Juergen Janek

List of Publications by Year
in descending order

468 papers	36,802 citations	2795 94 h-index	4323 173 g-index
505 all docs	505 docs citations	505 times ranked	21096 citing authors

#	Article	IF	Citations
1	The interplay between (electro)chemical and (chemo)mechanical effects in the cycling performance of thiophosphate-based solid-state batteries. Materials Futures, 2022, 1, 015102.	3.1	40
2	Multiâ€Element Surface Coating of Layered Niâ€Rich Oxide Cathode Materials and Their Longâ€Term Cycling Performance in Lithiumâ€Ion Batteries. Advanced Materials Interfaces, 2022, 9, 2101100.	1.9	10
3	High areal capacity, long cycle life 4â€‰V ceramic all-solid-state Li-ion batteries enabled by chloride solid electrolytes. Nature Energy, 2022, 7, 83-93.	19.8	249
4	The LiNiO₂ Cathode Active Material: A Comprehensive Study of Calcination Conditions and their Correlation with Physicochemical Properties Part II. Morphology. Journal of the Electrochemical Society, 2022, 169, 020529.	1.3	28
5	Defect Chemistry of Individual Grains with and without Grain Boundaries of Al-Doped Ceria Determined Using Well-Defined Microelectrodes. Journal of Physical Chemistry C, 2022, 126, 2737-2746.	1.5	1
6	Influence of Lithium Ion Kinetics, Particle Morphology and Voids on the Electrochemical Performance of Composite Cathodes for All-Solid-State Batteries. Journal of the Electrochemical Society, 2022, 169, 020539.	1.3	21
7	Single step synthesis of W-modified LiNiO₂ using an ammonium tungstate flux. Journal of Materials Chemistry A, 2022, 10, 7841-7855.	5.2	17
8	Temperature-dependent Li vacancy diffusion in Li₄Ti₅O₁₂ by means of first principles molecular dynamic simulations. Physical Chemistry Chemical Physics, 2022, 24, 5301-5316.	1.3	0
9	Advanced Nanoparticle Coatings for Stabilizing Layered Niâ€Rich Oxide Cathodes in Solidâ€State Batteries. Advanced Functional Materials, 2022, 32, .	7.8	45
10	Charging sustainable batteries. Nature Sustainability, 2022, 5, 176-178.	11.5	70
11	In Situ Investigation of Lithium Metalâ€"Solid Electrolyte Anode Interfaces with ToFâ€SIMS. Advanced Materials Interfaces, 2022, 9, .	1.9	39
12	A Quasiâ€Multinary Composite Coating on a Nickelâ€Rich NCM Cathode Material for Allâ€Solidâ€State Batteries. Batteries and Supercaps, 2022, 5, .	2.4	9
13	Tracing Low Amounts of Mg in the Doped Cathode Active Material LiNiO₂. Journal of the Electrochemical Society, 2022, 169, 030540.	1.3	15
14	Instability of the Li₇SiPS₈ Solid Electrolyte at the Lithium Metal Anode and Interphase Formation. Chemistry of Materials, 2022, 34, 3659-3669.	3.2	12
15	Advanced Analytical Characterization of Interface Degradation in Ni-Rich NCM Cathode Co-Sintered with LATP Solid Electrolyte. ACS Applied Energy Materials, 2022, 5, 4651-4663.	2.5	10
16	In situ analysis of gas evolution in liquid- and solid-electrolyte-based batteries with current and next-generation cathode materials. Journal of Materials Research, 2022, 37, 3146-3168.	1.2	21
17	Increasing the Pressureâ€Free Stripping Capacity of the Lithium Metal Anode in Solidâ€Stateâ€Batteries by Carbon Nanotubes. Advanced Energy Materials, 2022, 12, .	10.2	21
18	Sodium All-Solid-State Batteries and the Electrolyte Question. ECS Meeting Abstracts, 2022, MA2022-01, 99-99.	0.0	0

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19	(Digital Presentation) Modifying LiNiO₂ with W Via a Single Step Synthesis Route. ECS Meeting Abstracts, 2022, MA2022-01, 218-218.	0.0	0
20	Magnesium- and Tin-Based Ionic Liquid Electrolytes for Advanced Multivalent Metal Batteries. ECS Meeting Abstracts, 2022, MA2022-01, 132-132.	0.0	0
