Yang Liu

List of Publications by Citations

117	1,877	24	36
papers	citations	h-index	g-index
121	2,383	6.2	5.08
ext. papers	ext. citations	avg, IF	L-index

#	Paper	IF	Citations
117	High-yield production of highly fluorinated graphene by direct heating fluorination of graphene-oxide. *ACS Applied Materials & Interfaces*, **2013**, 5, 8294-9	9.5	112
116	Fluorographene with high fluorine/carbon ratio: a nanofiller for preparing low-κ polyimide hybrid films. *ACS Applied Materials & Interfaces*, **2014**, 6, 16182-8	9.5	71
115	Correlation between hydrogen-bonding interaction and mechanical properties of polyimide fibers. *Polymers for Advanced Technologies*, **2009**, 20, 362-366	3.2	67
114	Aramid fiber with excellent interfacial properties suitable for resin composite in a wide polarity range. *Chemical Engineering Journal*, **2018**, 347, 483-492	14.7	62
113	Toward Excellent Tribological Performance as Oil-Based Lubricant Additive: Particular Tribological Behavior of Fluorinated Graphene. *ACS Applied Materials & Interfaces*, **2018**, 10, 28828-28838	9.5	58
112	Covalent modification of Aramid fibers' surface via direct fluorination to enhance composite interfacial properties. *Materials and Design*, **2016**, 106, 216-225	8.1	49
111	Effects of different fluorination routes on aramid fiber surface structures and interlaminar shear strength of its composites. *Applied Surface Science*, **2013**, 270, 627-633	6.7	44
110	Characterization of Conformation and Locations of C-F Bonds in Graphene Derivative by Polarized ATR-FTIR. *Analytical Chemistry*, **2016**, 88, 3926-34	7.8	40
109	Towards enhanced tribological performance as water-based lubricant additive: Selective fluorination of graphene oxide at mild temperature. *Journal of Colloid and Interface Science*, **2018**, 531, 138-147	9.3	40
108	Controllable defluorination of fluorinated graphene and weakening of C-F bonding under the action of nucleophilic dipolar solvent. *Physical Chemistry Chemical Physics*, **2016**, 18, 3285-93	3.6	39
107	Effects of the oxygenic groups on the mechanism of fluorination of graphene oxide and its structure. *Physical Chemistry Chemical Physics*, **2017**, 19, 5504-5512	3.6	36
106	Reduction and transformation of fluorinated graphene induced by ultraviolet irradiation. *Physical Chemistry Chemical Physics*, **2015**, 17, 24056-62	3.6	35
105	Nondestructive grafting of PEI on aramid fiber surface through the coordination of Fe (III) to enhance composite interfacial properties. *Applied Surface Science*, **2017**, 401, 323-332	6.7	34
104	Chemical reactivity of C-F bonds attached to graphene with diamines depending on their nature and location. *Physical Chemistry Chemical Physics*, **2016**, 18, 17495-505	3.6	34
103	Graphene-based porous materials with tunable surface area and CO2 adsorption properties synthesized by fluorine displacement reaction with various diamines. *Journal of Colloid and Interface Science*, **2016**, 478, 36-45	9.3	32
102	Ester Crosslinking Enhanced Hydrophilic Cellulose Nanofibrils Aerogel. *ACS Sustainable Chemistry and Engineering*, **2018**, 6, 11979-11988	8.3	30
101	Characterization of the thermal/thermal oxidative stability of fluorinated graphene with various structures. *Physical Chemistry Chemical Physics*, **2017**, 19, 19442-19451	3.6	29

100	The introduction of asymmetric heterocyclic units into poly(p-phenylene terephthalamide) and its effect on microstructure, interactions and properties. *Journal of Materials Science*, **2018**, 53, 13291-13303	4.3	27
99	Activation effect of porous structure on fluorination of graphene based materials with large specific surface area at mild condition. *Carbon*, **2017**, 124, 288-295	10.4	27
