

# Changhong Wang

## List of Publications by Year in descending order

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99  
papers

8,442  
citations

34105

52  
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45317

90  
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99  
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99  
docs citations

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times ranked

6349  
citing authors

#	ARTICLE	IF	CITATIONS
1	Atomically Dispersed Ru-Decorated TiO <sub>2</sub> Nanosheets for Thermally Assisted Solar-Driven Nitrogen Oxidation into Nitric Oxide. <i>CCS Chemistry</i> , 2022, 4, 1208-1216.	7.8	17
2	Origin of high electrochemical stability of multi-metal chloride solid electrolytes for high energy all-solid-state lithium-ion batteries. <i>Nano Energy</i> , 2022, 92, 106674.	16.0	36
3	Critical Review on Low-Temperature Li-ion/Metal Batteries. <i>Advanced Materials</i> , 2022, 34, e2107899.	21.0	204
4	Probing heat generation and release in a 57.5 A h high-energy-density Li-ion pouch cell with a nickel-rich cathode and SiO <sub>2</sub> /graphite anode. <i>Journal of Materials Chemistry A</i> , 2022, 10, 1227-1235.	10.3	6
5	Spatial random fields-based Bayesian method for calibrating geotechnical parameters with ground surface settlements induced by shield tunneling. <i>Acta Geotechnica</i> , 2022, 17, 1503-1519.	5.7	8
6	Cu clusters/TiO <sub>2</sub> with abundant oxygen vacancies for enhanced electrocatalytic nitrate reduction to ammonia. <i>Journal of Materials Chemistry A</i> , 2022, 10, 6448-6453.	10.3	91
7	Field-induced reagent concentration and sulfur adsorption enable efficient electrocatalytic semihydrogenation of alkynes. <i>Science Advances</i> , 2022, 8, eabm9477.	10.3	40
8	Stochastic mechanics-based Bayesian method calibrating the constitutive parameters of the unified model for clay and sand with CPTU data. <i>Acta Geotechnica</i> , 2022, 17, 4577-4598.	5.7	4
9	Direct Electrosynthesis of Urea from Carbon Dioxide and Nitric Oxide. <i>ACS Energy Letters</i> , 2022, 7, 284-291.	17.4	105
10	Solvent-Free Approach for Interweaving Freestanding and Ultrathin Inorganic Solid Electrolyte Membranes. <i>ACS Energy Letters</i> , 2022, 7, 410-416.	17.4	91
11	Oxide-Derived Core-Shell Cu@Zn Nanowires for Urea Electrosynthesis from Carbon Dioxide and Nitrate in Water. <i>ACS Nano</i> , 2022, 16, 9095-9104.	14.6	86
12	Transition of the Reaction from Three-Phase to Two-Phase by Using a Hybrid Conductor for High-Energy-Density High-Rate Solid-State Li <sub>2</sub> O Batteries. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 5821-5826.	11.8	47
13	Electrosynthesis of Nitrate via the Oxidation of Nitrogen on Tensile-Strained Palladium Porous Nanosheets. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 4474-4478.	13.8	116
14	Electrosynthesis of Nitrate via the Oxidation of Nitrogen on Tensile-Strained Palladium Porous Nanosheets. <i>Angewandte Chemie</i> , 2021, 133, 4524-4528.	2.0	28
15	Regulated lithium plating and stripping by a nano-scale gradient inorganic-organic coating for stable lithium metal anodes. <i>Energy and Environmental Science</i> , 2021, 14, 4085-4094.	30.8	48
16	Reversible Silicon Anodes with Long Cycles by Multifunctional Volumetric Buffer Layers. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 4093-4101.	8.0	34
17	All-solid-state lithium batteries enabled by sulfide electrolytes: from fundamental research to practical engineering design. <i>Energy and Environmental Science</i> , 2021, 14, 2577-2619.	30.8	201
18	Reviving Anode Protection Layer in Na <sub>2</sub> O Batteries: Failure Mechanism and Resolving Strategy. <i>Advanced Energy Materials</i> , 2021, 11, 2003789.	19.5	22

