Hongbin Lu

List of Publications by Year
in descending order

103 papers	7,188 citations	70961 41 h-index	56606 83 g-index
106 all docs	106 docs citations	106 times ranked	10447 citing authors

#	Article	IF	Citations
1	Covalent polymer functionalization of graphene nanosheets and mechanical properties of composites. Journal of Materials Chemistry, 2009, 19, 7098.	6.7	1,210
2	Single-layer graphene nanosheets with controlled grafting of polymer chains. Journal of Materials Chemistry, 2010, 20, 1982.	6.7	446
3	Horizontally arranged zinc platelet electrodeposits modulated by fluorinated covalent organic framework film for high-rate and durable aqueous zinc ion batteries. Nature Communications, 2021, 12, 6606.	5.8	369
4	Thermopower enhancement in conducting polymer nanocomposites via carrier energy scattering at the organicâ€“inorganic semiconductor interface. Energy and Environmental Science, 2012, 5, 8351.	15.6	351
5	Novel nanostructured thermal interface materials: a review. International Materials Reviews, 2018, 63, 22-45.	9.4	261
6	Constructing hierarchically structured interphases for strong and tough epoxy nanocomposites by amine-rich graphene surfaces. Journal of Materials Chemistry, 2010, 20, 9635.	6.7	250
7	Restricted Relaxation in Polymer Nanocomposites near the Glass Transition. Macromolecules, 2003, 36, 4010-4016.	2.2	221
8	Enhanced Polysulfide Regulation via Porous Catalytic V₂O₃/V₈C₇ Heterostructures Derived from Metalâ€“Organic Frameworks toward High-Performance Liâ€“S Batteries. ACS Nano, 2020, 14, 8495-8507.	7.3	192
9	Graphene related materials for thermal management. 2D Materials, 2020, 7, 012001.	2.0	161
10	Constructing sacrificial bonds and hidden lengths for ductile graphene/polyurethane elastomers with improved strength and toughness. Journal of Materials Chemistry, 2012, 22, 12479.	6.7	151
11	A non-dispersion strategy for large-scale production of ultra-high concentration graphene slurries in water. Nature Communications, 2018, 9, 76.	5.8	151
12	Rod-like attapulgite/polyimide nanocomposites with simultaneously improved strength, toughness, thermal stability and related mechanisms. Journal of Materials Chemistry, 2008, 18, 4928.	6.7	138
13	Amine-Capped Co Nanoparticles for Highly Efficient Dehydrogenation of Ammonia Borane. ACS Applied Materials & Interfaces, 2014, 6, 13191-13200.	4.0	117
14	Spontaneous exfoliation and tailoring of MoS₂in mixed solvents. Chemical Communications, 2014, 50, 15936-15939.	2.2	113
15	Highly Sensitive and Large-Range Strain Sensor with a Self-Compensated Two-Order Structure for Human Motion Detection. ACS Applied Materials & Interfaces, 2019, 11, 8527-8536.	4.0	113
16	Room-Temperature Intercalation and â^¼1000-Fold Chemical Expansion for Scalable Preparation of High-Quality Graphene. Chemistry of Materials, 2016, 28, 2138-2146.	3.2	107
17	Rational synthesis of carbon shell coated polyaniline/MoS2 monolayer composites for high-performance supercapacitors. Nano Research, 2016, 9, 951-962.	5.8	101
18	Deposition of Feâ€“Ni nanoparticles on polyethyleneimine-decorated graphene oxide and application in catalytic dehydrogenation of ammonia borane. Journal of Materials Chemistry, 2012, 22, 13506.	6.7	98

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19	Thermal chemical vapor deposition grown graphene heat spreader for thermal management of hot spots. Carbon, 2013, 61, 342-348.	5.4	96
