Hengxing Ji

List of Publications by Year in descending order

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114 papers	14,128 citations	26567 56 h-index	20900 115 g-index
116 all docs	116 docs citations	116 times ranked	19242 citing authors

#	Article	IF	Citations
1	Cobalt in Nitrogen-Doped Graphene as Single-Atom Catalyst for High-Sulfur Content Lithiumâ€“Sulfur Batteries. Journal of the American Chemical Society, 2019, 141, 3977-3985.	6.6	1,071
2	Nanoporous Ni(OH)₂ Thin Film on 3D Ultrathin-Graphite Foam for Asymmetric Supercapacitor. ACS Nano, 2013, 7, 6237-6243.	7.3	1,019
3	Highly Conductive and Porous Activated Reduced Graphene Oxide Films for High-Power Supercapacitors. Nano Letters, 2012, 12, 1806-1812.	4.5	852
4	Capacitance of carbon-based electrical double-layer capacitors. Nature Communications, 2014, 5, 3317.	5.8	600
5	Enhanced thermal conductivity of phase change materials with ultrathin-graphite foams for thermal energy storage. Energy and Environmental Science, 2014, 7, 1185-1192.	15.6	489
6	Black Phosphorus Revisited: A Missing Metalâ€Free Elemental Photocatalyst for Visible Light Hydrogen Evolution. Advanced Materials, 2017, 29, 1605776.	11.1	405
7	A Hierarchical Carbon Derived from Spongeâ€Templated Activation of Graphene Oxide for Highâ€Performance Supercapacitor Electrodes. Advanced Materials, 2016, 28, 5222-5228.	11.1	383
8	Ultrathin Graphite Foam: A Three-Dimensional Conductive Network for Battery Electrodes. Nano Letters, 2012, 12, 2446-2451.	4.5	382
9	Nitrogen doping of graphene and its effect on quantum capacitance, and a new insight on the enhanced capacitance of N-doped carbon. Energy and Environmental Science, 2012, 5, 9618.	15.6	376
10	Black phosphorus composites with engineered interfaces for high-rate high-capacity lithium storage. Science, 2020, 370, 192-197.	6.0	336
11	Stretchable Graphene: A Close Look at Fundamental Parameters through Biaxial Straining. Nano Letters, 2010, 10, 3453-3458.	4.5	328
12	Grapheneâ€Encapsulated Si on Ultrathinâ€Graphite Foam as Anode for High Capacity Lithiumâ€Ion Batteries. Advanced Materials, 2013, 25, 4673-4677.	11.1	320
13	Thermal Transport in Three-Dimensional Foam Architectures of Few-Layer Graphene and Ultrathin Graphite. Nano Letters, 2012, 12, 2959-2964.	4.5	314
14	Cuâ€Si Nanocable Arrays as Highâ€Rate Anode Materials for Lithiumâ€Ion Batteries. Advanced Materials, 2011, 23, 4415-4420.	11.1	283
15	Millimeterâ€Size Singleâ€Crystal Graphene by Suppressing Evaporative Loss of Cu During Low Pressure Chemical Vapor Deposition. Advanced Materials, 2013, 25, 2062-2065.	11.1	279
16	Degradation Chemistry and Stabilization of Exfoliated Few-Layer Black Phosphorus in Water. Journal of the American Chemical Society, 2018, 140, 7561-7567.	6.6	273
17	Low-Temperature Chemical Vapor Deposition Growth of Graphene from Toluene on Electropolished Copper Foils. ACS Nano, 2012, 6, 2471-2476.	7.3	240
18	Crystalline Copper Phosphide Nanosheets as an Efficient Janus Catalyst for Overall Water Splitting. ACS Applied Materials & Interfaces, 2017, 9, 2240-2248.	4.0	228

