

Khalil Amine

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

421
papers

40,319
citations

107
h-index

189
g-index

456
ext. papers

47,721
ext. citations

16.4
avg, IF

7.82
L-index

#	Paper	IF	Citations
4 ²¹	Native lattice strain induced structural earthquake in sodium layered oxide cathodes.. <i>Nature Communications</i> , 2022 , 13, 436	17.4	3
4 ²⁰	Evidence of Morphological Change in Sulfur Cathodes upon Irradiation by Synchrotron X-rays. <i>ACS Energy Letters</i> , 2022 , 7, 577-582	20.1	1
4 ¹⁹	Suppressing electrolyte-lithium metal reactivity via Li-desolvation in uniform nano-porous separator.. <i>Nature Communications</i> , 2022 , 13, 172	17.4	9
4 ¹⁸	Ultrafast Metal Electrodeposition Revealed by in-situ Optical Imaging and Theoretical Modeling towards Fast-charging Zn Battery Chemistry.. <i>Angewandte Chemie - International Edition</i> , 2022 ,	16.4	9
4 ¹⁷	Solvation-protection-enabled high-voltage electrolyte for lithium metal batteries. <i>Nano Energy</i> , 2022 , 92, 106720	17.1	11
4 ¹⁶	High Nickel and No Cobalt-The Pursuit of Next-Generation Layered Oxide Cathodes.. <i>ACS Applied Materials & Interfaces</i> , 2022 ,	9.5	4
4 ¹⁵	Atomistic Insights of Irreversible Li ⁺ Intercalation in MnO ₂ Electrode. <i>Angewandte Chemie</i> , 2022 , 134, e202113420	3.6	1
4 ¹⁴	Transferring Liquid Metal to form a Hybrid Solid Electrolyte via a Wettability-Tuning Technology for Lithium Metal Anodes.. <i>Advanced Materials</i> , 2022 , e2200181	24	4
4 ¹³	Regulation of Surface Defect Chemistry towards Stable Ni-rich Cathodes.. <i>Advanced Materials</i> , 2022 , e2200744	24	11
4 ¹²	Enabling high energy lithium metal batteries via single-crystal Ni-rich cathode material co-doping strategy.. <i>Nature Communications</i> , 2022 , 13, 2319	17.4	9
4 ¹¹	Unravelling the Nature of the Intrinsic Complex Structure of Binary Phase Na-layered Oxides.. <i>Advanced Materials</i> , 2022 , e2202137	24	2
4 ¹⁰	How do super concentrated electrolytes push the Li-ion batteries and supercapacitors beyond their thermodynamic and electrochemical limits?. <i>Nano Energy</i> , 2022 , 98, 107336	17.1	2
4 ⁰⁹	Recent progress in fundamental understanding of selenium-doped sulfur cathodes during charging and discharging with various electrolytes 2022 , 235-260		
4 ⁰⁸	Uncommon Behavior of Li Doping Suppresses Oxygen Redox in P2-Type Manganese-Rich Sodium Cathodes. <i>Advanced Materials</i> , 2021 , e2107141	24	12
4 ⁰⁷	Atomistic Insights of Irreversible Li Intercalation in MnO Electrode. <i>Angewandte Chemie - International Edition</i> , 2021 ,	16.4	1
4 ⁰⁶	Multiscale Understanding of Surface Structural Effects on High-Temperature Operational Resiliency of Layered Oxide Cathodes. <i>Advanced Materials</i> , 2021 , e2107326	24	4
4 ⁰⁵	Rational design of mechanically robust Ni-rich cathode materials via concentration gradient strategy. <i>Nature Communications</i> , 2021 , 12, 6024	17.4	21

