Chihâ^'Long Tsai

List of Publications by Year
in descending order

48 papers	2,508 citations	279487 23 h-index	223531 46 g-index
49 all docs	49 docs citations	49 times ranked	2768 citing authors

#	Article	IF	Citations
1	Li₇La₃Zr₂O₁₂ Interface Modification for Li Dendrite Prevention. ACS Applied Materials & Interfaces, 2016, 8, 10617-10626.	4.0	632
2	Scandium-Substituted Na₃Zr₂(SiO₄)₂(PO₄) Prepared by a Solution-Assisted Solid-State Reaction Method as Sodium-Ion Conductors. Chemistry of Materials, 2016, 28, 4821-4828.	3.2	229
3	About the Compatibility between High Voltage Spinel Cathode Materials and Solid Oxide Electrolytes as a Function of Temperature. ACS Applied Materials & Interfaces, 2016, 8, 26842-26850.	4.0	193
4	A garnet structure-based all-solid-state Li battery without interface modification: resolving incompatibility issues on positive electrodes. Sustainable Energy and Fuels, 2019, 3, 280-291.	2.5	133
5	Room temperature demonstration of a sodium superionic conductor with grain conductivity in excess of 0.01 S cm^{â^'1} and its primary applications in symmetric battery cells. Journal of Materials Chemistry A, 2019, 7, 7766-7776.	5.2	129
6	High Capacity Garnet-Based All-Solid-State Lithium Batteries: Fabrication and 3D-Microstructure Resolved Modeling. ACS Applied Materials & Interfaces, 2018, 10, 22329-22339.	4.0	91
7	A Novel Solâ€“Gel Method for Largeâ€Scale Production of Nanopowders: Preparation of Li_{1.5}Al_{0.5}Ti_{1.5}(<scp>PO</scp>₄)₃ as an Example. Journal of the American Ceramic Society, 2016, 99, 410-414.	1.9	79
8	Cathode-electrolyte material interactions during manufacturing of inorganic solid-state lithium batteries. Journal of Electroceramics, 2017, 38, 197-206.	0.8	63
9	Thermal stability of Ba(Zr0.8â^'xCexY0.2)O2.9 ceramics in carbon dioxide. Journal of Applied Physics, 2009, 105, 103504.	1.1	60
10	High conductivity of mixed phase Al-substituted Li7La3Zr2O12. Journal of Electroceramics, 2015, 35, 25-32.	0.8	60
11	Electrochemical Performance of All-Solid-State Li-Ion Batteries Based on Garnet Electrolyte Using Silicon as a Model Electrode. ACS Energy Letters, 2018, 3, 1006-1012.	8.8	58
12	Low temperature sintering of fully inorganic all-solid-state batteries â€“ Impact of interfaces on full cell performance. Journal of Power Sources, 2021, 482, 228905.	4.0	58
13	Room-temperature all-solid-state sodium batteries with robust ceramic interface between rigid electrolyte and electrode materials. Nano Energy, 2019, 65, 104040.	8.2	52
14	Orientation dependence and electric-field effect in the relaxor-based ferroelectric crystal(PbMg1/3Nb2/3O3)0.68(PbTiO3)0.32. Physical Review B, 2002, 65, .	1.1	50
15	Dielectric, hypersonic, and domain anomalies of (PbMg1/3Nb2/3O3)1â^'x(PbTiO3)x single crystals. Journal of Applied Physics, 2001, 89, 7908-7916.	1.1	45
16	The influence of water on the electrical conductivity of aluminum-substituted lithium titanium phosphates. Solid State Ionics, 2018, 321, 83-90.	1.3	44
17	Low temperature sintering of Ba(Zr0.8â^'xCexY0.2)O3â^'Î´ using lithium fluoride additive. Solid State Ionics, 2010, 181, 1083-1090.	1.3	41
18	Insights into the reactive sintering and separated specific grain/grain boundary conductivities of Li1.3Al0.3Ti1.7(PO4)3. Journal of Power Sources, 2021, 492, 229631.	4.0	40

