

# Bioinspired, Highly Adhesive, Nanostructured Polymer Fire-Extinguishing Thermal Insulation Foam

ACS Nano

15, 11667-11680

DOI: [10.1021/acsnano.1c02254](https://doi.org/10.1021/acsnano.1c02254)

Citation Report

#	ARTICLE	IF	CITATIONS
1	Green fabrication of flame retardant and superhydrophobic materials with application in oil-water separation. <i>Polymers for Advanced Technologies</i> , 2021, 32, 4926-4939.	1.6	2
2	Preparation and properties of aniline chain-extended thermoplastic epoxy resin using triphenylphosphine as catalyst. <i>Polymers for Advanced Technologies</i> , 0, , .	1.6	3
3	A reactive copper-organophosphate-MXene heterostructure enabled antibacterial, self-extinguishing and mechanically robust polymer nanocomposites. <i>Chemical Engineering Journal</i> , 2022, 430, 132712.	6.6	64
4	Fully Biobased Surface-Functionalized Microcrystalline Cellulose via Green Self-Assembly toward Fire-Retardant, Strong, and Tough Epoxy Biocomposites. <i>ACS Sustainable Chemistry and Engineering</i> , 2021, 9, 13595-13605.	3.2	72
5	Synthesis of a bio-based flame retardant via a facile strategy and its synergistic effect with ammonium polyphosphate on the flame retardancy of polylactic acid. <i>Polymer Degradation and Stability</i> , 2021, 191, 109684.	2.7	52
6	Intumescent polybutylene succinate: Ethylenediamine phosphate and synergists. <i>Polymer Degradation and Stability</i> , 2021, 192, 109707.	2.7	15
7	Efficient flame-retardant hybrid coatings on wood plastic composites by layer-by-layer assembly. <i>Journal of Cleaner Production</i> , 2021, 321, 128949.	4.6	14
8	Simultaneous exfoliation and functionalization of MoS <sub>2</sub> nanosheets by molecular-designed poly(ionic) of polyacrylonitrile composite fiber. <i>Composites Communications</i> , 2021, 27, 100902.	3.3	14
9	Integrated hierarchical macrostructures of flexible basalt fiber composites with tunable electromagnetic interference (EMI) shielding and rapid electrothermal response. <i>Composites Part B: Engineering</i> , 2021, 224, 109193.	5.9	46
10	MXene based core-shell flame retardant towards reducing fire hazards of thermoplastic polyurethane. <i>Composites Part B: Engineering</i> , 2021, 226, 109363.	5.9	86
11	Functionalizing Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> for enhancing fire resistance and reducing toxic gases of flexible polyurethane foam composites with reinforced mechanical properties. <i>Journal of Colloid and Interface Science</i> , 2022, 607, 1300-1312.	5.0	97
12	In Situ Assembly of DNA/Graphene Oxide Nanoplates to Reduce the Fire Threat of Flexible Foams. <i>Advanced Materials Interfaces</i> , 2021, 8, 2101083.	1.9	14
13	B-N-P-linked covalent organic frameworks for efficient flame retarding and toxic smoke suppression of polyacrylonitrile composite fiber. <i>Chemical Engineering Journal</i> , 2022, 430, 133120.	6.6	24
14	Properties of flame-retardant cotton fabrics: Combustion behavior, thermal stability and mechanism of Si/P/N synergistic effect. <i>Industrial Crops and Products</i> , 2021, 173, 114157.	2.5	29
15	High performance epoxy resin composites modified with multifunctional thiophene/phosphaphenanthrene-based flame retardant: Excellent flame retardance, strong mechanical property and high transparency. <i>Composites Part B: Engineering</i> , 2021, 227, 109392.	5.9	91
16	Synthesis and application of poly (cyclotriphosphazene-resveratrol) microspheres for enhancing flame retardancy of poly (ethylene terephthalate). <i>Polymers for Advanced Technologies</i> , 2022, 33, 658-671.	1.6	8
17	Leaf vein-inspired engineering of MXene@SrSn(OH) <sub>6</sub> nanorods towards super-tough elastomer nanocomposites with outstanding fire safety. <i>Composites Part B: Engineering</i> , 2022, 228, 109425.	5.9	33
18	Fire-retardant unsaturated polyester thermosets: The state-of-the-art, challenges and opportunities. <i>Chemical Engineering Journal</i> , 2022, 430, 132785.	6.6	69