21	Analysis of the Interphase Formation of Thiophosphate Solid Electrolytes and the Lithium Metal Anode in Solid-State Batteries. ECS Meeting Abstracts, 2022, MA2022-01, 208-208.	0.0	0
22	Conceptual Framework for Dislocation-Modified Conductivity in Oxide Ceramics Deconvoluting Mesoscopic Structure, Core, and Space Charge Exemplified for SrTiO₃. ACS Nano, 2021, 15, 9355-9367.	7.3	41
23	Lithiumâ€Metal Anode Instability of the Superionic Halide Solid Electrolytes and the Implications for Solidâ€State Batteries. Angewandte Chemie - International Edition, 2021, 60, 6718-6723.	7.2	137
24	Lithiumâ€Metal Anode Instability of the Superionic Halide Solid Electrolytes and the Implications for Solidâ€State Batteries. Angewandte Chemie, 2021, 133, 6792-6797.	1.6	25
25	Analysis of Charge Carrier Transport Toward Optimized Cathode Composites for Allâ€Solidâ€State Liâ^’S Batteries. Batteries and Supercaps, 2021, 4, 183-194.	2.4	53
26	A Rapid and Facile Approach for the Recycling of Highâ€Performance LiNi_{1â^’<i>x</i>â^’<i>y</i>}Co_{<i>x</i>}Mn_{<i>y</i>}O₂ Active Materials. ChemSusChem, 2021, 14, 441-448.	3.6	20
27	Impedance Analysis of NCM Cathode Materials: Electronic and Ionic Partial Conductivities and the Influence of Microstructure. ACS Applied Energy Materials, 2021, 4, 1335-1345.	2.5	33
28	In-Depth Characterization of Lithium-Metal Surfaces with XPS and ToF-SIMS: Toward Better Understanding of the Passivation Layer. Chemistry of Materials, 2021, 33, 859-867.	3.2	82
29	Understanding dispersion interactions in molecular chemistry. Physical Chemistry Chemical Physics, 2021, 23, 8960-8961.	1.3	1
30	Improved Cycling Performance of Highâ€Nickel NMC by Dry Powder Coating with Nanostructured Fumed Al₂O₃, TiO₂, and ZrO₂: A Comparison. Batteries and Supercaps, 2021, 4, 1003-1017.	2.4	27
31	Comparing the Ion-Conducting Polymers with Sulfonate and Ether Moieties as Cathode Binders for High-Power Lithium-Ion Batteries. ACS Applied Materials & Interfaces, 2021, 13, 9846-9855.	4.0	16
32	Facile Dry Coating Method of Highâ€Nickel Cathode Material by Nanostructured Fumed Alumina (Al₂O₃) Improving the Performance of Lithiumâ€Ion Batteries. Energy Technology, 2021, 9, 2100028.	1.8	27
33	On the Additive Microstructure in Composite Cathodes and Alumina-Coated Carbon Microwires for Improved All-Solid-State Batteries. Chemistry of Materials, 2021, 33, 1380-1393.	3.2	38
34	Linking Solid Electrolyte Degradation to Charge Carrier Transport in the Thiophosphateâ€Based Composite Cathode toward Solidâ€State Lithiumâ€Sulfur Batteries. Advanced Functional Materials, 2021, 31, 2010620.	7.8	71
35	Synthesis and Postprocessing of Single-Crystalline LiNi_{0.8}Co_{0.15}Al_{0.05}O₂ for Solid-State Lithium-Ion Batteries with High Capacity and Long Cycling Stability. Chemistry of Materials, 2021, 33, 2624-2634.	3.2	38
36	Working Principle of an Ionic Liquid Interlayer During Pressureless Lithium Stripping on Li_{6.25}Al_{0.25}La₃Zr₂O₁₂ (LLZO) Garnetâ€Type Solid Electrolyte. Batteries and Supercaps, 2021, 4, 1145-1155.	2.4	23

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37	Effect of surface carbonates on the cyclability of LiNbO3-coated NCM622 in all-solid-state batteries with lithium thiophosphate electrolytes. Scientific Reports, 2021, 11, 5367.	1.6	21
38	Operando Characterization Techniques for Allâ€Solidâ€State Lithiumâ€Ion Batteries. Advanced Energy and Sustainability Research, 2021, 2, 2100004.	2.8	38
39	Polycrystalline and Single Crystalline NCM Cathode Materialsâ€"Quantifying Particle Cracking, Active Surface Area, and Lithium Diffusion. Advanced Energy Materials, 2021, 11, 2003400.	10.2	237
