Flame-retardant surface treatments

Nature Reviews Materials 5, 259-275 DOI: 10.1038/s41578-019-0164-6

Citation Report

#	Article	IF	CITATIONS
1	Environmentally Benign and Self-Extinguishing Multilayer Nanocoating for Protection of Flammable Foam. ACS Applied Materials & Interfaces, 2020, 12, 49130-49137.	4.0	37
2	The Potential for Bio-Sustainable Organobromine-Containing Flame Retardant Formulations for Textile Applications—A Review. Polymers, 2020, 12, 2160.	2.0	30
3	Improving flame retardancy and self-cleaning performance of cotton fabric via a coating of in-situ growing layered double hydroxides (LDHs) on polydopamine. Progress in Organic Coatings, 2020, 149, 105930.	1.9	26
4	Flame suppression of polyamide through combined enzymatic modification and addition of urea to multilayer nanocoating. Journal of Materials Science, 2020, 55, 15056-15067.	1.7	13
5	Novel and eco-friendly flame-retardant cotton fabrics with lignosulfonate and chitosan through LbL: Flame retardancy, smoke suppression and flame-retardant mechanism. Polymer Degradation and Stability, 2020, 181, 109302.	2.7	55
6	A Liquid Phosphaphenanthrene-Derived Imidazole for Improved Flame Retardancy and Smoke Suppression of Epoxy Resin. ACS Applied Polymer Materials, 2020, 2, 3566-3575.	2.0	88
7	Multi-component and high-entropy nitride coatings—A promising field in need of a novel approach. Journal of Applied Physics, 2020, 127, .	1.1	77
8	Low-Emissivity Metal/Dielectric Coatings as Radiative Barriers for the Fire Protection of Raw and Formulated Polymers. ACS Applied Polymer Materials, 2020, 2, 2880-2889.	2.0	8
9	Flame-Retardant Wood Composites Based on Immobilizing with Chitosan/Sodium Phytate/Nano-TiO2-ZnO Coatings via Layer-by-Layer Self-Assembly. Coatings, 2020, 10, 296.	1.2	49
10	Mica-Based Multilayer Nanocoating as a Highly Effective Flame Retardant and Smoke Suppressant. ACS Applied Materials & Interfaces, 2020, 12, 19938-19943.	4.0	36
11	Flame-responsive aryl ether nitrile structure towards multiple fire hazards suppression of thermoplastic polyester. Journal of Hazardous Materials, 2021, 403, 123714.	6.5	38
12	Superamphiphobic and flame-retardant coatings with highly chemical and mechanical robustness. Chemical Engineering Journal, 2021, 421, 127793.	6.6	37
13	Excellent Fire Retardant Properties of CNF/VMT Based LBL Coatings Deposited on Polypropylene and Wood-Ply. Polymers, 2021, 13, 303.	2.0	13
14	A Durable, Flexible, Largeâ€Area, Flameâ€Retardant, Early Fire Warning Sensor with Builtâ€In Patterned Electrodes. Small Methods, 2021, 5, e2001040.	4.6	67
15	Preferred zinc-modified melamine phytate for the flame retardant polylactide with limited smoke release. New Journal of Chemistry, 2021, 45, 13329-13339.	1.4	22
16	Intumescent flameâ€retardant and ultravioletâ€blocking coating screenâ€printed on cotton fabric. Cellulose, 2021, 28, 2495-2504.	2.4	11
17	Fire-Safe Polymer Composites: Flame-Retardant Effect of Nanofillers. Polymers, 2021, 13, 540.	2.0	44
18	A highly fire-safe and smoke-suppressive single-component epoxy resin with switchable curing temperature and rapid curing rate. Composites Part B: Engineering, 2021, 207, 10 <u>8601.</u>	5.9	170

#	Article	IF	CITATIONS
19	Preparation of flame retardant and conductive epoxy resin composites by incorporating functionalized multiâ€walled carbon nanotubes and graphite sheets. Polymers for Advanced Technologies, 2021, 32, 2093-2101.	1.6	17
20	Abuseâ€Tolerant Electrolytes for Lithiumâ€Ion Batteries. Advanced Science, 2021, 8, e2003694.	5.6	16
21	Clay-Filled Polyelectrolyte Complex Nanocoating for Flame-Retardant Polyurethane Foam. ACS Omega, 2021, 6, 8016-8020.	1.6	22
22	Towards Selection Charts for Epoxy Resin, Unsaturated Polyester Resin and Their Fibre-Fabric Composites with Flame Retardants. Materials, 2021, 14, 1181.	1.3	31
23	Cotton/alginate blended knitted fabrics: flame retardancy, flameâ€retardant mechanism, water absorption and mechanical properties. Cellulose, 2021, 28, 4495-4510.	2.4	19
24	Efficient Heat Shielding of Steel with Multilayer Nanocomposite Thin Film. ACS Applied Materials & Interfaces, 2021, 13, 19369-19376.	4.0	12
25	Environmentally-benign, water-based covalent polymer network for flame retardant cotton. Cellulose, 2021, 28, 5855.	2.4	27
26	Preparation of the organic–inorganic doubleâ€shell microencapsulated aluminum hypophosphite and its improved flame retardancy and mechanical properties of epoxy resin composites. Journal of Applied Polymer Science, 2021, 138, 50950.	1.3	10
