Jrgen Janek

List of Publications by Year in Descending Order

317 papers	21,808 citations	74 h-index	138 g-index
335 ext. papers	27,168 ext. citations	9.3 avg, IF	7.61 L-index

#	Paper	IF	Citations
317	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	3.9	3
316	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	3.8	0
315	Single step synthesis of W-modified LiNiO2 using an ammonium tungstate flux. *Journal of Materials Chemistry A*, **2022**, 10, 7841-7855	13	1
314	Tracing Low Amounts of Mg in the Doped Cathode Active Material LiNiO2. *Journal of the Electrochemical Society*, **2022**, 169, 030540	3.9	2
313	Single versus poly-crystalline layered oxide cathode materials for solid-state battery applications - a short review article. *Current Opinion in Electrochemistry*, **2021**, 31, 100877	7.2	7
312	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	6.1	9
311	A mechanistic investigation of the LiGePS|LiNiCoMnO interface stability in all-solid-state lithium batteries. *Nature Communications*, **2021**, 12, 6669	17.4	13
310	Understanding the formation of antiphase boundaries in layered oxide cathode materials and their evolution upon electrochemical cycling. *Matter*, **2021**,	12.7	3
309	Reaction of LiAlTi(PO) and LiNiCoMnO in Co-Sintered Composite Cathodes for Solid-State Batteries. *ACS Applied Materials & Interfaces*, **2021**, 13, 47488-47498	9.5	3
308	Hybridization of carbon nanotube tissue and MnO2 as a generic advanced air cathode in metal□air batteries. *Journal of Power Sources*, **2021**, 514, 230597	8.9	3
307	Synthesis and Postprocessing of Single-Crystalline LiNi0.8Co0.15Al0.05O2 for Solid-State Lithium-Ion Batteries with High Capacity and Long Cycling Stability. *Chemistry of Materials*, **2021**, 33, 2624-2634	9.6	15
306	Working Principle of an Ionic Liquid Interlayer During Pressureless Lithium Stripping on Li6.25Al0.25La3Zr2O12 (LLZO) Garnet-Type Solid Electrolyte. *Batteries and Supercaps*, **2021**, 4, 1145-1155	5.6	4
305	Effect of surface carbonates on the cyclability of LiNbO-coated NCM622 in all-solid-state batteries with lithium thiophosphate electrolytes. *Scientific Reports*, **2021**, 11, 5367	4.9	7
304	Operando Characterization Techniques for All-Solid-State Lithium-Ion Batteries. *Advanced Energy and Sustainability Research*, **2021**, 2, 2100004	1.6	18
303	Polycrystalline and Single Crystalline NCM Cathode Materials□Quantifying Particle Cracking, Active Surface Area, and Lithium Diffusion. *Advanced Energy Materials*, **2021**, 11, 2003400	21.8	66
302	The Working Principle of a Li2CO3/LiNbO3 Coating on NCM for Thiophosphate-Based All-Solid-State Batteries. *Chemistry of Materials*, **2021**, 33, 2110-2125	9.6	36
301	Editors□Choice□Quantifying the Impact of Charge Transport Bottlenecks in Composite Cathodes of All-Solid-State Batteries. *Journal of the Electrochemical Society*, **2021**, 168, 040537	3.9	31

