Yang Xia

List of Publications by Year in descending order

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113 papers	8,583 citations	50170 46 h-index	43802 91 g-index
113 all docs	113 docs citations	113 times ranked	9292 citing authors

#	Article	IF	Citations
1	Pillared Structure Design of MXene with Ultralarge Interlayer Spacing for High-Performance Lithium-Ion Capacitors. ACS Nano, 2017, 11, 2459-2469.	7.3	700
2	Sn⁴⁺ Ion Decorated Highly Conductive Ti₃C₂ MXene: Promising Lithium-Ion Anodes with Enhanced Volumetric Capacity and Cyclic Performance. ACS Nano, 2016, 10, 2491-2499.	7.3	632
3	Green and Facile Fabrication of Hollow Porous MnO/C Microspheres from Microalgaes for Lithium-Ion Batteries. ACS Nano, 2013, 7, 7083-7092.	7.3	493
4	3D lithium metal embedded within lithiophilic porous matrix for stable lithium metal batteries. Nano Energy, 2017, 37, 177-186.	8.2	431
5	Popcorn Inspired Porous Macrocellular Carbon: Rapid Puffing Fabrication from Rice and Its Applications in Lithiumâ€“Sulfur Batteries. Advanced Energy Materials, 2018, 8, 1701110.	10.2	361
6	Efficient Activation of Li₂S by Transition Metal Phosphides Nanoparticles for Highly Stable Lithiumâ€“Sulfur Batteries. ACS Energy Letters, 2017, 2, 1711-1719.	8.8	252
7	Mg₂B₂O₅ Nanowire Enabled Multifunctional Solid-State Electrolytes with High Ionic Conductivity, Excellent Mechanical Properties, and Flame-Retardant Performance. Nano Letters, 2018, 18, 3104-3112.	4.5	245
8	Biotemplated fabrication of hierarchically porous NiO/C composite from lotus pollen grains for lithium-ion batteries. Journal of Materials Chemistry, 2012, 22, 9209.	6.7	232
9	Atomic Sulfur Covalently Engineered Interlayers of Ti₃C₂ MXene for Ultraâ€Fast Sodiumâ€ion Storage by Enhanced Pseudocapacitance. Advanced Functional Materials, 2019, 29, 1808107.	7.8	213
10	Electrode Design for Lithiumâ€“Sulfur Batteries: Problems and Solutions. Advanced Functional Materials, 2020, 30, 1910375.	7.8	206
11	Interface issues of lithium metal anode for <scp>highâ€energy</scp> batteries: Challenges, strategies, and perspectives. InformaÄnÃ-MateriÃ¡ly, 2021, 3, 155-174.	8.5	195
12	Tunable pseudocapacitance storage of MXene by cation pillaring for high performance sodium-ion capacitors. Journal of Materials Chemistry A, 2018, 6, 7794-7806.	5.2	186
13	All-solid-state batteries with slurry coated LiNi0.8Co0.1Mn0.1O2 composite cathode and Li6PS5Cl electrolyte: Effect of binder content. Journal of Power Sources, 2018, 391, 73-79.	4.0	168
14	Revisiting Scientific Issues for Industrial Applications of Lithiumâ€“Sulfur Batteries. Energy and Environmental Materials, 2018, 1, 196-208.	7.3	158
15	Enhanced sulfide chemisorption using boron and oxygen dually doped multi-walled carbon nanotubes for advanced lithiumâ€“sulfur batteries. Journal of Materials Chemistry A, 2017, 5, 632-640.	5.2	151
16	Facile synthesis of single-crystalline mesoporous Î±-Fe2O3 and Fe3O4 nanorods as anode materials for lithium-ion batteries. Journal of Materials Chemistry, 2012, 22, 20566.	6.7	148
17	Confining Sulfur in N-Doped Porous Carbon Microspheres Derived from Microalgaes for Advanced Lithiumâ€“Sulfur Batteries. ACS Applied Materials & Interfaces, 2017, 9, 23782-23791.	4.0	148
18	Hierarchical CuO/NiO-Carbon Nanocomposite Derived from Metal Organic Framework on Cello Tape for the Flexible and High Performance Nonenzymatic Electrochemical Glucose Sensors. ACS Sustainable Chemistry and Engineering, 2019, 7, 6707-6719.	3.2	148