27	Metal-phenolic network green flame retardants. Polymer, 2021, 221, 123627.	1.8	40
28	Preparation of phytic acidâ€based green intumescent flame retardant and its application in <scp>PLA</scp> nonwovens. Polymers for Advanced Technologies, 2021, 32, 3039-3049.	1.6	28
29	<i>N</i> â€alkoxyamineâ€containing macromolecular intumescent flameâ€retardantâ€decorated ZrP nanosheet and their synergism in flameâ€retarding polypropylene. Polymers for Advanced Technologies, 2021, 32, 3804-3816.	1.6	9
30	Multifunctional MXene/Chitosan-Coated Cotton Fabric for Intelligent Fire Protection. ACS Applied Materials & amp; Interfaces, 2021, 13, 23020-23029.	4.0	102
31	A lipid coating on cotton fibers with enhanced adsorption capability for fabric functionalization. Cellulose, 2021, 28, 5957.	2.4	12
32	An overview of alginates as flame-retardant materials: Pyrolysis behaviors, flame retardancy, and applications. Carbohydrate Polymers, 2021, 260, 117827.	5.1	105
33	Thin coatings for fire protection: An overview of the existing strategies, with an emphasis on layer-by-layer surface treatments and promising new solutions. Progress in Organic Coatings, 2021, 154, 106217.	1.9	29
34	Flame retardant treatments for polypropylene: Strategies and recent advances. Composites Part A: Applied Science and Manufacturing, 2021, 145, 106382.	3.8	76
35	Highly efficient flame retardation of polyester fabrics via novel DOPO-modified sol-gel coatings. Polymer, 2021, 226, 123761.	1.8	25
36	Synergistic Flame Retardant Effects of Carbon Nanotubeâ€Based Multilayer Nanocoatings. Macromolecular Materials and Engineering, 2021, 306, 2100233.	1.7	11

#	Article	IF	CITATIONS
37	Biobased Phosphorus Siloxane-Containing Polyurethane Foam with Flame-Retardant and Smoke-Suppressant Performances. ACS Sustainable Chemistry and Engineering, 2021, 9, 8623-8634.	3.2	46
38	Design and characterization of ramie fiber-reinforced composites with flame retardant surface layer including iron oxide and expandable graphite. Journal of Polymer Engineering, 2021, 41, 576-584.	0.6	4
40	Bioinspired, Highly Adhesive, Nanostructured Polymeric Coatings for Superhydrophobic Fire-Extinguishing Thermal Insulation Foam. ACS Nano, 2021, 15, 11667-11680.	7.3	195
41	Wet or dry multifunctional coating prepared by visible light polymerisation with fire retardant, thermal protective, and antimicrobial properties. Cellulose, 2021, 28, 8821-8840.	2.4	6
42	Eco-friendly and intrinsic nanogels for durable flame retardant and antibacterial properties. Chemical Engineering Journal, 2021, 415, 129008.	6.6	26
43	A novel reactive P-containing composite with an ordered porous structure for suppressing nano-Al dust explosions. Chemical Engineering Journal, 2021, 416, 129156.	6.6	35
44	Yale School of Public Health Symposium: An overview of the challenges and opportunities associated with per- and polyfluoroalkyl substances (PFAS). Science of the Total Environment, 2021, 778, 146192.	3.9	22
45	Environmentally Benign Flame Retardant Polyamideâ€6 Filament for Additive Manufacturing. Macromolecular Materials and Engineering, 2021, 306, 2100245.	1.7	6
46	Innovative Polyelectrolyte Treatment to Flame-Retard Wood. Polymers, 2021, 13, 2884.	2.0	11
47	Electroâ€Blown Spun Silk/Graphene Nanoionotronic Skin for Multifunctional Fire Protection and Alarm. Advanced Materials, 2021, 33, e2102500.	11.1	50
48	Self-healing polyelectrolyte complex coating for flame retardant flexible polyurethane foam with enhanced mechanical property. Composites Part B: Engineering, 2021, 219, 108886.	5.9	71
49	Hot–dog structured protective nanocoating for multifunctional cotton fabrics through spray–assisted layer–by–layer assembly. Cellulose, 2021, 28, 10637-10654.	2.4	3
50	Effects of graphene nanosheets decorated by cerium stannate on the enhancement of flame retardancy and mechanical performances of flexible polyurethane foam composites. Polymers for Advanced Technologies, 2022, 33, 290-302.	1.6	5
51	Segmented Polyurethanes and Thermoplastic Elastomers from Elemental Sulfur with Enhanced Thermomechanical Properties and Flame Retardancy. Angewandte Chemie, 2021, 133, 23082.	1.6	6
52	High-flame retarding properties of polyacrylonitrile copolymer nanocomposites with synergistic effect of elemental sulfur-doped reduced graphene oxide and bio-derived catechol units. Composites Part A: Applied Science and Manufacturing, 2021, 148, 106477.	3.8	10
