

# Dayoung Kang

## 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.

287  
papers

31,214  
citations

87  
h-index

172  
g-index

306  
ext. papers

35,163  
ext. citations

15  
avg, IF

7.45  
L-index

#	Paper	IF	Citations
287	High-energy and durable lithium metal batteries using garnet-type solid electrolytes with tailored lithium-metal compatibility.. <i>Nature Communications</i> , <b>2022</b> , 13, 1883	17.4	14
286	Unveiling the Role of Transition-Metal Ions in the Thermal Degradation of Layered NiCoMn Cathodes for Lithium Rechargeable Batteries. <i>Advanced Functional Materials</i> , <b>2022</b> , 32, 2108790	15.6	3
285	Multifunctional Interface for High-Rate and Long-Durable Garnet-Type Solid Electrolyte in Lithium Metal Batteries. <i>ACS Energy Letters</i> , <b>2022</b> , 7, 381-389	20.1	11
284	Challenges and Strategies towards Practically Feasible Solid-State Lithium Metal Batteries. <i>Advanced Materials</i> , <b>2021</b> , 34, e2104666	24	15
283	Versatile Redox-Active Organic Materials for Rechargeable Energy Storage. <i>Accounts of Chemical Research</i> , <b>2021</b> , 54, 4423-4433	24.3	4
282	A new high-voltage calcium intercalation host for ultra-stable and high-power calcium rechargeable batteries. <i>Nature Communications</i> , <b>2021</b> , 12, 3369	17.4	13
281	Probing Lithium Metals in Batteries by Advanced Characterization and Analysis Tools. <i>Advanced Energy Materials</i> , <b>2021</b> , 11, 2003039	21.8	17
280	Interfacial Engineering in a Cathode Composite Based on Garnet-Type Solid-State Li-Ion Battery with High Voltage Cycling. <i>ChemElectroChem</i> , <b>2021</b> , 8, 570-576	4.3	4
279	Multi-redox phenazine/non-oxidized graphene/cellulose nanohybrids as ultrathick cathodes for high-energy organic batteries. <i>Nano Research</i> , <b>2021</b> , 14, 1382-1389	10	7
278	Permselective metal-organic framework gel membrane enables long-life cycling of rechargeable organic batteries. <i>Nature Nanotechnology</i> , <b>2021</b> , 16, 77-84	28.7	43
277	Revisiting the role of Zr doping in Ni-rich layered cathodes for lithium-ion batteries. <i>Journal of Materials Chemistry A</i> , <b>2021</b> , 9, 17415-17424	13	9
276	A pπ fusion strategy to design bipolar organic materials for high-energy-density symmetric batteries. <i>Journal of Materials Chemistry A</i> , <b>2021</b> , 9, 14485-14494	13	3
275	New Insight into Microstructure Engineering of Ni-Rich Layered Oxide Cathode for High Performance Lithium Ion Batteries. <i>Advanced Functional Materials</i> , <b>2021</b> , 31, 2010095	15.6	31
274	A Biodegradable Secondary Battery and its Biodegradation Mechanism for Eco-Friendly Energy-Storage Systems. <i>Advanced Materials</i> , <b>2021</b> , 33, e2004902	24	13
273	Liquid-Based Janus Electrolyte for Sustainable Redox Mediation in Lithium-Oxygen Batteries. <i>Advanced Energy Materials</i> , <b>2021</b> , 11, 2102096	21.8	2
272	Pyrrolinium-Substituted Persistent Zwitterionic Ferrocenyl Derivative Enabling the Application of Ferrocene Anolyte. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 46558-46565	9.5	1
271	Highly persistent triphenylamine-based catholyte for durable organic redox flow batteries. <i>Energy Storage Materials</i> , <b>2021</b> , 42, 185-192	19.4	4

