

Yunhui Gong

List of Publications by Year in descending order

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papers

9,189
citations

126708

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all docs

58
docs citations

58
times ranked

7467
citing authors

#	ARTICLE	IF	CITATIONS
1	Nonvolatile multilevel switching in artificial synaptic transistors based on epitaxial LiCoO ₂ thin films. <i>Physical Review Materials</i> , 2021, 5, .	0.9	2
2	Probing the Mechanical Properties of a Doped Li ₇ La ₃ Zr ₂ O ₁₂ Garnet Thin Electrolyte for Solid-State Batteries. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 24693-24700.	4.0	24
3	The Effects of Constriction Factor and Geometric Tortuosity on Li ⁺ Ion Transport in Porous Solid ⁺ State Li ⁺ Ion Electrolytes. <i>Advanced Functional Materials</i> , 2020, 30, 1910362.	7.8	22
4	Predicting the flexural strength of Li ⁺ ion ⁺ conducting garnet type oxide for solid ⁺ state ⁺ batteries. <i>Journal of the American Ceramic Society</i> , 2020, 103, 5186-5195.	1.9	13
5	High-rate lithium cycling in a scalable trilayer Li-garnet-electrolyte architecture. <i>Materials Today</i> , 2019, 22, 50-57.	8.3	233
6	Flexible Solid-State Electrolyte with Aligned Nanostructures Derived from Wood. , 2019, 1, 354-361.		72
7	Evolution of Solid Oxide Fuel Cells via Fast Interfacial Oxygen Crossover. <i>ACS Applied Energy Materials</i> , 2019, 2, 4069-4074.	2.5	7
8	3D lithium metal anodes hosted in asymmetric garnet frameworks toward high energy density batteries. <i>Energy Storage Materials</i> , 2018, 14, 376-382.	9.5	114
9	Lithium-ion conductive ceramic textile: A new architecture for flexible solid-state lithium metal batteries. <i>Materials Today</i> , 2018, 21, 594-601.	8.3	134
10	Continuous plating/stripping behavior of solid-state lithium metal anode in a 3D ion-conductive framework. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, 3770-3775.	3.3	250
11	3D ⁺ Printing Electrolytes for Solid ⁺ State Batteries. <i>Advanced Materials</i> , 2018, 30, e1707132.	11.1	236
12	Universal Soldering of Lithium and Sodium Alloys on Various Substrates for Batteries. <i>Advanced Energy Materials</i> , 2018, 8, 1701963.	10.2	186
13	Three-Dimensional, Solid-State Mixed Electron ⁺ Ion Conductive Framework for Lithium Metal Anode. <i>Nano Letters</i> , 2018, 18, 3926-3933.	4.5	175
14	Mixed ionic-electronic conductor enabled effective cathode-electrolyte interface in all solid state batteries. <i>Nano Energy</i> , 2018, 50, 393-400.	8.2	52
15	All-in-one lithium-sulfur battery enabled by a porous-dense-porous garnet architecture. <i>Energy Storage Materials</i> , 2018, 15, 458-464.	9.5	108
16	3D Microstructure Reconstruction and Characterization of Solid-State Electrolyte with Varying Porosity. <i>Microscopy and Microanalysis</i> , 2018, 24, 814-815.	0.2	0
17	All-wood, low tortuosity, aqueous, biodegradable supercapacitors with ultra-high capacitance. <i>Energy and Environmental Science</i> , 2017, 10, 538-545.	15.6	602
18	Reducing Interfacial Resistance between Garnet ⁺ Structured Solid ⁺ State Electrolyte and Li ⁺ Metal Anode by a Germanium Layer. <i>Advanced Materials</i> , 2017, 29, 1606042.	11.1	512

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19	Garnet Solid Electrolyte Protected Li-Metal Batteries. ACS Applied Materials & Interfaces, 2017, 9, 18809-18815.	4.0	247
20	Three-dimensional bilayer garnet solid electrolyte based high energy density lithium metal-sulfur batteries. Energy and Environmental Science, 2017, 10, 1568-1575.	15.6	499
21	Toward garnet electrolyte-based Li metal batteries: An ultrathin, highly effective, artificial solid-state electrolyte/metallic Li interface. Science Advances, 2017, 3, e1601659.	4.7	647
22	Negating interfacial impedance in garnet-based solid-state Li metal batteries. Nature Materials, 2017, 16, 572-579.	13.3	1,583
23	Conformal, Nanoscale ZnO Surface Modification of Garnet-Based Solid-State Electrolyte for Lithium Metal Anodes. Nano Letters, 2017, 17, 565-571.	4.5	556
24	Transient Behavior of the Metal Interface in Lithium Metal-Garnet Batteries. Angewandte Chemie - International Edition, 2017, 56, 14942-14947.	7.2	227
25	Transient Behavior of the Metal Interface in Lithium Metal-Garnet Batteries. Angewandte Chemie, 2017, 129, 15138-15143.	1.6	12
26	<i>In Situ</i> Neutron Depth Profiling of Lithium Metal-Garnet Interfaces for Solid State Batteries. Journal of the American Chemical Society, 2017, 139, 14257-14264.	6.6	154
27	Stabilizing the Garnet Solid-Electrolyte/Polysulfide Interface in Li-S Batteries. Chemistry of Materials, 2017, 29, 8037-8041.	3.2	73
28	Rapid Thermal Annealing of Cathode-Garnet Interface toward High-Temperature Solid State Batteries. Nano Letters, 2017, 17, 4917-4923.	4.5	89
29	Transition from Superlithiophobicity to Superlithiophilicity of Garnet Solid-State Electrolyte. Journal of the American Chemical Society, 2016, 138, 12258-12262.	6.6	548
30	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.	3.3	769
31	Fabrication of organic-inorganic perovskite thin films for planar solar cells via pulsed laser deposition. AIP Advances, 2016, 6, 015001.	0.6	32
32	Promoting Electrocatalytic Activity of a Composite SOFC Cathode $\text{La}_{0.8}\text{Sr}_{0.2}\text{MnO}_{3+\delta}/\text{Ce}_{0.8}\text{Gd}_{0.2}\text{O}_{2-\delta}$ with Molten Carbonates. Journal of the Electrochemical Society, 2014, 161, F226-F232.	1.1	13
33	Fast electrochemical CO ₂ transport through a dense metal-carbonate membrane: A new mechanistic insight. Journal of Membrane Science, 2014, 468, 373-379.	4.1	25
34	Surface modified silver-carbonate mixed conducting membranes for high flux CO ₂ separation with enhanced stability. Journal of Membrane Science, 2014, 453, 36-41.	4.1	32
35	$\text{Sr}_{3-3x}\text{Na}_{3x}\text{Si}_3\text{O}_{9-1.5x}$ ($x = 0.45$) as a superior solid oxide-ion electrolyte for intermediate temperature-solid oxide fuel cells. Energy and Environmental Science, 2014, 7, 1680-1684.	15.6	75
36	Enhanced reversibility and durability of a solid oxide Fe-air redox battery by carbothermic reaction derived energy storage materials. Chemical Communications, 2014, 50, 623-625.	2.2	44