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19	Poly(ethylene oxide) reinforced Li6PS5Cl composite solid electrolyte for all-solid-state lithium battery: Enhanced electrochemical performance, mechanical property and interfacial stability. Journal of Power Sources, 2019, 412, 78-85.	4.0	141
20	Unraveling the Intra and Intercycle Interfacial Evolution of Li₆PS₅Clâ€Based Allâ€Solidâ€State Lithium Batteries. Advanced Energy Materials, 2020, 10, 1903311.	10.2	141
21	Li₂S₆â€Integrated PEOâ€Based Polymer Electrolytes for Allâ€Solidâ€State Lithiumâ€Metal Batteries. Angewandte Chemie - International Edition, 2021, 60, 17701-17706.	7.2	127
22	Ionic conductivity promotion of polymer electrolyte with ionic liquid grafted oxides for all-solid-state lithiumâ€“sulfur batteries. Journal of Materials Chemistry A, 2017, 5, 12934-12942.	5.2	126
23	Highly efficient electrolytic exfoliation of graphite into graphene sheets based on Li ions intercalationâ€“expansionâ€“microexplosion mechanism. Journal of Materials Chemistry, 2012, 22, 10452.	6.7	109
24	Bio-inspired fabrication of carbon nanotiles for high performance cathode of Liâ€“S batteries. Journal of Materials Chemistry A, 2014, 2, 2290-2296.	5.2	102
25	Green synthesis of graphite from CO2 without graphitization process of amorphous carbon. Nature Communications, 2021, 12, 119.	5.8	93
26	Synthesis of MnO/C composites derived from pollen template for advanced lithium-ion batteries. Electrochimica Acta, 2015, 152, 286-293.	2.6	91
27	Silicon-Doped Argyrodite Solid Electrolyte Li₆PS₅I with Improved Ionic Conductivity and Interfacial Compatibility for High-Performance All-Solid-State Lithium Batteries. ACS Applied Materials & Interfaces, 2020, 12, 41538-41545.	4.0	90
28	Biomass derived Ni(OH)2@porous carbon/sulfur composites synthesized by a novel sulfur impregnation strategy based on supercritical CO2 technology for advanced Li-S batteries. Journal of Power Sources, 2018, 378, 73-80.	4.0	87
29	Construction of sheetâ€“belt hybrid nanostructures from one-dimensional mesoporous TiO2(B) nanobelts and graphene sheets for advanced lithium-ion batteries. Journal of Materials Chemistry A, 2013, 1, 2495.	5.2	78
30	A generic bamboo-based carbothermal method for preparing carbide (SiC, B4C, TiC, TaC, NbC, TixNb1â^'xC,) Tj ETQq0 0 0 rgBT /Overlock	6.7	76
31	Achieving efficient and stable interface between metallic lithium and garnet-type solid electrolyte through a thin indium tin oxide interlayer. Journal of Power Sources, 2020, 448, 227440.	4.0	75
32	TiC Nanorods Derived from Cotton Fibers: Chloride-Assisted VLS Growth, Structure, and Mechanical Properties. Crystal Growth and Design, 2011, 11, 4422-4426.	1.4	74
33	Biotemplating of phosphate hierarchical rechargeable LiFePO4/C spirulina microstructures. Journal of Materials Chemistry, 2011, 21, 6498.	6.7	71
34	Biotemplated Fabrication of Sn@C Anode Materials Based on the Unique Metal Biosorption Behavior of Microalgae. ACS Applied Materials & Interfaces, 2014, 6, 3696-3702.	4.0	67
35	Template-free synthesis of hollow Î±-Fe₂O₃microcubes for advanced lithium-ion batteries. Journal of Materials Chemistry A, 2013, 1, 2307-2312.	5.2	66
36	One-pot Biotemplate Synthesis of FeS 2 Decorated Sulfur-doped Carbon Fiber as High Capacity Anode for Lithium-ion Batteries. Electrochimica Acta, 2016, 209, 201-209.	2.6	63