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19	Hollow cobalt sulfide nanocapsules for electrocatalytic selective transfer hydrogenation of cinnamaldehyde with water. <i>Cell Reports Physical Science</i> , 2021, 2, 100337.	5.6	24
20	Tailoring bulk Li <sup>+</sup> ion diffusion kinetics and surface lattice oxygen activity for high-performance lithium-rich manganese-based layered oxides. <i>Energy Storage Materials</i> , 2021, 37, 509-520.	18.0	55
21	Deciphering Interfacial Chemical and Electrochemical Reactions of Sulfide-Based All-Solid-State Batteries. <i>Advanced Energy Materials</i> , 2021, 11, 2100210.	19.5	63
22	Realizing Solid-Phase Reaction in Li-S Batteries via Localized High-Concentration Carbonate Electrolyte. <i>Advanced Energy Materials</i> , 2021, 11, 2101004.	19.5	46
23	Converting copper sulfide to copper with surface sulfur for electrocatalytic alkyne semi-hydrogenation with water. <i>Nature Communications</i> , 2021, 12, 3881.	12.8	77
24	Membrane-free selective oxidation of thioethers with water over a nickel phosphide nanocube electrode. <i>Cell Reports Physical Science</i> , 2021, 2, 100462.	5.6	18
25	Unveiling micro internal short circuit mechanism in a 60Ah high-energy-density Li-ion pouch cell. <i>Nano Energy</i> , 2021, 84, 105908.	16.0	15
26	Selenium Vacancy Promotes Transfer Semihydrogenation of Alkynes from Water Electrolysis. <i>ACS Catalysis</i> , 2021, 11, 9471-9478.	11.2	29
27	Advanced High-Voltage All-Solid-State Li-Ion Batteries Enabled by a Dual-Halogen Solid Electrolyte. <i>Advanced Energy Materials</i> , 2021, 11, 2100836.	19.5	64
28	Integrating Hydrogen Production and Transfer Hydrogenation with Selenite Promoted Electrooxidation of <i>p</i> -Nitrotoluenes to <i>o</i> -Nitroethenes. <i>Angewandte Chemie</i> , 2021, 133, 22181-22187.	2.0	13
29	Integrating Hydrogen Production and Transfer Hydrogenation with Selenite Promoted Electrooxidation of <i>p</i> -Nitrotoluenes to <i>o</i> -Nitroethenes. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 22010-22016.	13.8	34
30	A universal wet-chemistry synthesis of solid-state halide electrolytes for all-solid-state lithium-metal batteries. <i>Science Advances</i> , 2021, 7, eabh1896.	10.3	93
31	Sulfur Vacancy-Promoted Highly Selective Electrosynthesis of Functionalized Aminoarenes via Transfer Hydrogenation of Nitroarenes with H <sub>2</sub> O over a Co <sub>3</sub> S <sub>4</sub> Nanosheet Cathode. <i>CCS Chemistry</i> , 2021, 3, 507-515.	7.8	56
32	Ru-Doped Pd Nanoparticles for Nitrogen Electrooxidation to Nitrate. <i>ACS Catalysis</i> , 2021, 11, 14032-14037.	11.2	56
33	Dual-functional interfaces for highly stable Ni-rich layered cathodes in sulfide all-solid-state batteries. <i>Energy Storage Materials</i> , 2020, 27, 117-123.	18.0	109
34	Heterogeneous (de)chlorination-enabled control of reactivity in the liquid-phase synthesis of furanic biofuel from cellulosic feedstock. <i>Green Chemistry</i> , 2020, 22, 637-645.	9.0	32
35	Temperature-regulated reversible transformation of spinel-to-oxyhydroxide active species for electrocatalytic water oxidation. <i>Journal of Materials Chemistry A</i> , 2020, 8, 1631-1635.	10.3	33
36	Unveiling the Promotion of Surface-Adsorbed Chalcogenate on the Electrocatalytic Oxygen Evolution Reaction. <i>Angewandte Chemie</i> , 2020, 132, 22656-22660.	2.0	32