98	Preparing Highly Fluorinated Multiwall Carbon Nanotube by Direct Heating-Fluorination during the Elimination of Oxygen-Related Groups. *Journal of Physical Chemistry C*, **2013**, 117, 12078-12085	3.8	27
97	Direct fluorination of para-aramid fibers 1: Fluorination reaction process of PPTA fiber. *Journal of Fluorine Chemistry*, **2016**, 186, 12-18	2.1	27
96	Excellent Microwave Absorbing Property of Multiwalled Carbon Nanotubes with Skin–Core Heterostructure Formed by Outer Dominated Fluorination. *Journal of Physical Chemistry C*, **2018**, 122, 6357-6367	3.8	26
95	In-situ polymerization and covalent modification on aramid fiber surface via direct fluorination for interfacial enhancement. *Composites Part B: Engineering*, **2020**, 182, 107608	10	26
94	The wear-resistance of composite depending on the interfacial interaction between thermoplastic polyurethane and fluorinated UHMWPE particles with or without oxygen. *Composites Science and Technology*, **2015**, 106, 68-75	8.6	25
93	Aligned fluorinated single-walled carbon nanotubes as a transmission channel towards attenuation of broadband electromagnetic waves. *Journal of Materials Chemistry C*, **2018**, 6, 9399-9409	7.1	24
92	Control of Head/Tail Isomeric Structure in Polyimide and Isomerism-Derived Difference in Molecular Packing and Properties. *Macromolecular Rapid Communications*, **2017**, 38, 1700404	4.8	24
91	Preparation and characterization of novel polyimide films containing amide groups. *Journal of Polymer Research*, **2012**, 19, 1	2.7	24
90	Fabrication of durable superhydrophobic surfaces of polyester fabrics via fluorination-induced grafting copolymerization. *Applied Surface Science*, **2020**, 515, 146006	6.7	23
89	Covalent functionalization of fluorinated graphene through activation of dormant radicals for water-based lubricants. *Carbon*, **2020**, 167, 826-834	10.4	22
88	Facile preparation of highly hydrophilic, recyclable high-performance polyimide adsorbents for the removal of heavy metal ions. *Journal of Hazardous Materials*, **2016**, 306, 210-219	12.8	22
87	Defluorination and covalent grafting of fluorinated graphene with TEMPO in a radical mechanism. *Physical Chemistry Chemical Physics*, **2017**, 19, 24076-24081	3.6	22
86	One-Step Preparation of Oxygen/Fluorine Dual Functional MWCNTs with Good Water Dispersibility by the Initiation of Fluorine Gas. *ACS Applied Materials & Interfaces*, **2016**, 8, 7991-9	9.5	21
85	Construction of stable hydrogen bonds at high temperature for preparation of polyimide films with ultralow coefficient of thermal expansion and high Tg. *Polymer*, **2020**, 188, 122100	3.9	21
84	The particular phase transformation during graphene fluorination process. *Carbon*, **2018**, 132, 271-279	10.4	20
83	Antibacterial activities and mechanisms of fluorinated graphene and guanidine-modified graphene. *RSC Advances*, **2016**, 6, 8763-8772	3.7	19

82	Towards efficient microwave absorption: intrinsic heterostructure of fluorinated SWCNTs. *Journal of Materials Chemistry C*, **2017**, 5, 11847-11855	7.1	18
81	Dependence of the fluorination intercalation of graphene toward high-quality fluorinated graphene formation. *Chemical Science*, **2019**, 10, 5546-5555	9.4	18
80	Skin–core structured fluorinated MWCNTs: a nanofiller towards a broadband dielectric material with a high dielectric constant and low dielectric loss. *Journal of Materials Chemistry C*, **2018**, 6, 2370-2378	7.1	18
79	The Effect of Asymmetric Heterocyclic Units on the Microstructure and the Improvement of Mechanical Properties of Three Rigid-Rod co-PI Fibers. *Macromolecular Materials and Engineering*, **2016**, 301, 853-863	3.9	18
