Weiqiang Lv

List of Publications by Year
in descending order

90 papers	4,945 citations	109321 35 h-index	91884 69 g-index
91 all docs	91 docs citations	91 times ranked	6003 citing authors

#	Article	IF	Citations
1	Inhibiting Polysulfide Shuttling with a Graphene Composite Separator for Highly Robust Lithium-Sulfur Batteries. Joule, 2018, 2, 2091-2104.	24.0	345
2	From Metalâ€“Organic Framework to Li₂S@Câ€“Coâ€“N Nanoporous Architecture: A High-Capacity Cathode for Lithiumâ€“Sulfur Batteries. ACS Nano, 2016, 10, 10981-10987.	14.6	273
3	A New Hydrophilic Binder Enabling Strongly Anchoring Polysulfides for Highâ€Performance Sulfur Electrodes in Lithiumâ€Sulfur Battery. Advanced Energy Materials, 2018, 8, 1702889.	19.5	270
4	Designing Safe Electrolyte Systems for a Highâ€Stability Lithiumâ€“Sulfur Battery. Advanced Energy Materials, 2018, 8, 1702348.	19.5	266
5	Materials insights into low-temperature performances of lithium-ion batteries. Journal of Power Sources, 2015, 300, 29-40.	7.8	250
6	Atomic Interlamellar Ion Path in High Sulfur Content Lithiumâ€Montmorillonite Host Enables Highâ€Rate and Stable Lithiumâ€“Sulfur Battery. Advanced Materials, 2018, 30, e1804084.	21.0	201
7	Three-Dimensional Hierarchical Reduced Graphene Oxide/Tellurium Nanowires: A High-Performance Freestanding Cathode for Liâ€“Te Batteries. ACS Nano, 2016, 10, 8837-8842.	14.6	197
8	Three-Dimensional Hierarchical Graphene-CNT@Se: A Highly Efficient Freestanding Cathode for Liâ€“Se Batteries. ACS Energy Letters, 2016, 1, 16-20.	17.4	161
9	Understanding the oriented-attachment growth of nanocrystals from an energy point of view: a review. Nanoscale, 2014, 6, 2531-2547.	5.6	156
10	Three-Dimensional CNT/Grapheneâ€“Li₂S Aerogel as Freestanding Cathode for High-Performance Liâ€“S Batteries. ACS Energy Letters, 2016, 1, 820-826.	17.4	148
11	Lithiophilic montmorillonite serves as lithium ion reservoir to facilitate uniform lithium deposition. Nature Communications, 2019, 10, 4973.	12.8	144
12	Tellurium-Impregnated Porous Cobalt-Doped Carbon Polyhedra as Superior Cathodes for Lithiumâ€“Tellurium Batteries. ACS Nano, 2017, 11, 8144-8152.	14.6	137
13	A Nonflammable and Thermotolerant Separator Suppresses Polysulfide Dissolution for Safe and Longâ€Cycle Lithiumâ€Sulfur Batteries. Advanced Energy Materials, 2018, 8, 1802441.	19.5	133
14	Three-dimensional hierarchically structured aerogels constructed with layered MoS 2 /graphene nanosheets as free-standing anodes for high-performance lithium ion batteries. Electrochimica Acta, 2016, 215, 12-18.	5.2	126
15	Direct impregnation of SeS₂ into a MOF-derived 3D nanoporous Coâ€“Nâ€“C architecture towards superior rechargeable lithium batteries. Journal of Materials Chemistry A, 2018, 6, 10466-10473.	10.3	120
16	Highly-flexible 3D Li2S/graphene cathode for high-performance lithium sulfur batteries. Journal of Power Sources, 2016, 327, 474-480.	7.8	114
17	Heterostructured NiS₂/ZnIn₂S₄ Realizing Toroid-like Li₂O₂ Deposition in Lithiumâ€“Oxygen Batteries with Low-Donor-Number Solvents. ACS Nano, 2020, 14, 3490-3499.	14.6	113
18	Recent progress in flame-retardant separators for safe lithium-ion batteries. Energy Storage Materials, 2021, 37, 628-647.	18.0	94