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19	Sulfonated Block Ionomers Enable Transparent, Fire-Resistant, Tough yet Strong Polycarbonate. <i>Chemical Engineering Journal</i> , 2022, 433, 133264.	6.6	31
20	Advances and challenges in eco-benign fire-retardant polylactide. <i>Materials Today Physics</i> , 2021, 21, 100568.	2.9	23
21	Facile fabrication of single-component flame-retardant epoxy resin with rapid curing capacity and satisfied thermal resistance. <i>Reactive and Functional Polymers</i> , 2022, 170, 105103.	2.0	21
22	Flexible, mechanically robust and self-extinguishing MXene/wood composite for efficient electromagnetic interference shielding. <i>Composites Part B: Engineering</i> , 2022, 229, 109460.	5.9	59
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24	Bioinspired three-dimensional and multiple adsorption effects toward high lubricity of solvent-free graphene-based nanofluid. <i>Carbon</i> , 2022, 188, 166-176.	5.4	21
25	Inspired by placoid scale to fabricate MXene derivative biomimetic structure on the improvement of interfacial compatibility, mechanical property, and fire safety of epoxy nanocomposites. <i>Chemical Engineering Journal</i> , 2022, 431, 133489.	6.6	53
26	Graphene oxide/chitosan nano-coating with ultrafast fire-alarm response and flame-retardant property. <i>Polymers for Advanced Technologies</i> , 2022, 33, 795-806.	1.6	18
27	Advanced Flame-Retardant Methods for Polymeric Materials. <i>Advanced Materials</i> , 2022, 34, e2107905.	11.1	209
28	Flexible and flame-retarding phosphorylated MXene/polypropylene composites for efficient electromagnetic interference shielding. <i>Journal of Materials Science and Technology</i> , 2022, 111, 66-75.	5.6	68
29	Femtosecond Laser Precision Engineering: From Micron, Submicron, to Nanoscale. <i>Ultrafast Science</i> , 2021, 2021, .	5.8	90
30	A highly fire-retardant rigid polyurethane foam capable of fire-warning. <i>Composites Communications</i> , 2022, 29, 101046.	3.3	54
31	Recent advances in fire-retardant rigid polyurethane foam. <i>Journal of Materials Science and Technology</i> , 2022, 112, 315-328.	5.6	67
32	High-Performance TPE-S Modified by a Flame-Retardant System Based on Black Phosphorus Nanosheets. <i>ACS Omega</i> , 2022, 7, 4224-4233.	1.6	7
33	Synthesis of sugar gourd-like metal organic framework-derived hollow nanocages nickel molybdate@cobalt-nickel layered double hydroxide for flame retardant polyurea. <i>Journal of Colloid and Interface Science</i> , 2022, 616, 234-245.	5.0	19
34	Synergistic effect of green phosphorus-containing bio-based material and two-dimensional layered material composite on flame-retardant property of polyvinyl alcohol. <i>Thermochimica Acta</i> , 2022, 707, 179118.	1.2	14
35	Flame Retardancy, Thermal and Mechanical Properties of Novel Intumescent Flame Retardant/MXene/Poly(Vinyl Alcohol) Nanocomposites. <i>Nanomaterials</i> , 2022, 12, 477.	1.9	14
36	A lava-inspired micro/nano-structured ceramifiable organic-inorganic hybrid fire-extinguishing coating. <i>Matter</i> , 2022, 5, 911-932.	5.0	96