78	The novel high performance aramid fibers containing benzimidazole moieties and chloride substitutions. *Materials and Design*, **2018**, 158, 127-135	8.1	18
77	A facile method to enhance UV stability of PBIA fibers with intense fluorescence emission by forming complex with hydrogen chloride on the fibers surface. *Polymer Degradation and Stability*, **2016**, 128, 278-285	4.7	18
76	Pre-drawing induced evolution of phase, microstructure and property in para-aramid fibres containing benzimidazole moiety. *RSC Advances*, **2016**, 6, 62695-62704	3.7	18
75	Investigation of the dispersion behavior of fluorinated MWCNTs in various solvents. *Physical Chemistry Chemical Physics*, **2017**, 19, 21565-21574	3.6	17
74	Recent Advances in Fluorinated Graphene from Synthesis to Applications: Critical Review on Functional Chemistry and Structure Engineering. *Advanced Materials*, **2021**, e2101665	24	17
73	A facile strategy for fabricating aramid fiber with simultaneously high compressive strength and high interfacial shear strength through cross-linking promoted by oxygen. *Composites Part A: Applied Science and Manufacturing*, **2018**, 113, 233-241	8.4	16
72	The Friedel-Crafts reaction of fluorinated graphene for high-yield arylation of graphene. *Chemical Communications*, **2018**, 54, 10168-10171	5.8	15
71	Surface modification of polypropylene battery separator by direct fluorination with different gas components. *Applied Surface Science*, **2014**, 290, 137-141	6.7	15
70	Radical mechanism of a nucleophilic reaction depending on a two-dimensional structure. *Physical Chemistry Chemical Physics*, **2017**, 20, 489-497	3.6	15
69	Nondestructive modification of aramid fiber based on selective reaction of external cross-linker to improve interfacial shear strength and compressive strength. *Composites Part A: Applied Science and Manufacturing*, **2019**, 119, 217-224	8.4	14
68	Mechanically strong and tough polyimide aerogels cross-linked with amine functionalized carbon nanotubes synthesized by fluorine displacement reaction. *Composites Science and Technology*, **2020** , 195, 108204	8.6	14
67	Fabrication of durable hierarchical superhydrophobic fabrics with Sichuan pepper-like structures via graft precipitation polymerization. *Applied Surface Science*, **2020**, 529, 147017	6.7	14
66	Radical chain reaction mechanism of graphene fluorination. *Carbon*, **2018**, 137, 451-457	10.4	14
65	Toward high-efficiency photoluminescence emission by fluorination of graphene oxide: Investigations from excitation to emission evolution. *Carbon*, **2020**, 165, 386-394	10.4	13

64	Dependence of pretilt angle on orientation and conformation of side chain with different chemical structure in polyimide film surface. *RSC Advances*, **2012**, 2, 9463	3.7	13
63	Constructing a weaving structure for aramid fiber by carbon nanotube-based network to simultaneously improve composites interfacial properties and compressive properties. *Composites Science and Technology*, **2019**, 182, 107721	8.6	12
62	The evolution of structure and properties for copolyamide fibers containing benzimidazole units during the decomplexation of hydrogen chloride. *High Performance Polymers*, **2016**, 28, 381-389	1.6	12
61	Simultaneously enhancing of wear-resistant and mechanical properties of polyurethane composite based on the selective interaction of fluorinated graphene derivatives. *Composites Part B: Engineering*, **2019**, 169, 200-208	10	11
60	Fabrication of porous polyimide hollow microspheres through O/W/O multiple emulsion. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, **2020**, 591, 124537	5.1	11
