Bihe Yuan

List of Publications by Year
in descending order

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104 papers	6,477 citations	61984 43 h-index	66911 78 g-index
104 all docs	104 docs citations	104 times ranked	4635 citing authors

#	Article	IF	Citations
1	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
2	Preparation of graphene by pressurized oxidation and multiplex reduction and its polymer nanocomposites by masterbatch-based melt blending. Journal of Materials Chemistry, 2012, 22, 6088.	6.7	366
3	Preparation of functionalized graphene oxide/polypropylene nanocomposite with significantly improved thermal stability and studies on the crystallization behavior and mechanical properties. Chemical Engineering Journal, 2014, 237, 411-420.	12.7	341
4	In Situ Polymerization of Graphene, Graphite Oxide, and Functionalized Graphite Oxide into Epoxy Resin and Comparison Study of On-the-Flame Behavior. Industrial & Engineering Chemistry Research, 2011, 50, 7772-7783.	3.7	290
5	Dual modification of graphene by polymeric flame retardant and Ni(OH) 2 nanosheets for improving flame retardancy of polypropylene. Composites Part A: Applied Science and Manufacturing, 2017, 100, 106-117.	7.6	283
6	The effects of graphene on the flammability and fire behavior of intumescent flame retardant polypropylene composites at different flame scenarios. Polymer Degradation and Stability, 2017, 143, 42-56.	5.8	202
7	Facile preparation of N-doped activated carbon produced from rice husk for CO2 capture. Journal of Colloid and Interface Science, 2021, 582, 90-101.	9.4	183
8	Poorly-/well-dispersed graphene: Abnormal influence on flammability and fire behavior of intumescent flame retardant. Composites Part A: Applied Science and Manufacturing, 2018, 109, 345-354.	7.6	172
9	A novel strategy to simultaneously electrochemically prepare and functionalize graphene with a multifunctional flame retardant. Chemical Engineering Journal, 2017, 316, 514-524.	12.7	165
10	Novel organicâ€“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
11	Effect of heat treatment on hydrophobic silica aerogel. Journal of Hazardous Materials, 2019, 362, 294-302.	12.4	157
12	Functionalized graphene oxide for fire safety applications of polymers: a combination of condensed phase flame retardant strategies. Journal of Materials Chemistry, 2012, 22, 23057.	6.7	154
13	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.	12.4	142
14	Graphite oxide, graphene, and metal-loaded graphene for fire safety applications of polystyrene. Journal of Materials Chemistry, 2012, 22, 16399.	6.7	126
15	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
16	Suppression of wood dust explosion by ultrafine magnesium hydroxide. Journal of Hazardous Materials, 2019, 378, 120723.	12.4	109
17	Polydopamine-bridged synthesis of ternary h-BN@PDA@SnO2 as nanoenhancers for flame retardant and smoke suppression of epoxy composites. Composites Part A: Applied Science and Manufacturing, 2018, 111, 94-105.	7.6	106
18	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

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19	Design of artificial nacre-like hybrid films as shielding to mitigate electromagnetic pollution. Carbon, 2014, 75, 178-189.	10.3	103
20	Novel Melamine/o-Phthalaldehyde Covalent Organic Frameworks Nanosheets: Enhancement Flame Retardant and Mechanical Performances of Thermoplastic Polyurethanes. ACS Applied Materials & Interfaces, 2017, 9, 23017-23026.	8.0	98
21	Nacre-like graphene oxide paper bonded with boric acid for fire early-warning sensor. Journal of Hazardous Materials, 2021, 403, 123645.	12.4	86
22	Boron/phosphorus doping for retarding the oxidation of reduced graphene oxide. Carbon, 2016, 101, 152-158.	10.3	83