40	The Working Principle of a Li₂CO₃/LiNbO₃ Coating on NCM for Thiophosphate-Based All-Solid-State Batteries. Chemistry of Materials, 2021, 33, 2110-2125.	3.2	116
41	Editorsâ€™ Choiceâ€"Quantifying the Impact of Charge Transport Bottlenecks in Composite Cathodes of All-Solid-State Batteries. Journal of the Electrochemical Society, 2021, 168, 040537.	1.3	97
42	Influence of Crystallinity of Lithium Thiophosphate Solid Electrolytes on the Performance of Solidâ€State Batteries. Advanced Energy Materials, 2021, 11, 2100654.	10.2	64
43	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.	5.0	62
44	Design-of-experiments-guided optimization of slurry-cast cathodes for solid-state batteries. Cell Reports Physical Science, 2021, 2, 100465.	2.8	23
45	High Performance All-Solid-State Batteries with a Ni-Rich NCM Cathode Coated by Atomic Layer Deposition and Lithium Thiophosphate Solid Electrolyte. ACS Applied Energy Materials, 2021, 4, 7338-7345.	2.5	48
46	Influence of synthesis parameters on crystallization behavior and ionic conductivity of the Li4PS4I solid electrolyte. Scientific Reports, 2021, 11, 14073.	1.6	8
47	Editorsâ€™ Choiceâ€"Quantification of the Impact of Chemo-Mechanical Degradation on the Performance and Cycling Stability of NCM-Based Cathodes in Solid-State Li-Ion Batteries. Journal of the Electrochemical Society, 2021, 168, 070546.	1.3	22
48	A robust technique to image all elements in LiNiO2 cathode active material by 4D-STEM. Microscopy and Microanalysis, 2021, 27, 1446-1449.	0.2	0
49	Understanding the Transport of Atmospheric Gases in Liquid Electrolytes for Lithiumâ€"Air Batteries. Journal of the Electrochemical Society, 2021, 168, 070504.	1.3	6
50	Structural Investigation of NCM-Cathode-LLZO-Electrolyte Composites as Promising Candidates for All-Solid-State Batteries Using (Cryo) STEM and PED. Microscopy and Microanalysis, 2021, 27, 1978-1979.	0.2	2
51	Lithium Argyrodite as Solid Electrolyte and Cathode Precursor for Solidâ€State Batteries with Long Cycle Life. Advanced Energy Materials, 2021, 11, 2101370.	10.2	56
52	Analyzing Nanometer-Thin Cathode Particle Coatings for Lithium-Ion Batteriesâ€"The Example of TiO₂ on NCM622. ACS Applied Energy Materials, 2021, 4, 7168-7181.	2.5	11
53	Fast Charging of Lithiumâ€Ion Batteries: A Review of Materials Aspects. Advanced Energy Materials, 2021, 11, 2101126.	10.2	407
54	Donor and acceptor-like self-doping by mechanically induced dislocations in bulk TiO2. Nano Energy, 2021, 85, 105944.	8.2	31

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55	Singlet Oxygen in Electrochemical Cells: A Critical Review of Literature and Theory. Chemical Reviews, 2021, 121, 12445-12464.	23.0	48
56	Stabilizing the Cathode/Electrolyte Interface Using a Dry-Processed Lithium Titanate Coating for All-Solid-State Batteries. Chemistry of Materials, 2021, 33, 6713-6723.	3.2	21
57	Cycling Performance and Limitations of LiNiO₂ in Solid-State Batteries. ACS Energy Letters, 2021, 6, 3020-3028.	8.8	39
58	Increased Performance Improvement of Lithium-Ion Batteries by Dry Powder Coating of High-Nickel NMC with Nanostructured Fumed Ternary Lithium Metal Oxides. ACS Applied Energy Materials, 2021, 4, 8832-8848.	2.5	16
59	Understanding the Impact of Microstructure on Charge Transport in Polycrystalline Materials Through Impedance Modelling. Journal of the Electrochemical Society, 2021, 168, 090516.	1.3	13
60	Influence of the PO_{<i>u</i>}N_{4âˆ’<i>u</i>} structural units on the formation energies and transport properties of lithium phosphorus oxynitride: a DFT study. Physical Chemistry Chemical Physics, 2021, 23, 22567-22588.	1.3	2