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19	Highly Efficient PVDFâ€HFP/Colloidal Alumina Composite Separator for Highâ€Temperature Lithiumâ€Ion Batteries. Advanced Materials Interfaces, 2018, 5, 1701147.	3.7	89
20	A Singleâ€Step Hydrothermal Route to 3D Hierarchical Cu₂O/CuO/rGO Nanosheets as Highâ€Performance Anode of Lithiumâ€Ion Batteries. Small, 2018, 14, 1702667.	10.0	84
21	Three-dimensional hierarchical C-Co-N/Se derived from metal-organic framework as superior cathode for Li-Se batteries. Journal of Power Sources, 2017, 363, 103-109.	7.8	82
22	Interfacial lattice-strain effects on improving the overall performance of micro-solid oxide fuel cells. Journal of Materials Chemistry A, 2015, 3, 20031-20050.	10.3	81
23	Fe3C/helical carbon nanotube hybrid: Facile synthesis and spin-induced enhancement in microwave-absorbing properties. Composites Part B: Engineering, 2016, 107, 51-58.	12.0	76
24	Highâ€Performance PEâ€BN/PVDFâ€HFP Bilayer Separator for Lithiumâ€Ion Batteries. Advanced Materials Interfaces, 2019, 6, 1801330.	3.7	67
25	Confining excitation energy of Er³⁺-sensitized upconversion nanoparticles through introducing various energy trapping centers. Journal of Materials Chemistry C, 2018, 6, 3869-3875.	5.5	62
26	Synergistic effect enhances the peroxidase-like activity in platinum nanoparticle-supported metalâ€"organic framework hybrid nanozymes for ultrasensitive detection of glucose. Nano Research, 2021, 14, 4689-4695.	10.4	57
27	Highly Active and Durable Air Electrodes for Reversible Protonic Ceramic Electrochemical Cells Enabled by an Efficient Bifunctional Catalyst. Advanced Energy Materials, 2022, 12, .	19.5	57
28	Enhancing Oxygen Reduction Activity and Cr Tolerance of Solid Oxide Fuel Cell Cathodes by a Multiphase Catalyst Coating. Advanced Functional Materials, 2021, 31, 2100034.	14.9	56
29	An Upgraded Lithium Ion Battery Based on a Polymeric Separator Incorporated with Anode Active Materials. Advanced Energy Materials, 2019, 9, 1803627.	19.5	53
30	Highly Efficient Materials Assembly Via Electrophoretic Deposition for Electrochemical Energy Conversion and Storage Devices. Advanced Energy Materials, 2016, 6, 1502018.	19.5	50
31	Distinctive Supercapacitive Properties of Copper and Copper Oxide Nanocrystals Sharing a Similar Colloidal Synthetic Route. Advanced Energy Materials, 2017, 7, 1700105.	19.5	42
32	Reviewâ€"Gassing Mechanism and Suppressing Solutions in Li₄Ti₅O₁₂-Based Lithium-Ion Batteries. Journal of the Electrochemical Society, 2017, 164, A2213-A2224.	2.9	40
33	Constructing a â€œNativeâ€•Oxyfluoride Layer on Fluoride Particles for Enhanced Upconversion Luminescence. Advanced Functional Materials, 2018, 28, 1803946.	14.9	38
34	A quasi-solid composite separator with high ductility for safe and high-performance lithium-ion batteries. Journal of Power Sources, 2019, 414, 225-232.	7.8	38
35	A Highlyâ€Efficient Composite Separator with Strong Ligand Interaction for Highâ€Temperature Lithiumâ€Ion Batteries. ChemElectroChem, 2018, 5, 2722-2728.	3.4	37
36	Polybenzimidazole functionalized electrolyte with Liâ€wetting and selfâ€fluorination functionalities for practical Li metal batteries. InformaÄnÃ-MateriÃ¡ly, 2022, 4, .	17.3	33