300	Influence of Crystallinity of Lithium Thiophosphate Solid Electrolytes on the Performance of Solid-State Batteries. *Advanced Energy Materials*, **2021**, 11, 2100654	21.8	25
299	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	12.7	17
298	Design-of-experiments-guided optimization of slurry-cast cathodes for solid-state batteries. *Cell Reports Physical Science*, **2021**, 2, 100465	6.1	8
297	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	6.1	13
296	Influence of synthesis parameters on crystallization behavior and ionic conductivity of the LiPSI solid electrolyte. *Scientific Reports*, **2021**, 11, 14073	4.9	4
295	A robust technique to image all elements in LiNiO2 cathode active material by 4D-STEM. *Microscopy and Microanalysis*, **2021**, 27, 1446-1449	0.5	
294	Understanding the Transport of Atmospheric Gases in Liquid Electrolytes for Lithium□Air Batteries. *Journal of the Electrochemical Society*, **2021**, 168, 070504	3.9	0
293	Lithium Argyrodite as Solid Electrolyte and Cathode Precursor for Solid-State Batteries with Long Cycle Life. *Advanced Energy Materials*, **2021**, 11, 2101370	21.8	20
292	Lithium-Metal Anode Instability of the Superionic Halide Solid Electrolytes and the Implications for Solid-State Batteries. *Angewandte Chemie - International Edition*, **2021**, 60, 6718-6723	16.4	47
291	Lithium-Metal Anode Instability of the Superionic Halide Solid Electrolytes and the Implications for Solid-State Batteries. *Angewandte Chemie*, **2021**, 133, 6792-6797	3.6	13
290	Analysis of Charge Carrier Transport Toward Optimized Cathode Composites for All-Solid-State Li□ Batteries. *Batteries and Supercaps*, **2021**, 4, 183-194	5.6	22
289	A Rapid and Facile Approach for the Recycling of High-Performance LiNi Co Mn O Active Materials. *ChemSusChem*, **2021**, 14, 441-448	8.3	4
288	Impedance Analysis of NCM Cathode Materials: Electronic and Ionic Partial Conductivities and the Influence of Microstructure. *ACS Applied Energy Materials*, **2021**, 4, 1335-1345	6.1	11
287	Atomistic understanding of the LiNiO2□NiO2 phase diagram from experimentally guided lattice models. *Journal of Materials Chemistry A*, **2021**, 9, 14928-14940	13	9
286	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	9.6	24
285	Improved Cycling Performance of High-Nickel NMC by Dry Powder Coating with Nanostructured Fumed Al2O3, TiO2, and ZrO2: A Comparison. *Batteries and Supercaps*, **2021**, 4, 1003-1017	5.6	10
284	Facile Dry Coating Method of High-Nickel Cathode Material by Nanostructured Fumed Alumina (Al2O3) Improving the Performance of Lithium-Ion Batteries. *Energy Technology*, **2021**, 9, 2100028	3.5	6
283	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	9.6	12

282	Linking Solid Electrolyte Degradation to Charge Carrier Transport in the Thiophosphate-Based Composite Cathode toward Solid-State Lithium-Sulfur Batteries. *Advanced Functional Materials*, **2021**, 31, 2010620	15.6	24
281	Analyzing Nanometer-Thin Cathode Particle Coatings for Lithium-Ion Batteries□he Example of TiO2 on NCM622. *ACS Applied Energy Materials*, **2021**, 4, 7168-7181	6.1	1
280	Fast Charging of Lithium-Ion Batteries: A Review of Materials Aspects. *Advanced Energy Materials*, **2021**, 11, 2101126	21.8	65
279	Singlet Oxygen in Electrochemical Cells: A Critical Review of Literature and Theory. *Chemical Reviews*, **2021**, 121, 12445-12464	68.1	9
278	Stabilizing the Cathode/Electrolyte Interface Using a Dry-Processed Lithium Titanate Coating for All-Solid-State Batteries. *Chemistry of Materials*, **2021**, 33, 6713-6723	9.6	4
277	Cycling Performance and Limitations of LiNiO2 in Solid-State Batteries. *ACS Energy Letters*, **2021**, 6, 3020-3028	23.1	11
276	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	6.1	3
275	Understanding the Impact of Microstructure on Charge Transport in Polycrystalline Materials Through Impedance Modelling. *Journal of the Electrochemical Society*, **2021**, 168, 090516	3.9	4
274	Influence of the PON structural units on the formation energies and transport properties of lithium phosphorus oxynitride: a DFT study. *Physical Chemistry Chemical Physics*, **2021**, 23, 22567-22588	3.6	1
273	Monitoring of Thermally Induced Effects in Nickel-Rich Layered Oxide Cathode Materials at the Atomic Level. *ACS Applied Materials & Interfaces*, **2020**, 12, 57047-57054	9.5	6
272	LiZrO-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	9.5	37
271	Nonlithium Aprotic Metal/Oxygen Batteries Using Na, K, Mg, or Ca as Metal Anode **2020**, 1-29		1
270	Side by Side Battery Technologies with Lithium-Ion Based Batteries. *Advanced Energy Materials*, **2020**, 10, 2000089	21.8	64
269	The interplay between thermodynamics and kinetics in the solid-state synthesis of layered oxides. *Nature Materials*, **2020**, 19, 1088-1095	27	57
268	Influence of NCM Particle Cracking on Kinetics of Lithium-Ion Batteries with Liquid or Solid Electrolyte. *Journal of the Electrochemical Society*, **2020**, 167, 100532	3.9	61
267	The Sound of Batteries: An Operando Acoustic Emission Study of the LiNiO2 Cathode in Li□bn Cells. *Batteries and Supercaps*, **2020**, 3, 1021-1027	5.6	6
266	Na3Zr2Si2PO12: A Stable Na+-Ion Solid Electrolyte for Solid-State Batteries. *ACS Applied Energy Materials*, **2020**, 3, 7427-7437	6.1	31
265	The Fast Charge Transfer Kinetics of the Lithium Metal Anode on the Garnet-Type Solid Electrolyte Li6.25Al0.25La3Zr2O12. *Advanced Energy Materials*, **2020**, 10, 2000945	21.8	44

