Yunhui Gong

List of Publications by Year
in descending order

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57 papers	9,189 citations	126708 33 h-index	155451 55 g-index
58 all docs	58 docs citations	58 times ranked	7467 citing authors

#	Article	IF	Citations
1	Negating interfacial impedance in garnet-based solid-state Li metal batteries. Nature Materials, 2017, 16, 572-579.	13.3	1,583
2	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
3	Toward garnet electrolyteâ€“based Li metal batteries: An ultrathin, highly effective, artificial solid-state electrolyte/metallic Li interface. Science Advances, 2017, 3, e1601659.	4.7	647
4	All-wood, low tortuosity, aqueous, biodegradable supercapacitors with ultra-high capacitance. Energy and Environmental Science, 2017, 10, 538-545.	15.6	602
5	Conformal, Nanoscale ZnO Surface Modification of Garnet-Based Solid-State Electrolyte for Lithium Metal Anodes. Nano Letters, 2017, 17, 565-571.	4.5	556
6	Transition from Superlithiophobicity to Superlithiophilicity of Garnet Solid-State Electrolyte. Journal of the American Chemical Society, 2016, 138, 12258-12262.	6.6	548
7	Reducing Interfacial Resistance between Garnetâ€Structured Solidâ€State Electrolyte and Liâ€Metal Anode by a Germanium Layer. Advanced Materials, 2017, 29, 1606042.	11.1	512
8	Three-dimensional bilayer garnet solid electrolyte based high energy density lithium metalâ€“sulfur batteries. Energy and Environmental Science, 2017, 10, 1568-1575.	15.6	499
9	Continuous plating/stripping behavior of solid-state lithium metal anode in a 3D ion-conductive framework. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 3770-3775.	3.3	250
10	Garnet Solid Electrolyte Protected Li-Metal Batteries. ACS Applied Materials & Interfaces, 2017, 9, 18809-18815.	4.0	247
11	3Dâ€Printing Electrolytes for Solidâ€State Batteries. Advanced Materials, 2018, 30, e1707132.	11.1	236
12	High-rate lithium cycling in a scalable trilayer Li-garnet-electrolyte architecture. Materials Today, 2019, 22, 50-57.	8.3	233
13	Transient Behavior of the Metal Interface in Lithium Metalâ€“Garnet Batteries. Angewandte Chemie - International Edition, 2017, 56, 14942-14947.	7.2	227
14	Universal Soldering of Lithium and Sodium Alloys on Various Substrates for Batteries. Advanced Energy Materials, 2018, 8, 1701963.	10.2	186
15	Three-Dimensional, Solid-State Mixed Electronâ€“Ion Conductive Framework for Lithium Metal Anode. Nano Letters, 2018, 18, 3926-3933.	4.5	175
16	In Situ Neutron Depth Profiling of Lithium Metalâ€“Garnet Interfaces for Solid State Batteries. Journal of the American Chemical Society, 2017, 139, 14257-14264.	6.6	154
17	Stabilizing Nanostructured Solid Oxide Fuel Cell Cathode with Atomic Layer Deposition. Nano Letters, 2013, 13, 4340-4345.	4.5	149
18	Lithium-ion conductive ceramic textile: A new architecture for flexible solid-state lithium metal batteries. Materials Today, 2018, 21, 594-601.	8.3	134

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19	3D lithium metal anodes hosted in asymmetric garnet frameworks toward high energy density batteries. Energy Storage Materials, 2018, 14, 376-382.	9.5	114
20	All-in-one lithium-sulfur battery enabled by a porous-dense-porous garnet architecture. Energy Storage Materials, 2018, 15, 458-464.	9.5	108
21	Rapid Thermal Annealing of Cathode-Garnet Interface toward High-Temperature Solid State Batteries. Nano Letters, 2017, 17, 4917-4923.	4.5	89
22	Sr_{3â^'3x}Na_{3x}Si₃O_{9â^'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
23	Atomic Layer Deposition Functionalized Composite SOFC Cathode La_{0.6}Sr_{0.4}Fe_{0.8}Co_{0.2}O_{3-Î´} -Gd_{0.2}Ce_{0.8}O_{1.9}: Enhanced Long-Term Stability. Chemistry of Materials, 2013, 25, 4224-4231.	3.2	73
24	Stabilizing the Garnet Solid-Electrolyte/Polysulfide Interface in Liâ€“S Batteries. Chemistry of Materials, 2017, 29, 8037-8041.	3.2	73
25	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
26	Flexible Solid-State Electrolyte with Aligned Nanostructures Derived from Wood. , 2019, 1, 354-361.		72
27	Energy storage characteristics of a new rechargeable solid oxide ironâ€“air battery. RSC Advances, 2012, 2, 10163.	1.7	60
28	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
29	An Allâ€Ceramic Solidâ€State Rechargeable Na⁺â€Battery Operated at Intermediate Temperatures. Advanced Functional Materials, 2014, 24, 5380-5384.	7.8	52
30	Mixed ionic-electronic conductor enabled effective cathode-electrolyte interface in all solid state batteries. Nano Energy, 2018, 50, 393-400.	8.2	52
31	Enhanced reversibility and durability of a solid oxide Feâ€“air redox battery by carbothermic reaction derived energy storage materials. Chemical Communications, 2014, 50, 623-625.	2.2	44
32	Performance of Solid Oxide Iron-Air Battery Operated at 550Â°C. Journal of the Electrochemical Society, 2013, 160, A1241-A1247.	1.3	43
33	A high energy density all solid-state tungstenâ€“air battery. Chemical Communications, 2013, 49, 5357.	2.2	43
34	First spectroscopic identification of pyrocarbonate for high CO2 flux membranes containing highly interconnected three dimensional ionic channels. Physical Chemistry Chemical Physics, 2013, 15, 13147.	1.3	37
35	Preparation of YSZ films by magnetron sputtering for anode-supported SOFC. Solid State Ionics, 2011, 192, 413-418.	1.3	33
36	A new solid oxide molybdenumâ€“air redox battery. Journal of Materials Chemistry A, 2013, 1, 14858.	5.2	32

