4.5	9
116	Facile preparation of uniform polydopamine particles and its application as an environmentally friendly flame retardant for biodegradable polylactic acid. Journal of Fire Sciences, 2020, 38, 485-503.	2.0	6
117	Elastic polybenzimidazole nanofiber aerogel for thermal insulation and high-temperature oil adsorption. Journal of Materials Science, 2022, 57, 12125-12137.	3.7	3