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19	Mass production and industrial applications of graphene materials. National Science Review, 2018, 5, 90-101.	4.6	222
20	Advanced 3D Current Collectors for Lithiumâ€Based Batteries. Advanced Materials, 2018, 30, e1802014.	11.1	218
21	A Highly Efficient Metalâ€Free Oxygen Reduction Electrocatalyst Assembled from Carbon Nanotubes and Graphene. Advanced Materials, 2016, 28, 4606-4613.	11.1	216
22	Solidâ€“Solution-Based Metal Alloy Phase for Highly Reversible Lithium Metal Anode. Journal of the American Chemical Society, 2020, 142, 8818-8826.	6.6	199
23	Covalently Connected Carbon Nanostructures for Current Collectors in Both the Cathode and Anode of Liâ€“S Batteries. Advanced Materials, 2016, 28, 9094-9102.	11.1	184
24	Naturally Rolledâ€Up C/Si/C Trilayer Nanomembranes as Stable Anodes for Lithiumâ€Ion Batteries with Remarkable Cycling Performance. Angewandte Chemie - International Edition, 2013, 52, 2326-2330.	7.2	181
25	Direct Laser Writing of Graphene Made from Chemical Vapor Deposition for Flexible, Integratable Microâ€Supercapacitors with Ultrahigh Power Output. Advanced Materials, 2018, 30, e1801384.	11.1	178
26	Incorporating Pyrrolic and Pyridinic Nitrogen into a Porous Carbon made from C₆₀ Molecules to Obtain Superior Energy Storage. Advanced Materials, 2017, 29, 1603414.	11.1	175
27	Stabilizing black phosphorus nanosheets via edge-selective bonding of sacrificial C60 molecules. Nature Communications, 2018, 9, 4177.	5.8	171
28	Robust Expandable Carbon Nanotube Scaffold for Ultrahighâ€Capacity Lithiumâ€Metal Anodes. Advanced Materials, 2018, 30, e1800884.	11.1	171
29	The Origin of Improved Electrical Doubleâ€Layer Capacitance by Inclusion of Topological Defects and Dopants in Graphene for Supercapacitors. Angewandte Chemie - International Edition, 2016, 55, 13822-13827.	7.2	161
30	Growth Mechanism and Controlled Synthesis of AB-Stacked Bilayer Graphene on Cuâ€“Ni Alloy Foils. ACS Nano, 2012, 6, 7731-7738.	7.3	160
31	High Areal Capacity and Lithium Utilization in Anodes Made of Covalently Connected Graphite Microtubes. Advanced Materials, 2017, 29, 1700783.	11.1	148
32	A robust hydrogen evolution catalyst based on crystalline nickel phosphide nanoflakes on three-dimensional graphene/nickel foam: high performance for electrocatalytic hydrogen production from pH 0â€“14. Journal of Materials Chemistry A, 2015, 3, 1941-1946.	5.2	138
33	Selective surface functionalization at regions of high local curvature in graphene. Chemical Communications, 2013, 49, 677-679.	2.2	135
34	Azide Passivation of Black Phosphorus Nanosheets: Covalent Functionalization Affords Ambient Stability Enhancement. Angewandte Chemie - International Edition, 2019, 58, 1479-1483.	7.2	123
35	Thermal conductivity measurements of suspended graphene with and without wrinkles by micro-Raman mapping. Nanotechnology, 2012, 23, 365701.	1.3	122
36	In Situ Activation of Nitrogen-Doped Graphene Anchored on Graphite Foam for a High-Capacity Anode. ACS Nano, 2015, 9, 8609-8616.	7.3	116

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37	Free-standing boron and oxygen co-doped carbon nanofiber films for large volumetric capacitance and high rate capability supercapacitors. Nano Energy, 2015, 15, 235-243.	8.2	112
38	Well-elaborated, mechanochemically synthesized Fe-TPPâŠ,ZIF precursors (Fe-TPP = tetraphenylporphine) Tj ETQq0 0 0 rgBT /Overlock 1 batteries. Nano Energy, 2018, 52, 29-37.	8.2	108
39	Piezoelectric Materials as Sonodynamic Sensitizers to Safely Ablate Tumors: A Case Study Using Black Phosphorus. Journal of Physical Chemistry Letters, 2020, 11, 1228-1238.	2.1	105
40	Carbonizedâ€MOF as a Sulfur Host for Aluminumâ€“Sulfur Batteries with Enhanced Capacity and Cycling Life. Advanced Functional Materials, 2019, 29, 1807676.	7.8	103
41	Controllable Preparation of Submicrometer Single-Crystal C60Rods and Tubes Trough Concentration Depletion at the Surfaces of Seeds. Journal of Physical Chemistry C, 2007, 111, 10498-10502.	1.5	98
42	Nitrogen-Doped Hollow Carbon Nanospheres for High-Performance Li-Ion Batteries. ACS Applied Materials & Interfaces, 2017, 9, 14180-14186.	4.0	97
43	Selfâ€Wound Composite Nanomembranes as Electrode Materials for Lithium Ion Batteries. Advanced Materials, 2010, 22, 4591-4595.	11.1	96
44	Creating Pores on Graphene Platelets by Lowâ€Temperature KOH Activation for Enhanced Electrochemical Performance. Small, 2016, 12, 2376-2384.	5.2	95
45	The Charge Storage Mechanisms of 2D Cationâ€Intercalated Manganese Oxide in Different Electrolytes. Advanced Energy Materials, 2019, 9, 1802707.	10.2	89
46	Graphene Growth Using a Solid Carbon Feedstock and Hydrogen. ACS Nano, 2011, 5, 7656-7661.	7.3	87
47	A Black Phosphorusâ€“Graphite Composite Anode for Liâ€/Naâ€/Kâ€Ion Batteries. Angewandte Chemie - International Edition, 2020, 59, 2318-2322.	7.2	84
48	Controllable crystalline structure of fullerenenanorods and transport properties of an individual nanorod. Journal of Materials Chemistry, 2008, 18, 328-332.	6.7	82
49	Atom-Thick Interlayer Made of CVD-Grown Graphene Film on Separator for Advanced Lithiumâ€“Sulfur Batteries. ACS Applied Materials & Interfaces, 2017, 9, 43696-43703.	4.0	79
50	Graphene Synthesis via Magnetic Inductive Heating of Copper Substrates. ACS Nano, 2013, 7, 7495-7499.	7.3	77
51	Tuning the Doping Type and Level of Graphene with Different Gold Configurations. Small, 2012, 8, 3129-3136.	5.2	70
52	Amorphous Molybdenum Sulfide/Carbon Nanotubes Hybrid Nanospheres Prepared by Ultrasonic Spray Pyrolysis for Electrocatalytic Hydrogen Evolution. Small, 2017, 13, 1700111.	5.2	70
53	Large-area, periodic, and tunable intrinsic pseudo-magnetic fields in low-angle twisted bilayer graphene. Nature Communications, 2020, 11, 371.	5.8	66
54	Detection of sulfur dioxide gas with graphene field effect transistor. Applied Physics Letters, 2012, 100, .	1.5	64