404	Simultaneously Blocking Chemical Crosstalk and Internal Short Circuit via Gel-Stretching Derived Nanoporous Non-Shrinkage Separator for Safe Lithium-Ion Batteries. <i>Advanced Materials</i> , 2021 , e2106335 ²⁴	21.8	8
403	High-Voltage and High-Safety Practical Lithium Batteries with Ethylene Carbonate-Free Electrolyte. <i>Advanced Energy Materials</i> , 2021 , 11, 2102299	21.8	14
402	Prelithiated Li-Enriched Gradient Interphase toward Practical High-Energy NMC/Silicon Full Cell. <i>ACS Energy Letters</i> , 2021 , 6, 320-328	20.1	16
401	Vacancy-Enabled O3 Phase Stabilization for Manganese-Rich Layered Sodium Cathodes. <i>Angewandte Chemie - International Edition</i> , 2021 , 60, 8258-8267	16.4	23
400	Vacancy-Enabled O3 Phase Stabilization for Manganese-Rich Layered Sodium Cathodes. <i>Angewandte Chemie</i> , 2021 , 133, 8339-8348	3.6	8
399	Whole-Voltage-Range Oxygen Redox in P2-Layered Cathode Materials for Sodium-Ion Batteries. <i>Advanced Materials</i> , 2021 , 33, e2008194	24	39
398	Solid-State Synthesis of Highly Dispersed Nitrogen-Coordinated Single Iron Atom Electrocatalysts for Proton Exchange Membrane Fuel Cells. <i>Nano Letters</i> , 2021 , 21, 3633-3639	11.5	10
397	A universal method to fabricating porous carbon for Li-O2 battery. <i>Nano Energy</i> , 2021 , 82, 105782	17.1	14
396	Unveiling decaying mechanism through quantitative structure-activity relationship in electrolytes for lithium-ion batteries. <i>Nano Energy</i> , 2021 , 83, 105843	17.1	12
395	Understanding the Effect of Solid Electrocatalysts on Achieving Highly Energy-Efficient Lithium/Oxygen Batteries. <i>Advanced Energy and Sustainability Research</i> , 2021 , 2, 2100045	1.6	0
394	Nanotechnology for Sulfur Cathodes. <i>ACS Nano</i> , 2021 , 15, 8087-8094	16.7	8
393	Complementary Electrolyte Design for Li Metal Batteries in Electric Vehicle Applications. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 25879-25889	9.5	4
392	Mesocrystallizing Nanograins for Enhanced Li+ Storage. <i>Advanced Energy Materials</i> , 2021 , 11, 2100503	21.8	3
391	Enabling High-Performance NASICON-Based Solid-State Lithium Metal Batteries Towards Practical Conditions. <i>Advanced Functional Materials</i> , 2021 , 31, 2102765	15.6	6
390	Development of cathode-electrolyte-interphase for safer lithium batteries. <i>Energy Storage Materials</i> , 2021 , 37, 77-86	19.4	25
389	Toward a mechanistic understanding of electrocatalytic nanocarbon. <i>Nature Communications</i> , 2021 , 12, 3288	17.4	11
388	In situ observation of thermal-driven degradation and safety concerns of lithiated graphite anode. <i>Nature Communications</i> , 2021 , 12, 4235	17.4	17
387	Mesoscale-architecture-based crack evolution dictating cycling stability of advanced lithium ion batteries. <i>Nano Energy</i> , 2021 , 79, 105420	17.1	13

