Bin Yu

List of Publications by Year
in descending order

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		20817	30087
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	A reactive copper-organophosphate-MXene heterostructure enabled antibacterial, self-extinguishing and mechanically robust polymer nanocomposites. Chemical Engineering Journal, 2022, 430, 132712.	12.7	64
2	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
3	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
4	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
5	A lava-inspired micro/nano-structured ceramifiable organic-inorganic hybrid fire-extinguishing coating. Matter, 2022, 5, 911-932.	10.0	96
6	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
7	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
8	Cost-effective graphite felt and phosphorous flame retardant with extremely high electromagnetic shielding. Composites Part B: Engineering, 2022, 236, 109819.	12.0	34
9	High-performance flame-retardant polycarbonate composites: Mechanisms investigation and fire-safety evaluation systems establishment. Composites Part B: Engineering, 2022, 238, 109873.	12.0	58
10	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
11	Elastic polybenzimidazole nanofiber aerogel for thermal insulation and high-temperature oil adsorption. Journal of Materials Science, 2022, 57, 12125-12137.	3.7	3
12	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
13	A triazine-based hyperbranched char-forming agent for efficient intumescent flame retardant Poly(lactic acid) composites. Composites Communications, 2022, 33, 101225.	6.3	12
14	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
15	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
16	Surface treatment of two dimensional MXene for poly(vinylidene fluoride) nanocomposites with tunable dielectric permittivity. Composites Communications, 2021, 23, 100562.	6.3	33
17	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
18	Phosphorus-containing flame retardant epoxy thermosets: Recent advances and future perspectives. Progress in Polymer Science, 2021, 114, 101366.	24.7	421

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19	Bioinspired, Highly Adhesive, Nanostructured Polymeric Coatings for Superhydrophobic Fire-Extinguishing Thermal Insulation Foam. ACS Nano, 2021, 15, 11667-11680.	14.6	195
20	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
21	MXene as emerging nanofillers for high-performance polymer composites: A review. Composites Part B: Engineering, 2021, 217, 108867.	12.0	161
22	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
23	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
24	Functionalizing MXene towards highly stretchable, ultratough, fatigue- and fire-resistant polymer nanocomposites. Chemical Engineering Journal, 2021, 424, 130338.	12.7	130
25	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
26	MXene/chitosan nanocoating for flexible polyurethane foam towards remarkable fire hazards reductions. Journal of Hazardous Materials, 2020, 381, 120952.	12.4	174
27	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
28	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
29	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
30	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
31	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
32	Creating MXene/reduced graphene oxide hybrid towards highly fire safe thermoplastic polyurethane nanocomposites. Composites Part B: Engineering, 2020, 203, 108486.	12.0	145
33	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
34	Polyphosphoramide-intercalated MXene for simultaneously enhancing thermal stability, flame retardancy and mechanical properties of polylactide. Chemical Engineering Journal, 2020, 397, 125336.	12.7	207
35	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
36	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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37	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
38	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
39	Lignin-derived bio-based flame retardants toward high-performance sustainable polymeric materials. Green Chemistry, 2020, 22, 2129-2161.	9.0	249
40	Multifunctional MXene/natural rubber composite films with exceptional flexibility and durability. Composites Part B: Engineering, 2020, 188, 107875.	12.0	111
41	Biomimetic structural cellulose nanofiber aerogels with exceptional mechanical, flame-retardant and thermal-insulating properties. Chemical Engineering Journal, 2020, 389, 124449.	12.7	163
42	Flame retardant polymeric nanocomposites through the combination of nanomaterials and conventional flame retardants. Progress in Materials Science, 2020, 114, 100687.	32.8	415
43	Surface-coating engineering for flame retardant flexible polyurethane foams: A critical review. Composites Part B: Engineering, 2019, 176, 107185.	12.0	163
44	Strengthening, toughing and thermally stable ultra-thin MXene nanosheets/polypropylene nanocomposites via nanoconfinement. Chemical Engineering Journal, 2019, 378, 122267.	12.7	191
45	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
46	Alumina nanoflakeâ€coated graphene nanohybrid as a novel flame retardant filler for polypropylene. Polymers for Advanced Technologies, 2019, 30, 2153-2158.	3.2	11
47	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
48	Highly Effective Flame-Retardant Rigid Polyurethane Foams: Fabrication and Applications in Inhibition of Coal Combustion. Polymers, 2019, 11, 1776.	4.5	36
49	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
50	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
51	Functionalization of MXene Nanosheets for Polystyrene towards High Thermal Stability and Flame Retardant Properties. Polymers, 2019, 11, 976.	4.5	93
52	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
53	Flame retardant poly (lactic acid) biocomposites based on azoâ€boron coupled 4,4â€²â€sulfonyldiphenol and its combination with calcium lignosulfonateâ€”Crystalline and mechanical properties. Polymers for Advanced Technologies, 2019, 30, 2207-2220.	3.2	13
54	Synthesis of a multifunctional bisphosphate and its flame retardant application in epoxy resin. Polymer Degradation and Stability, 2019, 165, 92-100.	5.8	30

