JÃ¼rgen Janek

List of Publications by Year
in descending order

326 papers	33,210 citations	3159 92 h-index	4645 170 g-index
335 all docs	335 docs citations	335 times ranked	18430 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.	8.4	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.	3.7	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.	39.5	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.	2.9	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.	3.1	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.	2.9	21
7	Single step synthesis of W-modified LiNiO₂ using an ammonium tungstate flux. Journal of Materials Chemistry A, 2022, 10, 7841-7855.	10.3	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.	2.8	0
9	Advanced Nanoparticle Coatings for Stabilizing Layered Niâ€Rich Oxide Cathodes in Solidâ€State Batteries. Advanced Functional Materials, 2022, 32, .	14.9	45
10	In Situ Investigation of Lithium Metalâ€"Solid Electrolyte Anode Interfaces with ToFâ€SIMS. Advanced Materials Interfaces, 2022, 9, .	3.7	39
11	A Quasiâ€Multinary Composite Coating on a Nickelâ€Rich NCM Cathode Material for Allâ€Solidâ€State Batteries. Batteries and Supercaps, 2022, 5, .	4.7	9
12	Tracing Low Amounts of Mg in the Doped Cathode Active Material LiNiO₂. Journal of the Electrochemical Society, 2022, 169, 030540.	2.9	15
13	Instability of the Li₇SiPS₈ Solid Electrolyte at the Lithium Metal Anode and Interphase Formation. Chemistry of Materials, 2022, 34, 3659-3669.	6.7	12
14	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.	5.1	10
15	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.	2.6	21
16	Increasing the Pressureâ€Free Stripping Capacity of the Lithium Metal Anode in Solidâ€Stateâ€Batteries by Carbon Nanotubes. Advanced Energy Materials, 2022, 12, .	19.5	21
17	(Digital Presentation) Modifying LiNiO₂ with W Via a Single Step Synthesis Route. ECS Meeting Abstracts, 2022, MA2022-01, 218-218.	0.0	0
18	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.	13.8	137

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19	Lithiumâ€Metal Anode Instability of the Superionic Halide Solid Electrolytes and the Implications for Solidâ€State Batteries. Angewandte Chemie, 2021, 133, 6792-6797.	2.0	25
20	Analysis of Charge Carrier Transport Toward Optimized Cathode Composites for Allâ€Solidâ€State Liâˆ’S Batteries. Batteries and Supercaps, 2021, 4, 183-194.	4.7	53
21	A Rapid and Facile Approach for the Recycling of Highâ€Performance LiNi_{1âˆ’<i>x</i>âˆ’<i>y</i>}Co_{<i>x</i>}Mn_{<i>y</i>}O₂ Active Materials. ChemSusChem, 2021, 14, 441-448.	6.8	20
22	Impedance Analysis of NCM Cathode Materials: Electronic and Ionic Partial Conductivities and the Influence of Microstructure. ACS Applied Energy Materials, 2021, 4, 1335-1345.	5.1	33
23	Atomistic understanding of the LiNiO₂â€“NiO₂ phase diagram from experimentally guided lattice models. Journal of Materials Chemistry A, 2021, 9, 14928-14940.	10.3	31
24	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.	6.7	82
25	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.	4.7	27
26	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.	3.8	27
27	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.	6.7	38
28	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.	14.9	71
29	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.	6.7	38
30	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.	4.7	23
31	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.	3.3	21
32	Operando Characterization Techniques for Allâ€Solidâ€State Lithiumâ€Ion Batteries. Advanced Energy and Sustainability Research, 2021, 2, 2100004.	5.8	38
33	Polycrystalline and Single Crystalline NCM Cathode Materialsâ€”Quantifying Particle Cracking, Active Surface Area, and Lithium Diffusion. Advanced Energy Materials, 2021, 11, 2003400.	19.5	237
34	The Working Principle of a Li₂CO₃/LiNbO₃ Coating on NCM for Thiophosphate-Based All-Solid-State Batteries. Chemistry of Materials, 2021, 33, 2110-2125.	6.7	116
35	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.	2.9	97
36	Influence of Crystallinity of Lithium Thiophosphate Solid Electrolytes on the Performance of Solidâ€State Batteries. Advanced Energy Materials, 2021, 11, 2100654.	19.5	64

