Jang Wook Choi

List of Publications by Year in descending order

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#	Article	IF	CITATIONS
1	Promise and reality of post-lithium-ion batteries with high energy densities. Nature Reviews Materials, 2016, 1, .	48.7	3,562
2	Stable cycling of double-walled silicon nanotube battery anodes through solid–electrolyte interphase control. Nature Nanotechnology, 2012, 7, 310-315.	31.5	2,144
3	Nitrogen-Doped Graphene for High-Performance Ultracapacitors and the Importance of Nitrogen-Doped Sites at Basal Planes. Nano Letters, 2011, 11, 2472-2477.	9.1	1,547
4	Stretchable, Porous, and Conductive Energy Textiles. Nano Letters, 2010, 10, 708-714.	9.1	1,415
5	3D Macroporous Graphene Frameworks for Supercapacitors with High Energy and Power Densities. ACS Nano, 2012, 6, 4020-4028.	14.6	1,186
6	A 160-kilobit molecular electronic memory patterned at 1011 bits per square centimetre. Nature, 2007, 445, 414-417.	27.8	1,176
7	Highly conductive paper for energy-storage devices. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 21490-21494.	7.1	1,138
8	Highly elastic binders integrating polyrotaxanes for silicon microparticle anodes in lithium ion batteries. Science, 2017, 357, 279-283.	12.6	943
9	Musselâ€Inspired Polydopamineâ€Treated Polyethylene Separators for Highâ€Power Liâ€Ion Batteries. Advanced Materials, 2011, 23, 3066-3070.	21.0	635
10	Electrospun Core–Shell Fibers for Robust Silicon Nanoparticle-Based Lithium Ion Battery Anodes. Nano Letters, 2012, 12, 802-807.	9.1	587
11	Musselâ€Inspired Adhesive Binders for Highâ€Performance Silicon Nanoparticle Anodes in Lithiumâ€Ion Batteries. Advanced Materials, 2013, 25, 1571-1576.	21.0	532
12	Light-Weight Free-Standing Carbon Nanotube-Silicon Films for Anodes of Lithium Ion Batteries. ACS Nano, 2010, 4, 3671-3678.	14.6	507
13	Bendable Inorganic Thin-Film Battery for Fully Flexible Electronic Systems. Nano Letters, 2012, 12, 4810-4816.	9.1	494
14	Nitrogen-Doped Multiwall Carbon Nanotubes for Lithium Storage with Extremely High Capacity. Nano Letters, 2012, 12, 2283-2288.	9.1	468
15	Silicon carbide-free graphene growth on silicon for lithium-ion battery with high volumetric energy density. Nature Communications, 2015, 6, 7393.	12.8	449
16	Effective Liquid-Phase Exfoliation and Sodium Ion Battery Application of MoS ₂ Nanosheets. ACS Applied Materials & Interfaces, 2014, 6, 7084-7089.	8.0	443
17	Aqueous zinc ion batteries: focus on zinc metal anodes. Chemical Science, 2020, 11, 2028-2044.	7.4	440
18	Defined spatial structure stabilizes a synthetic multispecies bacterial community. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 18188-18193.	7.1	426

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19	Excellent Cycle Life of Lithiumâ€Metal Anodes in Lithiumâ€Ion Batteries with Musselâ€Inspired Polydopamineâ€Coated Separators. Advanced Energy Materials, 2012, 2, 645-650.	19.5	410
20	Wearable Textile Battery Rechargeable by Solar Energy. Nano Letters, 2013, 13, 5753-5761.	9.1	400
21	The High Performance of Crystal Water Containing Manganese Birnessite Cathodes for Magnesium Batteries. Nano Letters, 2015, 15, 4071-4079.	9.1	400
22	One-Dimensional Carbon–Sulfur Composite Fibers for Na–S Rechargeable Batteries Operating at Room Temperature. Nano Letters, 2013, 13, 4532-4538.	9.1	387