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37	Separator Modification and Functionalization for Inhibiting the Shuttle Effect in Lithiumâ€Sulfur Batteries. Physica Status Solidi - Rapid Research Letters, 2018, 12, 1800249.	2.4	32
38	Genetic engineering of porous sulfur species with molecular target prevents host passivation in lithium sulfur batteries. Energy Storage Materials, 2020, 26, 65-72.	18.0	31
39	Gas Transport in Solid Oxide Fuel Cells. SpringerBriefs in Energy, 2014, , .	0.3	30
40	Lithiumâ€“Air Batteries: Performance Interplays with Instability Factors. ChemElectroChem, 2015, 2, 312-323.	3.4	30
41	An Efficient, Scalable Route to Robust PVDFâ€coâ€HFP/SiO₂ Separator for Longâ€Cycle Lithium Ion Batteries. Physica Status Solidi - Rapid Research Letters, 2018, 12, 1800319.	2.4	30
42	A new insight into the oxygen diffusion in porous cathodes ofÂlithium-air batteries. Energy, 2015, 83, 669-673.	8.8	29
43	Vaporâ€“Dissociationâ€“Solid Growth of Three-Dimensional Graphite-like Capsules with Delicate Morphology and Atomic-level Thickness Control. Crystal Growth and Design, 2016, 16, 5040-5048.	3.0	27
44	A Nanostructured Si/SiOC Composite Anode with Volumeâ€Changeâ€Buffering Microstructure for Lithiumâ€Ion Batteries. Chemistry - A European Journal, 2019, 25, 2604-2609.	3.3	27
45	A highly-efficient route to three-dimensional nanoporous copper leaves with high surface enhanced Raman scattering properties. Chemical Engineering Journal, 2017, 321, 394-400.	12.7	24
46	Composite nanofibers through in-situ reduction with abundant active sites as flexible and stable anode for lithium ion batteries. Composites Part B: Engineering, 2019, 161, 369-375.	12.0	24
47	Physical justification for ionic conductivity enhancement at strained coherent interfaces. Journal of Power Sources, 2015, 285, 37-42.	7.8	23
48	An Energy Investigation into 1D/2D Orientedâ€Attachment Assemblies of 1D Ag Nanocrystals. ChemPhysChem, 2014, 15, 2688-2691.	2.1	21
49	Three-Dimensional Nanoporous Polyethylene-Reinforced PVDF-HFP Separator Enabled by Dual-Solvent Hierarchical Gas Liberation for Ultrahigh-Rate Lithium Ion Batteries. ACS Applied Energy Materials, 2018, 1, 921-927.	5.1	21
50	Cathode infiltration with enhanced catalytic activity and durability for intermediate-temperature solid oxide fuel cells. Chinese Chemical Letters, 2022, 33, 674-682.	9.0	21
51	Oriented-attachment dimensionality build-up via van der Waals interaction. CrystEngComm, 2015, 17, 729-733.	2.6	19
52	Additive-Free Shape-Invariant Nano-to-Micron Size-Tuning of Cu₂O Cubic Crystals by Square-Wave Voltammetry. Journal of Physical Chemistry C, 2014, 118, 11062-11077.	3.1	18
53	Space matters: Li+ conduction versus strain effect at FePO4/LiFePO4 interface. Applied Physics Letters, 2016, 108, .	3.3	18
54	Facile electrophoretic deposition of functionalized Bi2O3 nanoparticles. Materials and Design, 2017, 116, 359-364.	7.0	17

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55	Enhance the performance of dye-sensitized solar cells by constructing upconversion-core/semiconductor-shell structured NaYF4:Yb,Er @BiOCl microprisms. Solar Energy, 2021, 224, 563-568.	6.1	16
56	Gas transport evaluation in lithiumâ€“air batteries with micro/nano-structured cathodes. Journal of Power Sources, 2015, 274, 762-767.	7.8	15
57	A sandwich-structured double-battery device for direct evaluation of lithium diffusion coefficients and phase transition in electrodes of lithium ion batteries. Chemical Engineering Science, 2019, 200, 80-86.	3.8	15
58	Inhibiting Polysulfide Shuttling with a Graphene Composite Separator for Highly Robust Lithium-Sulfur Batteries. Joule, 2019, 3, 303.	24.0	14
59	Analytical insight into the oxygen diffusion in wetted porous cathodes of Li-air batteries. Energy, 2015, 93, 416-420.	8.8	13
60	Interfacial strain effect on gas transport in nanostructured electrodes of solid oxide fuel cells. Journal of Power Sources, 2015, 291, 126-131.	7.8	11
61	Lithiumâ€Ion Batteries: A Singleâ€Step Hydrothermal Route to 3D Hierarchical Cu₂O/CuO/rGO Nanosheets as Highâ€Performance Anode of Lithiumâ€Ion Batteries (Small 5/2018). Small, 2018, 14, 1870020.	10.0	10
62	Synthesis and upconversion luminescence of Î±-Ba2ScAlO5 hosted compounds. Journal of Solid State Chemistry, 2021, 304, 122559.	2.9	10
63	A model study on correlation between microstructure-gas diffusion and Cr deposition in porous LSM/YSZ cathodes of solid oxide fuel cells. International Journal of Hydrogen Energy, 2019, 44, 18319-18329.	7.1	9
64	Photoluminescence of Î²-Ba2ScAlO5: Eu3+ red emitting phosphors effectively activated by UV light. Journal of Luminescence, 2022, 245, 118800.	3.1	9
65	A critical look into effects of electrode pore morphology in solid oxide fuel cells. AICHE Journal, 2017, 63, 2312-2317.	3.6	8
66	An electrochemical device for the Knudsen and bulk diffusivity measurement in the anodes of solid oxide fuel cells. International Journal of Hydrogen Energy, 2014, 39, 15057-15062.	7.1	7
67	Assembly of anisotropic one dimensional Ag nanostructures through orientated attachment: on-axis or off-axis growth?. RSC Advances, 2015, 5, 20783-20787.	3.6	7
68	Advanced materials for flexible electrochemical energy storage devices. Journal of Materials Research, 2018, 33, 2281-2296.	2.6	7
69	Heatâ€Resistant Trilayer Separators for Highâ€Performance Lithiumâ€Ion Batteries. Physica Status Solidi - Rapid Research Letters, 2020, 14, 1900504.	2.4	6
70	Electrochemical devices with optimized gas tightness for the diffusivity measurement in fuel cells. International Journal of Hydrogen Energy, 2014, 39, 2334-2339.	7.1	5
71	Ionic conductivity evolution at strained crystal interfaces in solid oxide fuel cells (SOFCs). International Journal of Hydrogen Energy, 2016, 41, 22254-22259.	7.1	5
72	On the polarization loss induced by thermal expansion in solid oxide fuel cells. Solid State Ionics, 2017, 311, 63-68.	2.7	5