270	Non-electrode Components for Rechargeable Aqueous Zinc Batteries: Electrolytes, Solid-Electrolyte-Interphase, Current Collectors, Binders, and Separators.. <i>Advanced Materials</i> , <b>2021</b> , e2108206	24	9
269	Understanding capacity fading mechanism of thick electrodes for lithium-ion rechargeable batteries. <i>Journal of Power Sources</i> , <b>2020</b> , 468, 228369	8.9	14
268	Redox-Active Organic Compounds for Future Sustainable Energy Storage System. <i>Advanced Energy Materials</i> , <b>2020</b> , 10, 2001445	21.8	73
267	Phenoxazine as a high-voltage p-type redox center for organic battery cathode materials: small structural reorganization for faster charging and narrow operating voltage. <i>Energy and Environmental Science</i> , <b>2020</b> , 13, 4142-4156	35.4	25
266	Anionic Redox Activity Regulated by Transition Metal in Lithium-Rich Layered Oxides. <i>Advanced Energy Materials</i> , <b>2020</b> , 10, 2001207	21.8	19
265	Blue Graphene Quantum Dots with High Color Purity by Controlling Subdomain Formation for Light-Emitting Devices. <i>ACS Applied Nano Materials</i> , <b>2020</b> , 3, 6469-6477	5.6	9
264	Utilizing Latent Multi-Redox Activity of p-Type Organic Cathode Materials toward High Energy Density Lithium-Organic Batteries. <i>Advanced Energy Materials</i> , <b>2020</b> , 10, 2001635	21.8	22
263	Predicting the chemical reactivity of organic materials using a machine-learning approach. <i>Chemical Science</i> , <b>2020</b> , 11, 7813-7822	9.4	13
262	Planting Repulsion Centers for Faster Ionic Diffusion in Superionic Conductors. <i>Angewandte Chemie - International Edition</i> , <b>2020</b> , 59, 18457-18462	16.4	4
261	Planting Repulsion Centers for Faster Ionic Diffusion in Superionic Conductors. <i>Angewandte Chemie</i> , <b>2020</b> , 132, 18615-18620	3.6	
260	The Role of Interlayer Chemistry in Li-Metal Growth through a Garnet-Type Solid Electrolyte. <i>Advanced Energy Materials</i> , <b>2020</b> , 10, 1903993	21.8	62
259	Design and synthesis of multigrain nanocrystals via geometric misfit strain. <i>Nature</i> , <b>2020</b> , 577, 359-363	50.4	36
258	Calcium-Ion Batteries: Stable and High-Power Calcium-Ion Batteries Enabled by Calcium Intercalation into Graphite (Adv. Mater. 4/2020). <i>Advanced Materials</i> , <b>2020</b> , 32, 2070029	24	2
257	Anchored Mediator Enabling Shuttle-Free Redox Mediation in Lithium-Oxygen Batteries. <i>Angewandte Chemie - International Edition</i> , <b>2020</b> , 59, 5376-5380	16.4	18
256	Voltage decay and redox asymmetry mitigation by reversible cation migration in lithium-rich layered oxide electrodes. <i>Nature Materials</i> , <b>2020</b> , 19, 419-427	27	171
255	Solvated Ion Intercalation in Graphite: Sodium and Beyond. <i>Frontiers in Chemistry</i> , <b>2020</b> , 8, 432	5	20
254	A new lithium diffusion model in layered oxides based on asymmetric but reversible transition metal migration. <i>Energy and Environmental Science</i> , <b>2020</b> , 13, 1269-1278	35.4	20
253	Enhancing the cycle stability of LiO <sub>2</sub> batteries via functionalized carbon nanotube-based electrodes. <i>Journal of Materials Chemistry A</i> , <b>2020</b> , 8, 4263-4273	13	9