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37	A novel intermediate-temperature all ceramic iron-air redox battery: the effect of current density and cycle duration. RSC Advances, 2014, 4, 22621.	1.7	14
38	An All-Ceramic Solid-State Rechargeable Na ⁺ -Battery Operated at Intermediate Temperatures. Advanced Functional Materials, 2014, 24, 5380-5384.	7.8	52
39	Lattice-Boltzmann modeling of gas transport in Ni-Yttria-stabilized zirconia anodes during thermal cycling based on X-ray computed tomography. Electrochimica Acta, 2014, 121, 386-393.	2.6	5
40	Flux of silver-carbonate membranes for post-combustion CO ₂ capture: The effects of membrane thickness, gas concentration and time. Journal of Membrane Science, 2014, 455, 162-167.	4.1	25
41	Stabilizing Nanostructured Solid Oxide Fuel Cell Cathode with Atomic Layer Deposition. Nano Letters, 2013, 13, 4340-4345.	4.5	149
42	A new solid oxide molybdenum-air redox battery. Journal of Materials Chemistry A, 2013, 1, 14858.	5.2	32
43	Atomic Layer Deposition Functionalized Composite SOFC Cathode La _{0.6} Sr _{0.4} Fe _{0.8} Co _{0.2} O _{3-λ} -Gd _{0.2} Ce _{0.8} O _{1.9} : Enhanced Long-Term Stability. Chemistry of Materials, 2013, 25, 4224-4231.	3.2	73
44	Performance of Solid Oxide Iron-Air Battery Operated at 550 \AA °C. Journal of the Electrochemical Society, 2013, 160, A1241-A1247.	1.3	43
45	First spectroscopic identification of pyrocarbonate for high CO ₂ flux membranes containing highly interconnected three dimensional ionic channels. Physical Chemistry Chemical Physics, 2013, 15, 13147.	1.3	37
46	A high energy density all solid-state tungsten-air battery. Chemical Communications, 2013, 49, 5357.	2.2	43
47	Analysis of impact of sintering time on microstructure of LSM-YSZ composite cathodes by X-ray nanotomography. Materials Express, 2013, 3, 166-170.	0.2	6
48	Cyclic Durability of a Solid Oxide Fe-Air Redox Battery Operated at 650 \AA °C. Journal of the Electrochemical Society, 2013, 160, A1716-A1719.	1.3	32
49	Molten Carbonates as an Effective Oxygen Reduction Catalyst for 550 \AA °C Solid Oxide Fuel Cells. Journal of the Electrochemical Society, 2013, 160, F958-F964.	1.3	21
50	Energy storage characteristics of a new rechargeable solid oxide iron-air battery. RSC Advances, 2012, 2, 10163.	1.7	60
51	Quantitative analysis of micro structural and conductivity evolution of Ni-YSZ anodes during thermal cycling based on nano-computed tomography. Journal of Power Sources, 2011, 196, 10601-10605.	4.0	54
52	Performance of (La,Sr)MnO ₃ cathode based solid oxide fuel cells: Effect of bismuth oxide sintering aid in silver paste cathode current collector. Journal of Power Sources, 2011, 196, 928-934.	4.0	18
53	Analysis of the three-dimensional microstructure of a solid-oxide fuel cell anode using nano X-ray tomography. Journal of Power Sources, 2011, 196, 1915-1919.	4.0	72
54	Low temperature deposited (Ce,Gd)O _{2-x} interlayer for La _{0.6} Sr _{0.4} Co _{0.2} Fe _{0.8} O ₃ cathode based solid oxide fuel cell. Journal of Power Sources, 2011, 196, 2768-2772.	4.0	24

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55	Preparation of YSZ films by magnetron sputtering for anode-supported SOFC. Solid State Ionics, 2011, 192, 413-418.	1.3	33
56	Effect of YSZ electrolyte surface modification on the performance of LSM/YSZ composite cathode. Solid State Ionics, 2011, 192, 505-509.	1.3	13
57	The study of the reconstructed three-dimensional structure of a solid-oxide fuel-cell cathode by X-ray nanotomography. Journal of Synchrotron Radiation, 2010, 17, 782-785.	1.0	16