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37	2â€‰D MXeneâ€based Energy Storage Materials: Interfacial Structure Design and Functionalization. ChemSusChem, 2020, 13, 1409-1419.	3.6	63
38	Metal-Embedded Porous Graphitic Carbon Fibers Fabricated from Bamboo Sticks as a Novel Cathode for Lithiumâ€“Sulfur Batteries. ACS Applied Materials & Interfaces, 2018, 10, 13598-13605.	4.0	57
39	Multiscale Porous Carbon Nanomaterials for Applications in Advanced Rechargeable Batteries. Batteries and Supercaps, 2019, 2, 9-36.	2.4	56
40	Biotemplated synthesis of bark-structured TiC nanowires as Pt catalyst supports with enhanced electrocatalytic activity and durability for methanol oxidation. Journal of Materials Chemistry A, 2014, 2, 8003-8008.	5.2	54
41	Unprecedented Selfâ€Healing Effect of Li₆PS₅Clâ€Based Allâ€Solidâ€State Lithium Battery. Small, 2021, 17, e2101326.	5.2	54
42	Hydrogen bonding enhanced SiO₂/PEO composite electrolytes for solid-state lithium batteries. Journal of Materials Chemistry A, 2022, 10, 3400-3408.	5.2	54
43	Empowering Metal Phosphides Anode with Catalytic Attribute toward Superior Cyclability for Lithiumâ€Ion Storage. Advanced Functional Materials, 2019, 29, 1809051.	7.8	52
44	TiC/NiO Core/Shell Nanoarchitecture with Battery-Capacitive Synchronous Lithium Storage for High-Performance Lithium-Ion Battery. ACS Applied Materials & Interfaces, 2015, 7, 11842-11848.	4.0	51
45	Enhancing Catalyzed Decomposition of Na₂CO₃ with Co₂MnO_x Nanowire-Decorated Carbon Fibers for Advanced Naâ€“CO₂ Batteries. ACS Applied Materials & Interfaces, 2018, 10, 17240-17248.	4.0	49
46	Supercritical CO₂ mediated incorporation of sulfur into carbon matrix as cathode materials towards high-performance lithiumâ€“sulfur batteries. Journal of Materials Chemistry A, 2018, 6, 212-222.	5.2	49
47	Composite polymer electrolytes reinforced by a three-dimensional polyacrylonitrile/Li0.33La0.557TiO3 nanofiber framework for room-temperature dendrite-free all-solid-state lithium metal battery. Rare Metals, 2022, 41, 1870-1879.	3.6	48
48	Puffed Rice Carbon with Coupled Sulfur and Metal Iron for High-Efficiency Mercury Removal in Aqueous Solution. Environmental Science & Technology, 2020, 54, 2539-2547.	4.6	46
49	A green and facile strategy for the low-temperature and rapid synthesis of Li₂S@PCâ€“CNT cathodes with high Li₂S content for advanced Liâ€“S batteries. Journal of Materials Chemistry A, 2018, 6, 9906-9914.	5.2	45
50	A new strategy for the construction of 3D TiO₂ nanowires/reduced graphene oxide for high-performance lithium/sodium batteries. Journal of Materials Chemistry A, 2018, 6, 24256-24266.	5.2	43
51	Bio-templated fabrication of MnO nanoparticles in SiOC matrix with lithium storage properties. Chemical Engineering Journal, 2019, 359, 584-593.	6.6	43
52	Exploring the Energy Storage Mechanism of High Performance MnO₂ Electrochemical Capacitor Electrodes: An In Situ Atomic Force Microscopy Study in Aqueous Electrolyte. Advanced Functional Materials, 2013, 23, 4745-4751.	7.8	39
53	Interfacial Reactions in Inorganic Allâ€Solidâ€State Lithium Batteries. Batteries and Supercaps, 2021, 4, 8-38.	2.4	39
54	Sulfur synchronously electrodeposited onto exfoliated graphene sheets as a cathode material for advanced lithiumâ€“sulfur batteries. Journal of Materials Chemistry A, 2015, 3, 16513-16519.	5.2	37

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55	High-content of sulfur uniformly embedded in mesoporous carbon: a new electrodeposition synthesis and an outstanding lithiumâ€“sulfur battery cathode. Journal of Materials Chemistry A, 2017, 5, 5905-5911.	5.2	37