386	A high-energy and long-cycling lithium-sulfur pouch cell via a macroporous catalytic cathode with double-end binding sites. <i>Nature Nanotechnology</i> , 2021 , 16, 166-173	28.7	153
385	Full Concentration Gradient-Tailored Li-Rich Layered Oxides for High-Energy Lithium-Ion Batteries. <i>Advanced Materials</i> , 2021 , 33, e2001358	24	33
384	Revealing the Atomic Structures of Exposed Lateral Surfaces for Polymorphic Manganese Dioxide Nanowires. <i>Small Structures</i> , 2021 , 2, 2000091	8.7	7
383	In Situ Construction of Uniform and Robust Cathode/Electrolyte Interphase for Li-Rich Layered Oxides. <i>Advanced Functional Materials</i> , 2021 , 31, 2009192	15.6	25
382	Sustainable existence of solid mercury (Hg) nanoparticles at room temperature and their applications. <i>Chemical Science</i> , 2021 , 12, 3226-3238	9.4	4
381	Localized Polysulfide Injector for the Activation of Bulk Lithium Sulfide. <i>Journal of the American Chemical Society</i> , 2021 , 143, 2185-2189	16.4	14
380	Atomic/molecular layer deposition for energy storage and conversion. <i>Chemical Society Reviews</i> , 2021 , 50, 3889-3956	58.5	39
379	Enabling stable and high-rate cycling of a Ni-rich layered oxide cathode for lithium-ion batteries by modification with an artificial Li ⁺ -conducting cathode-electrolyte interphase. <i>Journal of Materials Chemistry A</i> , 2021 , 9, 11623-11631	13	5
378	Understanding Co roles towards developing Co-free Ni-rich cathodes for rechargeable batteries. <i>Nature Energy</i> , 2021 , 6, 277-286	62.3	64
377	Correlating Catalyst Design and Discharged Product to Reduce Overpotential in Li-CO Batteries. <i>Small</i> , 2021 , 17, e2007760	11	8
376	Thermal runaway mechanism of lithium-ion battery with LiNi _{0.8} Mn _{0.1} Co _{0.1} O ₂ cathode materials. <i>Nano Energy</i> , 2021 , 85, 105878	17.1	43
375	Unlocking the self-supported thermal runaway of high-energy lithium-ion batteries. <i>Energy Storage Materials</i> , 2021 , 39, 395-402	19.4	19
374	Electronic Properties of Ir ₃ Li and Ultra-nanocrystalline Lithium Superoxide Formation. <i>Nano Energy</i> , 2021 , 106549	17.1	0
373	Electrolytes Polymerization-Induced Cathode-Electrolyte-Interphase for High Voltage Lithium-Ion Batteries. <i>Advanced Energy Materials</i> , 2021 , 11, 2101956	21.8	5
372	Laser-Irradiated Holey Graphene-Supported Single-Atom Catalyst towards Hydrogen Evolution and Oxygen Reduction. <i>Advanced Energy Materials</i> , 2021 , 11, 2101619	21.8	14
371	A general strategy for batch development of high-performance and cost-effective sodium layered cathodes. <i>Nano Energy</i> , 2021 , 89, 106371	17.1	7
370	Tuning the linkage of structure units to enable stable spinel-based cathode in the wide potential window. <i>Nano Energy</i> , 2021 , 89, 106457	17.1	3
369	Superior long-term cycling of high-voltage lithium-ion batteries enabled by single-solvent electrolyte. <i>Nano Energy</i> , 2021 , 89, 106299	17.1	8

368	In-built ultraconformal interphases enable high-safety practical lithium batteries. <i>Energy Storage Materials</i> , 2021 , 43, 248-257	19.4	10
367	(S)TEM-EELS as an advanced characterization technique for lithium-ion batteries. <i>Materials Chemistry Frontiers</i> , 2021 , 5, 5186-5193	7.8	5
366	Principle in developing novel fluorinated sulfone electrolyte for high voltage lithium-ion batteries. <i>Energy and Environmental Science</i> , 2021 , 14, 3029-3034	35.4	12
365	Stress- and Interface-Compatible Red Phosphorus Anode for High-Energy and Durable Sodium-Ion Batteries. <i>ACS Energy Letters</i> , 2021 , 6, 547-556	20.1	17
364	In Situ Formation of Polycyclic Aromatic Hydrocarbons as an Artificial Hybrid Layer for Lithium Metal Anodes.. <i>Nano Letters</i> , 2021 ,	11.5	3
363	Understanding the Role of Lithium Iodide in Lithium-Oxygen Batteries. <i>Advanced Materials</i> , 2021 , e2106148	14.8	7
362	Direct observation of the formation and stabilization of metallic nanoparticles on carbon supports. <i>Nature Communications</i> , 2020 , 11, 6373	17.4	20
361	Titelbild: Cation Additive Enabled Rechargeable LiOH-Based Lithium Oxygen Batteries (Angew. Chem. 51/2020). <i>Angewandte Chemie</i> , 2020 , 132, 22993-22993	3.6	
360	Probing the Thermal-Driven Structural and Chemical Degradation of Ni-Rich Layered Cathodes by Co/Mn Exchange. <i>Journal of the American Chemical Society</i> , 2020 , 142, 19745-19753	16.4	56
359	Cation Additive Enabled Rechargeable LiOH-Based Lithium Oxygen Batteries. <i>Angewandte Chemie</i> , 2020 , 132, 23178-23182	3.6	4
358	From Sodium-Oxygen to Sodium-Air Battery: Enabled by Sodium Peroxide Dihydrate. <i>Nano Letters</i> , 2020 , 20, 4681-4686	11.5	11
357	Regulating the Hidden Solvation-Ion-Exchange in Concentrated Electrolytes for Stable and Safe Lithium Metal Batteries. <i>Advanced Energy Materials</i> , 2020 , 10, 2000901	21.8	39
356	Harnessing the surface structure to enable high-performance cathode materials for lithium-ion batteries. <i>Chemical Society Reviews</i> , 2020 , 49, 4667-4680	58.5	49
355	Revealing the Structural Evolution and Phase Transformation of O3-Type NaNi _{1/3} Fe _{1/3} Mn _{1/3} O ₂ Cathode Material on Sintering and Cycling Processes. <i>ACS Applied Energy Materials</i> , 2020 , 3, 6107-6114	6.1	3
354	Probing solid-state reaction through microstrain: A case study on synthesis of LiCoO ₂ . <i>Journal of Power Sources</i> , 2020 , 469, 228422	8.9	4
353	Computational study of the adsorption of bimetallic clusters on alumina substrate. <i>Surface Science</i> , 2020 , 700, 121682	1.8	0
352	Oxygen-Based Anion Redox for Lithium Batteries. <i>Accounts of Chemical Research</i> , 2020 , 53, 1436-1444	24.3	12
351	Beyond the Polysulfide Shuttle and Lithium Dendrite Formation: Addressing the Sluggish Sulfur Redox Kinetics for Practical High-Energy Li-S Batteries. <i>Angewandte Chemie - International Edition</i> , 2020 , 59, 17634-17640	16.4	30