53	Introductory Chapter: Flame Retardant and Thermally Insulating Polymers. , 0, , .		3
54	Segmented Polyurethanes and Thermoplastic Elastomers from Elemental Sulfur with Enhanced Thermomechanical Properties and Flame Retardancy. Angewandte Chemie - International Edition, 2021, 60, 22900-22907.	7.2	44
55	Efficient flame-retardant hybrid coatings on wood plastic composites by layer-by-layer assembly. Journal of Cleaner Production, 2021, 321, 128949.	4.6	14

#	Article	IF	CITATIONS
56	Surface-modified ammonium polyphosphate for flame-retardant and reinforced polyurethane composites. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2021, 626, 127092.	2.3	28
57	High-value utilization of mask and heavy fraction of bio-oil: From hazardous waste to biochar, bio-oil, and graphene films. Journal of Hazardous Materials, 2021, 420, 126570.	6.5	23
58	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.	3.8	43
59	LBL generated fire retardant nanocomposites on cotton fabric using cationized starch-clay-nanoparticles matrix. Carbohydrate Polymers, 2021, 274, 118626.	5.1	32
60	Highly efficient, transparent, and environment-friendly flame-retardant coating for cotton fabric. Chemical Engineering Journal, 2021, 424, 130556.	6.6	117
61	Facile deposition of environmentally benign organic-inorganic flame retardant coatings to protect flammable foam. Progress in Organic Coatings, 2021, 161, 106480.	1.9	11
62	Constructing polyaniline nanowire arrays as efficient traps on graphene sheets to promote compound synergetic effect in the assembled coating for multifunctional protective cotton fabrics. Chemical Engineering Journal, 2021, 426, 130819.	6.6	20
63	Facilely produced highly adhered, low thermal conductivity and non-combustible coatings for fire safety. Journal of Colloid and Interface Science, 2021, 604, 378-389.	5.0	15
64	Effects of Graphite Oxide Nanoparticle Size on the Functional Properties of Layer-by-Layer Coated Flexible Foams. Nanomaterials, 2021, 11, 266.	1.9	23
65	Fundamentals of cellulose lightweight materials: bio-based assemblies with tailored properties. Green Chemistry, 2021, 23, 3542-3568.	4.6	57
66	Synergistic effect of aluminum diethylphosphinate/sodium stearate modified vermiculite on flame retardant and smoke suppression properties of amino coatings. RSC Advances, 2021, 11, 34059-34070.	1.7	5
67	Chemically modified carbon nanostructures and 2D nanomaterials for fabrics performing under operational tension and extreme environmental conditions. Materials Horizons, 2021, 8, 3187-3200.	6.4	5
68	Fire Performance of Intumescent Waterborne Coatings with Encapsulated APP for Wood Constructions. Coatings, 2021, 11, 1272.	1.2	7
69	In Situ Assembly of DNA/Graphene Oxide Nanoplates to Reduce the Fire Threat of Flexible Foams. Advanced Materials Interfaces, 2021, 8, 2101083.	1.9	14
70	Novel bioderived cross-linked polyphosphazene microspheres decorated with FeCo-layered double hydroxide as an all-in-one intumescent flame retardant for epoxy resin. Composites Part B: Engineering, 2022, 229, 109463.	5.9	50
71	Fabrication of an novel <scp>NiCo</scp> â€based bimetallic hydroxide encapsulated with polyphosphazene with simultaneously improved the flame retardancy and smoke suppression for polypropylene. Journal of Applied Polymer Science, 2022, 139, .	1.3	2
72	Effect of bridged DOPO/polyurethane nanocomposites on solar absorber coatings with reduced flammability. Solar Energy, 2022, 231, 104-114.	2.9	7
73	A flame retardant fabric nanocoating based on nanocarbon black particles@polymer composite and its fire-alarm application. Chemical Engineering Journal, 2022, 433, 133501.	6.6	60

		CITATION REPORT		
#	ARTICLE Advanced Flameâ€Retardant Methods for Polymeric Materials, Advanced Materials, 2022, 34, e210	7905	IF	CITATIONS
75	Flexible and flame-retarding phosphorylated MXene/polypropylene composites for efficient		5.6	68
76	electromagnetic interference shielding. Journal of Materials Science and Technology, 2022, 111, 66 Macro and micro thermal investigation of nanoarchitectonics-based coatings on cotton fabric using	-/5. 5	1.7	4
77	Novel P/Si based nanoparticles for durable flame retardant application on cotton. Cellulose, 2022, 2	.9,	2.4	9
78	A lava-inspired micro/nano-structured ceramifiable organic-inorganic hybrid fire-extinguishing coating. Matter, 2022, 5, 911-932.		5.0	96