61	Understanding the formation of antiphase boundaries in layered oxide cathode materials and their evolution upon electrochemical cycling. Matter, 2021, 4, 3953-3966.	5.0	20
62	Reaction of Li_{1.3}Al_{0.3}Ti_{1.7}(PO₄)₃ and LiNi_{0.6}Co_{0.2}Mn_{0.2}O₂ in Co-Sintered Composite Cathodes for Solid-State Batteries. ACS Applied Materials & Interfaces, 2021, 13, 47488-47498.	4.0	20
63	Hybridization of carbon nanotube tissue and MnO2 as a generic advanced air cathode in metalâ€œair batteries. Journal of Power Sources, 2021, 514, 230597.	4.0	5
64	The LiNiO₂ Cathode Active Material: A Comprehensive Study of Calcination Conditions and their Correlation with Physicochemical Properties. Part I. Structural Chemistry. Journal of the Electrochemical Society, 2021, 168, 110518.	1.3	34
65	Single versus poly-crystalline layered oxide cathode materials for solid-state battery applications - a short review article. Current Opinion in Electrochemistry, 2021, 31, 100877.	2.5	16
66	Storage of Lithium Metal: The Role of the Native Passivation Layer for the Anode Interface Resistance in Solid State Batteries. ACS Applied Energy Materials, 2021, 4, 12798-12807.	2.5	43
67	A mechanistic investigation of the Li10GeP2S12 | LiNi1-x-yCoxMnyO2 interface stability in all-solid-state lithium batteries. Nature Communications, 2021, 12, 6669.	5.8	72
68	Design Strategies to Enable the Efficient Use of Sodium Metal Anodes in Highâ€Energy Batteries. Advanced Materials, 2020, 32, e1903891.	11.1	173
69	Pathways to Triplet or Singlet Oxygen during the Dissociation of Alkali Metal Superoxides: Insights by Multireference Calculations of Molecular Model Systems. Chemistry - A European Journal, 2020, 26, 2395-2404.	1.7	13
70	Investigations of the Solid Electrolyte Interphase Using Xâ€Ray Photoelectron Spectroscopy In situ Experiment on the Lithiumâ€Based Solid Electrolyte LiPSON. Physica Status Solidi (B): Basic Research, 2020, 257, 1900336.	0.7	9
71	The Interface between Li6.5La3Zr1.5Ta0.5O12 and Liquid Electrolyte. Joule, 2020, 4, 101-108.	11.7	81
72	High-conductivity free-standing Li6PS5Cl/poly(vinylidene difluoride) composite solid electrolyte membranes for lithium-ion batteries. Journal of Materiomics, 2020, 6, 70-76.	2.8	51

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73	An <i>in situ</i> structural study on the synthesis and decomposition of LiNiO₂. Journal of Materials Chemistry A, 2020, 8, 1808-1820.	5.2	72
74	A Sodium Polysulfide Battery with Liquid/Solid Electrolyte: Improving Sulfur Utilization Using P₂S₅ as Additive and Tetramethylurea as Catholyte Solvent. Energy Technology, 2020, 8, 1901200.	1.8	10
75	Rational Design of Quasi-Zero-Strain NCM Cathode Materials for Minimizing Volume Change Effects in All-Solid-State Batteries. , 2020, 2, 84-88.		66
76	Macroscopic Displacement Reaction of Copper Sulfide in Lithium Solidâ€State Batteries. Advanced Energy Materials, 2020, 10, 2002394.	10.2	37
77	From LiNiO₂ to Li₂NiO₃: Synthesis, Structures and Electrochemical Mechanisms in Li-Rich Nickel Oxides. Chemistry of Materials, 2020, 32, 9211-9227.	3.2	28
78	Kinetic versus Thermodynamic Stability of LLZO in Contact with Lithium Metal. Chemistry of Materials, 2020, 32, 10207-10215.	3.2	68
79	Physicochemical Concepts of the Lithium Metal Anode in Solid-State Batteries. Chemical Reviews, 2020, 120, 7745-7794.	23.0	468
80	The Sound of Batteries: An Operando Acoustic Emission Study of the LiNiO 2 Cathode in Liâ€“Ion Cells. Batteries and Supercaps, 2020, 3, 965-965.	2.4	1