20	Reactivity-Controlled Preparation of Ultralarge Graphene Oxide by Chemical Expansion of Graphite. Chemistry of Materials, 2017, 29, 564-572.	3.2	93
21	Nickelâ€“Cobalt Double Hydroxide as a Multifunctional Mediator for Ultrahighâ€Rate and Ultralongâ€Life Liâ€“S Batteries. Advanced Energy Materials, 2018, 8, 1802431.	10.2	76
22	Sandwich, Verticalâ€Channeled Thick Electrodes with High Rate and Cycle Performance. Advanced Functional Materials, 2019, 29, 1809196.	7.8	76
23	Covalent organic framework-based ultrathin crystalline porous film: manipulating uniformity of fluoride distribution for stabilizing lithium metal anode. Journal of Materials Chemistry A, 2020, 8, 3459-3467.	5.2	75
24	Ultra-high-rate, ultra-long-life asymmetric supercapacitors based on few-crystalline, porous NiCo₂O₄ nanosheet composites. Journal of Materials Chemistry A, 2018, 6, 1412-1422.	5.2	71
25	Carbonâ€Nanotube Throughâ€Silicon Via Interconnects for Threeâ€Dimensional Integration. Small, 2011, 7, 2313-2317.	5.2	69
26	High-Performance All-Solid-State Supercapacitor Based on the Assembly of Graphene and Manganese(II) Phosphate Nanosheets. Journal of Physical Chemistry C, 2014, 118, 18884-18891.	1.5	69
27	Superhydrophobic Grapheneâ€Based Materials: Surface Construction and Functional Applications. Advanced Materials, 2013, 25, 5352-5359.	11.1	68
28	Synthesis and applications of two-dimensional hexagonal boron nitride in electronics manufacturing. Electronic Materials Letters, 2016, 12, 1-16.	1.0	67
29	Two-step synthesis of boron and nitrogen co-doped graphene as a synergistically enhanced catalyst for the oxygen reduction reaction. RSC Advances, 2014, 4, 61437-61443.	1.7	61
30	Hierarchically structured graphene-based supercapacitor electrodes. RSC Advances, 2013, 3, 21183.	1.7	59
31	Uniform Yolkâ€“Shell MoS₂@Carbon Microsphere Anodes for Highâ€Performance Lithiumâ€Ion Batteries. Chemistry - A European Journal, 2017, 23, 9937-9945.	1.7	51
32	Efficient surface modification of carbon nanotubes for fabricating high performance CNT based hybrid nanostructures. Carbon, 2017, 111, 402-410.	5.4	50
33	Strong interface coupling and few-crystalline MnO2/Reduced graphene oxide composites for supercapacitors with high cycle stability. Electrochimica Acta, 2018, 292, 115-124.	2.6	50
34	Ultra-low-? polyimide hybrid films via copolymerization of polyimide and polyoxometalates. Journal of Materials Chemistry, 2007, 17, 1258.	6.7	49
35	Ultrafast Transfer of Metalâ€Enhanced Carbon Nanotubes at Low Temperature for Largeâ€Scale Electronics Assembly. Advanced Materials, 2010, 22, 5039-5042.	11.1	48
36	Surface characterisation of oxygen plasma treated electrospun polyurethane fibres and their interaction with red blood cells. European Polymer Journal, 2012, 48, 472-482.	2.6	47

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37	Interlayer Polymerization in Chemically Expanded Graphite for Preparation of Highly Conductive, Mechanically Strong Polymer Composites. Chemistry of Materials, 2017, 29, 3412-3422.	3.2	47
38	Enhanced electrochemical performance of three-dimensional graphene/carbon nanotube composite for supercapacitor application. Journal of Alloys and Compounds, 2020, 820, 153114.	2.8	47
39	Bioinspired approaches for optimizing the strength and toughness of graphene-based polymer nanocomposites. Journal of Materials Chemistry, 2012, 22, 16182.	6.7	45