264	Reversible Capacity Loss of LiCoO2 Thin Film Electrodes. *ACS Applied Energy Materials*, **2020**, 3, 6065-6071	6.1	4
263	The effect of gallium substitution on the structure and electrochemical performance of LiNiO2 in lithium-ion batteries. *Materials Advances*, **2020**, 1, 639-647	3.3	14
262	From Liquid- to Solid-State Batteries: Ion Transfer Kinetics of Heteroionic Interfaces. *Electrochemical Energy Reviews*, **2020**, 3, 221-238	29.3	55
261	Benchmarking the performance of all-solid-state lithium batteries. *Nature Energy*, **2020**, 5, 259-270	62.3	342
260	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	9.6	51
259	Modeling Effective Ionic Conductivity and Binder Influence in Composite Cathodes for All-Solid-State Batteries. *ACS Applied Materials & Interfaces*, **2020**, 12, 12821-12833	9.5	65
258	Kinetic Limitations in Cycled Nickel-Rich NCM Cathodes and Their Effect on the Phase Transformation Behavior. *ACS Applied Energy Materials*, **2020**, 3, 2821-2827	6.1	13
257	Incorporating Diamondoids as Electrolyte Additive in the Sodium Metal Anode to Mitigate Dendrite Growth. *ChemSusChem*, **2020**, 13, 2661-2670	8.3	12
256	Analysis of Interfacial Effects in All-Solid-State Batteries with Thiophosphate Solid Electrolytes. *ACS Applied Materials & Interfaces*, **2020**, 12, 9277-9291	9.5	40
255	Interphase Formation of PEO:LiTFSI-LiPSCl Composite Electrolytes with Lithium Metal. *ACS Applied Materials & Interfaces*, **2020**, 12, 11713-11723	9.5	54
254	Tailoring Dihydroxyphthalazines to Enable Their Stable and Efficient Use in the Catholyte of Aqueous Redox Flow Batteries. *Chemistry of Materials*, **2020**, 32, 3427-3438	9.6	13
253	Gas Evolution in Lithium-Ion Batteries: Solid versus Liquid Electrolyte. *ACS Applied Materials & Interfaces*, **2020**, 12, 20462-20468	9.5	31
252	The Interface between Li6.5La3Zr1.5Ta0.5O12 and Liquid Electrolyte. *Joule*, **2020**, 4, 101-108	27.8	45
251	High-conductivity free-standing Li6PS5Cl/poly(vinylidene difluoride) composite solid electrolyte membranes for lithium-ion batteries. *Journal of Materiomics*, **2020**, 6, 70-76	6.7	19
250	An in situ structural study on the synthesis and decomposition of LiNiO2. *Journal of Materials Chemistry A*, **2020**, 8, 1808-1820	13	30
249	Rational Design of Quasi-Zero-Strain NCM Cathode Materials for Minimizing Volume Change Effects in All-Solid-State Batteries **2020**, 2, 84-88		36
248	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	9.6	7
247	Macroscopic Displacement Reaction of Copper Sulfide in Lithium Solid-State Batteries. *Advanced Energy Materials*, **2020**, 10, 2002394	21.8	13