23	Controlled Prelithiation of Silicon Monoxide for High Performance Lithium-Ion Rechargeable Full Cells. Nano Letters, 2016, 16, 282-288.	9.1	386
24	Restacking-Inhibited 3D Reduced Graphene Oxide for High Performance Supercapacitor Electrodes. ACS Nano, 2013, 7, 9366-9374.	14.6	384
25	Anomalous Shape Changes of Silicon Nanopillars by Electrochemical Lithiation. Nano Letters, 2011, 11, 3034-3039.	9.1	364
26	Al Doping for Mitigating the Capacity Fading and Voltage Decay of Layered Li and Mnâ€Rich Cathodes for Liâ€Ion Batteries. Advanced Energy Materials, 2016, 6, 1502398.	19.5	360
27	Size-dependent fracture of Si nanowire battery anodes. Journal of the Mechanics and Physics of Solids, 2011, 59, 1717-1730.	4.8	355
28	The emerging era of supramolecular polymeric binders in silicon anodes. Chemical Society Reviews, 2018, 47, 2145-2164.	38.1	341
29	Encapsulated Monoclinic Sulfur for Stable Cycling of Li–S Rechargeable Batteries. Advanced Materials, 2013, 25, 6547-6553.	21.0	330
30	Electrochemical and Thermal Properties of NASICON Structured Na ₃ V ₂ (PO ₄) ₃ as a Sodium Rechargeable Battery Cathode: A Combined Experimental and Theoretical Study. Journal of the Electrochemical Society, 2012, 159, A1393-A1397.	2.9	316
31	Na ₂ FeP ₂ O ₇ as a Promising Ironâ€Based Pyrophosphate Cathode for Sodium Rechargeable Batteries: A Combined Experimental and Theoretical Study. Advanced Functional Materials, 2013, 23, 1147-1155.	14.9	316
32	Tungsten Disulfide Catalysts Supported on a Carbon Cloth Interlayer for High Performance Li–S Battery. Advanced Energy Materials, 2017, 7, 1602567.	19.5	309
33	Elemental‣ulfurâ€Mediated Facile Synthesis of a Covalent Triazine Framework for Highâ€Performance Lithium–Sulfur Batteries. Angewandte Chemie - International Edition, 2016, 55, 3106-3111.	13.8	308
34	Novel Size and Surface Oxide Effects in Silicon Nanowires as Lithium Battery Anodes. Nano Letters, 2011, 11, 4018-4025.	9.1	284
35	Rechargeable aluminium organic batteries. Nature Energy, 2019, 4, 51-59.	39.5	283
36	Hyperbranched β-Cyclodextrin Polymer as an Effective Multidimensional Binder for Silicon Anodes in Lithium Rechargeable Batteries. Nano Letters, 2014, 14, 864-870.	9.1	277

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37	A Truncated Manganese Spinel Cathode for Excellent Power and Lifetime in Lithium-Ion Batteries. Nano Letters, 2012, 12, 6358-6365.	9.1	272
38	Crystal water for high performance layered manganese oxide cathodes in aqueous rechargeable zinc batteries. Energy and Environmental Science, 2019, 12, 1999-2009.	30.8	269
39	Recycling rice husks for high-capacity lithium battery anodes. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 12229-12234.	7.1	256
40	Hydrated Intercalation for Highâ€Performance Aqueous Zinc Ion Batteries. Advanced Energy Materials, 2019, 9, 1900083.	19.5	243
41	Spray Drying Method for Large-Scale and High-Performance Silicon Negative Electrodes in Li-Ion Batteries. Nano Letters, 2013, 13, 2092-2097.	9.1	237
42	Hierarchical Porous Carbon by Ultrasonic Spray Pyrolysis Yields Stable Cycling in Lithium–Sulfur Battery. Nano Letters, 2014, 14, 4418-4425.	9.1	234
43	Stepwise Nanopore Evolution in One-Dimensional Nanostructures. Nano Letters, 2010, 10, 1409-1413.	9.1	229
44	Millipede-inspired structural design principle for high performance polysaccharide binders in silicon anodes. Energy and Environmental Science, 2015, 8, 1224-1230.	30.8	222