23	The effect of doped heteroatoms (nitrogen, boron, phosphorus) on inhibition thermal oxidation of reduced graphene oxide. RSC Advances, 2016, 6, 105021-105029.	3.6	81
24	Flame-retardant polyvinyl alcohol/cellulose nanofibers hybrid carbon aerogel by freeze drying with ultra-low phosphorus. Applied Surface Science, 2019, 497, 143775.	6.1	73
25	Effect of dust explosion suppression by sodium bicarbonate with different granulometric distribution. Journal of Loss Prevention in the Process Industries, 2017, 49, 905-911.	3.3	71
26	Modification of halloysite nanotubes with supramolecular self-assembly aggregates for reducing smoke release and fire hazard of polypropylene. Composites Part B: Engineering, 2019, 177, 107371.	12.0	71
27	One-pot synthesis of a novel s-triazine-based hyperbranched charring foaming agent and its enhancement on flame retardancy and water resistance of polypropylene. Polymer Degradation and Stability, 2014, 110, 165-174.	5.8	67
28	Suppression of methane/air explosion by kaolinite-based multi-component inhibitor. Powder Technology, 2019, 343, 279-286.	4.2	62
29	Facile Construction of Flame-Retardant-Wrapped Molybdenum Disulfide Nanosheets for Properties Enhancement of Thermoplastic Polyurethane. Industrial & Engineering Chemistry Research, 2017, 56, 7229-7238.	3.7	61
30	Enhanced flame retardancy of polypropylene by melamine-modified graphene oxide. Journal of Materials Science, 2015, 50, 5389-5401.	3.7	60
31	Preparation of Large-Size Reduced Graphene Oxide-Wrapped Ammonium Polyphosphate and Its Enhancement of the Mechanical and Flame Retardant Properties of Thermoplastic Polyurethane. Industrial & Engineering Chemistry Research, 2017, 56, 7468-7477.	3.7	59
32	High-Performance Poly(ethylene oxide)/Molybdenum Disulfide Nanocomposite Films: Reinforcement of Properties Based on the Gradient Interface Effect. ACS Applied Materials & Interfaces, 2015, 7, 13164-13173.	8.0	58
33	Nacre-biomimetic graphene oxide paper intercalated by phytic acid and its ultrafast fire-alarm application. Journal of Colloid and Interface Science, 2020, 578, 412-421.	9.4	53
34	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. Polymer Degradation and Stability, 2021, 191, 109684.	5.8	52
35	Comparative evaluation of thermal decomposition behavior and thermal stability of powdered ammonium nitrate under different atmosphere conditions. Journal of Hazardous Materials, 2017, 337, 10-19.	12.4	51
36	Inhibition of diammonium phosphate on the wheat dust explosion. Powder Technology, 2020, 367, 751-761.	4.2	51

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37	The influence of opening shape of obstacles on explosion characteristics of premixed methane-air with concentration gradients. Chemical Engineering Research and Design, 2021, 150, 305-313.	5.6	51
38	Preparation and Characterization of Flame-Retardant Aluminum Hypophosphite/Poly(Vinyl Alcohol) Composite. Industrial & Engineering Chemistry Research, 2012, 51, 14065-14075.	3.7	50
39	Electrical conductive and graphitizable polymer nanofibers grafted on graphene nanosheets: Improving electrical conductivity and flame retardancy of polypropylene. Composites Part A: Applied Science and Manufacturing, 2016, 84, 76-86.	7.6	49
40	Effects of particle size on flame structures through corn starch dust explosions. Journal of Loss Prevention in the Process Industries, 2017, 50, 7-14.	3.3	49
41	Inhibited combustion of graphene paper by in situ phosphorus doping and its application for fire early-warning sensor. Sensors and Actuators A: Physical, 2020, 312, 112111.	4.1	47
42	Flame retardant and anti-dripping properties of polylactic acid/poly(bis(phenoxy)phosphazene)/expandable graphite composite and its flame retardant mechanism. RSC Advances, 2015, 5, 76068-76078.	3.6	46