246	From LiNiO2 to Li2NiO3: Synthesis, Structures and Electrochemical Mechanisms in Li-Rich Nickel Oxides. *Chemistry of Materials*, **2020**, 32, 9211-9227	9.6	11
245	Surface Modification Strategies for Improving the Cycling Performance of Ni-Rich Cathode Materials. *European Journal of Inorganic Chemistry*, **2020**, 2020, 3117-3130	2.3	21
244	Kinetic versus Thermodynamic Stability of LLZO in Contact with Lithium Metal. *Chemistry of Materials*, **2020**, 32, 10207-10215	9.6	27
243	And Yet It Moves: LiNiO2, a Dynamic Jahn□Teller System. *Chemistry of Materials*, **2020**, 32, 10096-10103	9.6	5
242	Physicochemical Concepts of the Lithium Metal Anode in Solid-State Batteries. *Chemical Reviews*, **2020**, 120, 7745-7794	68.1	196
241	The Sound of Batteries: An Operando Acoustic Emission Study of the LiNiO2 Cathode in Li□on Cells. *Batteries and Supercaps*, **2020**, 3, 965-965	5.6	1
240	Between Liquid and All Solid: A Prospect on Electrolyte Future in Lithium-Ion Batteries for Electric Vehicles. *Energy Technology*, **2020**, 8, 2000580	3.5	13
239	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	6.8	8
238	The Formation of the Solid/Liquid Electrolyte Interphase (SLEI) on NASICON-Type Glass Ceramics and LiPON. *Advanced Materials Interfaces*, **2020**, 7, 2000380	4.6	9
237	Design Strategies to Enable the Efficient Use of Sodium Metal Anodes in High-Energy Batteries. *Advanced Materials*, **2020**, 32, e1903891	24	79
236	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	4.8	7
235	Visualization of Light Elements using 4D STEM: The Layered-to-Rock Salt Phase Transition in LiNiO2 Cathode Material. *Advanced Energy Materials*, **2020**, 10, 2001026	21.8	22
234	Indirect state-of-charge determination of all-solid-state battery cells by X-ray diffraction. *Chemical Communications*, **2019**, 55, 11223-11226	5.8	21
233	The Role of Intragranular Nanopores in Capacity Fade of Nickel-Rich Layered Li(NiCoMn)O Cathode Materials. *ACS Nano*, **2019**, 13, 10694-10704	16.7	47
232	LATP and LiCoPO4 thin film preparation □llustrating interfacial issues on the way to all-phosphate SSBs. *Solid State Ionics*, **2019**, 342, 115054	3.3	13
231	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	6.1	54
230	Experimental Assessment of the Practical Oxidative Stability of Lithium Thiophosphate Solid Electrolytes. *Chemistry of Materials*, **2019**, 31, 8328-8337	9.6	86
229	Room temperature, liquid-phase AlO surface coating approach for Ni-rich layered oxide cathode material. *Chemical Communications*, **2019**, 55, 2174-2177	5.8	53

228	Interfacial Stability of Phosphate-NASICON Solid Electrolytes in Ni-Rich NCM Cathode-Based Solid-State Batteries. *ACS Applied Materials & Interfaces*, **2019**, 11, 23244-23253	9.5	38
227	On the Functionality of Coatings for Cathode Active Materials in Thiophosphate-Based All-Solid-State Batteries. *Advanced Energy Materials*, **2019**, 9, 1900626	21.8	125
226	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	9.5	52
225	Chemical, Structural, and Electronic Aspects of Formation and Degradation Behavior on Different Length Scales of Ni-Rich NCM and Li-Rich HE-NCM Cathode Materials in Li-Ion Batteries. *Advanced Materials*, **2019**, 31, e1900985	24	152
224	Benchmarking Anode Concepts: The Future of Electrically Rechargeable Zinc–Air Batteries. *ACS Energy Letters*, **2019**, 4, 1287-1300	20.1	81
223	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	9.6	138
222	Toward a Fundamental Understanding of the Lithium Metal Anode in Solid-State Batteries-An Electrochemo-Mechanical Study on the Garnet-Type Solid Electrolyte LiAlLaZrO. *ACS Applied Materials & Interfaces*, **2019**, 11, 14463-14477	9.5	265
221	Phase Transformation Behavior and Stability of LiNiO Cathode Material for Li-Ion Batteries Obtained from In Situ Gas Analysis and Operando X-Ray Diffraction. *ChemSusChem*, **2019**, 12, 2240-2250	8.3	79
220	Computational Investigation and Experimental Realization of Disordered High-Capacity Li-Ion Cathodes Based on Ni Redox. *Chemistry of Materials*, **2019**, 31, 2431-2442	9.6	30
219	Amorphous versus Crystalline Li3PS4: Local Structural Changes during Synthesis and Li Ion Mobility. *Journal of Physical Chemistry C*, **2019**, 123, 10280-10290	3.8	33
218	Effect of Low-Temperature AlO ALD Coating on Ni-Rich Layered Oxide Composite Cathode on the Long-Term Cycling Performance of Lithium-Ion Batteries. *Scientific Reports*, **2019**, 9, 5328	4.9	66
217	Observation of Chemomechanical Failure and the Influence of Cutoff Potentials in All-Solid-State Li–S Batteries. *Chemistry of Materials*, **2019**, 31, 2930-2940	9.6	69
216	Unraveling the Formation Mechanism of Solid-Liquid Electrolyte Interphases on LiPON Thin Films. *ACS Applied Materials & Interfaces*, **2019**, 11, 9539-9547	9.5	18
215	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	20.1	24
214	In Situ Studies for Understanding Intragranular Nanopore Evolution in Ni-rich Layered Oxide Cathode Material. *Microscopy and Microanalysis*, **2019**, 25, 2032-2033	0.5	
213	Lithium-Metal Growth Kinetics on LLZO Garnet-Type Solid Electrolytes. *Joule*, **2019**, 3, 2030-2049	27.8	180
212	Diffusion Limitation of Lithium Metal and Li–Mg Alloy Anodes on LLZO Type Solid Electrolytes as a Function of Temperature and Pressure. *Advanced Energy Materials*, **2019**, 9, 1902568	21.8	124
211	Properties of the Interphase Formed between Argyrodite-Type LiPSCl and Polymer-Based PEO:LiTFSI. *ACS Applied Materials & Interfaces*, **2019**, 11, 42186-42196	9.5	48