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37	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
38	Design-of-experiments-guided optimization of slurry-cast cathodes for solid-state batteries. Cell Reports Physical Science, 2021, 2, 100465.	5.6	23
39	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.	5.1	48
40	Influence of synthesis parameters on crystallization behavior and ionic conductivity of the Li4PS4I solid electrolyte. Scientific Reports, 2021, 11, 14073.	3.3	8
41	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.	2.9	22
42	A robust technique to image all elements in LiNiO2 cathode active material by 4D-STEM. Microscopy and Microanalysis, 2021, 27, 1446-1449.	0.4	0
43	Understanding the Transport of Atmospheric Gases in Liquid Electrolytes for Lithiumâ€“Air Batteries. Journal of the Electrochemical Society, 2021, 168, 070504.	2.9	6
44	Lithium Argyrodite as Solid Electrolyte and Cathode Precursor for Solidâ€State Batteries with Long Cycle Life. Advanced Energy Materials, 2021, 11, 2101370.	19.5	56
45	Analyzing Nanometer-Thin Cathode Particle Coatings for Lithium-Ion Batteriesâ€”The Example of TiO₂ on NCM622. ACS Applied Energy Materials, 2021, 4, 7168-7181.	5.1	11
46	Fast Charging of Lithiumâ€Ion Batteries: A Review of Materials Aspects. Advanced Energy Materials, 2021, 11, 2101126.	19.5	407
47	Singlet Oxygen in Electrochemical Cells: A Critical Review of Literature and Theory. Chemical Reviews, 2021, 121, 12445-12464.	47.7	48
48	Stabilizing the Cathode/Electrolyte Interface Using a Dry-Processed Lithium Titanate Coating for All-Solid-State Batteries. Chemistry of Materials, 2021, 33, 6713-6723.	6.7	21
49	Cycling Performance and Limitations of LiNiO₂ in Solid-State Batteries. ACS Energy Letters, 2021, 6, 3020-3028.	17.4	39
50	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.	5.1	16
51	Understanding the Impact of Microstructure on Charge Transport in Polycrystalline Materials Through Impedance Modelling. Journal of the Electrochemical Society, 2021, 168, 090516.	2.9	13
52	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.	2.8	2
53	Understanding the formation of antiphase boundaries in layered oxide cathode materials and their evolution upon electrochemical cycling. Matter, 2021, 4, 3953-3966.	10.0	20
54	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.	8.0	20