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37	Cyclic Durability of a Solid Oxide Fe-Air Redox Battery Operated at 650Â°C. Journal of the Electrochemical Society, 2013, 160, A1716-A1719.	1.3	32
38	Surface modified silver-carbonate mixed conducting membranes for high flux CO2 separation with enhanced stability. Journal of Membrane Science, 2014, 453, 36-41.	4.1	32
39	Fabrication of organic-inorganic perovskite thin films for planar solar cells via pulsed laser deposition. AIP Advances, 2016, 6, 015001.	0.6	32
40	Fast electrochemical CO2 transport through a dense metal-carbonate membrane: A new mechanistic insight. Journal of Membrane Science, 2014, 468, 373-379.	4.1	25
41	Flux of silver-carbonate membranes for post-combustion CO2 capture: The effects of membrane thickness, gas concentration and time. Journal of Membrane Science, 2014, 455, 162-167.	4.1	25
42	Low temperature deposited (Ce,Gd)O2â^'x interlayer for La0.6Sr0.4Co0.2Fe0.8O3 cathode based solid oxide fuel cell. Journal of Power Sources, 2011, 196, 2768-2772.	4.0	24
43	Probing the Mechanical Properties of a Doped Li₇La₃Zr₂O₁₂ Garnet Thin Electrolyte for Solid-State Batteries. ACS Applied Materials & Interfaces, 2020, 12, 24693-24700.	4.0	24
44	The Effects of Constriction Factor and Geometric Tortuosity on Liâ€ion Transport in Porous Solidâ€State Liâ€ion Electrolytes. Advanced Functional Materials, 2020, 30, 1910362.	7.8	22
45	Molten Carbonates as an Effective Oxygen Reduction Catalyst for 550â€“650Â°C Solid Oxide Fuel Cells. Journal of the Electrochemical Society, 2013, 160, F958-F964.	1.3	21
46	Performance of (La,Sr)MnO3 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
47	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
48	A novel intermediate-temperature all ceramic ironâ€“air redox battery: the effect of current density and cycle duration. RSC Advances, 2014, 4, 22621.	1.7	14
49	Effect of YSZ electrolyte surface modification on the performance of LSM/YSZ composite cathode. Solid State Ionics, 2011, 192, 505-509.	1.3	13
50	Promoting Electrocatalytic Activity of a Composite SOFC Cathode La_{0.8}Sr_{0.2}MnO_{3+Î´}/Ce_{0.8}Gd_{0.2}O_{2-Î´} with Molten Carbonates. Journal of the Electrochemical Society, 2014, 161, F226-F232.	1.3	13
51	Predicting the flexural strength of Liâ€ionâ€conducting garnet type oxide for solidâ€stateâ€batteries. Journal of the American Ceramic Society, 2020, 103, 5186-5195.	1.9	13
52	Transient Behavior of the Metal Interface in Lithium Metalâ€“Garnet Batteries. Angewandte Chemie, 2017, 129, 15138-15143.	1.6	12
53	Evolution of Solid Oxide Fuel Cells via Fast Interfacial Oxygen Crossover. ACS Applied Energy Materials, 2019, 2, 4069-4074.	2.5	7
54	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

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55	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
56	Nonvolatile multilevel switching in artificial synaptic transistors based on epitaxial LiCoO2 thin films. Physical Review Materials, 2021, 5, .	0.9	2
57	3D Microstructure Reconstruction and Characterization of Solid-State Electrolyte with Varying Porosity. Microscopy and Microanalysis, 2018, 24, 814-815.	0.2	0