56	Enhanced sulfide chemisorption by conductive Al-doped ZnO decorated carbon nanoflakes for advanced Liâ€“S batteries. Nano Research, 2018, 11, 477-489.	5.8	36
57	Supercritical fluid assisted biotemplating synthesis of Siâ€“Oâ€“C microspheres from microalgae for advanced Li-ion batteries. RSC Advances, 2016, 6, 69764-69772.	1.7	35
58	A Solar-Driven Flexible Electrochromic Supercapacitor. Materials, 2020, 13, 1206.	1.3	34
59	Electrical heating behavior of flexible thermoplastic polyurethane/Super-P nanoparticle composite films for advanced wearable heaters. Journal of Industrial and Engineering Chemistry, 2019, 71, 293-300.	2.9	33
60	Li₂S₆â€Integrated PEOâ€Based Polymer Electrolytes for Allâ€Solidâ€State Lithiumâ€Metal Batteries. Angewandte Chemie, 2021, 133, 17842-17847.	1.6	33
61	Synthesis of hierarchical porous carbon from metal carbonates towards high-performance lithium storage. Green Chemistry, 2018, 20, 1484-1490.	4.6	32
62	Mesoporous Fe₃O₄@C submicrospheres evolved by a novel self-corrosion mechanism for high-performance lithium-ion batteries. New Journal of Chemistry, 2014, 38, 2428-2434.	1.4	31
63	Synthesis and electrochemical performance of Li₄Ti₅O₁₂/TiO₂/C nanocrystallines for high-rate lithium ion batteries. RSC Advances, 2015, 5, 74774-74782.	1.7	31
64	H₂O-induced self-propagating synthesis of hierarchical porous carbon: a promising lithium storage material with superior rate capability and ultra-long cycling life. Journal of Materials Chemistry A, 2017, 5, 18221-18229.	5.2	30
65	Synthesis and electrochemical performance of poly(vinylidene fluoride)/SiO2 hybrid membrane for lithium-ion batteries. Journal of Solid State Electrochemistry, 2019, 23, 519-527.	1.2	28
66	Well-dispersed ultrafine Mn₃O₄ nanocrystals on reduced graphene oxide with high electrochemical Li-storage performance. New Journal of Chemistry, 2014, 38, 4743-4747.	1.4	26
67	Supercritical CO₂-assisted synthesis of 3D porous SiOC/Se cathode for ultrahigh areal capacity and long cycle life Liâ€“Se batteries. Journal of Materials Chemistry A, 2018, 6, 24773-24782.	5.2	26
68	Toast-like porous carbon derived from one-step reduction of CaCO3 for electrochemical lithium storage. Carbon, 2018, 130, 559-565.	5.4	23
69	Surfactant and binder free hierarchical NCNPs@CuO nanostructures on ITO for the cost effective enzyme-free glucose sensor applications. Applied Physics A: Materials Science and Processing, 2019, 125, 1.	1.1	23
70	Improved high rate capability of Li[Li0.2Mn0.534Co0.133Ni0.133]O2 cathode material by surface modification with Co3O4. Journal of Alloys and Compounds, 2019, 783, 349-356.	2.8	22
71	N991/MWCNTs/PEO composite films with nano SiO 2 particles as filler for advanced flexible electric heating elements. Materials Research Bulletin, 2017, 90, 273-279.	2.7	21
72	Synthesis and electrochemical performance of nano TiO₂(B)-coated Li[Li_{0.2}Mn_{0.54}Co_{0.13}Ni_{0.13}]O₂ cathode materials for lithium-ion batteries. New Journal of Chemistry, 2017, 41, 12962-12968.	1.4	21

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73	Ultraefficient Conversion of CO₂ into Morphologyâ€Controlled Nanocarbons: A Sustainable Strategy toward Greenhouse Gas Utilization. Small, 2019, 15, e1902249.	5.2	21
74	Synthesis and electrochemical properties of LiMnPO4-modified Li[Li0.2Mn0.534Co0.133Ni0.133]O2 cathode material for Li-ion batteries. Electrochimica Acta, 2017, 235, 1-9.	2.6	19