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55	Origin of the Overpotential for the Oxygen Evolution Reaction on a Well-Defined Graphene Electrode Probed by in Situ Sum Frequency Generation Vibrational Spectroscopy. Journal of the American Chemical Society, 2018, 140, 15568-15571.	6.6	64
56	A rechargeable aqueous aluminumâ€“sulfur battery through acid activation in water-in-salt electrolyte. Chemical Communications, 2020, 56, 2023-2026.	2.2	64
57	LiFePO₄/reduced graphene oxide hybrid cathode for lithium ion battery with outstanding rate performance. Journal of Materials Chemistry A, 2014, 2, 7812-7818.	5.2	58
58	Swiss roll nanomembranes with controlled proton diffusion as redox micro-supercapacitors. Chemical Communications, 2010, 46, 3881.	2.2	54
59	Study on the Diffusion Mechanism of Graphene Grown on Copper Pockets. Small, 2015, 11, 1418-1422.	5.2	53
60	Copper oxide as a â€œself-cleaningâ€•substrate for graphene growth. Journal of Materials Research, 2014, 29, 403-409.	1.2	50
61	Facile solution synthesis of hexagonal Alq3 nanorods and their field emission properties. Chemical Communications, 2007, , 3083.	2.2	49
62	Synergy of Black Phosphorusâ€“Graphiteâ€“Polyaniline-Based Ternary Composites for Stable High Reversible Capacity Na-Ion Battery Anodes. ACS Applied Materials & Interfaces, 2019, 11, 16656-16661.	4.0	46
63	Rechargeable Aluminiumâ€“Sulfur Battery with Improved Electrochemical Performance by Cobaltâ€Containing Electrocatalyst. Angewandte Chemie - International Edition, 2020, 59, 22963-22967.	7.2	43
64	ZnOEP based phototransistor: signal amplification and light-controlled switch. Chemical Communications, 2008, , 2653.	2.2	40
65	Ionâ€Transferâ€Based Growth: A Mechanism for CuTCNQ Nanowire Formation. Advanced Materials, 2008, 20, 4879-4882.	11.1	36
66	NS codoped carbon nanorods as anode materials for high-performance lithium and sodium ion batteries. Journal of Energy Chemistry, 2018, 27, 203-208.	7.1	36
67	TiN nanocrystal anchored on N-doped graphene as effective sulfur hosts for high-performance lithium-sulfur batteries. Journal of Energy Chemistry, 2021, 54, 16-22.	7.1	35
68	Role of the Metal Atom in a Carbonâ€Based Singleâ€Atom Electrocatalyst for Liï£¿S Redox Reactions. Small, 2022, 18, e2200395.	5.2	33
69	Redistribution of Li-ions using covalent organic frameworks towards dendrite-free lithium anodes: a mechanism based on a Galton Board. Science China Chemistry, 2020, 63, 1306-1314.	4.2	32
70	Guiding Sodium Deposition through a Sodiophobicâ€“Sodiophilic Gradient Interfacial Layer for Highly Stable Sodium Metal Anodes. ACS Applied Energy Materials, 2021, 4, 2724-2731.	2.5	32
71	Non-destructive and rapid evaluation of chemical vapor deposition graphene by dark field optical microscopy. Applied Physics Letters, 2013, 103, .	1.5	29
72	Controllable atmospheric pressure growth of mono-layer, bi-layer and tri-layer graphene. Chemical Communications, 2014, 50, 11012-11015.	2.2	28