79	Layer-by-Layer Deposition: A Promising Environmentally Benign Flame-Retardant Treatment for Cott Polyester, Polyamide and Blended Textiles. Materials, 2022, 15, 432.	on,	1.3	23
80	A novel durable flame retardant for cotton fabrics based on diethylenetriamine. Polymer Degradatio and Stability, 2022, 195, 109796.	n	2.7	26
81	A novel strategy to fabricate nylon 6 based flame retardant microfiber nonwoven fabric with durability. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2022, 641, 128482.		2.3	7
82	Graphite flame retardant applied on polyester textiles: flammable, thermal and in vitro toxicological analysis. Journal of Industrial Textiles, 2022, 51, 4424S-4440S.		1.1	6
83	Hormetic dose responses induced by organic flame retardants in aquatic animals: Occurrence and quantification. Science of the Total Environment, 2022, 820, 153295.		3.9	15
84	Acid-Doped Biopolymer Nanocoatings for Flame-Retardant Polyurethane Foam. ACS Applied Polyme Materials, 2022, 4, 1983-1990.	r	2.0	7
85	Small molecule additives in multilayer polymer-clay thin films for improved heat shielding of steel. Npj Materials Degradation, 2022, 6, .		2.6	4
86	On the Fundamental Polymer Chemistry of Inverse Vulcanization for Statistical and Segmented Copolymers from Elemental Sulfur. Chemistry - A European Journal, 2022, 28, .		1.7	8
87	Mineralizing wood with chitosan–silica to enhance the flame retardant and physical-mechanical properties. Journal of Sol-Gel Science and Technology, 2023, 107, 57-69.		1.1	4
88	Flame retardant potential of Tetra Pak®-derived biochar for ethylene-vinyl-acetate copolymers. Composites Part C: Open Access, 2022, 8, 100252.		1.5	6
89	Studying the application of fish-farming net-cleaning waste as fire-retardant for Scots pine (Pinus) T	j ETQq1 1 0.78	4314 rgB 1.1	BT ₁ /Overlock
90	Modification of Glass/Polyester Laminates with Flame Retardants. Materials, 2021, 14, 7901.		1.3	9
94	The Flame-Retardant Mechanisms and Preparation of Polymer Composites and Their Potential Application in Construction Engineering. Polymers, 2022, 14, 82.		2.0	41

#	Article	IF	CITATIONS
96	Polymeric coacervate coating for flame retardant paper. Cellulose, 2022, 29, 4589-4597.	2.4	14
97	Production of Smart Cotton-nickel Blend Fibers Using Functional Polymers Comprising Ammonium Polyphosphate and Silicone Rubber. Fibers and Polymers, 2022, 23, 1560-1571.	1.1	3
98	Improving the flame retardant and antibacterial performance of polyester/cotton blend fabrics with organic-inorganic hybrid coating. Polymer Degradation and Stability, 2022, 200, 109944.	2.7	20
99	Interfacial architecting of organic–inorganic hybrid toward mechanically reinforced, fire-resistant and smoke-suppressed polyurethane composites. Journal of Colloid and Interface Science, 2022, 621, 385-397.	5.0	8
100	Preparation of a Ceramifiable Phenolic Foam and Its Ceramization Behavior. Polymers, 2022, 14, 1591.	2.0	5
101	Durable macromolecular firefighting for unsaturated polyester via integrating synergistic charring and hydrogen bond. Chemical Engineering Journal, 2022, 443, 136365.	6.6	27
102	In-Situ Synthesis and Assembly of Acid Nanospheres in Wood to Promote Flame Retardation. SSRN Electronic Journal, 0, , .	0.4	0
103	A flame retardant containing biomass-based polydopamine for high-performance rigid polyurethane foam. New Journal of Chemistry, 2022, 46, 11985-11993.	1.4	7
104	A Multifunctional Coating Towards Superhydrophobicity, Flame Retardancy and Antibacterial Performances. SSRN Electronic Journal, 0, , .	0.4	0
105	Polyelectrolyte photopolymer complexes for flame retardant wood. Materials Chemistry Frontiers, 2022, 6, 1630-1636.	3.2	10
106	The synergistic role of acidic molecular sieve on flame retardant performance in PLA/MF@APP composite. Journal of Polymer Research, 2022, 29, 1.	1.2	3
107	Inspired by sodium alginate: Amino acids cooperating with sodium ions to prepare phosphorus-free flame retardant lyocell fabric. Cellulose, 2022, 29, 5339-5358.	2.4	13
108	A sustainable strategy for preparation of flame-retardant cotton fabric by phosphorylation of recycled cotton. Textile Reseach Journal, 0, , 004051752110687.	1.1	1
109	The well-meaning but misguided rollback of fire safety in the United States. Journal of Fire Sciences, 2022, 40, 249-253.	0.9	2
110	Skin-inspired multifunctional MXene/cellulose nanocoating for smart and efficient fire protection. Chemical Engineering Journal, 2022, 446, 136899.	6.6	31