45	Ground-State Equilibrium Thermodynamics and Switching Kinetics of Bistable [2]Rotaxanes Switched in Solution, Polymer Gels, and Molecular Electronic Devices. Chemistry - A European Journal, 2006, 12, 261-279.	3.3	216
46	Deep eutectic solvents as attractive media for CO ₂ capture. Green Chemistry, 2016, 18, 2834-2842.	9.0	209
47	A Lithiumâ€Sulfur Battery with a High Areal Energy Density. Advanced Functional Materials, 2014, 24, 5359-5367.	14.9	206
48	Structures and Properties of Self-Assembled Monolayers of Bistable [2]Rotaxanes on Au (111) Surfaces from Molecular Dynamics Simulations Validated with Experiment. Journal of the American Chemical Society, 2005, 127, 1563-1575.	13.7	202
49	Sodium zinc hexacyanoferrate with a well-defined open framework as a positive electrode for sodium ion batteries. Chemical Communications, 2012, 48, 8416.	4.1	186
50	Mussel- and Diatom-Inspired Silica Coating on Separators Yields Improved Power and Safety in Li-Ion Batteries. Chemistry of Materials, 2012, 24, 3481-3485.	6.7	185
51	Controlled Lithium Dendrite Growth by a Synergistic Effect of Multilayered Graphene Coating and an Electrolyte Additive. Chemistry of Materials, 2015, 27, 2780-2787.	6.7	177
52	Critical Role of Crystal Water for a Layered Cathode Material in Sodium Ion Batteries. Chemistry of Materials, 2015, 27, 3721-3725.	6.7	174
53	Effective Polysulfide Rejection by Dipoleâ€Aligned BaTiO ₃ Coated Separator in Lithium–Sulfur Batteries. Advanced Functional Materials, 2016, 26, 7817-7823.	14.9	170
54	Dynamic Cross-Linking of Polymeric Binders Based on Host–Guest Interactions for Silicon Anodes in Lithium Ion Batteries. ACS Nano, 2015, 9, 11317-11324.	14.6	167

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55	Anomalous Manganese Activation of a Pyrophosphate Cathode in Sodium Ion Batteries: A Combined Experimental and Theoretical Study. Journal of the American Chemical Society, 2013, 135, 2787-2792.	13.7	165
56	Flexible Few-Layered Graphene for the Ultrafast Rechargeable Aluminum-Ion Battery. Journal of Physical Chemistry C, 2016, 120, 13384-13389.	3.1	164
57	Extremely stable cycling of ultra-thin V2O5 nanowire–graphene electrodes for lithium rechargeable battery cathodes. Energy and Environmental Science, 2012, 5, 9889.	30.8	159
58	A Radically Configurable Six-State Compound. Science, 2013, 339, 429-433.	12.6	158
59	Perfluoroarylâ€Elemental Sulfur S _N Ar Chemistry in Covalent Triazine Frameworks with High Sulfur Contents for Lithium–Sulfur Batteries. Advanced Functional Materials, 2017, 27, 1703947.	14.9	158
60	Delicate Structural Control of Si–SiO _{<i>x</i>} –C Composite via High-Speed Spray Pyrolysis for Li-Ion Battery Anodes. Nano Letters, 2017, 17, 1870-1876.	9.1	156
61	Systematic Molecularâ€Level Design of Binders Incorporating Meldrum's Acid for Silicon Anodes in Lithium Rechargeable Batteries. Advanced Materials, 2014, 26, 7979-7985.	21.0	155
62	A stable lithium-rich surface structure for lithium-rich layered cathode materials. Nature Communications, 2016, 7, 13598.	12.8	153
63	Graphene balls for lithium rechargeable batteries with fast charging and high volumetric energy densities. Nature Communications, 2017, 8, 1561.	12.8	151
64	Co-polyimide-coated polyethylene separators for enhanced thermal stability of lithium ion batteries. Electrochimica Acta, 2012, 85, 524-530.	5.2	148