43	Facile fabrication of organically modified boron nitride nanosheets and its effect on the thermal stability, flame retardant, and mechanical properties of thermoplastic polyurethane. Polymers for Advanced Technologies, 2018, 29, 2545-2552.	3.2	45
44	Synergetic Dispersion Effect of Graphene Nanohybrid on the Thermal Stability and Mechanical Properties of Ethylene Vinyl Acetate Copolymer Nanocomposite. Industrial & Engineering Chemistry Research, 2014, 53, 1143-1149.	3.7	44
45	Self S-doping activated carbon derived from lignin-based pitch for removal of gaseous benzene. Chemical Engineering Journal, 2021, 410, 128286.	12.7	44
46	Renewable biomass gel reinforced core-shell dry water material as novel fire extinguishing agent. Journal of Loss Prevention in the Process Industries, 2019, 59, 14-22.	3.3	43
47	Athertonâ€“Todd reaction assisted synthesis of functionalized multicomponent MoSe2/CNTs nanoarchitecture towards the fire safety enhancement of polymer. Composites Part A: Applied Science and Manufacturing, 2018, 112, 271-282.	7.6	42
48	Investigation on thermokinetic suppression of ammonium polyphosphate on sucrose dust deflagration: Based on flame propagation, thermal decomposition and residue analysis. Journal of Hazardous Materials, 2021, 403, 123653.	12.4	42
49	A single Î±-cobalt hydroxide/sodium alginate bilayer layer-by-layer assembly for conferring flame retardancy to flexible polyurethane foams. Materials Chemistry and Physics, 2017, 191, 52-61.	4.0	41
50	Solid acid-reduced graphene oxide nanohybrid for enhancing thermal stability, mechanical property and flame retardancy of polypropylene. RSC Advances, 2015, 5, 41307-41316.	3.6	40
51	Inspiration from a thermosensitive biomass gel: A novel method to improving the stability of core-shell â€œdry waterâ€•fire extinguishing agent. Powder Technology, 2019, 356, 383-390.	4.2	39
52	Construction of organicâ€“inorganic hybrid nano-coatings containing Î±-zirconium phosphate with high efficiency for reducing fire hazards of flexible polyurethane foam. Materials Chemistry and Physics, 2015, 163, 107-115.	4.0	38
53	Insight into suppression performance and mechanisms of ultrafine powders on wood dust deflagration under equivalent concentration. Journal of Hazardous Materials, 2020, 394, 122584.	12.4	35
54	Flameâ€•retardant cellulose nanofiber aerogel modified with graphene oxide and sodium montmorillonite and its fireâ€•alarm application. Polymers for Advanced Technologies, 2021, 32, 1877-1887.	3.2	35

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55	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
56	A facile approach to prepare graphene via solvothermal reduction of graphite oxide. Materials Research Bulletin, 2014, 55, 48-52.	5.2	33
57	A novel and efficient strategy to exfoliation of covalent organic frameworks and a significant advantage of covalent organic frameworks nanosheets as polymer nano-enhancer: High interface compatibility. Journal of Colloid and Interface Science, 2019, 539, 609-618.	9.4	33
58	Enhanced mechanical properties, water stability and repeatable shape recovery behavior of Ca2+ crosslinking graphene oxide-based nacre-mimicking hybrid film. Materials and Design, 2017, 115, 46-51.	7.0	32
59	MoO3-ZrO2 solid acid for enhancement in the efficiency of intumescent flame retardant. Powder Technology, 2019, 344, 581-589.	4.2	32
60	Fabrication and Properties of Biobased Layer-by-Layer Coated Ramie Fabric-Reinforced Unsaturated Polyester Resin Composites. Industrial & Engineering Chemistry Research, 2017, 56, 4758-4767.	3.7	31
61	Thermally induced fire early warning aerogel with efficient thermal isolation and flameâ€retardant properties. Polymers for Advanced Technologies, 2021, 32, 2159-2168.	3.2	31