252	Stable and High-Power Calcium-Ion Batteries Enabled by Calcium Intercalation into Graphite. <i>Advanced Materials</i> , <b>2020</b> , 32, e1904411	24	52
251	Nanoscale Phenomena in Lithium-Ion Batteries. <i>Chemical Reviews</i> , <b>2020</b> , 120, 6684-6737	68.1	67
250	Controlling Residual Lithium in High-Nickel (>90 %) Lithium Layered Oxides for Cathodes in Lithium-Ion Batteries. <i>Angewandte Chemie</i> , <b>2020</b> , 132, 18821-18828	3.6	1
249	Real-time visualization of Zn metal plating/stripping in aqueous batteries with high areal capacities. <i>Journal of Power Sources</i> , <b>2020</b> , 472, 228334	8.9	9
248	Tunable Redox-Active Triazenyl-Carbene Platforms: A New Class of Anolytes for Non-Aqueous Organic Redox Flow Batteries. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2020</b> , 12, 37338-37345	9.5	5
247	Controlling Residual Lithium in High-Nickel (>90 %) Lithium Layered Oxides for Cathodes in Lithium-Ion Batteries. <i>Angewandte Chemie - International Edition</i> , <b>2020</b> , 59, 18662-18669	16.4	34
246	Tailoring Ion-Conducting Interphases on Magnesium Metals for High-Efficiency Rechargeable Magnesium Metal Batteries. <i>ACS Energy Letters</i> , <b>2020</b> , 5, 3733-3740	20.1	9
245	Aqueous ionic effect on electrochemical breakdown of Si-dielectric-electrolyte interface. <i>Scientific Reports</i> , <b>2020</b> , 10, 16795	4.9	2
244	Dual-Functioning Molecular Carrier of Superoxide Radicals for Stable and Efficient Lithium-Oxygen Batteries. <i>Advanced Energy Materials</i> , <b>2020</b> , 10, 1904187	21.8	6
243	High-Voltage Phosphate Cathodes for Rechargeable Ca-Ion Batteries. <i>ACS Energy Letters</i> , <b>2020</b> , 5, 3203-3211	32.1	32
242	Anchored Mediator Enabling Shuttle-Free Redox Mediation in Lithium-Oxygen Batteries. <i>Angewandte Chemie</i> , <b>2020</b> , 132, 5414-5418	3.6	9
241	A bifunctional auxiliary electrode for safe lithium metal batteries. <i>Journal of Materials Chemistry A</i> , <b>2019</b> , 7, 24807-24813	13	3
240	Visualization of regulated nucleation and growth of lithium sulfides for high energy lithium sulfur batteries. <i>Energy and Environmental Science</i> , <b>2019</b> , 12, 3144-3155	35.4	64
239	Bio-inspired Molecular Redesign of a Multi-redox Catholyte for High-Energy Non-aqueous Organic Redox Flow Batteries. <i>Chem</i> , <b>2019</b> , 5, 2642-2656	16.2	32
238	Bifunctional Oxygen Electrocatalysts for Lithium-Oxygen Batteries. <i>Batteries and Supercaps</i> , <b>2019</b> , 2, 311-325	5.6	18
237	Investigation of Li-O <sub>2</sub> Battery Performance Integrated with RuO <sub>2</sub> Inverse Opal Cathodes in DMSO. <i>ACS Applied Energy Materials</i> , <b>2019</b> , 2, 5109-5115	6.1	6
236	Tailoring sodium intercalation in graphite for high energy and power sodium ion batteries. <i>Nature Communications</i> , <b>2019</b> , 10, 2598	17.4	115
235	Direct Observation of Redox Mediator-Assisted Solution-Phase Discharging of Li-O Battery by Liquid-Phase Transmission Electron Microscopy. <i>Journal of the American Chemical Society</i> , <b>2019</b> , 141, 8047-8052	16.4	39

234	Bifunctional Oxygen Electrocatalysts for Lithium-Oxygen Batteries. <i>Batteries and Supercaps</i> , <b>2019</b> , 2, 269-269	5.6	1
233	Charge-transfer complexes for high-power organic rechargeable batteries. <i>Energy Storage Materials</i> , <b>2019</b> , 20, 462-469	19.4	42
232	Redox Mediators: A Solution for Advanced Lithium-Oxygen Batteries. <i>Trends in Chemistry</i> , <b>2019</b> , 1, 349-361	60.8	36
231	Pseudocapacitive Behavior and Ultrafast Kinetics from Solvated Ion Cointercalation into MoS <sub>2</sub> for Its Alkali Ion Storage. <i>ACS Applied Energy Materials</i> , <b>2019</b> , 2, 3726-3735	6.1	2
230	In operando formation of new iron-oxyfluoride host structure for Na-ion storage from NaFeO nanocomposite. <i>Energy Storage Materials</i> , <b>2019</b> , 23, 427-433	19.4	4
229	Toward a low-cost high-voltage sodium aqueous rechargeable battery. <i>Materials Today</i> , <b>2019</b> , 29, 26-36	21.8	101
228	Chemical Origins of Electrochemical Overpotential in Surface-Conversion Nanocomposite Cathodes. <i>Advanced Energy Materials</i> , <b>2019</b> , 9, 1900503	21.8	4
227	The role of substituents in determining the redox potential of organic electrode materials in Li and Na rechargeable batteries: electronic effects vs. substituent-Li/Na ionic interaction. <i>Journal of Materials Chemistry A</i> , <b>2019</b> , 7, 11438-11443	13	23
226	A comparative kinetic study of redox mediators for high-power lithium-oxygen batteries. <i>Journal of Materials Chemistry A</i> , <b>2019</b> , 7, 6491-6498	13	23
225	First-Principles Investigations on Sodium Superionic Conductor Na <sub>11</sub> Sn <sub>2</sub> PS <sub>12</sub> . <i>Chemistry of Materials</i> , <b>2019</b> , 31, 6066-6075	9.6	15
224	Amorphous multinary phyllosilicate catalysts for electrochemical water oxidation. <i>Journal of Materials Chemistry A</i> , <b>2019</b> , 7, 18380-18387	13	10
223	Biological Nicotinamide Cofactor as a Redox-Active Motif for Reversible Electrochemical Energy Storage. <i>Angewandte Chemie - International Edition</i> , <b>2019</b> , 58, 16764-16769	16.4	11
222	Biological Nicotinamide Cofactor as a Redox-Active Motif for Reversible Electrochemical Energy Storage. <i>Angewandte Chemie</i> , <b>2019</b> , 131, 16920-16925	3.6	1
221	Enhancing Bifunctional Catalytic Activity via a Nanostructured La(Sr)Fe(Co)O <sub>3</sub> @Pd Matrix as an Efficient Electrocatalyst for Li-O <sub>2</sub> Batteries. <i>ACS Applied Energy Materials</i> , <b>2019</b> , 2, 8633-8640	6.1	5
220	Graphitic Carbon Materials for Advanced Sodium-Ion Batteries. <i>Small Methods</i> , <b>2019</b> , 3, 1800227	12.8	56
219	Biological Redox Mediation in Electron Transport Chain of Bacteria for Oxygen Reduction Reaction Catalysts in Lithium-Oxygen Batteries. <i>Advanced Functional Materials</i> , <b>2019</b> , 29, 1805623	15.6	34
218	Unveiling the Intrinsic Cycle Reversibility of a LiCoO <sub>2</sub> Electrode at 4.8-V Cutoff Voltage through Subtractive Surface Modification for Lithium-Ion Batteries. <i>Nano Letters</i> , <b>2019</b> , 19, 29-37	11.5	44
217	New Iron-Based Intercalation Host for Lithium-Ion Batteries. <i>Chemistry of Materials</i> , <b>2018</b> , 30, 1956-1964	9.6	13