81	Between Liquid and All Solid: A Prospect on Electrolyte Future in Lithiumâ€Ion Batteries for Electric Vehicles. Energy Technology, 2020, 8, 2000580.	1.8	48
82	Investigations into the superionic glass phase of Li₄PS₄I for improving the stability of high-loading all-solid-state batteries. Inorganic Chemistry Frontiers, 2020, 7, 3953-3960.	3.0	18
83	Substituent Pattern Effects on the Redox Potentials of Quinoneâ€Based Active Materials for Aqueous Redox Flow Batteries. ChemSusChem, 2020, 13, 5480-5488.	3.6	33
84	The Formation of the Solid/Liquid Electrolyte Interphase (SLEI) on NASICONâ€Type Glass Ceramics and LiPON. Advanced Materials Interfaces, 2020, 7, 2000380.	1.9	23
85	<i>In Situ</i> Monitoring of Thermally Induced Effects in Nickel-Rich Layered Oxide Cathode Materials at the Atomic Level. ACS Applied Materials & Interfaces, 2020, 12, 57047-57054.	4.0	16
86	Li₂ZrO₃-Coated NCM622 for Application in Inorganic Solid-State Batteries: Role of Surface Carbonates in the Cycling Performance. ACS Applied Materials & Interfaces, 2020, 12, 57146-57154.	4.0	90
87	Side by Side Battery Technologies with Lithiumâ€Ion Based Batteries. Advanced Energy Materials, 2020, 10, 2000089.	10.2	127
88	Influence of NCM Particle Cracking on Kinetics of Lithium-Ion Batteries with Liquid or Solid Electrolyte. Journal of the Electrochemical Society, 2020, 167, 100532.	1.3	134
89	The Sound of Batteries: An Operando Acoustic Emission Study of the LiNiO₂ Cathode in Liâ€“Ion Cells. Batteries and Supercaps, 2020, 3, 1021-1027.	2.4	12
90	Na₃Zr₂Si₂PO₁₂: A Stable Na⁺-Ion Solid Electrolyte for Solid-State Batteries. ACS Applied Energy Materials, 2020, 3, 7427-7437.	2.5	77

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91	The Fast Charge Transfer Kinetics of the Lithium Metal Anode on the Garnetâ€Type Solid Electrolyte Li_{6.25}Al_{0.25}La₃Zr₂O₁₂. Advanced Energy Materials, 2020, 10, 2000945.	10.2	110
92	Reversible Capacity Loss of LiCoO₂ Thin Film Electrodes. ACS Applied Energy Materials, 2020, 3, 6065-6071.	2.5	7
93	The effect of gallium substitution on the structure and electrochemical performance of LiNiO₂ in lithium-ion batteries. Materials Advances, 2020, 1, 639-647.	2.6	23
94	From Liquid- to Solid-State Batteries: Ion Transfer Kinetics of Heteroionic Interfaces. Electrochemical Energy Reviews, 2020, 3, 221-238.	13.1	117
95	Benchmarking the performance of all-solid-state lithium batteries. Nature Energy, 2020, 5, 259-270.	19.8	662
96	Importance of the Spinâ€"Orbit Interaction for a Consistent Theoretical Description of Small Polarons in Pr-Doped CeO₂. Journal of Physical Chemistry C, 2020, 124, 15831-15838.	1.5	9
97	Influence of Carbon Additives on the Decomposition Pathways in Cathodes of Lithium Thiophosphate-Based All-Solid-State Batteries. Chemistry of Materials, 2020, 32, 6123-6136.	3.2	126
98	Modeling Effective Ionic Conductivity and Binder Influence in Composite Cathodes for All-Solid-State Batteries. ACS Applied Materials & Interfaces, 2020, 12, 12821-12833.	4.0	126
99	Kinetic Limitations in Cycled Nickel-Rich NCM Cathodes and Their Effect on the Phase Transformation Behavior. ACS Applied Energy Materials, 2020, 3, 2821-2827.	2.5	25
100	Incorporating Diamondoids as Electrolyte Additive in the Sodium Metal Anode to Mitigate Dendrite Growth. ChemSusChem, 2020, 13, 2661-2670.	3.6	30
101	Analysis of Interfacial Effects in All-Solid-State Batteries with Thiophosphate Solid Electrolytes. ACS Applied Materials & Interfaces, 2020, 12, 9277-9291.	4.0	73
102	Interphase Formation of PEO₂₀:LiTFSIâ€"Li₆PS₅Cl Composite Electrolytes with Lithium Metal. ACS Applied Materials & Interfaces, 2020, 12, 11713-11723.	4.0	114