62	Fast preparation of glass fiber/silica aerogel blanket in ethanol & water solvent system. Journal of Non-Crystalline Solids, 2019, 505, 286-291.	3.1	30
63	Suppression characteristics of double-layer wire mesh on wheat dust flame. Powder Technology, 2020, 360, 231-240.	4.2	30
64	Two-Dimensional Metal Phenylphosphonates as Novel Flame Retardants for Polystyrene. Industrial & Engineering Chemistry Research, 2017, 56, 7192-7206.	3.7	29
65	Inhibition effect of ammonium dihydrogen phosphate on the thermal decomposition characteristics and thermal sensitivity of ammonium nitrate. Journal of Analytical and Applied Pyrolysis, 2018, 134, 195-201.	5.5	29
66	Fundamental investigation on the effects of ammonium polyphosphate on flame propagation behaviors of starch dust deflagration. Powder Technology, 2020, 360, 411-420.	4.2	28
67	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
68	Functionalized graphene paper with the function of fuse and its flame-triggered self-cutting performance for fire-alarm sensor application. Materials Chemistry and Physics, 2020, 252, 123292.	4.0	24
69	Investigation on the flame and explosion suppression of hydrogen/air mixtures by porous copper foams in the pipe with large aspect ratio. Journal of Loss Prevention in the Process Industries, 2022, 76, 104744.	3.3	24
70	Effects of reduced oxygen levels on flame propagation behaviors of starch dust deflagration. Journal of Loss Prevention in the Process Industries, 2018, 54, 146-152.	3.3	23
71	Supramolecular selfâ€assembly modification of ammonium polyphosphate and its flame retardant application in polypropylene. Polymers for Advanced Technologies, 2020, 31, 1099-1109.	3.2	23
72	Facile Synthesis of Poly(vinyl alcohol)/α-Titanium Phosphate Nanocomposite with Markedly Enhanced Properties. Industrial & Engineering Chemistry Research, 2011, 50, 11109-11116.	3.7	22

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73	Bismuth subcarbonate nanoplates for thermal stability, fire retardancy and smoke suppression applications in polymers: A new strategy. Polymer Degradation and Stability, 2014, 107, 1-9.	5.8	22
74	A facile method to fabricate superoleophilic and hydrophobic polyurethane foam for oilâ€“water separation. Materials Letters, 2015, 159, 345-348.	2.6	22
75	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
76	Flammability of polystyrene/aluminim phosphinate composites containing modified ammonium polyphosphate. Journal of Thermal Analysis and Calorimetry, 2018, 131, 1067-1077.	3.6	20
77	Effect of metal mesh on the flame propagation characteristics of wheat starch dust. Journal of Loss Prevention in the Process Industries, 2018, 55, 107-112.	3.3	20
78	Facile design of transition metal based organophosphorus hybrids towards the flame retardancy reinforcement and toxic effluent elimination of polystyrene. Materials Chemistry and Physics, 2018, 214, 209-220.	4.0	18
79	Effectiveness and mechanism of sodium phytate as a green inhibitor for the dust deflagration of lysine sulfate. Chemical Engineering Research and Design, 2021, 147, 772-787.	5.6	18
80	Graphene oxide/chitosan nanoâ€coating with ultrafast fireâ€alarm response and flameâ€retardant property. Polymers for Advanced Technologies, 2022, 33, 795-806.	3.2	18
81	Flame-retardant AlOOH/graphene oxide composite coating with temperature-responsive resistance for efficient early-warning fire sensors. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2022, 648, 129326.	4.7	18
82	Novel incorporation of mesoporous NiCo₂O₄ into thermoplastic polyurethane for enhancing its fire safety. RSC Advances, 2016, 6, 109620-109632.	3.6	16
83	A facile method to prepare reduced graphene oxide with a large pore volume. Materials Letters, 2016, 162, 154-156.	2.6	16