40	Isothermal crystallization kinetics of poly(butylene terephthalate)/attapulgite nanocomposites. Journal of Polymer Science, Part B: Polymer Physics, 2006, 44, 2112-2121.	2.4	43
41	Constructing 3D Graphene Networks in Polymer Composites for Significantly Improved Electrical and Mechanical Properties. ACS Applied Materials & Interfaces, 2017, 9, 22006-22017.	4.0	43
42	Mechanical behaviour of sintered silver nanoparticles reinforced by SiC microparticles. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 744, 406-414.	2.6	43
43	ZnFe₂O₄@Carbon Coreâ€“Shell Nanoparticles Encapsulated in Reduced Graphene Oxide for High-Performance Li-Ion Hybrid Supercapacitors. ACS Applied Materials & Interfaces, 2019, 11, 14713-14721.	4.0	40
44	Highly conductive, mechanically strong graphene monolith assembled by three-dimensional printing of large graphene oxide. Journal of Colloid and Interface Science, 2019, 534, 12-19.	5.0	40
45	Dry densification of carbon nanotube bundles. Carbon, 2010, 48, 3795-3801.	5.4	39
46	Monolithic Crystalline Swelling of Graphite Oxide: A Bridge to Ultralarge Graphene Oxide with High Scalability. Chemistry of Materials, 2018, 30, 1888-1897.	3.2	39
47	Plasmonic molybdenum trioxide quantum dots with noble metal-comparable surface enhanced Raman scattering. Journal of Materials Chemistry C, 2018, 6, 2216-2220.	2.7	39
48	Templated Growth of Covalently Bonded Threeâ€Dimensional Carbon Nanotube Networks Originated from Graphene. Advanced Materials, 2012, 24, 1576-1581.	11.1	37
49	Design of an Integrated Wearable Multi-Sensor Platform Based on Flexible Materials for Neonatal Monitoring. IEEE Access, 2020, 8, 23732-23747.	2.6	36
50	Carbon-coated, methanol-tolerant platinum/graphene catalysts for oxygen reduction reaction with excellent long-term performance. Journal of Materials Chemistry A, 2015, 3, 1049-1057.	5.2	35
51	Manganeseâ€based materials as cathode for rechargeable aqueous zincâ€ion batteries. , 2022, 1, .		33
52	Compact and low loss electrochemical capacitors using a graphite / carbon nanotube hybrid material for miniaturized systems. Journal of Power Sources, 2019, 412, 374-383.	4.0	32
53	Highly Oriented Graphite Aerogel Fabricated by Confined Liquid-Phase Expansion for Anisotropically Thermally Conductive Epoxy Composites. ACS Applied Materials & Interfaces, 2020, 12, 27476-27484.	4.0	32
54	Multifunctional superhydrophobic composite films from a synergistic self-organization process. Journal of Materials Chemistry, 2012, 22, 109-114.	6.7	30

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55	Paper-mediated controlled densification and low temperature transfer of carbon nanotube forests for electronic interconnect application. Microelectronic Engineering, 2013, 103, 177-180.	1.1	30
56	Polyacrylonitrile coupled graphite oxide film with improved heat dissipation ability. Carbon, 2019, 144, 249-258.	5.4	30
57	Thick electrode with thickness-independent capacity enabled by assembled two-dimensional porous nanosheets. Energy Storage Materials, 2021, 36, 265-271.	9.5	30
58	Nonisothermal crystallization behaviors of poly(3â€hexylthiophene)/reduced graphene oxide nanocomposites. Journal of Applied Polymer Science, 2013, 128, 802-810.	1.3	29
59	A high-performance Ptâ€“Co bimetallic catalyst with polyethyleneimine decorated graphene oxide as support for hydrolysis of ammonia borane. RSC Advances, 2014, 4, 41152-41158.	1.7	29