216	Carbon nanomaterials for advanced lithium sulfur batteries. <i>Nano Today</i> , <b>2018</b> , 19, 84-107	17.9	267
215	High-Rate and High-Areal-Capacity Air Cathodes with Enhanced Cycle Life Based on RuO <sub>2</sub> /MnO <sub>2</sub> Bifunctional Electrocatalysts Supported on CNT for Pragmatic LiO <sub>2</sub> Batteries. <i>ACS Catalysis</i> , <b>2018</b> , 8, 2923-2934	13.1	38
214	Abnormal self-discharge in lithium-ion batteries. <i>Energy and Environmental Science</i> , <b>2018</b> , 11, 970-978	35.4	57
213	Conversion-Based Cathode Materials for Rechargeable Sodium Batteries. <i>Advanced Energy Materials</i> , <b>2018</b> , 8, 1702646	21.8	50
212	Recent Progress on Multimetal Oxide Catalysts for the Oxygen Evolution Reaction. <i>Advanced Energy Materials</i> , <b>2018</b> , 8, 1702774	21.8	408
211	Enhanced Stability of Coated Carbon Electrode for Li-O <sub>2</sub> Batteries and Its Limitations. <i>Advanced Energy Materials</i> , <b>2018</b> , 8, 1702661	21.8	49
210	Suppression of Voltage Decay through Manganese Deactivation and Nickel Redox Buffering in High-Energy Layered Lithium-Rich Electrodes. <i>Advanced Energy Materials</i> , <b>2018</b> , 8, 1800606	21.8	54
209	Intrinsic Nanodomains in Triplite LiFeSO <sub>4</sub> F and Its Implication in Lithium-Ion Diffusion. <i>Advanced Energy Materials</i> , <b>2018</b> , 8, 1701408	21.8	10
208	Multi-redox Molecule for High-Energy Redox Flow Batteries. <i>Joule</i> , <b>2018</b> , 2, 1771-1782	27.8	81
207	Anisotropic Surface Modulation of Pt Catalysts for Highly Reversible LiO <sub>2</sub> Batteries: High Index Facet as a Critical Descriptor. <i>ACS Catalysis</i> , <b>2018</b> , 8, 9006-9015	13.1	41
206	Surface-Modified Spinel LiNi <sub>0.5</sub> Mn <sub>1.5</sub> O <sub>4</sub> for Li-Ion Batteries. <i>Journal of the Korean Ceramic Society</i> , <b>2018</b> , 55, 21-35	2.2	10
205	Roll-to-Roll Laser-Printed Graphene-Graphitic Carbon Electrodes for High-Performance Supercapacitors. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2018</b> , 10, 1033-1038	9.5	21
204	Exploiting Biological Systems: Toward Eco-Friendly and High-Efficiency Rechargeable Batteries. <i>Joule</i> , <b>2018</b> , 2, 61-75	27.8	74
203	Super-Ionic Conduction in Solid-State Li <sub>7</sub> P <sub>3</sub> S <sub>11</sub> -Type Sulfide Electrolytes. <i>Chemistry of Materials</i> , <b>2018</b> , 30, 8764-8770	9.6	20
202	Exceptional catalytic effects of black phosphorus quantum dots in shuttling-free lithium sulfur batteries. <i>Nature Communications</i> , <b>2018</b> , 9, 4164	17.4	210
201	Highly Durable and Stable Sodium Superoxide in Concentrated Electrolytes for Sodium-Oxygen Batteries. <i>Advanced Energy Materials</i> , <b>2018</b> , 8, 1801760	21.8	8
200	Atomistic Investigation of Doping Effects on Electrocatalytic Properties of Cobalt Oxides for Water Oxidation. <i>Advanced Science</i> , <b>2018</b> , 5, 1801632	13.6	9
199	Li <sub>3</sub> BO <sub>3</sub> Li <sub>2</sub> CO <sub>3</sub> : Rationally Designed Buffering Phase for Sulfide All-Solid-State Li-Ion Batteries. <i>Chemistry of Materials</i> , <b>2018</b> , 30, 8190-8200	9.6	92