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37	Selective Transfer Semihydrogenation of Alkynes with H <sub>2</sub> O (D <sub>2</sub> O) as the H (D) Source over a Pd@P Cathode. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 21170-21175.	13.8	91
38	Tuning ionic conductivity and electrode compatibility of Li <sub>3</sub> YBr <sub>6</sub> for high-performance all solid-state Li batteries. <i>Nano Energy</i> , 2020, 77, 105097.	16.0	41
39	Tuning bifunctional interface for advanced sulfide-based all-solid-state batteries. <i>Energy Storage Materials</i> , 2020, 33, 139-146.	18.0	44
40	A nitrogen fixation strategy to synthesize NO <i>via</i> the thermally assisted photocatalytic conversion of air. <i>Journal of Materials Chemistry A</i> , 2020, 8, 19623-19630.	10.3	24
41	Selective Transfer Semihydrogenation of Alkynes with H <sub>2</sub> O (D <sub>2</sub> O) as the H (D) Source over a Pd@P Cathode. <i>Angewandte Chemie</i> , 2020, 132, 21356-21361.	2.0	15
42	Unveiling the Promotion of Surface-Adsorbed Chalcogenate on the Electrocatalytic Oxygen Evolution Reaction. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 22470-22474.	13.8	257
43	Promoting selective electroreduction of nitrates to ammonia over electron-deficient Co modulated by rectifying Schottky contacts. <i>Science China Chemistry</i> , 2020, 63, 1469-1476.	8.2	155
44	Thermally assisted photocatalytic conversion of CO <sub>2</sub> to H <sub>2</sub> O over carbon doped In <sub>2</sub> S <sub>3</sub> nanosheets. <i>Journal of Materials Chemistry A</i> , 2020, 8, 10175-10179.	10.3	61
45	Enabling ultrafast ionic conductivity in Br-based lithium argyrodite electrolytes for solid-state batteries with different anodes. <i>Energy Storage Materials</i> , 2020, 30, 238-249.	18.0	46
46	Single crystal cathodes enabling high-performance all-solid-state lithium-ion batteries. <i>Energy Storage Materials</i> , 2020, 30, 98-103.	18.0	109
47	Interface-assisted in-situ growth of halide electrolytes eliminating interfacial challenges of all-inorganic solid-state batteries. <i>Nano Energy</i> , 2020, 76, 105015.	16.0	80
48	Halide-based solid-state electrolyte as an interfacial modifier for high performance solid-state Li-O <sub>2</sub> batteries. <i>Nano Energy</i> , 2020, 75, 105036.	16.0	45
49	Tailoring the Mechanical and Electrochemical Properties of an Artificial Interphase for High-Performance Metallic Lithium Anode. <i>Advanced Energy Materials</i> , 2020, 10, 2001139.	19.5	36
50	Totally compatible P <sub>4</sub> S <sub>10</sub> +n cathodes with self-generated Li <sup>+</sup> pathways for sulfide-based all-solid-state batteries. <i>Energy Storage Materials</i> , 2020, 28, 325-333.	18.0	17
51	Unveiling the critical role of interfacial ionic conductivity in all-solid-state lithium batteries. <i>Nano Energy</i> , 2020, 72, 104686.	16.0	56
52	Site-Occupation-Tuned Superionic Li <sub>x</sub> ScCl <sub>3+x</sub> Halide Solid Electrolytes for All-Solid-State Batteries. <i>Journal of the American Chemical Society</i> , 2020, 142, 7012-7022.	13.7	260
53	3D Printing of Free-Standing $\alpha$ -O <sub>2</sub> Breathable Air Electrodes for High-Capacity and Long-Life Na-O <sub>2</sub> Batteries. <i>Chemistry of Materials</i> , 2020, 32, 3018-3027.	6.7	37
54	Ultrastable Anode Interface Achieved by Fluorinating Electrolytes for All-Solid-State Li Metal Batteries. <i>ACS Energy Letters</i> , 2020, 5, 1035-1043.	17.4	176