65	Fluorinated ether electrolyte with controlled solvation structure for high voltage lithium metal batteries. Nature Communications, 2022, 13, 2575.	12.8	147
66	N-doped graphitic self-encapsulation for high performance silicon anodes in lithium-ion batteries. Energy and Environmental Science, 2014, 7, 621-626.	30.8	137
67	The Synergistic Effect of Cation and Anion of an Ionic Liquid Additive for Lithium Metal Anodes. Advanced Energy Materials, 2018, 8, 1702744.	19.5	137
68	Role of intermediate phase for stable cycling of Na ₇ V ₄ (P ₂ O) Tj ETQqC Academy of Sciences of the United States of America, 2014, 111, 599-604.	0 0 rgBT 7.1	/Overlock 10 136
69	A new strategy for integrating abundant oxygen functional groups into carbon felt electrode for vanadium redox flow batteries. Scientific Reports, 2014, 4, 6906.	3.3	136
70	Improved reversibility in lithium-oxygen battery: Understanding elementary reactions and surface charge engineering of metal alloy catalyst. Scientific Reports, 2014, 4, 4225.	3.3	133
71	Combined CO ₂ -philicity and Ordered Mesoporosity for Highly Selective CO ₂ Capture at High Temperatures. Journal of the American Chemical Society, 2015, 137, 7210-7216.	13.7	130
72	Fluorinated Aromatic Diluent for Highâ€Performance Lithium Metal Batteries. Angewandte Chemie - International Edition, 2020, 59, 14869-14876.	13.8	130

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73	Ordered Mesoporous Titanium Nitride as a Promising Carbon-Free Cathode for Aprotic Lithium-Oxygen Batteries. ACS Nano, 2017, 11, 1736-1746.	14.6	128
74	Atom-Level Understanding of the Sodiation Process in Silicon Anode Material. Journal of Physical Chemistry Letters, 2014, 5, 1283-1288.	4.6	127
75	The Importance of Confined Sulfur Nanodomains and Adjoining Electron Conductive Pathways in Subreaction Regimes of Liâ \in S Batteries. Advanced Energy Materials, 2017, 7, 1700074.	19.5	127
76	Corrosion as the origin of limited lifetime of vanadium oxide-based aqueous zinc ion batteries. Nature Communications, 2022, 13, 2371.	12.8	126
77	Carbon nanofiber supercapacitors with large areal capacitances. Applied Physics Letters, 2009, 95, .	3.3	123
78	A Moisture―and Oxygenâ€Impermeable Separator for Aprotic Liâ€O ₂ Batteries. Advanced Functional Materials, 2016, 26, 1747-1756.	14.9	122
79	Selection of Binder and Solvent for Solution-Processed All-Solid-State Battery. Journal of the Electrochemical Society, 2017, 164, A2075-A2081.	2.9	122
80	Recent Progress on Spray Pyrolysis for High Performance Electrode Materials in Lithium and Sodium Rechargeable Batteries. Advanced Energy Materials, 2017, 7, 1601578.	19.5	120
81	Battery Electrode Materials with Omnivalent Cation Storage for Fast and Chargeâ€Efficient Ion Removal of Asymmetric Capacitive Deionization. Advanced Functional Materials, 2018, 28, 1802665.	14.9	117
82	Anisotropic Volume Expansion of Crystalline Silicon during Electrochemical Lithium Insertion: An Atomic Level Rationale. Nano Letters, 2012, 12, 5342-5347.	9.1	116
83	Functionalized Graphene for High Performance Lithium Ion Capacitors. ChemSusChem, 2012, 5, 2328-2333.	6.8	115
84	Recent Progress in High Donor Electrolytes for Lithium–Sulfur Batteries. Advanced Energy Materials, 2020, 10, 2001456.	19.5	112
85	Rational Sulfur Cathode Design for Lithium–Sulfur Batteries: Sulfur-Embedded Benzoxazine Polymers. ACS Energy Letters, 2016, 1, 566-572.	17.4	107