198	Enhancement of Oxygen Reduction Reaction Catalytic Activity via the Modified Surface of $\text{La}_{0.6}\text{Sr}_{0.4}\text{Co}_{0.2}\text{Fe}_{0.8}\text{O}_{3-\delta}$ with Palladium Nanoparticles as Cathode for Lithium-Air Battery. <i>ACS Applied Energy Materials</i> , <b>2018</b> ,	6.1	9
197	Deposition and Stripping Behavior of Lithium Metal in Electrochemical System: Continuum Mechanics Study. <i>Chemistry of Materials</i> , <b>2018</b> , 30, 6769-6776	9.6	52
196	Engineering Solid Electrolyte Interphase for Pseudocapacitive Anatase $\text{TiO}_2$ Anodes in Sodium-Ion Batteries. <i>Advanced Functional Materials</i> , <b>2018</b> , 28, 1802099	15.6	83
195	Investigation on the interface between LiGePS electrolyte and carbon conductive agents in all-solid-state lithium battery. <i>Scientific Reports</i> , <b>2018</b> , 8, 8066	4.9	35
194	$\text{Na}_3\text{V}(\text{PO}_4)_2$ : A New Layered-Type Cathode Material with High Water Stability and Power Capability for Na-Ion Batteries. <i>Chemistry of Materials</i> , <b>2018</b> , 30, 3683-3689	9.6	33
193	Recent Progress in Organic Electrodes for Li and Na Rechargeable Batteries. <i>Advanced Materials</i> , <b>2018</b> , 30, e1704682	24	246
192	Extremely large, non-oxidized graphene flakes based on spontaneous solvent insertion into graphite intercalation compounds. <i>Carbon</i> , <b>2018</b> , 139, 309-316	10.4	17
191	Native Defects in $\text{Li}_{10}\text{GeP}_2\text{S}_{12}$ and Their Effect on Lithium Diffusion. <i>Chemistry of Materials</i> , <b>2018</b> , 30, 4995-5004	9.6	26
190	Lithium-free transition metal monoxides for positive electrodes in lithium-ion batteries. <i>Nature Energy</i> , <b>2017</b> , 2,	62.3	72
189	Ultraconcentrated Sodium Bis(fluorosulfonyl)imide-Based Electrolytes for High-Performance Sodium Metal Batteries. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2017</b> , 9, 3723-3732	9.5	126
188	Glyoxalated polyacrylamide as a covalently attachable and rapidly cross-linkable binder for Si electrode in lithium ion batteries. <i>Electronic Materials Letters</i> , <b>2017</b> , 13, 136-141	2.9	8
187	$\text{TiO}_2@\text{SnO}_2@\text{TiO}_2$ triple-shell nanotube anode for high-performance lithium-ion batteries. <i>Journal of Solid State Electrochemistry</i> , <b>2017</b> , 21, 2365-2371	2.6	14
186	Large-Scale Synthesis of Carbon-Shell-Coated FeP Nanoparticles for Robust Hydrogen Evolution Reaction Electrocatalyst. <i>Journal of the American Chemical Society</i> , <b>2017</b> , 139, 6669-6674	16.4	369
185	Reaction chemistry in rechargeable Li-O batteries. <i>Chemical Society Reviews</i> , <b>2017</b> , 46, 2873-2888	58.5	234
184	Multi-electron redox phenazine for ready-to-charge organic batteries. <i>Green Chemistry</i> , <b>2017</b> , 19, 2980-2985	20.5	84
183	High-efficiency and high-power rechargeable lithium-sulfur dioxide batteries exploiting conventional carbonate-based electrolytes. <i>Nature Communications</i> , <b>2017</b> , 8, 14989	17.4	31
182	Activating layered $\text{LiNi}_{0.5}\text{Co}_{0.2}\text{Mn}_{0.3}\text{O}_2$ as a host for Mg intercalation in rechargeable Mg batteries. <i>Materials Research Bulletin</i> , <b>2017</b> , 96, 524-532	5.1	10
181	Exploiting Lithium-Ether Co-Intercalation in Graphite for High-Power Lithium-Ion Batteries. <i>Advanced Energy Materials</i> , <b>2017</b> , 7, 1700418	21.8	73

