Eric Kazyak

List of Publications by Year
in descending order

38 papers	4,036 citations	236925 25 h-index	454955 30 g-index
39 all docs	39 docs citations	39 times ranked	4363 citing authors

#	Article	IF	Citations
1	Dead lithium: mass transport effects on voltage, capacity, and failure of lithium metal anodes. Journal of Materials Chemistry A, 2017, 5, 11671-11681.	10.3	693
2	Dendrites and Pits: Untangling the Complex Behavior of Lithium Metal Anodes through Operando Video Microscopy. ACS Central Science, 2016, 2, 790-801.	11.3	662
3	Surface Chemistry Mechanism of Ultra-Low Interfacial Resistance in the Solid-State Electrolyte Li₇La₃Zr₂O₁₂. Chemistry of Materials, 2017, 29, 7961-7968.	6.7	612
4	Improved Cycle Life and Stability of Lithium Metal Anodes through Ultrathin Atomic Layer Deposition Surface Treatments. Chemistry of Materials, 2015, 27, 6457-6462.	6.7	299
5	Li Penetration in Ceramic Solid Electrolytes: Operando Microscopy Analysis of Morphology, Propagation, and Reversibility. Matter, 2020, 2, 1025-1048.	10.0	240
6	Lithium Mechanics: Roles of Strain Rate and Temperature and Implications for Lithium Metal Batteries. Journal of the Electrochemical Society, 2019, 166, A89-A97.	2.9	221
7	Efficient fast-charging of lithium-ion batteries enabled by laser-patterned three-dimensional graphite anode architectures. Journal of Power Sources, 2020, 471, 228475.	7.8	168
8	Atomic Layer Deposition of the Solid Electrolyte Garnet Li₇La₃Zr₂O₁₂. Chemistry of Materials, 2017, 29, 3785-3792.	6.7	149
9	Synergistic Effect of 3D Current Collectors and ALD Surface Modification for High Coulombic Efficiency Lithium Metal Anodes. Advanced Energy Materials, 2019, 9, 1802534.	19.5	132
10	Transitioning solid-state batteries from lab to market: Linking electro-chemo-mechanics with practical considerations. Joule, 2021, 5, 1371-1390.	24.0	92
11	Plan-View Operando Video Microscopy of Li Metal Anodes: Identifying the Coupled Relationships among Nucleation, Morphology, and Reversibility. ACS Energy Letters, 2020, 5, 994-1004.	17.4	82
12	Challenges and Opportunities for Fast Charging of Solid-State Lithium Metal Batteries. ACS Energy Letters, 2021, 6, 3734-3749.	17.4	76
13	Operando analysis of the molten Li|LLZO interface: Understanding how the physical properties of Li affect the critical current density. Matter, 2021, 4, 1947-1961.	10.0	62
14	Electro-chemo-mechanical evolution of sulfide solid electrolyte/Li metal interfaces: operando analysis and ALD interlayer effects. Journal of Materials Chemistry A, 2020, 8, 6291-6302.	10.3	61
15	Rational Design of Hyperbranched Nanowire Systems for Tunable Superomniphobic Surfaces Enabled by Atomic Layer Deposition. ACS Nano, 2017, 11, 478-489.	14.6	54
16	Biotemplated Morpho Butterfly Wings for Tunable Structurally Colored Photocatalysts. ACS Applied Materials & Interfaces, 2018, 10, 4614-4621.	8.0	54
17	Operando video microscopy of Li plating and re-intercalation on graphite anodes during fast charging. Journal of Materials Chemistry A, 2021, 9, 23522-23536.	10.3	54
18	Atomic layer deposition and first principles modeling of glassy Li₃BO₃â€“Li₂CO₃ electrolytes for solid-state Li metal batteries. Journal of Materials Chemistry A, 2018, 6, 19425-19437.	10.3	48