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37	Graphite-like Carbon Nitride/Polyphosphoramidate Nanohybrids for Enhancement on Thermal Stability and Flame Retardancy of Thermoplastic Polyurethane Elastomers. <i>ACS Applied Polymer Materials</i> , 2022, 4, 121-128.	2.0	14
38	Fire-safe, mechanically strong and tough thermoplastic Polyurethane/MXene nanocomposites with exceptional smoke suppression. <i>Materials Today Physics</i> , 2022, 22, 100607.	2.9	52
39	Bio-inspired, sustainable and mechanically robust graphene oxide-based hybrid networks for efficient fire protection and warning. <i>Chemical Engineering Journal</i> , 2022, 439, 134516.	6.6	81
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41	Scalable and Heavy Foam Functionalization by Electrodeposited Inspired Sticky Jammed Fluids for Efficient Indoor Air Quality Management. <i>Energy and Environmental Materials</i> , 0, .	7.3	1
42	Flame-retardant effect of hyperbranched phosphazene-based microspheres in poly(L-lactic acid). <i>Journal of Materials Science</i> , 2022, 57, 1516-1535.	1.7	12
43	The synergistic effect between bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate and polysiloxane on the photo-aging resistance and flame retardancy of polypropylene. <i>Composites Part B: Engineering</i> , 2022, 234, 109666.	5.9	23
44	Superinsulating BNNS/PVA Composite Aerogels with High Solar Reflectance for Energy-Efficient Buildings. <i>Nano-Micro Letters</i> , 2022, 14, 54.	14.4	36
45	Synergistic flame retardant weft-knitted alginate/viscose fabrics with MXene coating for multifunctional wearable heaters. <i>Composites Part B: Engineering</i> , 2022, 232, 109618.	5.9	50
46	Novel glycerol-based polymerized flame retardants with combined phosphorus structures for preparation of high performance unsaturated polyester resin composites. <i>Composites Part B: Engineering</i> , 2022, 233, 109647.	5.9	62
47	Construction of a novel B/N/Si synergistic flame retardant system and its application on cotton fabric. <i>Industrial Crops and Products</i> , 2022, 178, 114574.	2.5	40
48	Reinforcing urea-formaldehyde based composite foam by formation of tailored chemical/mechanical interlocking structure. <i>Polymer Composites</i> , 2022, 43, 2208-2221.	2.3	5
49	One-Step Bottom-Up Growth of Highly Liquid Repellent Worm-Like Surfaces on Planar Substrates. <i>Advanced Materials Interfaces</i> , 2022, 9, .	1.9	6
50	Tough, Instant, and Repeatable Adhesion of Self-Healable Elastomers to Diverse Soft and Hard Surfaces. <i>Advanced Science</i> , 2022, 9, e2105742.	5.6	24
51	Metal-organic Framework ZIF-67 Functionalized MXene for Enhancing the Fire Safety of Thermoplastic Polyurethanes. <i>Nanomaterials</i> , 2022, 12, 1142.	1.9	19
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53	Biobased Reversible Cross-Linking Enables Self-Healing and Reprocessing of Epoxy Resins. <i>ACS Sustainable Chemistry and Engineering</i> , 2022, 10, 3604-3613.	3.2	23
54	Fire Intumescent, High-Temperature Resistant, Mechanically Flexible Graphene Oxide Network for Exceptional Fire Shielding and Ultra-Fast Fire Warning. <i>Nano-Micro Letters</i> , 2022, 14, 92.	14.4	79