350	Beyond the Polysulfide Shuttle and Lithium Dendrite Formation: Addressing the Sluggish Sulfur Redox Kinetics for Practical High-Energy Li-S Batteries. <i>Angewandte Chemie</i> , 2020 , 132, 17787-17793	3.6	6
349	Understanding the Reactivity of a Thin Li _{1.5} Al _{0.5} Ge _{1.5} (PO ₄) ₃ Solid-State Electrolyte toward Metallic Lithium Anode. <i>Advanced Energy Materials</i> , 2020 , 10, 2001497	21.8	25
348	Solvation Rule for Solid-Electrolyte Interphase Enabler in Lithium-Metal Batteries. <i>Angewandte Chemie</i> , 2020 , 132, 18386-18390	3.6	4
347	Solvation Rule for Solid-Electrolyte Interphase Enabler in Lithium-Metal Batteries. <i>Angewandte Chemie - International Edition</i> , 2020 , 59, 18229-18233	16.4	18
346	Design strategies for nonaqueous multivalent-ion and monovalent-ion battery anodes. <i>Nature Reviews Materials</i> , 2020 , 5, 276-294	73.3	151
345	Toward a high-voltage fast-charging pouch cell with TiO ₂ cathode coating and enhanced battery safety. <i>Nano Energy</i> , 2020 , 71, 104643	17.1	36
344	Optimization of oxygen electrode combined with soluble catalyst to enhance the performance of lithium-oxygen battery. <i>Energy Storage Materials</i> , 2020 , 28, 73-81	19.4	8
343	Solution Blowing Synthesis of Li-Conductive Ceramic Nanofibers. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 16200-16208	9.5	12
342	Cationic and anionic redox in lithium-ion based batteries. <i>Chemical Society Reviews</i> , 2020 , 49, 1688-1705	58.5	84
341	A Facile Approach to High Precision Detection of Cell-to-Cell Variation for Li-ion Batteries. <i>Scientific Reports</i> , 2020 , 10, 7182	4.9	7
340	Bringing forward the development of battery cells for automotive applications: Perspective of R&D activities in China, Japan, the EU and the USA. <i>Journal of Power Sources</i> , 2020 , 459, 228073	8.9	59
339	Highly Reversible Sodiation/Desodiation from a Carbon-Sandwiched SnS Nanosheet Anode for Sodium Ion Batteries. <i>Nano Letters</i> , 2020 , 20, 3844-3851	11.5	37
338	A practical phosphorus-based anode material for high-energy lithium-ion batteries. <i>Nano Energy</i> , 2020 , 74, 104849	17.1	32
337	Nickel-based Cathode for Li-ion Batteries 2020 , 204-226		
336	The importance of anode protection towards lithium oxygen batteries. <i>Journal of Materials Chemistry A</i> , 2020 , 8, 3563-3573	13	39
335	Integrating Multiredox Centers into One Framework for High-Performance Organic Li-Ion Battery Cathodes. <i>ACS Energy Letters</i> , 2020 , 5, 224-231	20.1	27
334	Boosting Superior Lithium Storage Performance of Alloy-Based Anode Materials via Ultraconformal Sb Coating-Derived Favorable Solid-Electrolyte Interphase. <i>Advanced Energy Materials</i> , 2020 , 10, 1903186	21.8	18
333	In Situ Construction of an Ultrarobust and Lithiophilic Li-Enriched Li ₂ N Nanoshield for High-Performance Ge-Based Anode Materials. <i>ACS Energy Letters</i> , 2020 , 5, 3490-3497	20.1	11