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55	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
56	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
57	Facile flame retardant finishing of cotton fabric with hydrated sodium metaborate. Cellulose, 2019, 26, 4629-4640.	4.9	38
58	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
59	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
60	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
61	Electrostatic-Interaction-Driven Assembly of Binary Hybrids towards Fire-Safe Epoxy Resin Nanocomposites. Polymers, 2019, 11, 229.	4.5	10
62	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
63	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
64	A combination of POSS and polyphosphazene for reducing fire hazards of epoxy resin. Polymers for Advanced Technologies, 2018, 29, 1242-1254.	3.2	53
65	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
66	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.	5.8	45
67	A novel boronâ€“nitrogen intumescent flame retardant coating on cotton with improved washing durability. Cellulose, 2018, 25, 843-857.	4.9	64
68	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
69	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
70	Advances in Flame Retardant Poly(Lactic Acid). Polymers, 2018, 10, 876.	4.5	70
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	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
74	Highly Effective Pâ€“P Synergy of a Novel DOPO-Based Flame Retardant for Epoxy Resin. Industrial & Engineering Chemistry Research, 2017, 56, 1245-1255.	3.7	176
75	Economical and environment-friendly synthesis of a novel hyperbranched poly(aminomethylphosphine) Tj ETQq1 1 0.784314 rgBT /Over temperature and toughness of epoxy resins. Chemical Engineering Journal, 2017, 322, 618-631.	12.7	169
76	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
77	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
78	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
79	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
80	Thermal exfoliation of hexagonal boron nitride for effective enhancements on thermal stability, flame retardancy and smoke suppression of epoxy resin nanocomposites via solâ€“gel process. Journal of Materials Chemistry A, 2016, 4, 7330-7340.	10.3	346
81	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
82	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
83	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
84	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
85	POSS-functionalized polyphosphazene nanotube: preparation and effective reinforcement on UV-curable epoxy acrylate nanocomposite coatings. RSC Advances, 2016, 6, 3025-3031.	3.6	20
86	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
87	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
88	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
89	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
90	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

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91	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
92	Fabrication of carbon black coated flexible polyurethane foam for significantly improved fire safety. RSC Advances, 2015, 5, 55870-55878.	3.6	21
93	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
94	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
95	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
96	Sandwichlike Coating Consisting of Alternating Montmorillonite and Î²-FeOOH for Reducing the Fire Hazard of Flexible Polyurethane Foam. ACS Sustainable Chemistry and Engineering, 2015, 3, 3214-3223.	6.7	49
97	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
98	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
99	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
100	Functionalization of graphene with grafted polyphosphamide for flame retardant epoxy composites: synthesis, flammability and mechanism. Polymer Chemistry, 2014, 5, 1145-1154.	3.9	190
101	Influence of g-C₃N₄ Nanosheets on Thermal Stability and Mechanical Properties of Biopolymer Electrolyte Nanocomposite Films: A Novel Investigation. ACS Applied Materials & Interfaces, 2014, 6, 429-437.	8.0	159
102	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
103	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
104	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
105	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
106	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
107	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
108	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

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109	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
110	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
111	Self-assembly of Niâ€“Fe layered double hydroxide/graphene hybrids for reducing fire hazard in epoxy composites. Journal of Materials Chemistry A, 2013, 1, 4383.	10.3	227
112	Enhanced thermal and mechanical properties of functionalized graphene/thiol-ene systems by photopolymerization technology. Chemical Engineering Journal, 2013, 228, 318-326.	12.7	91
113	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 & Engineering Chemistry Research, 2013, 52, 17015-17022.	3.7	41
114	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
115	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
116	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
117	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