86	Enhanced Durability of Polymer Electrolyte Membrane Fuel Cells by Functionalized 2D Boron Nitride Nanoflakes. ACS Applied Materials & Interfaces, 2014, 6, 7751-7758.	8.0	106
87	An Aqueous Sodium Ion Hybrid Battery Incorporating an Organic Compound and a Prussian Blue Derivative. Advanced Energy Materials, 2014, 4, 1400133.	19.5	106
88	Anisotropic Lithiation Onset in Silicon Nanoparticle Anode Revealed by <i>in Situ</i> Graphene Liquid Cell Electron Microscopy. ACS Nano, 2014, 8, 7478-7485.	14.6	103
89	Molecular Dynamics Simulation of Amphiphilic Bistable [2]Rotaxane Langmuir Monolayers at the Air/Water Interface. Journal of the American Chemical Society, 2005, 127, 14804-14816.	13.7	102
90	Mussel-Inspired Self-Healing Metallopolymers for Silicon Nanoparticle Anodes. ACS Nano, 2019, 13, 8364-8373.	14.6	101

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91	Sprayable Ultrafast Polydopamine Surface Modifications. Advanced Materials Interfaces, 2016, 3, 1500857.	3.7	99
92	Issues and Advances in Scaling up Sulfide-Based All-Solid-State Batteries. Accounts of Chemical Research, 2021, 54, 3390-3402.	15.6	97
93	Elemental‣ulfurâ€Mediated Facile Synthesis of a Covalent Triazine Framework for Highâ€Performance Lithium–Sulfur Batteries. Angewandte Chemie, 2016, 128, 3158-3163.	2.0	96
94	A "Sticky―Mucinâ€Inspired DNAâ€Polysaccharide Binder for Silicon and Silicon–Graphite Blended Anodes in Lithiumâ€Ion Batteries. Advanced Materials, 2018, 30, e1707594.	21.0	96
95	New High Donor Electrolyte for Lithium–Sulfur Batteries. Advanced Materials, 2020, 32, e2005022.	21.0	95
96	Highly Reversible, Grainâ€Directed Zinc Deposition in Aqueous Zinc Ion Batteries. Advanced Energy Materials, 2021, 11, 2100676.	19.5	95
97	Scalable Fracture-free SiOC Glass Coating for Robust Silicon Nanoparticle Anodes in Lithium Secondary Batteries. Nano Letters, 2014, 14, 7120-7125.	9.1	94
98	Chemical Blowing Approach for Ultramicroporous Carbon Nitride Frameworks and Their Applications in Gas and Energy Storage. Advanced Functional Materials, 2017, 27, 1604658.	14.9	92
99	Opportunities and Reality of Aqueous Rechargeable Batteries. Advanced Energy Materials, 2020, 10, 2001386.	19.5	92
100	Sodium Ion Diffusion in Al ₂ O ₃ : A Distinct Perspective Compared with Lithium Ion Diffusion. Nano Letters, 2014, 14, 6559-6563.	9.1	91
101	Exfoliated 2D Lepidocrocite Titanium Oxide Nanosheets for High Sulfur Content Cathodes with Highly Stable Li–S Battery Performance. ACS Energy Letters, 2018, 3, 412-419.	17.4	90
102	Fast and Scalable Printing of Large Area Monolayer Nanoparticles for Nanotexturing Applications. Nano Letters, 2010, 10, 2989-2994.	9.1	87
103	Direct Observation of an Anomalous Spinelâ€ŧo‣ayered Phase Transition Mediated by Crystal Water Intercalation. Angewandte Chemie - International Edition, 2015, 54, 15094-15099.	13.8	86
104	Mixed Transition Metal Oxide with Vacancy-Induced Lattice Distortion for Enhanced Catalytic Activity of Oxygen Evolution Reaction. ACS Catalysis, 2019, 9, 7099-7108.	11.2	85
105	Nitrogen-doped carbon coating for a high-performance SiO anode in lithium-ion batteries. Electrochemistry Communications, 2013, 34, 98-101.	4.7	84
106	Mussel-Inspired Coating and Adhesion for Rechargeable Batteries: A Review. ACS Applied Materials & Interfaces, 2018, 10, 7562-7573.	8.0	84
107	Tetradiketone macrocycle for divalent aluminium ion batteries. Nature Communications, 2021, 12, 2386.	12.8	84