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55	Hybridization of carbon nanotube tissue and MnO2 as a generic advanced air cathode in metalâ€“air batteries. Journal of Power Sources, 2021, 514, 230597.	7.8	5
56	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.	2.9	34
57	Single versus poly-crystalline layered oxide cathode materials for solid-state battery applications - a short review article. Current Opinion in Electrochemistry, 2021, 31, 100877.	4.8	16
58	From LiNiO2 to Li2NiO3: Synthesis, Structures and Electrochemical Mechanisms in Li-Rich Nickel Oxides. ECS Meeting Abstracts, 2021, MA2021-02, 223-223.	0.0	0
59	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.	5.1	43
60	A mechanistic investigation of the Li10GeP2S12 | LiNi1-x-yCoxMnyO2 interface stability in all-solid-state lithium batteries. Nature Communications, 2021, 12, 6669.	12.8	72
61	Design Strategies to Enable the Efficient Use of Sodium Metal Anodes in Highâ€Energy Batteries. Advanced Materials, 2020, 32, e1903891.	21.0	173
62	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.	3.3	13
63	The Interface between Li6.5La3Zr1.5Ta0.5O12 and Liquid Electrolyte. Joule, 2020, 4, 101-108.	24.0	81
64	High-conductivity free-standing Li6PS5Cl/poly(vinylidene difluoride) composite solid electrolyte membranes for lithium-ion batteries. Journal of Materiomics, 2020, 6, 70-76.	5.7	51
65	An <i>in situ</i> structural study on the synthesis and decomposition of LiNiO₂. Journal of Materials Chemistry A, 2020, 8, 1808-1820.	10.3	72
66	Rational Design of Quasi-Zero-Strain NCM Cathode Materials for Minimizing Volume Change Effects in All-Solid-State Batteries. , 2020, 2, 84-88.		66
67	Enumeration as a Tool for Structure Solution: A Materials Genomic Approach to Solving the Cation-Ordered Structure of Na₃V₂(PO₄)₂F₃. Chemistry of Materials, 2020, 32, 8981-8992.	6.7	14
68	Macroscopic Displacement Reaction of Copper Sulfide in Lithium Solidâ€State Batteries. Advanced Energy Materials, 2020, 10, 2002394.	19.5	37
69	From LiNiO₂ to Li₂NiO₃: Synthesis, Structures and Electrochemical Mechanisms in Li-Rich Nickel Oxides. Chemistry of Materials, 2020, 32, 9211-9227.	6.7	28
70	Surface Modification Strategies for Improving the Cycling Performance of Niâ€Rich Cathode Materials. European Journal of Inorganic Chemistry, 2020, 2020, 3117-3130.	2.0	46
71	Kinetic versus Thermodynamic Stability of LLZO in Contact with Lithium Metal. Chemistry of Materials, 2020, 32, 10207-10215.	6.7	68
72	And Yet It Moves: LiNiO₂, a Dynamic Jahnâ€“Teller System. Chemistry of Materials, 2020, 32, 10096-10103.	6.7	25

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73	Physicochemical Concepts of the Lithium Metal Anode in Solid-State Batteries. Chemical Reviews, 2020, 120, 7745-7794.	47.7	468
74	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.	4.7	1
75	Between Liquid and All Solid: A Prospect on Electrolyte Future in Lithiumâ€Ion Batteries for Electric Vehicles. Energy Technology, 2020, 8, 2000580.	3.8	48
76	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.	6.0	18
77	The Formation of the Solid/Liquid Electrolyte Interphase (SLEI) on NASICONâ€Type Glass Ceramics and LiPON. Advanced Materials Interfaces, 2020, 7, 2000380.	3.7	23
78	<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.	8.0	16
79	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.	8.0	90
80	Side by Side Battery Technologies with Lithiumâ€Ion Based Batteries. Advanced Energy Materials, 2020, 10, 2000089.	19.5	127
81	The interplay between thermodynamics and kinetics in the solid-state synthesis of layered oxides. Nature Materials, 2020, 19, 1088-1095.	27.5	129
82	Influence of NCM Particle Cracking on Kinetics of Lithium-Ion Batteries with Liquid or Solid Electrolyte. Journal of the Electrochemical Society, 2020, 167, 100532.	2.9	134
83	The Sound of Batteries: An Operando Acoustic Emission Study of the LiNiO₂ Cathode in Liâ€“Ion Cells. Batteries and Supercaps, 2020, 3, 1021-1027.	4.7	12
84	Na₃Zr₂Si₂PO₁₂: A Stable Na⁺-Ion Solid Electrolyte for Solid-State Batteries. ACS Applied Energy Materials, 2020, 3, 7427-7437.	5.1	77
85	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.	19.5	110
86	Reversible Capacity Loss of LiCoO₂ Thin Film Electrodes. ACS Applied Energy Materials, 2020, 3, 6065-6071.	5.1	7
87	The effect of gallium substitution on the structure and electrochemical performance of LiNiO₂ in lithium-ion batteries. Materials Advances, 2020, 1, 639-647.	5.4	23
88	From Liquid- to Solid-State Batteries: Ion Transfer Kinetics of Heteroionic Interfaces. Electrochemical Energy Reviews, 2020, 3, 221-238.	25.5	117
89	Benchmarking the performance of all-solid-state lithium batteries. Nature Energy, 2020, 5, 259-270.	39.5	662
90	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.	6.7	126