60	Characterization and simulation of liquid phase exfoliated graphene-based films for heat spreading applications. Carbon, 2016, 106, 195-201.	5.4	28
61	Asymmetric Allâ€Metalâ€Oxide Supercapacitor with Superb Cycle Performance. Chemistry - A European Journal, 2018, 24, 6169-6177.	1.7	27
62	Building vertically-structured, high-performance electrodes by interlayer-confined reactions in accordion-like, chemically expanded graphite. Nano Energy, 2020, 70, 104482.	8.2	27
63	Novel thermal interface materials: boron nitride nanofiber and indium composites for electronics heat dissipation applications. Journal of Materials Science: Materials in Electronics, 2014, 25, 2333-2338.	1.1	26
64	A stable and efficient 3D cobalt-graphene composite catalyst for the hydrolysis of ammonia borane. Catalysis Science and Technology, 2016, 6, 7186-7192.	2.1	26
65	Effect of isotacticity distribution on the crystallization and melting behavior of polypropylene. Journal of Applied Polymer Science, 2002, 85, 333-341.	1.3	25
66	Designing vertical channels with expanded interlayers for Li-ion batteries. Chemical Communications, 2019, 55, 4258-4261.	2.2	23
67	A Novel Graphene Quantum Dotâ€Based mRNA Delivery Platform. ChemistryOpen, 2021, 10, 666-671.	0.9	23
68	Carbon nanotubes for electronics manufacturing and packaging: from growth to integration. Advances in Manufacturing, 2013, 1, 13-27.	3.2	22
69	A new solder matrix nano polymer composite for thermal management applications. Composites Science and Technology, 2014, 94, 54-61.	3.8	21
70	Tape-Assisted Transfer of Carbon Nanotube Bundles for Through-Silicon-Via Applications. Journal of Electronic Materials, 2015, 44, 2898-2907.	1.0	21
71	Egg albumen templated graphene foams for high-performance supercapacitor electrodes and electrochemical sensors. Journal of Materials Chemistry A, 2018, 6, 18267-18275.	5.2	21
72	Flexible Multifunctionalized Carbon Nanotubesâ€Based Hybrid Nanowires. Advanced Functional Materials, 2015, 25, 4135-4143.	7.8	20

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73	LiFePO₄ Anchored on Pristine Graphene for Ultrafast Lithium Battery. ACS Applied Energy Materials, 2018, 1, 3497-3504.	2.5	20
74	Improving Thermal Transport at Carbon Hybrid Interfaces by Covalent Bonds. Advanced Materials Interfaces, 2018, 5, 1800318.	1.9	20
75	Ultralow electrical percolation in melt-compounded polymer composites based on chemically expanded graphite. Composites Science and Technology, 2018, 158, 147-155.	3.8	19
76	Effect of isotacticity distribution on crystallization kinetics of polypropylene. Polymer International, 2002, 51, 1304-1309.	1.6	18
77	A High Performance Ag Alloyed Nano-scale n-type Bi2Te3 Based Thermoelectric Material. Materials Today: Proceedings, 2015, 2, 610-619.	0.9	17
78	A Bifunctional-Modulated Conformal Li/Mn-Rich Layered Cathode for Fast-Charging, High Volumetric Density and Durable Li-Ion Full Cells. Nano-Micro Letters, 2021, 13, 118.	14.4	17
79	High yield synthesis of single-layer graphene microsheets with dimensional control. Carbon, 2014, 68, 167-174.	5.4	16
80	Embedded Finâ€Like Metal/CNT Hybrid Structures for Flexible and Transparent Conductors. Small, 2016, 12, 1521-1526.	5.2	15
81	Controlled synthesis of graphene sheets with tunable sizes by hydrothermal cutting. Journal of Nanoparticle Research, 2012, 14, 1.	0.8	14