210	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	9.6	94
209	High Rate Performance for Carbon-Coated Na3V2(PO4)2F3 in Na-Ion Batteries. *Small Methods*, **2019**, 3, 1800215	12.8	57
208	Microstructural Modeling of Composite Cathodes for All-Solid-State Batteries. *Journal of Physical Chemistry C*, **2019**, 123, 1626-1634	3.8	81
207	Hin und zurück die Entwicklung von LiNiO2 als Kathodenaktivmaterial. *Angewandte Chemie*, **2019**, 131, 10542-10569	3.6	11
206	There and Back Again-The Journey of LiNiO as a Cathode Active Material. *Angewandte Chemie - International Edition*, **2019**, 58, 10434-10458	16.4	181
205	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	9.5	45
204	Structural analysis and electrical characterization of cation-substituted lithium ion conductors Li1+xTi1-xMxOPO4 (M = Nb, Ta, Sb). *Solid State Ionics*, **2018**, 319, 170-179	3.3	2
203	Artificial Composite Anode Comprising High-Capacity Silicon and Carbonaceous Nanostructures for Long Cycle Life Lithium-Ion Batteries. *Batteries and Supercaps*, **2018**, 1, 27-32	5.6	6
202	Correlating Transport and Structural Properties in LiAl Ge(PO) (LAGP) Prepared from Aqueous Solution. *ACS Applied Materials & Interfaces*, **2018**, 10, 10935-10944	9.5	52
201	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	13	7
200	Volume Changes of Graphite Anodes Revisited: A Combined Operando X-ray Diffraction and In Situ Pressure Analysis Study. *Journal of Physical Chemistry C*, **2018**, 122, 8829-8835	3.8	143
199	Platinum microelectrodes on gadolinia doped ceria single crystals - bulk properties and electrode kinetics. *Physical Chemistry Chemical Physics*, **2018**, 20, 8294-8301	3.6	5
198	Quest for Organic Active Materials for Redox Flow Batteries: 2,3-Diaza-anthraquinones and Their Electrochemical Properties. *Chemistry of Materials*, **2018**, 30, 762-774	9.6	34
197	Diffusion mechanism in the superionic conductor Li4PS4I studied by first-principles calculations. *Solid State Ionics*, **2018**, 319, 83-91	3.3	16
196	Impact of Cathode Material Particle Size on the Capacity of Bulk-Type All-Solid-State Batteries. *ACS Energy Letters*, **2018**, 3, 992-996	20.1	134
195	Li Ion Conductors with Adamantane-Type Nitridophosphate Anions Li P N and Li P N X with X=Cl, Br. *Chemistry - A European Journal*, **2018**, 24, 196-205	4.8	17
194	Metal release and cell biological compatibility of beta-type Ti-40Nb containing indium. *Journal of Biomedical Materials Research - Part B Applied Biomaterials*, **2018**, 106, 1686-1697	3.5	10
193	A First-Principles and Experimental Investigation of Nickel Solubility into the P2 NaxCoO2 Sodium-Ion Cathode. *Advanced Energy Materials*, **2018**, 8, 1801446	21.8	25