111	A lightweight aramid-based structural composite with ultralow thermal conductivity and high-impact force dissipation. Matter, 2022, 5, 2265-2284.	5.0	24
112	Durable flame-retardant cotton fabrics with tannic acid complexed by various metal ions. Polymer Degradation and Stability, 2022, 201, 109997.	2.7	35
113	A Review on Flame-Retardant Polyvinyl Alcohol: Additives and Technologies. Polymer Reviews, 2023, 63, 324-364.	5.3	11

#	Article	IF	CITATIONS
114	Recent Advances in Zinc Hydroxystannate-Based Flame Retardant Polymer Blends. Polymers, 2022, 14, 2175.	2.0	10
115	Solvent-free and electron transfer-induced phosphorus and nitrogen-containing heterostructures for multifunctional epoxy resin. Composites Part B: Engineering, 2022, 240, 109999.	5.9	21
116	Flame-retardant nanocoating towards high-efficiency suppression of smoke and toxic gases for polymer foam. Composites Part A: Applied Science and Manufacturing, 2022, 159, 107021.	3.8	11
117	Photothermal-healing, and record thermal stability and fire safety black phosphorus–boron hybrid nanocomposites: mechanism of phosphorus fixation effects and charring inspired by cell walls. Journal of Materials Chemistry A, 2022, 10, 14423-14434.	5.2	39
118	Assembled hybrid films based on sepiolite, phytic acid, polyaspartic acid and Fe ³⁺ for flame-retardant cotton fabric. Journal of Polymer Engineering, 2022, 42, 744-754.	0.6	1
119	Superhydrophobic self-extinguishing cotton fabrics for electromagnetic interference shielding and human motion detection. Journal of Materials Science and Technology, 2023, 132, 59-68.	5.6	75
120	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.	5.0	15
121	A triazine-based hyperbranched char-forming agent for efficient intumescent flame retardant Poly(lactic acid) composites. Composites Communications, 2022, 33, 101225.	3.3	12
122	Compressible battery foams to prevent cascading thermal runaway in Li-ion pouch batteries. Journal of Power Sources, 2022, 541, 231666.	4.0	13
123	Graphene oxide/polyethyleneimine/hydroxyapatite nanowire composite paper: Unexpected mechanical robustness after fire attacking and fire alarm application. Composites Part A: Applied Science and Manufacturing, 2022, 160, 107061.	3.8	18
124	Eco-friendly and durable flame-retardant coating for cotton fabrics based on dynamic coordination of Ca2+-tannin acid. Progress in Organic Coatings, 2022, 170, 106964.	1.9	9
125	Eco-friendly flame retardant and smoke suppression coating containing boron compounds and phytic acids for nylon/cotton blend fabrics. Industrial Crops and Products, 2022, 186, 115239.	2.5	42
126	Organophosphate esters cause thyroid dysfunction via multiple signaling pathways in zebrafish brain. Environmental Science and Ecotechnology, 2022, 12, 100198.	6.7	14
127	"Sloughing―of metal-organic framework retaining nanodots via step-by-step carving and its flame-retardant effect in epoxy resin. Chemical Engineering Journal, 2022, 448, 137666.	6.6	32
128	Positively Charged Membranes for Dye/Salt Separation Based on a Crossover Combination of Mannich Reaction and Prebiotic Chemistry. SSRN Electronic Journal, 0, , .	0.4	0
129	A novel phosphorus-, nitrogen- and sulfur-containing macromolecule flame retardant for constructing high-performance epoxy resin composites. Chemical Engineering Journal, 2023, 451, 137823.	6.6	55
130	Fire performance of timber: review for use in wildland-urban interfaces. Holzforschung, 2022, 76, 679-698.	0.9	2
131	Identifying optimal dispersant aids for flame retardant additives in tetramethyl cyclobutanediolâ€based	1.3	0

#	Article	IF	CITATIONS
132	Flame Retardant Coatings: Additives, Binders, and Fillers. Polymers, 2022, 14, 2911.	2.0	20
133	Preparation of durable flame retardant nylon-cotton blend fabrics by 3-glycidyloxypropyl trimethoxy silane associated with polyethyleneimine and phytic acid. Cellulose, 2022, 29, 7413-7430.	2.4	5
134	Economical Architected Foamy Aerogel Coating for Energy Conservation and Flame Resistance. , 2022, 4, 1453-1461.		10
135	Recent Advances in Halogen-Free Flame Retardants for Polyolefin Cable Sheath Materials. Polymers, 2022, 14, 2876.	2.0	10
136	Bio-inspired construction of super-hydrophobic, eco-friendly multifunctional and bio-based cotton fabrics via impregnation method. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2022, 651, 129647.	2.3	14