180	Tin Sulfide-Based Nanohybrid for High-Performance Anode of Sodium-Ion Batteries. <i>Small</i> , <b>2017</b> , 13, 1700767	11	25
179	Cu-doped P2-Na <sub>0.5</sub> Ni <sub>0.33</sub> Mn <sub>0.67</sub> O <sub>2</sub> encapsulated with MgO as a novel high voltage cathode with enhanced Na-storage properties. <i>Journal of Materials Chemistry A</i> , <b>2017</b> , 5, 8408-8415	13	82
178	Amorphous Cobalt Phyllosilicate with Layered Crystalline Motifs as Water Oxidation Catalyst. <i>Advanced Materials</i> , <b>2017</b> , 29, 1606893	24	57
177	Three-dimensionally branched carbon nanoweb as air-cathode for redox-mediated Li-O <sub>2</sub> batteries. <i>Carbon</i> , <b>2017</b> , 118, 114-119	10.4	26
176	A robust design of Ru quantum dot/N-doped holey graphene for efficient Li-O <sub>2</sub> batteries. <i>Journal of Materials Chemistry A</i> , <b>2017</b> , 5, 619-631	13	45
175	All-carbon-based cathode for a true high-energy-density Li-O <sub>2</sub> battery. <i>Carbon</i> , <b>2017</b> , 114, 311-316	10.4	24
174	Simple and Effective Gas-Phase Doping for Lithium Metal Protection in Lithium Metal Batteries. <i>Chemistry of Materials</i> , <b>2017</b> , 29, 9182-9191	9.6	25
173	New 4V-Class and Zero-Strain Cathode Material for Na-Ion Batteries. <i>Chemistry of Materials</i> , <b>2017</b> , 29, 7826-7832	9.6	46
172	Efficient Method of Designing Stable Layered Cathode Material for Sodium Ion Batteries Using Aluminum Doping. <i>Journal of Physical Chemistry Letters</i> , <b>2017</b> , 8, 5021-5030	6.4	44
171	Trackable galvanostatic history in phase separation based electrodes for lithium-ion batteries: a mosaic sub-grouping intercalation model. <i>Energy and Environmental Science</i> , <b>2017</b> , 10, 2352-2364	35.4	5
170	Materials science: Long-lived electrodes for plastic batteries. <i>Nature</i> , <b>2017</b> , 549, 339-340	50.4	10
169	Progress in the Development of Sodium-Ion Solid Electrolytes. <i>Small Methods</i> , <b>2017</b> , 1, 1700219	12.8	123
168	Hierarchical Porous Carbonized Co <sub>3</sub> O <sub>4</sub> Inverse Opals via Combined Block Copolymer and Colloid Templating as Bifunctional Electrocatalysts in Li-O <sub>2</sub> Battery. <i>Advanced Energy Materials</i> , <b>2017</b> , 7, 1700391	21.8	61
167	Pre-sodiated nickel cobaltite for high-performance sodium-ion capacitors. <i>Journal of Power Sources</i> , <b>2017</b> , 362, 358-365	8.9	23
166	In Situ Tracking Kinetic Pathways of Li/Na Substitution during Ion-Exchange Synthesis of LiNaVOPOF. <i>Journal of the American Chemical Society</i> , <b>2017</b> , 139, 12504-12516	16.4	18
165	Using First-Principles Calculations for the Advancement of Materials for Rechargeable Batteries. <i>Advanced Functional Materials</i> , <b>2017</b> , 27, 1702887	15.6	25
164	Superoxide stability for reversible Na-O electrochemistry. <i>Scientific Reports</i> , <b>2017</b> , 7, 17635	4.9	28
163	Bifunctional MnO <sub>2</sub> -Coated Co <sub>3</sub> O <sub>4</sub> Hetero-structured Catalysts for Reversible Li-O <sub>2</sub> Batteries. <i>Chemistry of Materials</i> , <b>2017</b> , 29, 10542-10550	9.6	45