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55	Strong and Flame-Resistant Thermoplastic Polymer Adhesives Based on Multiple Hydrogen Bonding Interactions. <i>ACS Applied Polymer Materials</i> , 2022, 4, 3520-3531.	2.0	7
56	Loose porous Cr <sub>2</sub> O <sub>3</sub> ~Al <sub>2</sub> O <sub>3</sub> aerogels with lightweight, flame retardancy, and rapid cooling properties: Fabrication and mechanism analysis. <i>Journal of the Taiwan Institute of Chemical Engineers</i> , 2022, 134, 104300.	2.7	2
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58	Engineering titanium carbide ultra-thin nanosheets for enhanced fire safety of intumescent flame retardant polylactic acid. <i>Composites Part B: Engineering</i> , 2022, 236, 109792.	5.9	37
59	Covalent organic framework with Cu-containing compounds for enhancing flame retardancy and smoke suppression effects on epoxy resin. <i>Composites Part A: Applied Science and Manufacturing</i> , 2022, 156, 106900.	3.8	8
60	Cost-effective graphite felt and phosphorous flame retardant with extremely high electromagnetic shielding. <i>Composites Part B: Engineering</i> , 2022, 236, 109819.	5.9	34
61	Adhesion advances: from nanomaterials to biomimetic adhesion and applications. <i>Soft Matter</i> , 2022, 18, 3447-3464.	1.2	23
62	High-performance flame-retardant polycarbonate composites: Mechanisms investigation and fire-safety evaluation systems establishment. <i>Composites Part B: Engineering</i> , 2022, 238, 109873.	5.9	58
63	A novel highly efficient intumescent flame-retardant polypropylene: Thermal degradation, flame retardance and mechanism. <i>Journal of Polymer Research</i> , 2022, 29, .	1.2	12
64	Evaluation on Thermal Protection Performance of TiO <sub>2</sub> @ATO Coated Aramid Nonwoven. <i>Coatings</i> , 2022, 12, 657.	1.2	1
65	Green flame-retardant flexible polyurethane foam based on polyphenol-iron-phytic acid network to improve the fire safety. <i>Composites Part B: Engineering</i> , 2022, 239, 109958.	5.9	55
66	Hybrid Nanoscale Vesicles of Polyhedral Oligomeric Silsesquioxane-Based Star Block Copolymers for Thermal Insulation Applications. <i>ACS Applied Nano Materials</i> , 2022, 5, 7042-7050.	2.4	9
67	Fabrication of superhydrophobic and flame-retardant polyethylene terephthalate fabric through a fluorine-free layer-by-layer technique. <i>International Journal of Chemical Reactor Engineering</i> , 2022, 20, 1283-1295.	0.6	4
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69	Broadband absorption of macro pyramid structure based flame retardant absorbers. <i>Journal of Materials Science and Technology</i> , 2022, 128, 228-238.	5.6	28
70	Elastic polybenzimidazole nanofiber aerogel for thermal insulation and high-temperature oil adsorption. <i>Journal of Materials Science</i> , 2022, 57, 12125-12137.	1.7	3
71	Recent advances in chemical durability and mechanical stability of superhydrophobic materials: Multi-strategy design and strengthening. <i>Journal of Materials Science and Technology</i> , 2022, 129, 40-69.	5.6	55
72	Solvent-free and electron transfer-induced phosphorus and nitrogen-containing heterostructures for multifunctional epoxy resin. <i>Composites Part B: Engineering</i> , 2022, 240, 109999.	5.9	21

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74	Fabrication of a highly-efficient phosphorus-silicon-containing transparent coating to improve fire safety of poly(methyl methacrylate). <i>Composites Part A: Applied Science and Manufacturing</i> , 2022, 159, 107004.	3.8	8
75	Recent advances in fire-retardant carbon-based polymeric nanocomposites through fighting free radicals. <i>SusMat</i> , 2022, 2, 411-434.	7.8	37
76	A Skin-Inspired Design Integrating Mechano-Chemical-Thermal Robustness into Superhydrophobic Coatings. <i>Advanced Materials</i> , 2022, 34, .	11.1	40
77	Magnolol-derived thiol-ene photo-polymerized membranes with intrinsic anti-flammability and high transparency. <i>Composites Part B: Engineering</i> , 2022, 242, 110074.	5.9	12
78	Superhydrophobic self-extinguishing cotton fabrics for electromagnetic interference shielding and human motion detection. <i>Journal of Materials Science and Technology</i> , 2023, 132, 59-68.	5.6	75
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80	A triazine-based hyperbranched char-forming agent for efficient intumescent flame retardant Poly(lactic acid) composites. <i>Composites Communications</i> , 2022, 33, 101225.	3.3	12
81	A polyphosphoramidate-grafted lignin enabled thermostable and fire-retardant polylactide with preserved mechanical properties. <i>Composites Part A: Applied Science and Manufacturing</i> , 2022, 160, 107028.	3.8	28
82	Nickel-based metal-organic framework-derived whisker-shaped nickel phyllosilicate toward efficiently enhanced mechanical, flammable and tribological properties of epoxy nanocomposites. <i>Frontiers of Chemical Science and Engineering</i> , 2022, 16, 1493-1504.	2.3	6
83	Exploring the effects of cardanol-based co-curing agents with different phosphorus structures on the mechanical and flame-retardant properties of bismaleimide resin. <i>Composites Part B: Engineering</i> , 2022, 241, 110047.	5.9	15
84	Facile manufacturing process of durable superamphiphobic and flame-retardant coatings based on layer-by-layer assembly. <i>Surfaces and Interfaces</i> , 2022, 31, 102109.	1.5	2
85	Oyster-inspired organic-inorganic hybrid system to improve cold-pressing adhesion, flame retardancy, and mildew resistance of soybean meal adhesive. <i>Composites Part B: Engineering</i> , 2022, 242, 110049.	5.9	22
86	Smart fire-warning materials and sensors: Design principle, performances, and applications. <i>Materials Science and Engineering Reports</i> , 2022, 150, 100690.	14.8	91
87	A new strategy to obtain thin ZrO <sub>2</sub> -Al <sub>2</sub> O <sub>3</sub> composite aerogel coating with prominent high-temperature resistance and rapid heat dissipation. <i>Journal of Solid State Chemistry</i> , 2022, 314, 123384.	1.4	7
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90	Facile fabrication of self-roughened surfaces for superhydrophobic coatings via polarity-induced phase separation strategy. <i>Journal of Colloid and Interface Science</i> , 2022, 628, 777-787.	5.0	3