137	Recent developments in phosphorus based flame retardant coatings for textiles: Synthesis, applications and performance. Progress in Organic Coatings, 2022, 171, 107027.	1.9	23
138	Covalent flame-retardant functionalization of wool fabric using ammonium phytate with improved washing durability. Industrial Crops and Products, 2022, 187, 115332.	2.5	7
139	A multifunctional coating towards superhydrophobicity, flame retardancy and antibacterial performances. Chemical Engineering Journal, 2022, 450, 138031.	6.6	10
140	Smart fire alarm systems for rapid early fire warning: Advances and challenges. Chemical Engineering Journal, 2022, 450, 137927.	6.6	34
141	Recent progress on multifunctional electromagnetic interference shielding polymer composites. Journal of Materials Science and Technology, 2023, 134, 106-131.	5.6	82
142	Highâ€Performance Liquid Crystalline Polymer for Intrinsic Fireâ€Resistant and Flexible Triboelectric Nanogenerators. Advanced Materials, 2022, 34, .	11.1	48
143	Barrier Effects of Cellulosic Fibers with Hybrid Coating Based on Zirconium Metal-Organic Framework. Polymers, 2022, 14, 3071.	2.0	4
144	Nanosheet-coated synthetic wood with enhanced flame-retardancy by vacuum-assisted sonocoating technique. Nano Research, 2022, 15, 9440-9446.	5.8	3
145	Grapheneâ€Based Textiles for Thermal Management and Flame Retardancy. Advanced Functional Materials, 2022, 32, .	7.8	13
146	Flame retardation of polyester/cotton blended fabrics via intumescent sol-gel coatings. Polymer Degradation and Stability, 2022, 204, 110115.	2.7	9
147	Positively charged membranes for dye/salt separation based on a crossover combination of Mannich reaction and prebiotic chemistry. Journal of Hazardous Materials, 2022, 440, 129744.	6.5	14
148	In-situ fabrication of a sustainable, synergistic and durable flame-retardant coating for phytic acid modified silk fabric. Journal of the Taiwan Institute of Chemical Engineers, 2022, 139, 104537.	2.7	2
149	Skin-friendly and highly fireproof fabric up to 1142°C weaved by basalt @ polyimide yarns. Composites Part B: Engineering, 2022, 246, 110238.	5.9	10

#	Article	IF	CITATIONS
150	A green and facile strategy to enhance thermal stability and flame retardancy of unidirectional flax fabric based on fully bio-based system. Industrial Crops and Products, 2022, 188, 115610.	2.5	5
151	Flame retardant and anti-dripping surface treatment through a co-deposition of polydopamine/polyphosphonamide for fabric and foam materials. Composites Part B: Engineering, 2022, 247, 110262.	5.9	18
152	Potential energy-assisted coupling of phase change materials with triboelectric nanogenerator enabling a thermally triggered, smart, and self-powered IoT thermal and fire hazard sensor: Design, fabrication, and applications. Nano Energy, 2022, 103, 107790.	8.2	8
153	Mosquito's eyes inspired, hydrophobic and multifunctional coating on flexible polyurethane (PU) foam: highly efficient oil spills remediation and exceptional flame-retardant performance. Materials Today Chemistry, 2022, 26, 101127.	1.7	2
154	Furan-based flame-retardant polymeric materials. , 2022, , 285-298.		0
155	Flame retardants from starch: Phosphorus derivatives of isosorbide. , 2022, , 255-268.		0
156	Perspectives and challenges in using bio-based flame retardants. , 2022, , 451-466.		0
157	Construction of transition metal aromatic-sulfide polyphosphazene heterostructured nanowires for synergistic flame retardancy and smoke suppression. Chemical Engineering Journal, 2023, 452, 139564.	6.6	13
158	Preparation and Thermal Properties of Novel N-arylpiperazine Phosphoramidate Flame-Retardant PS Copolymer. Journal of Inorganic and Organometallic Polymers and Materials, 0, , .	1.9	0
159	Biorenewable Polyelectrolyte Nanocoating for Flame-Retardant Cotton-Based Paper. ACS Omega, 2022, 7, 32599-32603.	1.6	4
160	Bioâ€ $f s$ ourced Intumescent Nanocoating. Advanced Engineering Materials, 2023, 25, .	1.6	7
161	Fabrication of P/N/B-Based Intumescent Flame-Retardant Coating for Polyester/Cotton Blend Fabric. Materials, 2022, 15, 6420.	1.3	5
162	Superior flame retardant and cost-effective aromatic polyoxydiazole fibers enabled by 2,6-Naphthalenedicarboxylic acid. Journal of Polymer Research, 2022, 29, .	1.2	0
163	Synergistic Effect between Piperazine Pyrophosphate and Melamine Polyphosphate in Flame Retardant Coatings for Structural Steel. Polymers, 2022, 14, 3722.	2.0	6
164	Recent Advances on Early-Stage Fire-Warning Systems: Mechanism, Performance, and Perspective. Nano-Micro Letters, 2022, 14, .	14.4	22