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73	Coherent Bi2O3-TiO2 hetero-junction material through oriented growth as an efficient photo-catalyst for methyl orange degradation. Materials Today Chemistry, 2018, 8, 36-41.	3.5	5
74	Synergistic effects of sulfur poisoning and gas diffusion on polarization loss in anodes of solid oxide fuel cells. AICHE Journal, 2018, 64, 1127-1134.	3.6	4
75	Reproducible Single-Droplet multiplexed detection through Excitation-Encoded Tri-mode upconversion solid sensors. Chemical Engineering Journal, 2022, 430, 131242.	12.7	4
76	Gas leak diffusion induced polarization in submicro/nanoscale non-tight electrolytes of solid oxide fuel cells. RSC Advances, 2016, 6, 62052-62061.	3.6	3
77	Controlled Synthesis and Up-Conversion Emission of Rare-Earth Tri-Doped NaYF₄ Nanocrystals Under Femtosecond-Laser Excitation. Journal of Nanoscience and Nanotechnology, 2011, 11, 7700-7708.	0.9	2
78	Length evolution of helical micro/nano-scale structures. RSC Advances, 2014, 4, 31308-31312.	3.6	2
79	Initial-stage oriented-attachment one-dimensional assembly of nanocrystals: fundamental insight with a collisionâ€“recrystallization model. RSC Advances, 2015, 5, 54605-54612.	3.6	2
80	Advanced Oxygen Sensing for Accurate Gas Diffusivity Measurements in Fuel Cells. ChemElectroChem, 2015, 2, 819-823.	3.4	2
81	A facile and scalable route to nano-crystallized kesterite Cu2ZnSnS4 fibers via electrospinning/sulfurization. Materials Research Bulletin, 2015, 61, 504-510.	5.2	2
82	Crystal-isotropicity dependence of ionic conductivity enhancement at strained interfaces. Solid State Ionics, 2016, 289, 168-172.	2.7	2
83	Reduced electrochemical performances of proton exchange membrane fuel cells due to gaseous diffusion in electrolytes. RSC Advances, 2016, 6, 97194-97198.	3.6	2
84	Three-dimensional ionic conduction in the strained electrolytes of solid oxide fuel cells. Journal of Applied Physics, 2016, 119, 174904.	2.5	2
85	Ionic conductivity evolution of isotropic crystal with double strained interfaces. Solid State Ionics, 2017, 303, 167-171.	2.7	2
86	Gas convection in fuel cells: An overlooked factor. Electrochimica Acta, 2015, 176, 1476-1483.	5.2	1
87	Insights into van der Waals interaction between nanotubes and planar surfaces. Materials Today Physics, 2017, 2, 35-39.	6.0	1
88	The evaluation of van der Waals interaction in the oriented-attachment growth of nanotubes. Materials Research Society Symposia Proceedings, 2014, 1705, 1.	0.1	0
89	Energy Storage: Highly Efficient Materials Assembly Via Electrophoretic Deposition for Electrochemical Energy Conversion and Storage Devices (Adv. Energy Mater. 7/2016). Advanced Energy Materials, 2016, 6, .	19.5	0
90	Diffusivity Measurement Techniques. SpringerBriefs in Energy, 2014, , 19-44.	0.3	0