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91	Fabrication of Graphene-Modified Styrene- <i>Acrylic Emulsion</i> by In Situ Aqueous Polymerization. <i>Polymers</i> , 2022, 14, 3763.	2.0	4
92	A phosphaphenanthrene-benzimidazole derivative for enhancing fire safety of epoxy resins. <i>Reactive and Functional Polymers</i> , 2022, 180, 105390.	2.0	8
93	Superhydrophobic and flame retardant polydimethylsiloxane coatings with layered double hydroxide and ammonium polyphosphate. <i>Progress in Organic Coatings</i> , 2022, 172, 107117.	1.9	6
94	Flame retardant and anti-dripping surface treatment through a co-deposition of polydopamine/polyphosphonamide for fabric and foam materials. <i>Composites Part B: Engineering</i> , 2022, 247, 110262.	5.9	18
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96	One-Step Spraying Fabrication of Superomniphobic Coatings with Anti-Flame, Anti-Corrosive, and Mechanochemically Durable Ability. <i>Advanced Materials Interfaces</i> , 0, , 2201321.	1.9	1
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98	Multifunctional Biomimetic Microstructured Surfaces for Healthcare Applications. <i>Advanced Materials Interfaces</i> , 2022, 9, .	1.9	12
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100	Enhanced flame retardancy of rigid polyurethane foam via iron tailings and expandable graphite. <i>Journal of Materials Science</i> , 2022, 57, 18853-18873.	1.7	4
101	Regulable Polyelectrolyte-Surfactant Complex for Antibacterial Biomedical Catheter Coating via a Readily Scalable Route. <i>Advanced Healthcare Materials</i> , 2023, 12, .	3.9	7
102	Multifunctional Epoxy-Based Electronic Packaging Material MDCF@LDH/EP for Electromagnetic Wave Absorption, Thermal Management, and Flame Retardancy. <i>Small</i> , 2022, 18, .	5.2	24
103	Surface Modification, Topographic Design and Applications of Superhydrophobic Systems. <i>Chemistry - A European Journal</i> , 2022, 28, .	1.7	4
104	Multifunctional Lightweight Guanidine Phosphate/Poly(Vinyl Alcohol) Melamine-Based Hybrid Foam for Superior Thermal Insulation and Flame Retardancy. <i>ACS Applied Polymer Materials</i> , 2022, 4, 8098-8108.	2.0	0
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107	Corrosion resistance self-healing coating with bioinspired interfacial structure. <i>Progress in Organic Coatings</i> , 2023, 174, 107303.	1.9	1
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110	Chitosan foam reinforced by SiC whisker for building insulation with high mechanical strength and vapor permeability. <i>Science China Technological Sciences</i> , 0, , .	2.0	1
111	Molecular design of reactive flame retardant for preparing biobased flame retardant polyamide 56. <i>Polymer Degradation and Stability</i> , 2023, 207, 110212.	2.7	8
112	Inspired with fish scale to manufacture biomimetic MXene derivative for the reinforcement on tribological and mechanical properties of PPS fabric/phenolic composites. <i>Tribology International</i> , 2023, 179, 108136.	3.0	3
113	Investigation of the Flame Retardant Properties of High-Strength Microcellular Flame Retardant/Polyurethane Composite Elastomers. <i>Polymers</i> , 2022, 14, 5055.	2.0	1
114	Machine learning-guided design of organic phosphorus-containing flame retardants to improve the limiting oxygen index of epoxy resins. <i>Chemical Engineering Journal</i> , 2023, 455, 140547.	6.6	17
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116	Reactive flame-retardants prepared by transesterification between erythritol and dimethyl methyl phosphonate for rigid polyurethane foams. <i>Polymer Degradation and Stability</i> , 2023, 208, 110238.	2.7	4
117	Bioinspired Materials: From Distinct Dimensional Architecture to Thermal Regulation Properties. <i>Journal of Bionic Engineering</i> , 2023, 20, 873-899.	2.7	8
118	Fire retardant polyethylene terephthalate containing 4,4- $\text{C}_6\text{F}_4$ -(hexafluoroisopropylidene)diphenol-substituted cyclotriphosphazene microspheres. <i>High Performance Polymers</i> , 0, , 095400832211458.	0.8	0
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121	Thermally insulating composite aerogel with both active absorption and passive insulation functions based on azobenzene-modified chitosan/oligomeric $\beta$ -cyclodextrin. <i>Chemical Engineering Journal</i> , 2023, 457, 141202.	6.6	4
122	Stretchable, Ultratough, and Intrinsically Self-Extinguishing Elastomers with Desirable Recyclability. <i>Advanced Science</i> , 2023, 10, .	5.6	30
123	Multifunctional Flame-Retardant, Thermal Insulation, and Antimicrobial Wood-Based Composites. <i>Biomacromolecules</i> , 2023, 24, 957-966.	2.6	15
124	Unprecedented Nonflammable Organic Adhesives Leading to Fireproof Wood Products. <i>ACS Applied Materials &amp; Interfaces</i> , 2023, 15, 8609-8616.	4.0	7
125	Facile Synthesis of Hollow Glass Microsphere Filled PDMS Foam Composites with Exceptional Lightweight, Mechanical Flexibility, and Thermal Insulating Property. <i>Molecules</i> , 2023, 28, 2614.	1.7	4
126	Effect of CNT content and size on the high-temperature particle-erosion resistance of ablative materials for thermal protection systems. <i>Composites Science and Technology</i> , 2023, 235, 109969.	3.8	4