165	The Effect of Flame Retardant—Aluminum Trihydroxide on Mixed Mode I/II Fracture Toughness of Epoxy Resin. Polymers, 2022, 14, 4386.	2.0	1
166	Construction of hydrophobic fire retardant coating on cotton fabric using a layer-by-layer spray coating method. International Journal of Biological Macromolecules, 2022, 223, 1653-1666.	3.6	18
167	Versatile Light-Mediated Synthesis of Dry Ion-Conducting Dynamic Bottlebrush Networks with High Elasticity, Interfacial Adhesiveness, and Flame Retardancy. Macromolecules, 2022, 55, 9715-9725.	2.2	10

#	Article	IF	CITATIONS
168	Recent trends of phosphorus-containing flame retardants modified polypropylene composites processing. Heliyon, 2022, 8, e11225.	1.4	12
169	Experimental investigation on thermal management system with flame retardant flexible phase change material for retired battery module. Applied Energy, 2022, 327, 120109.	5.1	15
170	In-situ synthesis and assembly of nanospheres (Py1H2PW, Py2H1PW, and Py3PW) in wood to promote flame retardation. Industrial Crops and Products, 2022, 189, 115875.	2.5	1
171	Multifunctional MXene-coated cotton fabric with enhanced thermopower for smart fire protection. Composites Part A: Applied Science and Manufacturing, 2023, 164, 107305.	3.8	16
172	High-Temperature Fire Resistance and Self-Extinguishing Behavior of Cellular Graphene. ACS Nano, 2022, 16, 19403-19411.	7.3	11
173	Fabrication of an Eco-Friendly Clay-Based Coating for Enhancing Flame Retardant and Mechanical Properties of Cotton Fabrics via LbL Assembly. Polymers, 2022, 14, 4994.	2.0	5
174	Reactive Flame-Retardant Cotton Fabric Coating: Combustion Behavior, Durability, and Enhanced Retardant Mechanism with Ion Transfer. Nanomaterials, 2022, 12, 4048.	1.9	2
175	Nanoarchitectonics of flame retardant leather: Current status and future perspectives. Composites Part A: Applied Science and Manufacturing, 2023, 165, 107327.	3.8	7
176	Flame retardant back-coated PET fabric with DOPO-based environmentally friendly formulations. Progress in Organic Coatings, 2023, 175, 107363.	1.9	3
177	Transparent and flame-retardant hybrid protective coating with high surface hardness, yet foldability. Progress in Organic Coatings, 2023, 175, 107346.	1.9	2
178	Insights into the geographical distribution, bioaccumulation characteristics, and ecological risks of organophosphate esters. Journal of Hazardous Materials, 2023, 445, 130517.	6.5	23
179	High-performance flame-retardant aliphatic polyamide via enhanced chain entanglement. Chemical Engineering Journal, 2023, 455, 140637.	6.6	11
180	Polyelectrolyte Complex with Controllable Viscosity by Doping Cu ²⁺ Protects Nylon–Cotton Fabric against Fire. ACS Applied Materials & Interfaces, 2022, 14, 54225-54232.	4.0	12
181	Applications of hydrogels with fire retardant properties—a review. Journal of Sol-Gel Science and Technology, 0, , .	1.1	2
182	In situ synthesis and self-assembly of acid nanospheres with anti-leach properties for the development of fire-resistant wood. Journal of Industrial and Engineering Chemistry, 2022, , .	2.9	2
183	Graphene-based flame-retardant polyurethane: a critical review. Polymer Bulletin, 2023, 80, 11633-11669.	1.7	4
184	Effects of flame retardants containing <scp>POC</scp> and <scp>PC</scp> structures on the flame retardant properties of epoxy resin. Polymers for Advanced Technologies, 2023, 34, 1046-1058.	1.6	3
185	Bio-inspired dopamine-functionalized silica nanoparticles via self-polymerization to simultaneously enhance thermal stability, fire safety and dynamic mechanical properties of PFRP composites. Journal of Thermal Analysis and Calorimetry, 2023, 148, 1935-1948.	2.0	5

#	Article	IF	CITATIONS
187	Recent advances for flame retardant rubber composites: Mini-review. Advanced Industrial and Engineering Polymer Research, 2023, 6, 156-164.	2.7	5
188	Facile Access to Fabricate Carbon Dots and Perspective of Largeâ€Scale Applications. Small, 2023, 19, .	5.2	21
189	Fabrication of Highly Efficient Flame-Retardant and Fluorine-Free Superhydrophobic Cotton Fabric by Constructing Multielement-Containing POSS@ZIF-67@PDMS Micro–Nano Hierarchical Coatings. ACS Applied Materials & Interfaces, 2022, 14, 56027-56045.	4.0	26
190	Biomimetic, Mechanically Strong Supramolecular Nanosystem Enabling Solvent Resistance, Reliable Fire Protection and Ultralong Fire Warning. ACS Nano, 2022, 16, 20865-20876.	7.3	60