82	Understanding noninvasive charge transfer doping of graphene: a comparative study. Journal of Materials Science: Materials in Electronics, 2018, 29, 5239-5252.	1.1	14
83	Unusual tensile behaviour of fibre-reinforced indium matrix composite and its in-situ TEM straining observation. Acta Materialia, 2016, 104, 109-118.	3.8	13
84	Surface Modification of Graphene for Use as a Structural Fortifier in Water-Borne Epoxy Coatings. Coatings, 2019, 9, 754.	1.2	13
85	Stable cellulose/graphene inks mediated by an inorganic base for the fabrication of conductive fibers. Journal of Materials Chemistry C, 2021, 9, 5779-5788.	2.7	13
86	High-quality and low-cost three-dimensional graphene from graphite flakes via carbocation-induced interlayer oxygen release. Nanoscale, 2018, 10, 17638-17646.	2.8	12
87	A lightweight and high thermal performance graphene heat pipe. Nano Select, 2021, 2, 364-372.	1.9	12
88	Coating-free, air-stable silver nanowires for high-performance transparent conductive film. Nanotechnology, 2018, 29, 375601.	1.3	10
89	Subâ€nanometer, Ultrafine Î±â€Fe₂O₃ Sheets Realized by Controlled Crystallization Kinetics for Stable, Highâ€Performance Energy Storage. Chemistry - A European Journal, 2019, 25, 5005-5013.	1.7	10
90	Manufacturing Grapheneâ€Encapsulated Copper Particles by Chemical Vapor Deposition in a Cold Wall Reactor. ChemistryOpen, 2019, 8, 58-63.	0.9	8

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91	High-performance zinc-ion battery cathode enabled by deficient manganese monoxide/graphene heterostructures. Electrochimica Acta, 2022, 411, 140045.	2.6	8
92	Bioinspired Flexible Film as Intelligent Moisture-Responsive Actuators and Noncontact Sensors. Giant, 2022, 11, 100107.	2.5	6
93	Enhanced cold wall CVD reactor growth of horizontally aligned single-walled carbon nanotubes. Electronic Materials Letters, 2016, 12, 329-337.	1.0	5
94	Liâ€“S Batteries: Nickelâ€“Cobalt Double Hydroxide as a Multifunctional Mediator for Ultrahighâ€Rate and Ultralongâ€Life Liâ€“S Batteries (Adv. Energy Mater. 35/2018). Advanced Energy Materials, 2018, 8, 1870152.	10.2	5
95	Horizontally aligned lamellar porous graphene/nickel composite for high volumetric capacity lithium-sulfur batteries. Applied Surface Science, 2022, 586, 152805.	3.1	5
96	Alternately aligned 2D heterostructures enabled by d-spacing accessible, highly periodic accordion-like graphene oxide frameworks. Science China Materials, 2021, 64, 1457-1467.	3.5	4
97	Highâ€yield waterâ€phase exfoliated fewâ€defect graphene for high performance polymer nanocomposites. Journal of Applied Polymer Science, 2020, 137, 49586.	1.3	3
98	Effect of substrates and underlayer on CNT synthesis by plasma enhanced CVD. Advances in Manufacturing, 2013, 1, 236-240.	3.2	2
99	Two-dimensional quasi-nanosheets enabled by coordination-driving deposition and sequential etching. Nanoscale, 2021, 13, 4758-4766.	2.8	2
100	Accordion Frameworks Enable Freeâ€Standing, High Si Content Anode for Liâ€ion Batteries. Energy and Environmental Materials, 2023, 6, .	7.3	2
101	Effect of Boron Nitride Particle Geometry on the Thermal Conductivity of a Boron Nitride Enhanced Polymer Composite Film. , 2019, , .		1
102	A Big Jump in Nacre-inspired Strong, Tough Composites. Chemical Research in Chinese Universities, 2020, 36, 488-489.	1.3	1
103	Measurement of Dielectric Properties of Ultrafine BaTiO3 Using an Organicâ€“Inorganic Composite Method. Journal of Electronic Materials, 2015, 44, 2300-2307.	1.0	0