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55	A Versatile Sn <sup>2+</sup> -Substituted Argyrodite Sulfide Electrolyte for All-Solid-State Li Metal Batteries. <i>Advanced Energy Materials</i> , 2020, 10, 1903422.	19.5	183
56	Li <sub>10</sub> Ge(P <sub>1-x</sub> Sb <sub>x</sub> ) <sub>2</sub> S <sub>12</sub> Lithium-Ion Conductors with Enhanced Atmospheric Stability. <i>Chemistry of Materials</i> , 2020, 32, 2664-2672.	6.7	125
57	Gradiantly Sodiated Alucone as an Interfacial Stabilizing Strategy for Solid-State Na Metal Batteries. <i>Advanced Functional Materials</i> , 2020, 30, 2001118.	14.9	53
58	Progress and perspectives on halide lithium conductors for all-solid-state lithium batteries. <i>Energy and Environmental Science</i> , 2020, 13, 1429-1461.	30.8	366
59	Interface Engineering of Sulfide-Based All-Solid-State Lithium Batteries. <i>ECS Meeting Abstracts</i> , 2020, MA2020-01, 308-308.	0.0	0
60	Stabilizing the Li Metal Interface: Molecular Layer Deposition for Advanced Next-Generation Energy Storage Systems. <i>ECS Meeting Abstracts</i> , 2020, MA2020-01, 281-281.	0.0	0
61	Water-Mediated Synthesis of a Superionic Halide Solid Electrolyte. <i>Angewandte Chemie</i> , 2019, 131, 16579-16584.	2.0	92
62	Water-Mediated Synthesis of a Superionic Halide Solid Electrolyte. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 16427-16432.	13.8	232
63	Rücktitelbild: Water-Mediated Synthesis of a Superionic Halide Solid Electrolyte ( <i>Angew. Chem.</i> ) Tj ETQq1 1 0.784314 rgBT /Over	2.0	92
64	O <sub>2</sub> /O <sub>2</sub> <sup>+</sup> Crossover- and Dendrite-Free Hybrid Solid-State Na <sub>3</sub> O <sub>2</sub> Batteries. <i>Chemistry of Materials</i> , 2019, 31, 9024-9031.	6.7	24
65	Air-stable Li <sub>3</sub> InCl <sub>6</sub> electrolyte with high voltage compatibility for all-solid-state batteries. <i>Energy and Environmental Science</i> , 2019, 12, 2665-2671.	30.8	345
66	Natural SEI-Inspired Dual-Protective Layers via Atomic/Molecular Layer Deposition for Long-Life Metallic Lithium Anode. <i>Matter</i> , 2019, 1, 1215-1231.	10.0	120
67	Unravelling the Chemistry and Microstructure Evolution of a Cathodic Interface in Sulfide-Based All-Solid-State Li-Ion Batteries. <i>ACS Energy Letters</i> , 2019, 4, 2480-2488.	17.4	154
68	<i>In situ</i> formation of highly controllable and stable Na <sub>3</sub> PS <sub>4</sub> as a protective layer for Na metal anode. <i>Journal of Materials Chemistry A</i> , 2019, 7, 4119-4125.	10.3	51
69	Solid-State Plastic Crystal Electrolytes: Effective Protection Interlayers for Sulfide-Based All-Solid-State Lithium Metal Batteries. <i>Advanced Functional Materials</i> , 2019, 29, 1900392.	14.9	154
70	Manipulating Interfacial Nanostructure to Achieve High-Performance All-Solid-State Lithium-Ion Batteries. <i>Small Methods</i> , 2019, 3, 1900261.	8.6	90
71	NiFe Alloy Nanoparticles with hcp Crystal Structure Stimulate Superior Oxygen Evolution Reaction Electrocatalytic Activity. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 6099-6103.	13.8	267
72	High-Performance Li <sup>+</sup> -SeS <sub>x</sub> All-Solid-State Lithium Batteries. <i>Advanced Materials</i> , 2019, 31, e1808100.	21.0	121