191	N-Containing Hybrid Composites Coatings for Enhanced Fire-Retardant Properties of Cotton Fabric Using One-Pot Sol–Gel Process. Polymers, 2023, 15, 258.	2.0	2
192	Environmental benign foam finishing with a hyperbranched polyphosphonate flame retardant for polyethylene terephthalate fabric. Chemosphere, 2023, 317, 137892.	4.2	4
193	Impact-induced bonding process of copper at low velocity and room temperature. Materials and Design, 2023, 226, 111603.	3.3	1
194	Tung oil-based phosphorus-containing polyol as a flame retardant for bamboo. Construction and Building Materials, 2023, 366, 130240.	3.2	1
195	Pre-treatment of natural bamboo for use as a high-performance bio-composites via acetic acid ball milling technology. Construction and Building Materials, 2023, 367, 130350.	3.2	4
196	Intrinsically Flame Retardant Polyamides: Research progress in the last 15 years. Advanced Industrial and Engineering Polymer Research, 2023, , .	2.7	0
197	Fabrication of eco-friendly flame-retardant and hydrophobic coating for cotton fabric. Cellulose, 2023, 30, 3267-3280.	2.4	10
198	Sustainable Additive Manufacturing of Polyelectrolyte Photopolymer Complexes. Advanced Materials Technologies, 2023, 8, .	3.0	3
199	Fire protective textiles. , 2023, , 203-258.		1
200	Bio-based phytic acid@polyurushiol‑titanium complex coated cotton fabrics with durable flame retardancy for oil-water separation. International Journal of Biological Macromolecules, 2023, 235, 123782.	3.6	17
201	Supper-low-addition flame retardant for the fully bio-based poly(lactic acid) composites. Polymer Degradation and Stability, 2023, 211, 110309.	2.7	9
202	Recyclable inherently flame-retardant thermosets: Chemistry, properties and applications. Composites Part B: Engineering, 2023, 258, 110667.	5.9	17
203	A critical review on sources and environmental behavior of organophosphorus flame retardants in the soil: Current knowledge and future perspectives. Journal of Hazardous Materials, 2023, 452, 131161.	6.5	11
204	Spectroscopic measurement of the two-dimensional flame temperature based on a perovskite single photodetector. Optics Express, 2023, 31, 8098.	1.7	1

#	Article	IF	CITATIONS
205	Rapid Preparation of Flame-Retardant Coatings Using Polyurethane Emulsion Mixed with Inorganic Fillers. Polymers, 2023, 15, 754.	2.0	1
206	Soft Fiber Electronics Based on Semiconducting Polymer. Chemical Reviews, 2023, 123, 4693-4763.	23.0	40
207	A Review of Durable Flame-Retardant Fabrics by Finishing: Fabrication Strategies and Challenges. Advanced Fiber Materials, 2023, 5, 731-763.	7.9	15
208	A crosslinked organic/inorganic functionalized graphene containing hybrid engineering to improve the flame retardancy of epoxy resin. Journal of Polymer Research, 2023, 30, .	1.2	1
209	Antimicrobial and <scp>UV</scp> protective chitosan/lignin multilayer nanocoating with immobilized silver nanoparticles. Journal of Applied Polymer Science, 2023, 140, .	1.3	5
210	Musselâ€Inspired, Underwater Selfâ€Healing Ionoelastomers Based on αâ€Lipoic Acid for Iontronics. Small, 2023, 19, .	5.2	8
212	Flame-Retardant and Self-Healing Waterborne Polyurethane Based on Organic Selenium. ACS Applied Materials & Interfaces, 2023, 15, 16118-16131.	4.0	16
213	Synergistic Fire Resistance of Nanobrick Wall Coated 3D Printed Photopolymer Lattices. ACS Applied Materials & Interfaces, 2023, 15, 16046-16054.	4.0	4
214	Microstructural and thermal investigation of the bioinspired and synthetic fire-retardant materials deposited on cotton using LBL process. Korean Journal of Chemical Engineering, 2023, 40, 943-951.	1.2	1
215	Thermally insulating and fireâ€retardant bioâ€mimic structural composites with a negative Poisson's ratio for battery protection. , 2023, 5, .		4
216	Heat-Shielding Nanobrick Wall for Carbon Fiber-Reinforced Polymer Composites. ACS Applied Polymer Materials, 2023, 5, 3270-3277.	2.0	1
217	Recyclable flame retardant phosphonated epoxy based thermosets enabled via a reactive approach. Chemical Engineering Journal, 2023, 466, 143051.	6.6	7
222	Thermal Stability of Cellulose Nanomaterials. Chemical Reviews, 2023, 123, 7295-7325.	23.0	10
271	Flame Retardancy of Textiles—New Strategies and Mechanisms. Advanced Structured Materials, 2023, , 279-317.	0.3	0
282	Green Synthesis of Organic–Inorganic Hybrid Fire Retardants. , 2023, , 295-355.		0
306	Flame retardant properties of biocomposites for aircraft applications. , 2024, , 255-273.		0