75	Effects of Nd-modification on the activity and SO₂ resistance of MnO_x/TiO₂ catalysts for low-temperature NH₃-SCR. New Journal of Chemistry, 2018, 42, 12845-12852.	1.4	19
76	A Low-Cost and High-Efficiency Electrothermal Composite Film Composed of Hybrid Conductivity Fillers and Polymer Blends Matrix for High-Performance Plate Heater. Journal of Electronic Materials, 2021, 50, 3084-3094.	1.0	19
77	Green and Low-Temperature Synthesis of Foam-like Hierarchical Porous Carbon from CO₂ as Superior Lithium Storage Material. ACS Applied Energy Materials, 2018, 1, 7123-7129.	2.5	17
78	Supercritical CO₂-Fluid-Assisted Synthesis of TiO₂ Quantum Dots/Reduced Graphene Oxide Composites for Outstanding Sodium Storage Capability. ACS Applied Energy Materials, 2018, 1, 7213-7219.	2.5	17
79	Biological Metabolism Synthesis of Metal Oxides Nanorods from Bacteria as a Biofactory toward Highâ€Performance Lithiumâ€Ion Battery Anodes. Small, 2019, 15, e1902032.	5.2	17
80	A new magnesium hydride route to synthesize morphology-controlled Si/rGO nanocomposite towards high-performance lithium storage. Electrochimica Acta, 2020, 330, 135248.	2.6	17
81	Spinel LiNi0.5Mn1.5O4 shell enables Ni-rich layered oxide cathode with improved cycling stability and rate capability for high-energy lithium-ion batteries. Electrochimica Acta, 2022, 418, 140352.	2.6	17
82	Hierarchically assembled mesoporous carbon nanosheets with an ultra large pore volume for high-performance lithiumâ€“sulfur batteries. New Journal of Chemistry, 2019, 43, 1380-1387.	1.4	16
83	Facile fabrication of red phosphorus/TiO₂ composites for lithium ion batteries. RSC Advances, 2014, 4, 60914-60919.	1.7	15
84	A low temperature MgH2-AlCl3-SiO2 system to synthesize nano-silicon for high-performance Li-ion batteries. Chemical Engineering Journal, 2021, 406, 126805.	6.6	15
85	Graphene/TiO2 decorated N-doped carbon foam as 3D porous current collector for high loading sulfur cathode. Materials Research Bulletin, 2021, 135, 111129.	2.7	15
86	Importing Tin Nanoparticles into Biomassâ€Derived Silicon Oxycarbides with Highâ€Rate Cycling Capability Based on Supercritical Fluid Technology. Chemistry - A European Journal, 2019, 25, 7719-7725.	1.7	14
87	Rose pollens as sustainable biotemplates for porous SiOC microellipsoids with enhanced lithium storage performance. Journal of Alloys and Compounds, 2020, 816, 152595.	2.8	14
88	Regulation of the Interfaces Between Argyrodite Solid Electrolytes and Lithium Metal Anode. Frontiers in Chemistry, 2022, 10, 837978.	1.8	14
89	Controllable synthesis and in situ TEM study of lithiation mechanism of high performance NaV₃O₈ cathodes. Journal of Materials Chemistry A, 2015, 3, 3044-3050.	5.2	13
90	Supercritical CO2 assisted synthesis of sulfur-modified zeolites as high-efficiency adsorbents for Hg2+ removal from water. New Journal of Chemistry, 2018, 42, 3541-3550.	1.4	13

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91	Argyrodite Solid Electrolyte-Integrated Ni-Rich Oxide Cathode with Enhanced Interfacial Compatibility for All-Solid-State Lithium Batteries. ACS Applied Materials & Interfaces, 2022, 14, 33361-33369.	4.0	13
92	Î²-Cyclodextrin-modified porous ceramic membrane with enhanced ionic conductivity and thermal stability for lithium-ion batteries. Ionics, 2020, 26, 173-182.	1.2	12
93	Doping and phase transformation of single-crystal pre-perovskite PbTiO3 fibers with TiO6 edge-shared octahedra. CrystEngComm, 2012, 14, 4520.	1.3	10