332	Cation Additive Enabled Rechargeable LiOH-Based Lithium-Oxygen Batteries. <i>Angewandte Chemie - International Edition</i> , 2020 , 59, 22978-22982	16.4	14
331	Local spring effect in titanium-based layered oxides. <i>Energy and Environmental Science</i> , 2020 , 13, 4371-4380	39.4	2
330	Developing high safety Li-metal anodes for future high-energy Li-metal batteries: strategies and perspectives. <i>Chemical Society Reviews</i> , 2020 , 49, 5407-5445	58.5	121
329	Charge Transport Properties of Lithium Superoxide in LiO ₂ Batteries. <i>ACS Applied Energy Materials</i> , 2020 , 3, 12575-12583	6.1	9
328	TEM Studies on the Role of Local Chemistry and Atomic Structure in Battery Materials. <i>Microscopy and Microanalysis</i> , 2020 , 26, 148-149	0.5	1
327	Durable hybrid electrocatalysts for proton exchange membrane fuel cells. <i>Nano Energy</i> , 2020 , 77, 105192	7.1	7
326	A review of composite solid-state electrolytes for lithium batteries: fundamentals, key materials and advanced structures. <i>Chemical Society Reviews</i> , 2020 , 49, 8790-8839	58.5	153
325	A disordered rock salt anode for fast-charging lithium-ion batteries. <i>Nature</i> , 2020 , 585, 63-67	50.4	137
324	Lithium Anodes: Understanding the Reactivity of a Thin Li _{1.5} Al _{0.5} Ge _{1.5} (PO ₄) ₃ Solid-State Electrolyte toward Metallic Lithium Anode (Adv. Energy Mater. 32/2020). <i>Advanced Energy Materials</i> , 2020 , 10, 2070136	21.8	1
323	TiO ₂ Nanocrystal-Framed Li ₂ TiSiO ₅ Platelets for Low-Voltage Lithium Battery Anode. <i>Advanced Functional Materials</i> , 2020 , 30, 2001909	15.6	11
322	Challenges and Strategies to Advance High-Energy Nickel-Rich Layered Lithium Transition Metal Oxide Cathodes for Harsh Operation. <i>Advanced Functional Materials</i> , 2020 , 30, 2004748	15.6	55
321	Revisiting the Role of Conductivity and Polarity of Host Materials for Long-Life Lithium Sulfur Battery. <i>Advanced Energy Materials</i> , 2020 , 10, 1903934	21.8	31
320	Silica Restricting the Sulfur Volatilization of Nickel Sulfide for High-Performance Lithium-Ion Batteries. <i>Advanced Energy Materials</i> , 2019 , 9, 1901153	21.8	64
319	The Role of Ru in Improving the Activity of Pd toward Hydrogen Evolution and Oxidation Reactions in Alkaline Solutions. <i>ACS Catalysis</i> , 2019 , 9, 9614-9621	13.1	61
318	An advanced high energy-efficiency rechargeable aluminum-selenium battery. <i>Nano Energy</i> , 2019 , 66, 104159	17.1	21
317	Insights into Li/Ni ordering and surface reconstruction during synthesis of Ni-rich layered oxides. <i>Journal of Materials Chemistry A</i> , 2019 , 7, 513-519	13	53
316	Rational Design of Graphene-Supported Single Atom Catalysts for Hydrogen Evolution Reaction. <i>Advanced Energy Materials</i> , 2019 , 9, 1803689	21.8	147
315	Sub-5 nm edge-rich 1T'-ReSe ₂ as bifunctional materials for hydrogen evolution and sodium-ion storage. <i>Nano Energy</i> , 2019 , 58, 660-668	17.1	23