108	Important Role of Functional Groups for Sodium Ion Intercalation in Expanded Graphite. Chemistry of Materials, 2015, 27, 5402-5406.	6.7	79

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109	A Half Millimeter Thick Coplanar Flexible Battery with Wireless Recharging Capability. Nano Letters, 2015, 15, 2350-2357.	9.1	78
110	A Pyrene–Poly(acrylic acid)–Polyrotaxane Supramolecular Binder Network for Highâ€Performance Silicon Negative Electrodes. Advanced Materials, 2019, 31, e1905048.	21.0	77
111	Effect of N-substitution in naphthalenediimides on the electrochemical performance of organic rechargeable batteries. RSC Advances, 2012, 2, 7968.	3.6	76
112	Effect of polydopamine surface coating on polyethylene separators as a function of their porosity for high-power Li-ion batteries. Electrochimica Acta, 2013, 113, 433-438.	5.2	76
113	Defectâ€Controlled Formation of Triclinic Na ₂ CoP ₂ O ₇ for 4â€V Sodiumâ€lon Batteries. Angewandte Chemie - International Edition, 2016, 55, 6662-6666.	13.8	76
114	An Electrochemical Cell for Selective Lithium Capture from Seawater. Environmental Science & Technology, 2015, 49, 9415-9422.	10.0	74
115	Silicon@porous nitrogen-doped carbon spheres through a bottom-up approach are highly robust lithium-ion battery anodes. RSC Advances, 2012, 2, 4311.	3.6	73
116	Lithium‣alt Mediated Synthesis of a Covalent Triazine Framework for Highly Stable Lithium Metal Batteries. Angewandte Chemie - International Edition, 2019, 58, 16795-16799.	13.8	72
117	A gel polymer electrolyte based on initiator-free photopolymerization for lithium secondary batteries. Electrochimica Acta, 2012, 60, 23-30.	5.2	71
118	Electrochemical Synthesis of Ammonia from Water and Nitrogen: A Lithiumâ€Mediated Approach Using Lithiumâ€Ion Conducting Glass Ceramics. ChemSusChem, 2018, 11, 120-124.	6.8	71
119	Highly Elastic Binder for Improved Cyclability of Nickelâ€Rich Layered Cathode Materials in Lithiumâ€lon Batteries. Advanced Energy Materials, 2020, 10, 2001069.	19.5	71
120	Inorganic Glue Enabling High Performance of Silicon Particles as Lithium Ion Battery Anode. Journal of the Electrochemical Society, 2011, 158, A592.	2.9	68
121	Effects of lithium salts on thermal stabilities of lithium alkyl carbonates in SEI layer. Electrochimica Acta, 2012, 83, 259-263.	5.2	68
122	Highly Elastic Polyrotaxane Binders for Mechanically Stable Lithium Hosts in Lithiumâ€Metal Batteries. Advanced Materials, 2019, 31, e1901645.	21.0	68
123	Improved cycle lives of LiMn2O4 cathodes in lithium ion batteries by an alginate biopolymer from seaweed. Journal of Materials Chemistry A, 2013, 1, 15224.	10.3	67
124	5L-Scale Magnesio-Milling Reduction of Nanostructured SiO ₂ for High Capacity Silicon Anodes in Lithium-Ion Batteries. Nano Letters, 2016, 16, 7261-7269.	9.1	67
125	N-(triphenylphosphoranylidene) aniline as a novel electrolyte additive for high voltage LiCoO2 operations in lithium ion batteries. Electrochimica Acta, 2011, 56, 5195-5200.	5.2	66
126	Fluorinated Covalent Organic Polymers for High Performance Sulfur Cathodes in Lithium–Sulfur Batteries. Chemistry of Materials, 2019, 31, 7910-7921.	6.7	66

8

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127	Prospect for Supramolecular Chemistry in High-Energy-Density Rechargeable Batteries. Joule, 2019, 3, 662-682.	24.0	66
128	Wisdom from the Human Eye: A Synthetic Melanin Radical Scavenger for Improved Cycle Life of Li–O ₂ Battery. Chemistry of Materials, 2014, 26, 4757-4764.	6.7	65