59	Synthesis of Heterocyclic Aramid Fiber Based on Solid-Phase Cross-Linking of Oligomers with Reactive End Group. *Macromolecular Materials and Engineering*, **2018**, 303, 1800076	3.9	11
58	High-performance copoly(benzimidazole-benzoxazole-imide) fibers: Fabrication, structure, and properties. *Journal of Applied Polymer Science*, **2015**, 132, n/a-n/a	2.9	10
57	Various surface functionalizations of ultra-high-molecular-weight polyethylene based on fluorine-activation behavior. *RSC Advances*, **2015**, 5, 79081-79089	3.7	10
56	Low temperature preparation of highly fluorinated multiwalled carbon nanotubes activated by FeO to enhance microwave absorbing property. *Nanotechnology*, **2018**, 29, 365703	3.4	10
55	Construction of dendritic structure by nano-SiO2 derivate grafted with hyperbranched polyamide in aramid fiber to simultaneously improve its mechanical and compressive properties. *European Polymer Journal*, **2019**, 119, 367-375	5.2	10
54	The dominant factor for mechanical property of polyimide films containing heterocyclic moieties: In-plane orientation, crystallization, or hydrogen bonding. *Journal of Applied Polymer Science*, **2016**, 133,	2.9	10
53	In Situ Radical Polymerization and Grafting Reaction Simultaneously Initiated by Fluorinated Graphene. *Langmuir*, **2019**, 35, 6610-6619	4	9
52	Radical Mechanism for the Reduction of Graphene Derivatives Initiated by Electron-Transfer Reactions. *Journal of Physical Chemistry C*, **2018**, 122, 8473-8479	3.8	9
51	In-situ generation of hydrated nanoparticles on commercial stainless steel mesh for durable superhydrophilicity and self-cleaning. *Materials and Design*, **2018**, 157, 284-293	8.1	9
50	Self-enhancement in aramid fiber by filling free hydrogen bonding interaction sites in macromolecular chains with its oligomer. *Polymer*, **2019**, 180, 121687	3.9	9
49	Nitrogen-Doping Chemical Behavior of Graphene Materials with Assistance of Defluorination. *Journal of Physical Chemistry C*, **2019**, 123, 584-592	3.8	9
48	Preparation of novel aramid film with ultra-high breakdown strength via constructing three-dimensional covalent crosslinked structure. *Chemical Engineering Journal*, **2019**, 375, 122042	14.7	8
47	Defluorination-assisted heteroatom doping reaction with ammonia gas for synthesis of nitrogen-doped porous graphitized carbon. *Chemical Engineering Journal*, **2018**, 354, 261-268	14.7	8

46	Fe3+ coordination induced selective fluorination of aramid fiber to suppress surface chain scission behavior and improve surface polarity. *Applied Surface Science*, **2018**, 456, 221-229	6.7	8
45	Preparation of Thermosetting/Thermoplastic Polyimide Foam with Pleated Cellular Structure via In Situ Simultaneous Orthogonal Polymerization. *ACS Applied Polymer Materials*, **2019**, 1, 2430-2440	4.3	8
44	Constructing mainstay-body structure in heterocyclic aramid fiber to simultaneously improve tensile strength and toughness. *Composites Part B: Engineering*, **2020**, 202, 108411	10	8
43	A composite with excellent tribological performance derived from oxy-fluorinated UHMWPE particle/polyurethane. *RSC Advances*, **2014**, 4, 9321	3.7	7
42	Study of the orientation of liquid crystal molecules on polyimide alignment films by FTIR with polarisation mode. *Liquid Crystals*, **2012**, 39, 813-817	2.3	7
41	Direct fluorination as a one-step ATRP initiator immobilization for convenient surface grafting of phenyl ring-containing substrates. *Polymer Chemistry*, **2020**, 11, 5693-5700	4.9	7
40	Giant Enhancement of Fluorescence Emission by Fluorination of Porous Graphene with High Defect Density and Subsequent Application as Fe Ion Sensors. *ACS Applied Materials & Interfaces*, **2020**, 12, 40662-40672	9.5	7