#	Article	IF	Citations
19	Enabling 4C Fast Charging of Lithiumâ€Ion Batteries by Coating Graphite with a Solidâ€State Electrolyte. Advanced Energy Materials, 2022, 12, .	19.5	42
20	Hierarchical ZnO Nanowire Growth with Tunable Orientations on Versatile Substrates Using Atomic Layer Deposition Seeding. Chemistry of Materials, 2015, 27, 4799-4807.	6.7	38
21	Electrochemical and Surface Chemistry Analysis of Lithium Lanthanum Zirconium Tantalum Oxide (LLZTO)/Liquid Electrolyte (LE) Interfaces. Journal of Power Sources, 2020, 474, 228598.	7.8	33
22	Rate Limitations in Composite Solid-State Battery Electrodes: Revealing Heterogeneity with Operando Microscopy. ACS Energy Letters, 2021, 6, 2993-3003.	17.4	33
23	Operando Analysis of Interphase Dynamics in Anode-Free Solid-State Batteries with Sulfide Electrolytes. Journal of the Electrochemical Society, 2021, 168, 070557.	2.9	30
24	Atomic Layer Deposition of Bismuth Vanadate Coreâ€“Shell Nanowire Photoanodes. Chemistry of Materials, 2019, 31, 3221-3227.	6.7	27
25	Molecular layer deposition of Li-ion conducting â€œLithiconeâ€•solid electrolytes. Chemical Communications, 2020, 56, 15537-15540.	4.1	26
26	Enhanced Interfacial Toughness of Thermoplasticâ€“Epoxy Interfaces Using ALD Surface Treatments. ACS Applied Materials & Interfaces, 2019, 11, 43573-43580.	8.0	17
27	Lithium stripping: anisotropic evolution and faceting of pits revealed byoperando3-D microscopy. Journal of Materials Chemistry A, 2021, 9, 21013-21023.	10.3	17
28	Inkjet-defined site-selective (IDSS) growth for controllable production of in-plane and out-of-plane MoS2 device arrays. Nanoscale, 2020, 12, 16917-16927.	5.6	7
29	Electrically Conductive Kevlar Fibers and Polymer-Matrix Composites Enabled by Atomic Layer Deposition. ACS Applied Polymer Materials, 2021, 3, 5959-5968.	4.4	2
30	Atomic Layer Deposition of Ultrathin Lithium Borate Solid Electrolytes. ECS Meeting Abstracts, 2018, , .	0.0	0
31	Surface Chemistry Mechanism of Ultra-Low Interfacial Resistance in the Solid-State Electrolyte Li7La3Zr2O12. ECS Meeting Abstracts, 2018, , .	0.0	0
32	Direct Observation of Lithium Dendrite Morphology, Propagation, and Reversibility in Garnet Solid Electrolytes Via Operando Video Microscopy. ECS Meeting Abstracts, 2019, , .	0.0	0
33	Synergistic Effect of 3D Current Collectors and ALD Surface Modification for High Coulombic Efficiency Lithium Metal Anodes. ECS Meeting Abstracts, 2019, , .	0.0	0
34	Atomic Layer Deposition of Ultrathin Glassy Lithium Borate-Carbonate Solid Electrolytes. ECS Meeting Abstracts, 2019, , .	0.0	0
35	Plan-View Operando Video Microscopy of Li Metal Anodes. ECS Meeting Abstracts, 2019, , .	0.0	0
36	Lithium Metal Anodes: Operando Observation of Nucleation, Dendrite Growth, and Dead Lithium Formation. ECS Meeting Abstracts, 2020, MA2020-01, 1170-1170.	0.0	0

#	Article	IF	Citations
37	Inhibiting Li Plating on Graphite Electrodes during 4C Fast-Charging with Atomic Layer Deposition. ECS Meeting Abstracts, 2021, MA2021-02, 459-459.	0.0	0
38	Understanding Coupled Electro-Chemo-Mechanics during I n Situ Li Metal Anode Formation in Anode-Free Solid-State Batteries. ECS Meeting Abstracts, 2022, MA2022-01, 1630-1630.	0.0	0