Chengwei Wang

List of Publications by Year
in descending order

36 papers	7,309 citations	201658 27 h-index	345203 36 g-index
36 all docs	36 docs citations	36 times ranked	7290 citing authors

#	Article	IF	Citations
1	Flexible, solid-state, ion-conducting membrane with 3D garnet nanofiber networks for lithium batteries. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 7094-7099.	7.1	769
2	Garnet-Type Solid-State Electrolytes: Materials, Interfaces, and Batteries. Chemical Reviews, 2020, 120, 4257-4300.	47.7	655
3	Toward garnet electrolyteâ€"based Li metal batteries: An ultrathin, highly effective, artificial solid-state electrolyte/metallic Li interface. Science Advances, 2017, 3, e1601659.	10.3	647
4	Conformal, Nanoscale ZnO Surface Modification of Garnet-Based Solid-State Electrolyte for Lithium Metal Anodes. Nano Letters, 2017, 17, 565-571.	9.1	556
5	Transition from Superlithiophobicity to Superlithiophilicity of Garnet Solid-State Electrolyte. Journal of the American Chemical Society, 2016, 138, 12258-12262.	13.7	548
6	Three-dimensional bilayer garnet solid electrolyte based high energy density lithium metalâ€"sulfur batteries. Energy and Environmental Science, 2017, 10, 1568-1575.	30.8	499
7	Treeâ€Inspired Design for Highâ€Efficiency Water Extraction. Advanced Materials, 2017, 29, 1704107.	21.0	494
8	High-capacity, low-tortuosity, and channel-guided lithium metal anode. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 3584-3589.	7.1	412
9	Muscleâ€Inspired Highly Anisotropic, Strong, Ionâ€Conductive Hydrogels. Advanced Materials, 2018, 30, e1801934.	21.0	408
10	A general method to synthesize and sinter bulk ceramics in seconds. Science, 2020, 368, 521-526.	12.6	357
11	Interface Engineering for Garnetâ€Based Solidâ€State Lithiumâ€Metal Batteries: Materials, Structures, and Characterization. Advanced Materials, 2018, 30, e1802068.	21.0	204
12	3D Wettable Framework for Dendriteâ€Free Alkali Metal Anodes. Advanced Energy Materials, 2018, 8, 1800635.	19.5	196
13	An Electron/Ion Dualâ€Conductive Alloy Framework for Highâ€Rate and Highâ€Capacity Solidâ€State Lithiumâ€Metal Batteries. Advanced Materials, 2019, 31, e1804815.	21.0	188
14	Universal Soldering of Lithium and Sodium Alloys on Various Substrates for Batteries. Advanced Energy Materials, 2018, 8, 1701963.	19.5	186
15	In Situ Neutron Depth Profiling of Lithium Metalâ€"Garnet Interfaces for Solid State Batteries. Journal of the American Chemical Society, 2017, 139, 14257-14264.	13.7	154
16	Superflexible Wood. ACS Applied Materials & Interfaces, 2017, 9, 23520-23527.	8.0	141
17	Synergistic Ultrathin Functional Polymer-Coated Carbon Nanotube Interlayer for High Performance Lithiumâ€"Sulfur Batteries. ACS Applied Materials & Interfaces, 2016, 8, 20092-20099.	8.0	102
18	Rapid Thermal Annealing of Cathode-Garnet Interface toward High-Temperature Solid State Batteries. Nano Letters, 2017, 17, 4917-4923.	9.1	89

#	Article	IF	Citations
19	Salinityâ€Gradient Power Generation with Ionized Wood Membranes. Advanced Energy Materials, 2020, 10, 1902590.	19.5	83
20	A Highly Conductive Cationic Wood Membrane. Advanced Functional Materials, 2019, 29, 1902772.	14.9	79
21	Reversible Shortâ€Circuit Behaviors in Garnetâ€Based Solidâ€State Batteries. Advanced Energy Materials, 2020, 10, 2000702.	19.5	77
22	Stamping Flexible Li Alloy Anodes. Advanced Materials, 2021, 33, e2005305.	21.0	58
23	Flexible, Bio-Compatible Nanofluidic Ion Conductor. Chemistry of Materials, 2018, 30, 7707-7713.	6.7	54
24	Printable, high-performance solid-state electrolyte films. Science Advances, 2020, 6, .	10.3	54
25	A Solutionâ€Processed Highâ€Temperature, Flexible, Thinâ€Film Actuator. Advanced Materials, 2016, 28, 8618-8624.	21.0	53
26	Flexible Garnet Solid-State Electrolyte Membranes Enabled by Tile-and-Grout Design. ACS Energy Letters, 2019, 4, 2668-2674.	17.4	50
27	Tailoring grain growth and densification toward a high-performance solid-state electrolyte membrane. Materials Today, 2021, 42, 41-48.	14.2	32
28	Strong, Water-Stable Ionic Cable from Bio-Hydrogel. Chemistry of Materials, 2019, 31, 9288-9294.	6.7	24
29	Highâ€Temperature Ultrafast Sintering: Exploiting a New Kinetic Region to Fabricate Porous Solidâ€State Electrolyte Scaffolds. Advanced Materials, 2021, 33, e2100726.	21.0	24
30	Rapid Synthesis and Sintering of Metals from Powders. Advanced Science, 2021, 8, e2004229.	11.2	23
31	Inverted battery design as ion generator for interfacing with biosystems. Nature Communications, 2017, 8, 15609.	12.8	21
32	Rapid Pressureless Sintering of Glasses. Small, 2022, 18, e2107951.	10.0	20
33	Plastic Monolithic Mixedâ€Conducting Interlayer for Dendriteâ€Free Solidâ€State Batteries. Advanced Science, 2022, 9, e2105924.	11.2	17
34	Computationâ€Guided Synthesis of New Garnetâ€Type Solidâ€State Electrolytes via an Ultrafast Sintering Technique. Advanced Materials, 2020, 32, e2005059.	21.0	15
35	Wood Ionic Cable. Small, 2021, 17, e2008200.	10.0	10
36	Ultrafast high-temperature sintering to avoid metal loss toward high-performance and scalable cermets. Matter, 2022, 5, 594-604.	10.0	10