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73	From 1D Polymers to 2D Polymers: Preparation of Free-Standing Single-Monomer-Thick Two-Dimensional Conjugated Polymers in Water. ACS Nano, 2017, 11, 7223-7229.	7.3	28
74	Metal Octaethylporphyrin Nanowire Array and Network toward Electric/Photoelectric Devices. Journal of Physical Chemistry C, 2009, 113, 16259-16265.	1.5	25
75	The correlation between carbon structures and electrochemical properties of sulfur/carbon composites for Li-S batteries. Journal of Power Sources, 2017, 341, 139-146.	4.0	25
76	Phosphorusâ€Based Anodes for Fast Charging Lithiumâ€Ion Batteries: Challenges and Opportunities. Small Science, 2022, 2, .	5.8	25
77	Manipulating Size of Li3V2(PO4)3 with Reduced Graphene Oxide: towards High-Performance Composite Cathode for Lithium Ion Batteries. Scientific Reports, 2015, 4, 5768.	1.6	23
78	Rapid Identification of the Layer Number of Large-Area Graphene on Copper. Chemistry of Materials, 2018, 30, 2067-2073.	3.2	23
79	Azide Passivation of Black Phosphorus Nanosheets: Covalent Functionalization Affords Ambient Stability Enhancement. Angewandte Chemie, 2019, 131, 1493-1497.	1.6	23
80	Surface acoustic wave mediated dielectrophoretic alignment of rolled-up microtubes in microfluidic systems. Applied Physics Letters, 2010, 96, 134105.	1.5	21
81	Vacuum Filtrationâ€andâ€Transfer Technique Helps Electrochemical Quartz Crystal Microbalance to Reveal Accurate Charge Storage in Supercapacitors. Small Methods, 2019, 3, 1900246.	4.6	21
82	A Black Phosphorusâ€“Graphite Composite Anode for Liâ€/Naâ€/Kâ€Ion Batteries. Angewandte Chemie, 2020, 132, 2338-2342.	1.6	21
83	Monitoring the mechanical properties of the solid electrolyte interphase (SEI) using electrochemical quartz crystal microbalance with dissipation. Chinese Chemical Letters, 2021, 32, 1139-1143.	4.8	18
84	Bis(ethylenedithio)tetrathiafulvalene Charge-Transfer Salt Nanotube Arrays. Advanced Materials, 2006, 18, 2753-2757.	11.1	17
85	Chemical Vapor Deposition Growth of Bernal-Stacked Bilayer Graphene by Edge-Selective Etching with H₂O. Chemistry of Materials, 2018, 30, 7852-7859.	3.2	17
86	Scattering of phonons by high-concentration isotopic impurities in ultrathin graphite. Physical Review B, 2015, 91, .	1.1	16
87	Isolated Co single atoms in nitrogen-doped graphene for aluminum-sulfur batteries with enhanced kinetic response. Journal of Energy Chemistry, 2022, 67, 354-360.	7.1	16
88	Regulating Sodium Deposition through Gradientlyâ€Graphitized Framework for Dendriteâ€Free Na Metal Anode. Small, 2022, 18, e2107199.	5.2	16
89	Rechargeable Aluminiumâ€“Sulfur Battery with Improved Electrochemical Performance by Cobaltâ€Containing Electrocatalyst. Angewandte Chemie, 2020, 132, 23163-23167.	1.6	15
90	The Origin of Improved Electrical Doubleâ€Layer Capacitance by Inclusion of Topological Defects and Dopants in Graphene for Supercapacitors. Angewandte Chemie, 2016, 128, 14026-14031.	1.6	13