39	Regulating the Bonding Nature and Location of C□F Bonds in Fluorinated Graphene by Doping Nitrogen Atoms. *Industrial & Engineering Chemistry Research*, **2021**, 60, 875-884	3.9	7
38	Benzimidazole-containing aramid nanofiber for naked-eye detection of heavy metal ions. *Analyst, The*, **2018**, 143, 5225-5233	5	7
37	Flexible pressure sensors with high pressure sensitivity and low detection limit using a unique honeycomb-designed polyimide/reduced graphene oxide composite aerogel.. *RSC Advances*, **2021**, 11, 11760-11770	3.7	7
36	Fluorination-generated uninterrupted gradient-refractive index on commercial flexible substrates for high broadband and omnidirectional transmittance. *Applied Surface Science*, **2019**, 489, 494-503	6.7	6
35	In situ preparation and characterization of polyimide/silica composite hemispheres by inverse aqueous emulsion technique and sol-gel method. *Colloid and Polymer Science*, **2015**, 293, 1281-1287	2.4	6
34	Enhancing mechanical properties of aromatic polyamide fibers containing benzimidazole units via temporarily suppressing hydrogen bonding and crystallization. *Journal of Applied Polymer Science*, **2015**, 132, n/a-n/a	2.9	6
33	In Situ Complex with by-product HCl and Release Chloride Ions to Dissolve Aramid. *ChemPhysChem*, **2018**, 19, 2468-2471	3.2	6
32	Ultrahigh strength and modulus copolyamide films with uniaxially cold-drawing induced molecular orientation. *High Performance Polymers*, **2017**, 29, 58-67	1.6	5
31	Preparing Nitrogen-Doped Multiwalled Carbon Nanotubes with Regionally Controllable Heterojunction Structure by Nondestructive Postdoping with the Assistance of Heating Fluorination. *Journal of Physical Chemistry C*, **2019**, 123, 16439-16448	3.8	5
30	Increasing pretilt angle by grafting hexafluorobutyl acrylate into the surface of polyimide alignment films via electron beam irradiation. *Liquid Crystals*, **2013**, 40, 435-440	2.3	5
29	Constructing □Rigid-and-Soft□Interlocking stereoscopic interphase structure of aramid fiber composites with high interfacial shear strength and toughness. *Composites Part A: Applied Science and Manufacturing*, **2021**, 145, 106386	8.4	5

28	Releasing and Freezing Phase Separation of Polyvinyl Alcohol/Silica To Control Polymorphs of Silica. *Crystal Growth and Design*, **2015**, 15, 2072-2078	3.5	4
27	Influence of hydrogen-bonding interaction introduced by filled oligomer on bulk properties of blended polyimide films. *Journal of Applied Polymer Science*, **2014**, 131, n/a-n/a	2.9	4
26	Correlation of pretilt angles and surface chemical structures of polyimide alignment films after direct fluorination. *Polymer International*, **2010**, 59, 1622-1629	3.3	4
25	Fabrication of Graphene-Based Self-Assembly Monoliths through Reversible Fluorination and Defluorination Strategy. *Advanced Materials Interfaces*, **2020**, 7, 2000915	4.6	4
24	Improving Interfacial and Compressive Properties of Aramid by Synchronously Grafting and Crosslinking. *Macromolecular Materials and Engineering*, **2019**, 304, 1900044	3.9	3
23	The influence of fluorine atoms introduced into the surface of polyimide films by direct fluorination on the liquid crystal alignment. *Liquid Crystals*, **2009**, 37, 115-119	2.3	3
22	Preparation of High Strength and Toughness Aramid Fiber by Introducing Flexible Asymmetric Monomer to Construct Misplaced-Nunchaku Structure. *Macromolecular Materials and Engineering*, **2021**, 306, 2000814	3.9	3
21	Dissolution of Aramid by Ionization of Byproduct HCl Promoted by Acetate. *ChemistrySelect*, **2019**, 4, 123-129	1.8	3