314	Exploring the charge reactions in a LiO ₂ system with lithium oxide cathodes and nonaqueous electrolytes. <i>Journal of Materials Chemistry A</i> , 2019 , 7, 15615-15620	13	5
313	Insights into Structural Evolution of Lithium Peroxides with Reduced Charge Overpotential in LiO ₂ System. <i>Advanced Energy Materials</i> , 2019 , 9, 1900662	21.8	27
312	Commercialization of Lithium Battery Technologies for Electric Vehicles. <i>Advanced Energy Materials</i> , 2019 , 9, 1900161	21.8	407
311	Revealing the Atomic Origin of Heterogeneous Li-Ion Diffusion by Probing Na. <i>Advanced Materials</i> , 2019 , 31, e1805889	24	20
310	E-fuel system: a conceptual breakthrough for energy storage. <i>Science Bulletin</i> , 2019 , 64, 227-228	10.6	2
309	A Selection Rule for Hydrofluoroether Electrolyte Cosolvent: Establishing a Linear Free-Energy Relationship in Lithium-Sulfur Batteries. <i>Angewandte Chemie</i> , 2019 , 131, 10701-10705	3.6	3
308	A Selection Rule for Hydrofluoroether Electrolyte Cosolvent: Establishing a Linear Free-Energy Relationship in Lithium-Sulfur Batteries. <i>Angewandte Chemie - International Edition</i> , 2019 , 58, 10591-10595	16.4	19
307	Building ultraconformal protective layers on both secondary and primary particles of layered lithium transition metal oxide cathodes. <i>Nature Energy</i> , 2019 , 4, 484-494	62.3	190
306	Electrochemically primed functional redox mediator generator from the decomposition of solid state electrolyte. <i>Nature Communications</i> , 2019 , 10, 1890	17.4	35
305	Injection of oxygen vacancies in the bulk lattice of layered cathodes. <i>Nature Nanotechnology</i> , 2019 , 14, 602-608	28.7	180
304	Oxygen Release Degradation in Li-Ion Battery Cathode Materials: Mechanisms and Mitigating Approaches. <i>Advanced Energy Materials</i> , 2019 , 9, 1900551	21.8	145
303	Solvating power series of electrolyte solvents for lithium batteries. <i>Energy and Environmental Science</i> , 2019 , 12, 1249-1254	35.4	74
302	Intrinsic Role of Cationic Substitution in Tuning Li/Ni Mixing in High-Ni Layered Oxides. <i>Chemistry of Materials</i> , 2019 , 31, 2731-2740	9.6	40
301	Methacrylated gelatin-embedded fabrication of 3D graphene-supported CoO nanoparticles for water splitting. <i>Nanoscale</i> , 2019 , 11, 6866-6875	7.7	11
300	Nitrogen-coordinated single iron atom catalysts derived from metal organic frameworks for oxygen reduction reaction. <i>Nano Energy</i> , 2019 , 61, 60-68	17.1	126
299	Surface Modification for Suppressing Interfacial Parasitic Reactions of a Nickel-Rich Lithium-Ion Cathode. <i>Chemistry of Materials</i> , 2019 , 31, 2723-2730	9.6	68
298	Anti-Oxygen Leaking LiCoO ₂ . <i>Advanced Functional Materials</i> , 2019 , 29, 1901110	15.6	36
297	High rate and long cycle life in Li-O ₂ batteries with highly efficient catalytic cathode configured with Co ₃ O ₄ nanoflower. <i>Nano Energy</i> , 2019 , 64, 103896	17.1	37