192	Challenges for Developing Rechargeable Room-Temperature Sodium Oxygen Batteries. *Advanced Materials Technologies*, **2018**, 3, 1800110	6.8	24
191	A New Strategy for High-Voltage Cathodes for K-Ion Batteries: Stoichiometric KVPO4F. *Advanced Energy Materials*, **2018**, 8, 1801591	21.8	90
190	Spectroscopic characterization of lithium thiophosphates by XPS and XAS - a model to help monitor interfacial reactions in all-solid-state batteries. *Physical Chemistry Chemical Physics*, **2018**, 20, 20088-20095	3.6	51
189	Development of a Wire Reference Electrode for Lithium All-Solid-State Batteries with Polymer Electrolyte: FEM Simulation and Experiment. *Journal of the Electrochemical Society*, **2018**, 165, A1363-A1371	3.9	13
188	High electrical conductivity and high porosity in a Guest@MOF material: evidence of TCNQ ordering within CuBTC micropores. *Chemical Science*, **2018**, 9, 7405-7412	9.4	55
187	Degradation Mechanisms at the LiGePS/LiCoO Cathode Interface in an All-Solid-State Lithium-Ion Battery. *ACS Applied Materials & Interfaces*, **2018**, 10, 22226-22236	9.5	158
186	New horizons for inorganic solid state ion conductors. *Energy and Environmental Science*, **2018**, 11, 1945-1976	35.4	601
185	Recent Progress and Perspective in Electrode Materials for K-Ion Batteries. *Advanced Energy Materials*, **2018**, 8, 1702384	21.8	428
184	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	3.9	22
183	Investigation of Fluorine and Nitrogen as Anionic Dopants in Nickel-Rich Cathode Materials for Lithium-Ion Batteries. *ACS Applied Materials & Interfaces*, **2018**, 10, 44452-44462	9.5	35
182	Gas Evolution in All-Solid-State Battery Cells. *ACS Energy Letters*, **2018**, 3, 2539-2543	20.1	65
181	Diffusivity and Solubility of Oxygen in Solvents for Metal/Oxygen Batteries: A Combined Theoretical and Experimental Study. *Journal of the Electrochemical Society*, **2018**, 165, A3095-A3099	3.9	15
180	Origin of Carbon Dioxide Evolved during Cycling of Nickel-Rich Layered NCM Cathodes. *ACS Applied Materials & Interfaces*, **2018**, 10, 38892-38899	9.5	111
179	Molecular Surface Modification of NCM622 Cathode Material Using Organophosphates for Improved Li-Ion Battery Full-Cells. *ACS Applied Materials & Interfaces*, **2018**, 10, 20487-20498	9.5	56
178	Chemo-mechanical expansion of lithium electrode materials □on the route to mechanically optimized all-solid-state batteries. *Energy and Environmental Science*, **2018**, 11, 2142-2158	35.4	308
177	Gyroidal Porous Carbon Activated with NH3 or CO2 as Lithium□Sulfur Battery Cathodes. *Batteries and Supercaps*, **2018**, 1, 83-94	5.6	10
176	Towards zinc-oxygen batteries with enhanced cycling stability: The benefit of anion-exchange ionomer for zinc sponge anodes. *Journal of Power Sources*, **2018**, 395, 195-204	8.9	48
175	Li+-Ion Dynamics in □Li3PS4 Observed by NMR: Local Hopping and Long-Range Transport. *Journal of Physical Chemistry C*, **2018**, 122, 15954-15965	3.8	55

174	Imaging of Lipids in Native Human Bone Sections Using TOF-Secondary Ion Mass Spectrometry, Atmospheric Pressure Scanning Microprobe Matrix-Assisted Laser Desorption/Ionization Orbitrap Mass Spectrometry, and Orbitrap-Secondary Ion Mass Spectrometry. *Analytical Chemistry*, **2018**, 90, 8856-8864	7.8	24
173	Potassium Salts as Electrolyte Additives in Lithium□Oxygen Batteries. *Journal of Physical Chemistry C*, **2017**, 121, 3822-3829	3.8	25
172	Anisotropic Lattice Strain and Mechanical Degradation of High- and Low-Nickel NCM Cathode Materials for Li-Ion Batteries. *Journal of Physical Chemistry C*, **2017**, 121, 3286-3294	3.8	303
171	Li4PS4I: A Li+ Superionic Conductor Synthesized by a Solvent-Based Soft Chemistry Approach. *Chemistry of Materials*, **2017**, 29, 1830-1835	9.6	76
170	Improving the capacity of lithium-sulfur batteries by tailoring the polysulfide adsorption efficiency of hierarchical oxygen/nitrogen-functionalized carbon host materials. *Physical Chemistry Chemical Physics*, **2017**, 19, 8349-8355	3.6	22
169	Plasma Electrochemistry with Ionic Liquids **2017**, 345-371		
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