84	Serendipity discovery of fire early warning function of chitosan film. Carbohydrate Polymers, 2022, 277, 118884.	10.2	16
85	Synergistic effect of layered melamine-phytate and intumescent flame retardant on enhancing fire safety of polypropylene. Journal of Thermal Analysis and Calorimetry, 2022, 147, 285-295.	3.6	14
86	Upgrading the pore-size scale of MIL-53 from microporous to macroporous for adsorbing triethyl phosphate and reducing the fire risk of polystyrene. Composites Part A: Applied Science and Manufacturing, 2022, 159, 107003.	7.6	14
87	Effects of partial inerting on flame structures of starch dust deflagration in duct. Powder Technology, 2020, 373, 46-57.	4.2	13
88	Mechanism for increased thermal instability and fire risk of graphite oxide containing metal salts. Materials Letters, 2016, 167, 197-200.	2.6	11
89	Alumina nanoflakeâ€coated graphene nanohybrid as a novel flame retardant filler for polypropylene. Polymers for Advanced Technologies, 2019, 30, 2153-2158.	3.2	11
90	Preparation of piperazine cyanurate by hydrogenâ€bonding selfâ€assembly reaction and its application in intumescent flameâ€retardant polypropylene composites. Polymers for Advanced Technologies, 2020, 31, 1027-1037.	3.2	11

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91	An innovative ternary composite paper of graphene and Fe3O4 decorated multi-walled carbon nanotube for ultra-efficient electromagnetic interference shielding and fire-resistant properties. Composites Communications, 2022, 32, 101181.	6.3	11
92	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
93	The effect of carbon nanotubes/NiFe₂O₄ on the thermal stability, combustion behavior and mechanical properties of unsaturated polyester resin. RSC Advances, 2016, 6, 96974-96983.	3.6	9
94	Characteristics of wheat dust flame with the influence of ceramic foam. Advanced Powder Technology, 2020, 31, 3570-3581.	4.1	9
95	Radiation Cured Epoxy Acrylate Composites Based on Graphene, Graphite Oxide and Functionalized Graphite Oxide with Enhanced Properties. Journal of Nanoscience and Nanotechnology, 2012, 12, 1776-1791.	0.9	8
96	Explosion evolution behavior of methane/air premixed gas in a closed pipe filled with a bio-based porous material. Fuel, 2022, 318, 123716.	6.4	8
97	The assembly nanohybrid of graphene with lamellar zirconium phenylphosphonate for improving flame retardancy and mechanical properties of polypropylene. Polymer Composites, 2019, 40, E1757-E1765.	4.6	7
98	Facile fabrication of porous fire-resistant graphene macro-assembly with outstanding electromagnetic interference shielding performance. Materials Letters, 2021, 299, 130055.	2.6	7
99	The design of lightweight and porous graphene-based composite paper and the study on its electromagnetic interference shielding and fire resistance. Materials Letters, 2021, 304, 130625.	2.6	7
100	Carbonization mechanism of polypropylene catalyzed by Co compounds combined with phosphorus-doped graphene to improve its fire safety performance. Materials Today Communications, 2021, 26, 101792.	1.9	5
101	Improving the Fire Performance of Structural Insulated Panel Core Materials with Intumescent Flame-Retardant Epoxy Resin Adhesive. Fire Technology, 2023, 59, 29-51.	3.0	5
102	Effect of Obstacles on Flame Propagation Characteristics of Corn Starch Dust. Combustion Science and Technology, 2019, 191, 2006-2019.	2.3	3
103	Surface modification of ammonium polyphosphate by kaolinite and the study on thermal decomposition behavior and flame-retardant performance. Journal of Thermal Analysis and Calorimetry, 2022, 147, 7311-7321.	3.6	3
104	Exploration on the influence mechanism of heteroatom doped graphene on thermal oxidative stability and decomposition of polypropylene. Materials Today Communications, 2020, 25, 101446.	1.9	1