162	NaFeF <sub>2</sub> nanocomposite: New type of Na-ion battery cathode material. <i>Nano Research</i> , <b>2017</b> , 10, 4388-4397	11
161	Conditions for Reversible Na Intercalation in Graphite: Theoretical Studies on the Interplay Among Guest Ions, Solvent, and Graphite Host. <i>Advanced Energy Materials</i> , <b>2017</b> , 7, 1601519	21.8 151
160	Thermal structural stability of a multi-component olivine electrode for lithium ion batteries. <i>CrystEngComm</i> , <b>2016</b> , 18, 7463-7470	3.3 5
159	Redesign of Li <sub>2</sub> M <sub>2</sub> P <sub>2</sub> O <sub>7</sub> (M = Fe or Mn) by Tuning the Li Diffusion in Rechargeable Battery Electrodes. <i>Chemistry of Materials</i> , <b>2016</b> , 28, 6894-6899	9.6 16
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152	Crumpled graphene paper for high power sodium battery anode. <i>Carbon</i> , <b>2016</b> , 99, 658-664	10.4 68
151	Tailoring a New 4V-Class Cathode Material for Na-Ion Batteries. <i>Advanced Energy Materials</i> , <b>2016</b> , 6, 1502147	21.8 52
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145	Porous MnO <sub>2</sub> nanoplates derived from MnCO <sub>3</sub> nanoplates as highly efficient electrocatalysts toward oxygen evolution reaction. <i>RSC Advances</i> , <b>2016</b> , 6, 26535-26539	3.7 25

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129	Hollow Nanostructured Metal Silicates with Tunable Properties for Lithium Ion Battery Anodes. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2015</b> , 7, 25725-32	9.5	56
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124	Hybrid Cellular Nanosheets for High-Performance Lithium-Ion Battery Anodes. <i>Journal of the American Chemical Society</i> , <b>2015</b> , 137, 11954-61	16.4	100
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34	Simple preparation of high-quality graphene flakes without oxidation using potassium salts. <i>Small</i> , <b>2011</b> , 7, 864-8	11	65
33	Polymorphism and phase transformations of $\text{Li}_2\text{FeSiO}_4$ from first principles. <i>Physical Review B</i> , <b>2011</b> , 84,	3.3	34
32	The predicted crystal structure of $\text{Li}_4\text{C}_6\text{O}_6$ , an organic cathode material for Li-ion batteries, from first-principles multi-level computational methods. <i>Energy and Environmental Science</i> , <b>2011</b> , 4, 4938	35.4	38
31	Graphene-Based Hybrid Electrode Material for High-Power Lithium-Ion Batteries. <i>Journal of the Electrochemical Society</i> , <b>2011</b> , 158, A930	3.9	43
30	Highly reversible $\text{Co}_3\text{O}_4$ /graphene hybrid anode for lithium rechargeable batteries. <i>Carbon</i> , <b>2011</b> , 49, 326-332	10.4	327
29	Mg and Fe Co-doped Mn Based Olivine Cathode Material for High Power Capability. <i>Journal of the Electrochemical Society</i> , <b>2011</b> , 158, A250	3.9	46
28	Electrochemical and ex-situ analysis on manganese oxide/graphene hybrid anode for lithium rechargeable batteries. <i>Journal of Materials Research</i> , <b>2011</b> , 26, 2665-2671	2.5	31
27	Synthesis of Multicomponent Olivine by a Novel Mixed Transition Metal Oxalate Coprecipitation Method and Electrochemical Characterization. <i>Chemistry of Materials</i> , <b>2010</b> , 22, 2573-2581	9.6	59
26	Mn based olivine electrode material with high power and energy. <i>Chemical Communications</i> , <b>2010</b> , 46, 1305-7	5.8	73
25	Multicomponent Olivine Cathode for Lithium Rechargeable Batteries: A First-Principles Study. <i>Chemistry of Materials</i> , <b>2010</b> , 22, 518-523	9.6	81
24	Synthesis of diphenylalanine/cobalt oxide hybrid nanowires and their application to energy storage. <i>ACS Nano</i> , <b>2010</b> , 4, 159-64	16.7	135
23	Structural evolution of layered $\text{Li}_{1.2}\text{Ni}_{0.2}\text{Mn}_{0.6}\text{O}_2$ upon electrochemical cycling in a Li rechargeable battery. <i>Journal of Materials Chemistry</i> , <b>2010</b> , 20, 10179		184
22	Carbon nanotube-amorphous $\text{FePO}_4$ core-shell nanowires as cathode material for Li ion batteries. <i>Chemical Communications</i> , <b>2010</b> , 46, 7409-11	5.8	94
21	$\text{SnO}_2$ /graphene composite with high lithium storage capability for lithium rechargeable batteries. <i>Nano Research</i> , <b>2010</b> , 3, 813-821	10	171
20	Mineralization of self-assembled peptide nanofibers for rechargeable lithium ion batteries. <i>Advanced Materials</i> , <b>2010</b> , 22, 5537-41	24	115
19	Fabrication of $\text{FeF}_3$ Nanoflowers on CNT branches and their application to high power lithium rechargeable batteries. <i>Advanced Materials</i> , <b>2010</b> , 22, 5260-4	24	242