296	Tuning LiO Formation Routes by Facet Engineering of MnO Cathode Catalysts. <i>Journal of the American Chemical Society</i> , 2019 , 141, 12832-12838	16.4	62
295	Selective Growth of a Discontinuous Subnanometer Pd Film on Carbon Defects for LiO ₂ Batteries. <i>ACS Energy Letters</i> , 2019 , 4, 2782-2786	20.1	28
294	Correlation between manganese dissolution and dynamic phase stability in spinel-based lithium-ion battery. <i>Nature Communications</i> , 2019 , 10, 4721	17.4	91
293	Cooling Induced Surface Reconstruction during Synthesis of High-Ni Layered Oxides. <i>Advanced Energy Materials</i> , 2019 , 9, 1901915	21.8	22
292	Formed IrLi Nanoparticles as Active Cathode Material in Li-Oxygen Batteries. <i>Journal of Physical Chemistry A</i> , 2019 , 123, 10047-10056	2.8	5
291	Bridging the academic and industrial metrics for next-generation practical batteries. <i>Nature Nanotechnology</i> , 2019 , 14, 200-207	28.7	255
290	Lithium-Ion Batteries: Cooling Induced Surface Reconstruction during Synthesis of High-Ni Layered Oxides (Adv. Energy Mater. 43/2019). <i>Advanced Energy Materials</i> , 2019 , 9, 1970173	21.8	
289	Fundamental Understanding of Water-Induced Mechanisms in Li-O Batteries: Recent Developments and Perspectives. <i>Advanced Materials</i> , 2019 , 31, e1805602	24	31
288	In situ quantification of interphasial chemistry in Li-ion battery. <i>Nature Nanotechnology</i> , 2019 , 14, 50-56	28.7	235
287	Impact of alginate and fluoroethylene carbonate on the electrochemical performance of SiO ₂ /SnCoC anode for lithium-ion batteries. <i>Journal of Solid State Electrochemistry</i> , 2019 , 23, 397-405	2.6	2
286	Solid-State Lithium/Selenium/Sulfur Chemistry Enabled via a Robust Solid-Electrolyte Interphase. <i>Advanced Energy Materials</i> , 2019 , 9, 1802235	21.8	42
285	Cyclic carbonate for highly stable cycling of high voltage lithium metal batteries. <i>Energy Storage Materials</i> , 2019 , 17, 284-292	19.4	64
284	The Absence and Importance of Operando Techniques for Metal-Free Catalysts. <i>Advanced Materials</i> , 2019 , 31, e1805609	24	18
283	Ordering Heterogeneity of [MnO ₆] Octahedra in Tunnel-Structured MnO ₂ and Its Influence on Ion Storage. <i>Joule</i> , 2019 , 3, 471-484	27.8	84
282	Lithiation-Induced Non-Noble Metal Nanoparticles for Li-O Batteries. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 811-818	9.5	13
281	Native Vacancy Enhanced Oxygen Redox Reversibility and Structural Robustness. <i>Advanced Energy Materials</i> , 2019 , 9, 1803087	21.8	50
280	Correlation between long range and local structural changes in Ni-rich layered materials during charge and discharge process. <i>Journal of Power Sources</i> , 2019 , 412, 336-343	8.9	57
279	Insights into the Na ⁺ Storage Mechanism of Phosphorus-Functionalized Hard Carbon as Ultrahigh Capacity Anodes. <i>Advanced Energy Materials</i> , 2018 , 8, 1702781	21.8	124