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91	Modeling Effective Ionic Conductivity and Binder Influence in Composite Cathodes for All-Solid-State Batteries. ACS Applied Materials & Interfaces, 2020, 12, 12821-12833.	8.0	126
92	Kinetic Limitations in Cycled Nickel-Rich NCM Cathodes and Their Effect on the Phase Transformation Behavior. ACS Applied Energy Materials, 2020, 3, 2821-2827.	5.1	25
93	Incorporating Diamondoids as Electrolyte Additive in the Sodium Metal Anode to Mitigate Dendrite Growth. ChemSusChem, 2020, 13, 2661-2670.	6.8	30
94	Analysis of Interfacial Effects in All-Solid-State Batteries with Thiophosphate Solid Electrolytes. ACS Applied Materials & Interfaces, 2020, 12, 9277-9291.	8.0	73
95	Interphase Formation of PEO₂₀:LiTFSIâ€“Li₆PS₅Cl Composite Electrolytes with Lithium Metal. ACS Applied Materials & Interfaces, 2020, 12, 11713-11723.	8.0	114
96	Tailoring Dihydroxyphthalazines to Enable Their Stable and Efficient Use in the Catholyte of Aqueous Redox Flow Batteries. Chemistry of Materials, 2020, 32, 3427-3438.	6.7	22
97	Gas Evolution in Lithium-Ion Batteries: Solid versus Liquid Electrolyte. ACS Applied Materials & Interfaces, 2020, 12, 20462-20468.	8.0	62
98	Visualization of Light Elements using 4D STEM: The Layeredâ€toâ€Rock Salt Phase Transition in LiNiO₂ Cathode Material. Advanced Energy Materials, 2020, 10, 2001026.	19.5	43
99	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.	17.4	48
100	In Situ Studies for Understanding Intragranular Nanopore Evolution in Ni-rich Layered Oxide Cathode Material. Microscopy and Microanalysis, 2019, 25, 2032-2033.	0.4	0
101	Lithium-Metal Growth Kinetics on LLZO Garnet-Type Solid Electrolytes. Joule, 2019, 3, 2030-2049.	24.0	292
102	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.	19.5	240
103	Properties of the Interphase Formed between Argyrodite-Type Li₆PS₅Cl and Polymer-Based PEO₁₀:LiTFSI. ACS Applied Materials & Interfaces, 2019, 11, 42186-42196.	8.0	95
104	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.	6.7	174
105	Indirect state-of-charge determination of all-solid-state battery cells by X-ray diffraction. Chemical Communications, 2019, 55, 11223-11226.	4.1	25
106	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.	14.6	79
107	LATP and LiCoPO4 thin film preparation â€“ Illustrating interfacial issues on the way to all-phosphate SSBs. Solid State Ionics, 2019, 342, 115054.	2.7	19
108	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.	5.1	106

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109	Experimental Assessment of the Practical Oxidative Stability of Lithium Thiophosphate Solid Electrolytes. Chemistry of Materials, 2019, 31, 8328-8337.	6.7	138
110	Room temperature, liquid-phase Al₂O₃ surface coating approach for Ni-rich layered oxide cathode material. Chemical Communications, 2019, 55, 2174-2177.	4.1	79
111	Interfacial Stability of Phosphate-NASICON Solid Electrolytes in Ni-Rich NCM Cathode-Based Solid-State Batteries. ACS Applied Materials & Interfaces, 2019, 11, 23244-23253.	8.0	73
112	On the Functionality of Coatings for Cathode Active Materials in Thiophosphateâ€Based Allâ€Solidâ€State Batteries. Advanced Energy Materials, 2019, 9, 1900626.	19.5	221
113	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.	8.0	77
114	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.	21.0	319
115	Benchmarking Anode Concepts: The Future of Electrically Rechargeable Zincâ€“Air Batteries. ACS Energy Letters, 2019, 4, 1287-1300.	17.4	136
116	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.	6.7	246
117	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.	8.0	461
118	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.	6.8	146
119	Computational Investigation and Experimental Realization of Disordered High-Capacity Li-Ion Cathodes Based on Ni Redox. Chemistry of Materials, 2019, 31, 2431-2442.	6.7	50
120	Amorphous versus Crystalline Li₃PS₄: Local Structural Changes during Synthesis and Li Ion Mobility. Journal of Physical Chemistry C, 2019, 123, 10280-10290.	3.1	62
121	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.	3.3	91
122	Observation of Chemomechanical Failure and the Influence of Cutoff Potentials in All-Solid-State Liâ€“S Batteries. Chemistry of Materials, 2019, 31, 2930-2940.	6.7	112
123	Unraveling the Formation Mechanism of Solidâ€“Liquid Electrolyte Interphases on LiPON Thin Films. ACS Applied Materials & Interfaces, 2019, 11, 9539-9547.	8.0	29
124	High Rate Performance for Carbonâ€Coated Na₃V₂(PO₄)₂F₃ in Naâ€Ion Batteries. Small Methods, 2019, 3, 1800215.	8.6	92
125	Microstructural Modeling of Composite Cathodes for All-Solid-State Batteries. Journal of Physical Chemistry C, 2019, 123, 1626-1634.	3.1	139
126	Hin und zurÃ¼ck â€“ die Entwicklung von LiNiO₂ als Kathodenaktivmaterial. Angewandte Chemie, 2019, 131, 10542-10569.	2.0	25