18	Combined First-Principle Calculations and Experimental Study on Multi-Component Olivine Cathode for Lithium Rechargeable Batteries. <i>Advanced Functional Materials</i> , <b>2009</b> , 19, 3285-3292	15.6	112
17	Comparative study of Li(Li <sub>1/3</sub> Ti <sub>5/3</sub> )O <sub>4</sub> and Li(Ni <sub>1/2</sub> Li <sub>2x/3</sub> Ti <sub>x/3</sub> )Ti <sub>3/2</sub> O <sub>4</sub> (x=1/3) anodes for Li rechargeable batteries. <i>Electrochimica Acta</i> , <b>2009</b> , 54, 5914-5918	6.7	31
16	Fabricating genetically engineered high-power lithium-ion batteries using multiple virus genes. <i>Science</i> , <b>2009</b> , 324, 1051-5	33.3	627
15	Fabrication and electrochemical characterization of TiO <sub>2</sub> three-dimensional nanonetwork based on peptide assembly. <i>ACS Nano</i> , <b>2009</b> , 3, 1085-90	16.7	183
14	First principles study of Li diffusion in I-Li <sub>2</sub> NiO <sub>2</sub> structure. <i>Physical Review B</i> , <b>2009</b> , 79,	3.3	47
13	Phase Stability Study of Li <sub>1-x</sub> MnPO <sub>4</sub> (0 ≤ x ≤ 1) Cathode for Li Rechargeable Battery. <i>Journal of the Electrochemical Society</i> , <b>2009</b> , 156, A635	3.9	106
12	NMR, PDF and RMC study of the positive electrode material Li(Ni <sub>0.5</sub> Mn <sub>0.5</sub> )O <sub>2</sub> synthesized by ion-exchange methods. <i>Journal of Materials Chemistry</i> , <b>2007</b> , 17, 3167		45
11	Phase Transitions in the LiNi <sub>0.5</sub> Mn <sub>0.5</sub> O <sub>2</sub> System with Temperature. <i>Chemistry of Materials</i> , <b>2007</b> , 19, 1790-1800	9.6	137
10	Synthesis and electrochemical properties of layered LiNi <sub>2/3</sub> Sb <sub>1/3</sub> O <sub>2</sub> . <i>Journal of Power Sources</i> , <b>2007</b> , 173, 550-555	8.9	34
9	Electrodes with high power and high capacity for rechargeable lithium batteries. <i>Science</i> , <b>2006</b> , 311, 977-803	39.5	2120
8	Factors that affect Li mobility in layered lithium transition metal oxides. <i>Physical Review B</i> , <b>2006</b> , 74,	3.3	354
7	Effect of High Voltage on the Structure and Electrochemistry of LiNi <sub>0.5</sub> Mn <sub>0.5</sub> O <sub>2</sub> : A Joint Experimental and Theoretical Study. <i>Chemistry of Materials</i> , <b>2006</b> , 18, 4768-4781	9.6	181
6	The Li intercalation potential of LiMPO <sub>4</sub> and LiMSiO <sub>4</sub> olivines with M = Fe, Mn, Co, Ni. <i>Electrochemistry Communications</i> , <b>2004</b> , 6, 1144-1148	5.1	344
5	The electronic structure and band gap of LiFePO <sub>4</sub> and LiMnPO <sub>4</sub> . <i>Solid State Communications</i> , <b>2004</b> , 132, 181-186	1.6	307
4	Synthesis, Electrochemical Properties, and Phase Stability of Li <sub>2</sub> NiO <sub>2</sub> with the Imm Structure. <i>Chemistry of Materials</i> , <b>2004</b> , 16, 2685-2690	9.6	48
3	Synthesis and Electrochemical Properties of Layered Li <sub>0.9</sub> Ni <sub>0.45</sub> Ti <sub>0.55</sub> O <sub>2</sub> . <i>Chemistry of Materials</i> , <b>2003</b> , 15, 4503-4507	9.6	52
2	High-Dielectric Polymer Coating for Uniform Lithium Deposition in Anode-Free Lithium Batteries. <i>ACS Energy Letters</i> , 4416-4425	20.1	6
1	Stepwise Dopant Selection Process for High-Nickel Layered Oxide Cathodes. <i>Advanced Energy Materials</i> , 2200136	21.8	4