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128	The effect of MgAl-LDH/APP distribution control in the closed-cell structure of SBR/EVA foam on flame retardance and mechanical properties. <i>Polymer Degradation and Stability</i> , 2023, 212, 110354.	2.7	2
129	Ultra-thin flame retardant polymer nanocomposite coating based on synergistic effect of graphene and glass sheets. <i>Materials Research Bulletin</i> , 2023, 164, 112247.	2.7	1
130	Flame retardancy and anti-impact performance of polyurea composite coating reinforced by modified ammonium polyphosphate and two-dimensional nano-fillers. <i>Progress in Organic Coatings</i> , 2023, 180, 107554.	1.9	6
131	A wearable self-powered fire warning e-textile enabled by aramid nanofibers/MXene/silver nanowires aerogel fiber for fire protection used in firefighting clothing. <i>Chemical Engineering Journal</i> , 2023, 460, 141661.	6.6	56
132	Rabbit-hair-like SiO <sub>2</sub> /PI composite nanofibers with super durability for thermal insulation. <i>Composites Part B: Engineering</i> , 2023, 254, 110542.	5.9	7
133	Multi-functional flame retardant coatings comprising chitosan/ gelatin and sodium phytate for rigid polyurethane foams. <i>Journal of Cleaner Production</i> , 2023, 394, 136371.	4.6	11
134	Biomimetic Liquid Metal-Elastomer Composites with Adjustable Thermal Conductivity for Heat Control. <i>Molecules</i> , 2023, 28, 1688.	1.7	1
135	Thermal insulation, flame retardancy, smoke suppression, and reinforcement of rigid polyurethane foam enabled by incorporating a P/Cu-hybrid silica aerogel. <i>Chemical Engineering Journal</i> , 2023, 461, 142061.	6.6	28
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