278	Encapsulating Various Sulfur Allotropes within Graphene Nanocages for Long-Lasting Lithium Storage. <i>Advanced Functional Materials</i> , 2018 , 28, 1706443	15.6	54
277	High-Performance Anode Materials for Rechargeable Lithium-Ion Batteries. <i>Electrochemical Energy Reviews</i> , 2018 , 1, 35-53	29.3	334
276	Elucidating anionic oxygen activity in lithium-rich layered oxides. <i>Nature Communications</i> , 2018 , 9, 947	17.4	181
275	Insight into Ca-Substitution Effects on O3-Type NaNi Fe Mn O Cathode Materials for Sodium-Ion Batteries Application. <i>Small</i> , 2018 , 14, e1704523	11	56
274	Identification and Implications of Lithium Superoxide in LiO ₂ Batteries. <i>ACS Energy Letters</i> , 2018 , 3, 1105-1109	20.1	30
273	Effect of Componential Proportion in Bimetallic Electrocatalysts on the Aprotic Lithium-Oxygen Battery Performance. <i>Advanced Energy Materials</i> , 2018 , 8, 1703230	21.8	21
272	Stabilization of a High-Capacity and High-Power Nickel-Based Cathode for Li-Ion Batteries. <i>Chem</i> , 2018 , 4, 690-704	16.2	85
271	Reversible Redox Chemistry of Azo Compounds for Sodium-Ion Batteries. <i>Angewandte Chemie - International Edition</i> , 2018 , 57, 2879-2883	16.4	106
270	Reversible Redox Chemistry of Azo Compounds for Sodium-Ion Batteries. <i>Angewandte Chemie</i> , 2018 , 130, 2929-2933	3.6	25
269	Challenges in Developing Electrodes, Electrolytes, and Diagnostics Tools to Understand and Advance Sodium-Ion Batteries. <i>Advanced Energy Materials</i> , 2018 , 8, 1702403	21.8	164
268	High-Capacity Sodium Peroxide Based NaO ₂ Batteries with Low Charge Overpotential via a Nanostructured Catalytic Cathode. <i>ACS Energy Letters</i> , 2018 , 3, 276-277	20.1	11
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121	Understanding the Rate Capability of High-Energy-Density Li-Rich Layered Li _{1.2} Ni _{0.15} Co _{0.1} Mn _{0.55} O ₂ Cathode Materials. <i>Advanced Energy Materials</i> , 2014 , 4, 1300950	21.8	393
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118	Migration of Mn cations in delithiated lithium manganese oxides. <i>Physical Chemistry Chemical Physics</i> , 2014 , 16, 20697-702	3.6	18
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115	Molecular-level insights into the reactivity of siloxane-based electrolytes at a lithium-metal anode. <i>ChemPhysChem</i> , 2014 , 15, 2077-83	3.2	9
114	Effect of the size-selective silver clusters on lithium peroxide morphology in lithium-oxygen batteries. <i>Nature Communications</i> , 2014 , 5, 4895	17.4	162
113	Nanorod and nanoparticle shells in concentration gradient core-shell lithium oxides for rechargeable lithium batteries. <i>ChemSusChem</i> , 2014 , 7, 3295-303	8.3	15
112	Ultrasonic-assisted co-precipitation to synthesize lithium-rich cathode $\text{Li}_{1.3}\text{Ni}_{0.21}\text{Mn}_{0.64}\text{O}_{2+d}$ materials for lithium-ion batteries. <i>Journal of Power Sources</i> , 2014 , 272, 922-928	8.9	19
111	High electrochemical performances of microsphere C-TiO ₂ anode for sodium-ion battery. <i>ACS Applied Materials & Interfaces</i> , 2014 , 6, 11295-301	9.5	187
110	High Capacity O3-Type $\text{Na}[\text{Li}_{0.05}(\text{Ni}_{0.25}\text{Fe}_{0.25}\text{Mn}_{0.5})_{0.95}]\text{O}_2$ Cathode for Sodium Ion Batteries. <i>Chemistry of Materials</i> , 2014 , 26, 6165-6171	9.6	148
109	Probing thermally induced decomposition of delithiated $\text{Li}_{(1.2-x)}\text{Ni}_{(0.15)}\text{Mn}_{(0.55)}\text{Co}_{(0.1)}\text{O}_2$ by in situ high-energy X-ray diffraction. <i>ACS Applied Materials & Interfaces</i> , 2014 , 6, 12692-7	9.5	39
108	Differentiating allotropic $\text{LiCoO}_2/\text{Li}_2\text{Co}_2\text{O}_4$: A structural and electrochemical study. <i>Journal of Power Sources</i> , 2014 , 271, 97-103	8.9	16
107	Development of microstrain in aged lithium transition metal oxides. <i>Nano Letters</i> , 2014 , 14, 4873-80	11.5	138
106	Raman Evidence for Late Stage Disproportionation in a Li-O ₂ Battery. <i>Journal of Physical Chemistry Letters</i> , 2014 , 5, 2705-10	6.4	126
105	Advanced $\text{Na}[\text{Ni}_{0.25}\text{Fe}_{0.5}\text{Mn}_{0.25}]\text{O}_2/\text{C}-\text{Fe}_3\text{O}_4$ sodium-ion batteries using EMS electrolyte for energy storage. <i>Nano Letters</i> , 2014 , 14, 1620-6	11.5	241
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100	Insight into sulfur reactions in Li-S batteries. <i>ACS Applied Materials & Interfaces</i> , 2014 , 6, 21938-45	9.5	107
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98	Titanium-Based Anode Materials for Safe Lithium-Ion Batteries. <i>Advanced Functional Materials</i> , 2013 , 23, 959-969	15.6	400
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91	A nanostructured cathode architecture for low charge overpotential in lithium-oxygen batteries. <i>Nature Communications</i> , 2013 , 4, 2383	17.4	355
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