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127	There and Back Againâ€”The Journey of LiNiO₂ as a Cathode Active Material. Angewandte Chemie - International Edition, 2019, 58, 10434-10458.	13.8	400
128	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.	8.0	61
129	Structural analysis and electrical characterization of cation-substituted lithium ion conductors Li1âˆ’Ti1âˆ’MOPO4 (Mâ€¯=â€¯Nb, Ta, Sb). Solid State Ionics, 2018, 319, 170-179.	2.7	4
130	Artificial Composite Anode Comprising Highâ€Capacity Silicon and Carbonaceous Nanostructures for Long Cycle Life Lithiumâ€Ion Batteries. Batteries and Supercaps, 2018, 1, 27-32.	4.7	8
131	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.	8.0	75
132	Ag₃V₂(PO₄)₂F₃, a new compound obtained by Ag⁺/Na⁺ ion exchange into the Na₃V₂(PO₄)₂F₃ framework. Journal of Materials Chemistry A, 2018, 6, 10340-10347.	10.3	12
133	Volume Changes of Graphite Anodes Revisited: A Combined <i>Operando</i> X-ray Diffraction and <i>In Situ</i> Pressure Analysis Study. Journal of Physical Chemistry C, 2018, 122, 8829-8835.	3.1	256
134	Platinum microelectrodes on gadolinia doped ceria single crystals â€“ bulk properties and electrode kinetics. Physical Chemistry Chemical Physics, 2018, 20, 8294-8301.	2.8	7
135	Quest for Organic Active Materials for Redox Flow Batteries: 2,3-Diaza-anthraquinones and Their Electrochemical Properties. Chemistry of Materials, 2018, 30, 762-774.	6.7	44
136	Diffusion mechanism in the superionic conductor Li4PS4I studied by first-principlesÂcalculations. Solid State Ionics, 2018, 319, 83-91.	2.7	23
137	Impact of Cathode Material Particle Size on the Capacity of Bulk-Type All-Solid-State Batteries. ACS Energy Letters, 2018, 3, 992-996.	17.4	201
138	Li⁺ Ion Conductors with Adamantaneâ€Type Nitridophosphate Anions Î²â€Li₁₀P₄N₁₀ and Li₁₃P₄N₁₀<i>X</i>₃ with <i>X</i>=Cl, Br. Chemistry - A European Journal, 2018, 24, 196-205.	3.3	23
139	Metal release and cell biological compatibility of betaâ€type Tiâ€40Nb containing indium. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2018, 106, 1686-1697.	3.4	23
140	Recent Progress and Perspective in Electrode Materials for Kâ€Ion Batteries. Advanced Energy Materials, 2018, 8, 1702384.	19.5	549
141	Silicon Nanoparticles with a Polymer-Derived Carbon Shell for Improved Lithium-Ion Batteries: Investigation into Volume Expansion, Gas Evolution, and Particle Fracture. ACS Omega, 2018, 3, 16706-16713.	3.5	27
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