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73	A Novel Organic "Polyurea" Thin Film for Ultralong-Life Lithium-Metal Anodes via Molecular-Layer Deposition. <i>Advanced Materials</i> , 2019, 31, e1806541.	21.0	204
74	Boosting the performance of lithium batteries with solid-liquid hybrid electrolytes: Interfacial properties and effects of liquid electrolytes. <i>Nano Energy</i> , 2018, 48, 35-43.	16.0	143
75	Review"From Nano Size Effect to In Situ Wrapping: Rational Design of Cathode Structure for High Performance Lithium-Sulfur Batteries. <i>Journal of the Electrochemical Society</i> , 2018, 165, A6034-A6042.	2.9	25
76	Carbon paper interlayers: A universal and effective approach for highly stable Li metal anodes. <i>Nano Energy</i> , 2018, 43, 368-375.	16.0	117
77	Multi-functional nanowall arrays with unrestricted Li <sup>+</sup> transport channels and an integrated conductive network for high-areal-capacity Li-S batteries. <i>Journal of Materials Chemistry A</i> , 2018, 6, 22958-22965.	10.3	31
78	Stabilization of all-solid-state Li-S batteries with a polymer-ceramic sandwich electrolyte by atomic layer deposition. <i>Journal of Materials Chemistry A</i> , 2018, 6, 23712-23719.	10.3	77
79	In Situ Li <sub>3</sub> PS <sub>4</sub> Solid-State Electrolyte Protection Layers for Superior Long-Life and High-Rate Lithium-Metal Anodes. <i>Advanced Materials</i> , 2018, 30, e1804684.	21.0	140
80	Towards high performance Li metal batteries: Nanoscale surface modification of 3D metal hosts for pre-stored Li metal anodes. <i>Nano Energy</i> , 2018, 54, 375-382.	16.0	123
81	Toward High Areal Energy and Power Density Electrode for Li-Ion Batteries via Optimized 3D Printing Approach. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 39794-39801.	8.0	126
82	A high-energy sulfur cathode in carbonate electrolyte by eliminating polysulfides via solid-phase lithium-sulfur transformation. <i>Nature Communications</i> , 2018, 9, 4509.	12.8	175
83	Ultrahigh-Capacity and Long-Life Lithium-Metal Batteries Enabled by Engineering Carbon Nanofiber-Stabilized Graphene Aerogel Film Host. <i>Small</i> , 2018, 14, e1803310.	10.0	48
84	On the Cycling Performance of Na-O <sub>2</sub> Cells: Revealing the Impact of the Superoxide Crossover toward the Metallic Na Electrode. <i>Advanced Functional Materials</i> , 2018, 28, 1801904.	14.9	37
85	High-performance all-solid-state Li-Se batteries induced by sulfide electrolytes. <i>Energy and Environmental Science</i> , 2018, 11, 2828-2832.	30.8	99
86	Dendrite-free and minimum volume change Li metal anode achieved by three-dimensional artificial interlayers. <i>Energy Storage Materials</i> , 2018, 15, 415-421.	18.0	40
87	Stabilizing interface between Li <sub>10</sub> SnP <sub>2</sub> S <sub>12</sub> and Li metal by molecular layer deposition. <i>Nano Energy</i> , 2018, 53, 168-174.	16.0	132
88	Atomic-scale Pt clusters decorated on porous Ni(OH) <sub>2</sub> nanowires as highly efficient electrocatalyst for hydrogen evolution reaction. <i>Science China Materials</i> , 2017, 60, 1121-1128.	6.3	39
89	Computing: Memristive Devices with Highly Repeatable Analog States Boosted by Graphene Quantum Dots (Small 20/2017). <i>Small</i> , 2017, 13, .	10.0	0
90	Memristive Devices with Highly Repeatable Analog States Boosted by Graphene Quantum Dots. <i>Small</i> , 2017, 13, 1603435.	10.0	44

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91	Investigation and Manipulation of Different Analog Behaviors of Memristor as Electronic Synapse for Neuromorphic Applications. Scientific Reports, 2016, 6, 22970.	3.3	66
92	In-situ activated polycation as a multifunctional additive for Li-S batteries. Nano Energy, 2016, 26, 43-49.	16.0	34
93	Monodispersed Sulfur Nanoparticles for Lithium-Sulfur Batteries with Theoretical Performance. Nano Letters, 2015, 15, 798-802.	9.1	273
94	Rational Design of Cathode Structure for High Rate Performance Lithium-Sulfur Batteries. Nano Letters, 2015, 15, 5443-5448.	9.1	147
95	Vulcanization accelerator enabled sulfurized carbon materials for high capacity and high stability of lithium-sulfur batteries. Journal of Materials Chemistry A, 2015, 3, 1392-1395.	10.3	66
96	Sulfur-amine chemistry-based synthesis of multi-walled carbon nanotube-sulfur composites for high performance Li-S batteries. Chemical Communications, 2014, 50, 1202-1204.	4.1	103
97	Size Effect of Sulfur Nanoparticles in Lithium Sulfur Batteries. ECS Meeting Abstracts, 2014, , .	0.0	0
98	Ultrafine Sulfur Nanoparticles in Conducting Polymer Shell as Cathode Materials for High Performance Lithium/Sulfur Batteries. Scientific Reports, 2013, 3, 1910.	3.3	193
99	Design, Analysis and Application of a Mandrel-Beam-Frictional Sliding Damper. KSCE Journal of Civil Engineering, 0, , 1.	1.9	0