103	Tailoring Dihydroxyphthalazines to Enable Their Stable and Efficient Use in the Catholyte of Aqueous Redox Flow Batteries. Chemistry of Materials, 2020, 32, 3427-3438.	3.2	22
104	Gas Evolution in Lithium-Ion Batteries: Solid versus Liquid Electrolyte. ACS Applied Materials & Interfaces, 2020, 12, 20462-20468.	4.0	62
105	Visualization of Light Elements using 4D STEM: The Layeredâ€toâ€Rock Salt Phase Transition in LiNiO₂ Cathode Material. Advanced Energy Materials, 2020, 10, 2001026.	10.2	43
106	Spin-dimer ground state driven by consecutive charge and orbital ordering transitions in the anionic mixed-valence compound <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Rb</mml:mi><mml:mn>4</mml:mn></mml: mathvariant="normal">O</mml:mi><mml:mn>6</mml:mn></mml:msub></mml:mrow></mml:math>. Physical Review B, 2020, 101, .	1.1	3
107	Charge Transport in Single NCM Cathode Active Material Particles for Lithium-Ion Batteries Studied under Well-Defined Contact Conditions. ACS Energy Letters, 2019, 4, 2117-2123.	8.8	48
108	In Situ Studies for Understanding Intragranular Nanopore Evolution in Ni-rich Layered Oxide Cathode Material. Microscopy and Microanalysis, 2019, 25, 2032-2033.	0.2	0

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109	Lithium-Metal Growth Kinetics on LLZO Garnet-Type Solid Electrolytes. Joule, 2019, 3, 2030-2049.	11.7	292
110	Diffusion Limitation of Lithium Metal and Liâ€“Mg Alloy Anodes on LLZO Type Solid Electrolytes as a Function of Temperature and Pressure. Advanced Energy Materials, 2019, 9, 1902568.	10.2	240
111	Properties of the Interphase Formed between Argyrodite-Type Li₆PS₅Cl and Polymer-Based PEO₁₀:LiTFSI. ACS Applied Materials & Interfaces, 2019, 11, 42186-42196.	4.0	95
112	Stabilizing Effect of a Hybrid Surface Coating on a Ni-Rich NCM Cathode Material in All-Solid-State Batteries. Chemistry of Materials, 2019, 31, 9664-9672.	3.2	174
113	Indirect state-of-charge determination of all-solid-state battery cells by X-ray diffraction. Chemical Communications, 2019, 55, 11223-11226.	2.2	25
114	The Role of Intragranular Nanopores in Capacity Fade of Nickel-Rich Layered Li(Ni_{1â€“<i>x</i>â€“<i>y</i>}Co_{<i>x</i>}Mn_{<i>y</i>})O₂ Cathode Materials. ACS Nano, 2019, 13, 10694-10704.	7.3	79
115	LATP and LiCoPO4 thin film preparation â€“ Illustrating interfacial issues on the way to all-phosphate SSBs. Solid State Ionics, 2019, 342, 115054.	1.3	19
116	Investigation into Mechanical Degradation and Fatigue of High-Ni NCM Cathode Material: A Long-Term Cycling Study of Full Cells. ACS Applied Energy Materials, 2019, 2, 7375-7384.	2.5	106
117	Exsolved Nickel Nanoparticles Acting as Oxygen Storage Reservoirs and Active Sites for Redox CH₄ Conversion. ACS Applied Energy Materials, 2019, 2, 7288-7298.	2.5	63
118	Experimental Assessment of the Practical Oxidative Stability of Lithium Thiophosphate Solid Electrolytes. Chemistry of Materials, 2019, 31, 8328-8337.	3.2	138
119	Room temperature, liquid-phase Al₂O₃ surface coating approach for Ni-rich layered oxide cathode material. Chemical Communications, 2019, 55, 2174-2177.	2.2	79
120	Interfacial Stability of Phosphate-NASICON Solid Electrolytes in Ni-Rich NCM Cathode-Based Solid-State Batteries. ACS Applied Materials & Interfaces, 2019, 11, 23244-23253.	4.0	73
121	On the Functionality of Coatings for Cathode Active Materials in Thiophosphateâ€Based Allâ€Solidâ€State Batteries. Advanced Energy Materials, 2019, 9, 1900626.	10.2	221