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19	Tortuosity in anode-supported proton conductive solid oxide fuel cell found from current flow rates and dusty-gas model. Journal of Power Sources, 2011, 196, 692-699.	4.0	36
20	On the interfacial charge transfer between solid and liquid Li⁺ electrolytes. Physical Chemistry Chemical Physics, 2017, 19, 26596-26605.	1.3	33
21	Anode-pore tortuosity in solid oxide fuel cells found from gas and current flow rates. Journal of Power Sources, 2008, 180, 253-264.	4.0	30
22	Dendrite-tolerant all-solid-state sodium batteries and an important mechanism of metal self-diffusion. Journal of Power Sources, 2020, 476, 228666.	4.0	26
23	Reactions of garnet-based solid-state lithium electrolytes with water â€" A depth-resolved study. Solid State Ionics, 2018, 320, 259-265.	1.3	24
24	Chemical Environment-Induced Mixed Conductivity of Titanate as a Highly Stable Oxygen Transport Membrane. IScience, 2019, 19, 955-964.	1.9	23
25	Water-based fabrication of garnet-based solid electrolyte separators for solid-state lithium batteries. Green Chemistry, 2020, 22, 4952-4961.	4.6	23
26	All-ceramic Li batteries based on garnet structured Li₇La₃Zr₂O₁₂. Materials Technology, 2020, 35, 656-674.	1.5	22
27	Phases and Domain Structures in Relaxor-Based Ferroelectric (PbMg1/3Nb2/3O3)0.69(PbTiO3)0.31Single Crystal. Japanese Journal of Applied Physics, 2001, 40, 4118-4125.	0.8	20
28	Enhancing the performance of high-voltage LiCoMnO4 spinel electrodes by fluorination. Journal of Power Sources, 2017, 341, 122-129.	4.0	20
29	Compatibility study towards monolithic self-charging power unit based on all-solid thin-film solar module and battery. Journal of Power Sources, 2017, 365, 303-307.	4.0	17
30	Challenges regarding thin film deposition of garnet electrolytes for all-solid-state lithium batteries with high energy density. Ionics, 2018, 24, 2199-2208.	1.2	15
31	Fabrication, Performance, and Model for Proton Conductive Solid Oxide Fuel Cell. Journal of the Electrochemical Society, 2011, 158, B885.	1.3	14
32	Flexible All-Solid-State Li-Ion Battery Manufacturable in Ambient Atmosphere. ACS Applied Materials & Interfaces, 2020, 12, 37067-37078.	4.0	14
33	Single-Ion-Conducting â€œPolymer-in-Ceramicâ€•Hybrid Electrolyte with an Intertwined NASICON-Type Nanofiber Skeleton. ACS Applied Materials & Interfaces, 2021, 13, 61067-61077.	4.0	14
34	Instability of Ga-substituted Li₇La₃Zr₂O₁₂ toward metallic Li. Journal of Materials Chemistry A, 2022, 10, 10998-11009.	5.2	14
35	Hypersonic and dielectric properties of (PbZn1/3Nb2/3O3)0.915â€“(PbTiO3)0.085 single crystal. Journal of Applied Physics, 2000, 87, 2327-2330.	1.1	13
36	Performance and stability of a liquid anode high-temperature metalâ€“air battery. Journal of Power Sources, 2014, 247, 749-755.	4.0	13

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37	Atomic-scale investigation of Na3V2(PO4)3 formation process in chemical infiltration via in situ transmission electron microscope for solid-state sodium batteries. Nano Energy, 2021, 87, 106144.	8.2	12
38	Influence of titanium nitride interlayer on the morphology, structure and electrochemical performance of magnetron-sputtered lithium iron phosphate thin films. Journal of Power Sources, 2015, 281, 326-333.	4.0	11
39	Impact of Fluorination on Phase Stability, Crystal Chemistry, and Capacity of LiCoMnO₄ High Voltage Spinels. ACS Applied Energy Materials, 2018, 1, 715-724.	2.5	10
40	Engineering of Sn and Preâ€Lithiated Sn as Negative Electrode Materials Coupled to Garnet Taâ€LLZO Solid Electrolyte for Allâ€Solidâ€State Li Batteries. Batteries and Supercaps, 2020, 3, 557-565.	2.4	10
41	Ionic Conductivity of Na₃V₂P₃O₁₂ as a Function of Electrochemical Potential and its Impact on Battery Performance. Batteries and Supercaps, 2021, 4, 479-484.	2.4	10
42	Thermal stability of 5â€V LiCoMnO4 spinels with LiF additive. Solid State Ionics, 2018, 320, 378-386.	1.3	8
43	Active Interphase Enables Stable Performance for an Allâ€Phosphateâ€Based Composite Cathode in an Allâ€Solidâ€State Battery. Small, 2022, 18, e2200266.	5.2	7
44	Effect of lithium fluoride on thermal stability of proton-conducting Ba(Zr0.8â^'xCexY0.2)O2.9 ceramics. Solid State Ionics, 2010, 181, 1654-1658.	1.3	6
45	Field-cooled-zero-field-heated and zero-field-heated dielectric behaviors of (Pbmg1/3Nb2/3O3)0.67(PbTiO3)0.33single crystal. Ferroelectrics, Letters Section, 2000, 27, 125-135.	0.4	4
46	Protonic and Electronic Conduction in Proton Conductive Solid Oxide Fuel Cells. Materials Research Society Symposia Proceedings, 2011, 1330, 40501.	0.1	1
47	Feasibility and Limitations of High-Voltage Lithium-Iron-Manganese Spinels. Journal of the Electrochemical Society, 2022, 169, 070518.	1.3	1
48	Determination of Anode-Pore Tortuosity from Gas and Current Flow Rates in SOFCs. , 0, , 127-140.		0