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91	Graphene foil as a current collector for NCM material-based cathodes. Nanotechnology, 2020, 31, 205710.	1.3	13
92	Ascorbic acid-assisted defect healing and stack ordering of graphene films towards high power thermal dispersion. Carbon, 2021, 182, 799-805.	5.4	13
93	Microfluidic Oxidation of Graphite in Two Minutes with Capability of Realâ€Time Monitoring. Advanced Materials, 2022, 34, e2107083.	11.1	13
94	KOH assisted activation of microwave exfoliated graphite oxide for selective voltammetric determination of dopamine and uric acid in the presence of ascorbic acid. Journal of Electroanalytical Chemistry, 2017, 804, 72-77.	1.9	10
95	Tuning the local electronic structure of a single-site Ni catalyst by co-doping a 3D graphene framework with B/N atoms toward enhanced CO₂ electroreduction. Nanoscale, 2022, 14, 833-841.	2.8	9
96	Molecular sieve based Janus separators for Li-ions redistribution to enable stable lithium deposition. Nano Research, 2022, 15, 5143-5152.	5.8	9
97	Electrochemistry of Pâ€“C Bonds in Phosphorusâ€“Carbon Based Anode Materials. ACS Applied Materials & Interfaces, 2022, 14, 18506-18512.	4.0	9
98	Supercapacitors: A Hierarchical Carbon Derived from Spongeâ€Templated Activation of Graphene Oxide for Highâ€Performance Supercapacitor Electrodes (Adv. Mater. 26/2016). Advanced Materials, 2016, 28, 5331-5331.	11.1	7
99	Isotropic charge screening of anisotropic black phosphorus revealed by potassium adatoms. Physical Review B, 2019, 100, .	1.1	7
100	Cobalt and nitrogen atoms co-doped porous carbon for advanced electrical double-layer capacitors. Chinese Chemical Letters, 2021, 32, 830-833.	4.8	7
101	Fundamental Insights into Surface Modification of Silicon Material toward Improved Activity and Durability in Photocatalytic Hydrogen Production: A Case Study of Pre-Lithiation. Journal of Physical Chemistry C, 2021, 125, 5542-5548.	1.5	7
102	Highly pressure-sensitive graphene sponge fabricated by Î³-ray irradiation reduction. Science China Materials, 2018, 61, 1596-1604.	3.5	6
103	Hot-Roll-Pressing Mediated Transfer of Chemical Vapor Deposition Graphene for Transparent and Flexible Touch Screen with Low Sheet-Resistance. Journal of Nanoscience and Nanotechnology, 2018, 18, 4337-4342.	0.9	6
104	Ion transport in porous carbon electrode for supercapacitors probed by electrochemical quartz crystal microbalance. Electrochimica Acta, 2020, 356, 136780.	2.6	6
105	Carbon Nanostructures: Covalently Connected Carbon Nanostructures for Current Collectors in Both the Cathode and Anode of Liâ€“S Batteries (Adv. Mater. 41/2016). Advanced Materials, 2016, 28, 9016-9016.	11.1	5
106	Low-Cost Synthesis Route for High-Performance S/C Composite with 90% S Content. Wuli Huaxue Xuebao/ Acta Physico - Chimica Sinica, 2016, 32, 797-799.	2.2	4
107	Al₂S₃ Cathode for Rechargeable Aluminumâ€Sulfur Batteries with Improved Cycling Reversibility. Batteries and Supercaps, 2022, 5, .	2.4	4
108	A comparison study on single metal atoms (Fe, Co, Ni) within nitrogen-doped graphene for oxygen electrocatalysis and rechargeable Zn-air batteries. Chinese Chemical Letters, 2023, 34, 107681.	4.8	4

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109	Preface: Innovative electrode materials for supercapacitors. Science China Materials, 2018, 61, 131-132.	3.5	3
110	Î³-Ray Irradiation-Derived MnO/rGO Composites for High Performance Lithium Ion Batteries. Chinese Journal of Chemical Physics, 2017, 30, 461-466.	0.6	2
111	Supercapacitors: Vacuum Filtrationâ€andâ€Transfer Technique Helps Electrochemical Quartz Crystal Microbalance to Reveal Accurate Charge Storage in Supercapacitors (Small Methods 11/2019). Small Methods, 2019, 3, 1970037.	4.6	2
112	Highly sensitive flexible pressure sensors based on graphene/graphene scrolls multilayer hybrid films. Chinese Journal of Chemical Physics, 2020, 33, 365-370.	0.6	2
113	Elimination of Grain Boundaries in Graphene Growth on a Cuâ€“Ni Alloyed Substrate by Chemical Vapor Deposition. Journal of Physical Chemistry C, 2021, 125, 18217-18224.	1.5	2
114	Identification of graphene oxide and its structural features in solvents by optical microscopy. RSC Advances, 2019, 9, 18559-18564.	1.7	1