122	Guidelines for All-Solid-State Battery Design and Electrode Buffer Layers Based on Chemical Potential Profile Calculation. ACS Applied Materials & Interfaces, 2019, 11, 19968-19976.	4.0	77
123	Electrochemical and Optical Properties of Lithium Ion Conducting LiPSON Solid Electrolyte Films. Physica Status Solidi (B): Basic Research, 2019, 256, 1900047.	0.7	8
124	Chemical, Structural, and Electronic Aspects of Formation and Degradation Behavior on Different Length Scales of Niâ€Rich NCM and Liâ€Rich HEâ€NCM Cathode Materials in Liâ€Ion Batteries. Advanced Materials, 2019, 31, e1900985.	11.1	319
125	Benchmarking Anode Concepts: The Future of Electrically Rechargeable Zincâ€“Air Batteries. ACS Energy Letters, 2019, 4, 1287-1300.	8.8	136
126	Visualization of the Interfacial Decomposition of Composite Cathodes in Argyrodite-Based All-Solid-State Batteries Using Time-of-Flight Secondary-Ion Mass Spectrometry. Chemistry of Materials, 2019, 31, 3745-3755.	3.2	246

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127	Toward a Fundamental Understanding of the Lithium Metal Anode in Solid-State Batteriesâ€"An Electrochemo-Mechanical Study on the Garnet-Type Solid Electrolyte Li_{6.25}Al_{0.25}La₃Zr₂O₁₂. ACS Applied Materials & Interfaces, 2019, 11, 14463-14477.	4.0	461
128	Phase Transformation Behavior and Stability of LiNiO₂ Cathode Material for Liâ€Ion Batteries Obtained from Inâ€...Situ Gas Analysis and Operando Xâ€Ray Diffraction. ChemSusChem, 2019, 12, 2240-2250.	3.6	146
129	Amorphous versus Crystalline Li₃PS₄: Local Structural Changes during Synthesis and Li Ion Mobility. Journal of Physical Chemistry C, 2019, 123, 10280-10290.	1.5	62
130	Effect of Low-Temperature Al2O3 ALD Coating on Ni-Rich Layered Oxide Composite Cathode on the Long-Term Cycling Performance of Lithium-Ion Batteries. Scientific Reports, 2019, 9, 5328.	1.6	91
131	Observation of Chemomechanical Failure and the Influence of Cutoff Potentials in All-Solid-State Liâ€"S Batteries. Chemistry of Materials, 2019, 31, 2930-2940.	3.2	112
132	Unraveling the Formation Mechanism of Solidâ€"Liquid Electrolyte Interphases on LiPON Thin Films. ACS Applied Materials & Interfaces, 2019, 11, 9539-9547.	4.0	29
133	Analysis of microscopic bone properties in an osteoporotic sheep model: a combined biomechanics, FE and ToF-SIMS study. Journal of the Royal Society Interface, 2019, 16, 20180793.	1.5	10
134	Microstructural Modeling of Composite Cathodes for All-Solid-State Batteries. Journal of Physical Chemistry C, 2019, 123, 1626-1634.	1.5	139
135	Hin und zurÃ¼ck â€" die Entwicklung von LiNiO₂ als Kathodenaktivmaterial. Angewandte Chemie, 2019, 131, 10542-10569.	1.6	25
136	There and Back Againâ€"The Journey of LiNiO₂ as a Cathode Active Material. Angewandte Chemie - International Edition, 2019, 58, 10434-10458.	7.2	400
137	Homogeneous Coating with an Anion-Exchange Ionomer Improves the Cycling Stability of Secondary Batteries with Zinc Anodes. ACS Applied Materials & Interfaces, 2018, 10, 8640-8648.	4.0	61
138	Structural analysis and electrical characterization of cation-substituted lithium ion conductors Li1â^'Ti1â^'MOPO4 (Mâ€¯=â€¯Nb, Ta, Sb). Solid State Ionics, 2018, 319, 170-179.	1.3	4
139	Artificial Composite Anode Comprising Highâ€Capacity Silicon and Carbonaceous Nanostructures for Long Cycle Life Lithiumâ€Ion Batteries. Batteries and Supercaps, 2018, 1, 27-32.	2.4	8
140	Correlating Transport and Structural Properties in Li_{1+<i>x</i>}Al_{<i>x</i>}Ge_{2â€"<i>x</i>}(PO₄)₃ (LAGP) Prepared from Aqueous Solution. ACS Applied Materials & Interfaces, 2018, 10, 10935-10944.	4.0	75
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