94	Hydrogen Pressure-Dependent Dehydrogenation Performance of the Mg(NH₂)₂â€“2LiHâ€“0.07KOH System. ACS Applied Materials & Interfaces, 2020, 12, 15255-15261.	4.0	10
95	Yttrium stabilized argyrodite solid electrolyte with enhanced ionic conductivity and interfacial stability for all-solid-state batteries. Journal of Power Sources, 2022, 543, 231846.	4.0	10
96	A flexible non-precious metal Fe-N/C catalyst for highly efficient oxygen reduction reaction. Nanotechnology, 2019, 30, 144001.	1.3	9
97	Lithium Sulfide as Cathode Materials for Lithium-Ion Batteries: Advances and Challenges. Journal of Chemistry, 2020, 2020, 1-17.	0.9	9
98	Lithium Batteries: Unraveling the Intra and Intercycle Interfacial Evolution of Li₆PS₅Clâ€Based Allâ€Solidâ€State Lithium Batteries (Adv. Energy Mater. 4/2020). Advanced Energy Materials, 2020, 10, 2070017.	10.2	9
99	Mechanochemical synthesis of carbon from CO2: Mechanism for milling process-dependent morphology of carbon. Journal of Alloys and Compounds, 2020, 830, 154681.	2.8	9
100	Sand/carbon composites as low-cost lithium storage materials with superior electrochemical performance. New Journal of Chemistry, 2019, 43, 4123-4129.	1.4	7
101	Supercritical CO2 Synthesis of Freestanding Se1-xSx Foamy Cathodes for High-Performance Li-Se1-xSx Battery. Frontiers in Chemistry, 2021, 9, 738977.	1.8	7
102	In Situ Synthesis of a Si/CNTs/C Composite by Directly Reacting Magnesium Silicide with Lithium Carbonate for Enhanced Lithium Storage Capability. Energy & Fuels, 2021, 35, 20386-20393.	2.5	7
103	Glass fiber reinforced graphite/carbon black@PES composite films for high-temperature electric heaters. Journal of Industrial and Engineering Chemistry, 2022, 107, 401-409.	2.9	5
104	Polybenzimidazole/Conductive Carbon Black Composite Driven at Low Voltage for High-Temperature Heaters. Journal of Electronic Materials, 2022, 51, 2652-2662.	1.0	5
105	Electrochemical lithium storage properties of desert sands. Ionics, 2018, 24, 2233-2239.	1.2	4
106	Hydrothermal Synthesis and Upâ€conversion Luminescence of Ho³⁺/Yb³⁺ Coâ€doped PbTiO₃. Zeitschrift Fur Anorganische Und Allgemeine Chemie, 2019, 645, 1111-1117.	0.6	4
107	Rational design of highly efficient metal-polyaniline/carbon cloth catalyst towards enhanced oxygen reduction reaction. Ionics, 2020, 26, 5065-5073.	1.2	4
108	Tremella-like porous carbon derived from one-step electroreduction of molten carbonates with superior rate capability for sodium-ion batteries. Ionics, 2020, 26, 2899-2907.	1.2	4

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109	Milling Time-Dependent Lithium/Sodium Storage Performance of Carbons Synthesized by a Mechanochemical Reaction. Energy & Fuels, 2021, 35, 4596-4603.	2.5	4
110	Facile and efficient synthesis of Li2Se particles towards high-areal capacity Li2Se cathode for advanced Liâ€“Se battery. Sustainable Materials and Technologies, 2021, 29, e00288.	1.7	2
111	The Effect of Compaction Density of Sulfur/Carbon Cathodes on the Practical Application of Li-S Pouch Cells. Journal of Electronic Materials, 2022, 51, 4115-4124.	1.0	2
112	Response to Comment on â€œPuffed Rice Carbon with Coupled Sulfur and Metal Iron for High-Efficiency Mercury Removal in Aqueous Solutionâ€• Environmental Science & Technology, 2020, 54, 7727-7729.	4.6	0
113	A Facile Pre-Lithiated Strategy towards High-Performance Li2Se-LiTiO2 Composite Cathode for Li-Se Batteries. Nanomaterials, 2022, 12, 815.	1.9	0