20	Improving Compressive Strength of Aramid Fiber by Introducing Carbon Nanotube Derivates Grafted with Oligomers of Different Conformations and Controlling Its Alignment. *Macromolecular Materials and Engineering*, **2019**, 304, 1900127	3.9	2
19	Crystallization of silica promoted by residual hydrogen bonding interactions at high temperature. *Physical Chemistry Chemical Physics*, **2018**, 20, 12827-12834	3.6	2
18	Crystallization of inorganic silica based on interaction between polyimide and silica by sol□gel method. *Journal of Sol-Gel Science and Technology*, **2013**, 66, 193-198	2.3	2
17	Post-construction of weaving structure in aramid fiber towards improvements of its transverse properties. *Composites Science and Technology*, **2021**, 208, 108780	8.6	2
16	Suzuki-Miyaura reaction of C-F bonds in fluorographene. *Chemical Communications*, **2021**, 57, 351-354	5.8	2
15	Enhancing thermal dimensional stability of polyimide composite films through in-situ constructing highly interfacial grafting degree to constrain early chain relaxation. *Composites Part B: Engineering*, **2021**, 216, 108829	10	2
14	Synthesis of A Novel Cross-linker with High Reactivity for Enhancing Compressive Strength of High-performance Organic Fibers. *ChemistrySelect*, **2019**, 4, 3980-3983	1.8	1
13	Preparation of novel polyimides containing aryl ester side chains end-capped with alkoxy groups and studies on their surface properties. *Liquid Crystals*, **2010**, 37, 399-406	2.3	1
12	Fabrication of high-temperature aromatic polyamides with ultra-high breakdown strength via complex-assisted chain arrangement. *Chemical Engineering Journal*, **2022**, 432, 134407	14.7	1
11	Enhanced microwave absorption property of ferroferric Oxide: The role of magnetoelectric resonance. *Chemical Engineering Journal*, **2022**, 433, 134455	14.7	1

10	Spontaneous power generation from broad-humidity atmospheres through heterostructured F/O-bonded graphene monoliths. *Nano Energy*, **2022**, 91, 106605	17.1	1
9	Constructing a new tear-resistant skin for aramid fiber to enhance composites interfacial performance based on the interfacial shear stability. *Applied Surface Science*, **2021**, 544, 148935	6.7	1
8	Multiple Modification of Titanium Dioxide to Enhance Its Photocatalytic Performance. *ChemistrySelect*, **2021**, 6, 39-46	1.8	1
7	Noticeably enhanced microwave absorption performance via constructing molecular-level interpenetrating carbon network heterostructure. *Carbon*, **2021**, 183, 858-871	10.4	1
6	Synthesis of tautomerization-inhibited diamino substituted tetraphenylethene derivatives with different mechanochromisms: the vital role of chlorine. *Materials Chemistry Frontiers*, **2021**, 5, 2387-2398	7.8	1
5	Thermal stability of C-F/C(-F) bonds in fluorinated graphene detected by heating infrared spectroscopy. *Physical Chemistry Chemical Physics*, **2021**, 23, 26853-26863	3.6	0
4	Bioinspired three-dimensional and multiple adsorption effects toward high lubricity of solvent-free graphene-based nanofluid. *Carbon*, **2022**, 188, 166-176	10.4	0
3	Heating-activated radicals of fluorinated multiwalled carbon nanotubes assisted interfacial grafting rubber composites with electromagnetic wave absorption. *Composites Science and Technology*, **2021**, 214, 108977	8.6	0
2	The effect of Trimethylchlorosilane as a reactive additive on solution behavior of polyamide acid and properties of corresponding polyimide. *Journal of Polymer Research*, **2014**, 21, 1	2.7	
1	The adsorption of aromatic macromolecules on graphene with entropy-tailored behavior and its utilization in exfoliating graphite. *Journal of Colloid and Interface Science*, **2021**, 599, 12-22	9.3	