129	Intercalated Water and Organic Molecules for Electrode Materials of Rechargeable Batteries. Advanced Materials, 2018, 30, e1705851.	21.0	64
130	Spiers Memorial Lecture : Molecular mechanics and molecular electronics. Faraday Discussions, 2006, 131, 9-22.	3.2	63
131	Thiol–Ene Click Reaction for Fine Polarity Tuning of Polymeric Binders in Solution-Processed All-Solid-State Batteries. ACS Energy Letters, 2019, 4, 94-101.	17.4	62
132	Self-Terminated Artificial SEI Layer for Nickel-Rich Layered Cathode Material via Mixed Gas Chemical Vapor Deposition. Chemistry of Materials, 2015, 27, 7370-7379.	6.7	61
133	Metal current collector-free freestanding silicon–carbon 1D nanocomposites for ultralight anodes in lithium ion batteries. Journal of Power Sources, 2010, 195, 8311-8316.	7.8	60
134	Stabilized Octahedral Frameworks in Layered Double Hydroxides by Solidâ€6olution Mixing of Transition Metals. Advanced Functional Materials, 2017, 27, 1605225.	14.9	58
135	Ionic Liquid Functionalized Gel Polymer Electrolytes for Stable Lithium Metal Batteries. Angewandte Chemie - International Edition, 2021, 60, 22791-22796.	13.8	58
136	On the Mechanism of Crystal Water Insertion during Anomalous Spinel-to- <i>Birnessite</i> Phase Transition. Chemistry of Materials, 2016, 28, 5488-5494.	6.7	55
137	Covalent Triazine Frameworks Incorporating Charged Polypyrrole Channels for High-Performance Lithium–Sulfur Batteries. Chemistry of Materials, 2020, 32, 4185-4193.	6.7	55
138	Switching between Local and Global Aromaticity in a Conjugated Macrocycle for Highâ€Performance Organic Sodiumâ€Ion Battery Anodes. Angewandte Chemie - International Edition, 2020, 59, 12958-12964.	13.8	52
139	Integrated Ringâ€Chain Design of a New Fluorinated Ether Solvent for Highâ€Voltage Lithiumâ€Metal Batteries. Angewandte Chemie - International Edition, 2022, 61, e202115884.	13.8	50
140	Fast Nonlinear Ion Transport via Field-Induced Hydrodynamic Slip in Sub-20-nm Hydrophilic Nanofluidic Transistors. Nano Letters, 2009, 9, 1315-1319.	9.1	48
141	Mechanism of Co3O4/graphene catalytic activity in Li–O2 batteries using carbonate based electrolytes. Electrochimica Acta, 2013, 90, 63-70.	5.2	48
142	Large area multi-stacked lithium-ion batteries for flexible and rollable applications. Journal of Materials Chemistry A, 2014, 2, 10862-10868.	10.3	48
143	Tuning the Electron Density of Aromatic Solvent for Stable Solidâ€Electrolyteâ€Interphase Layer in Carbonateâ€Based Lithium Metal Batteries. Advanced Energy Materials, 2018, 8, 1802365.	19.5	48
144	Marginal Magnesium Doping for Highâ€Performance Lithium Metal Batteries. Advanced Energy Materials, 2019, 9, 1902278.	19.5	47

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145	Designing Adaptive Binders for Microenvironment Settings of Silicon Anode Particles. Advanced Materials, 2021, 33, e2007460.	21.0	46
146	Tris(pentafluorophenyl) borane as an electrolyte additive for high performance silicon thin film electrodes in lithium ion batteries. Electrochimica Acta, 2011, 56, 8997-9003.	5.2	45
147	Poreless Separator and Electrolyte Additive for Lithium–Sulfur Batteries with High Areal Energy Densities. ChemNanoMat, 2015, 1, 240-245.	2.8	45
148	Lattice Water for the Enhanced Performance of Amorphous Iron Phosphate in Sodium-Ion Batteries. ACS Energy Letters, 2017, 2, 998-1004.	17.4	45
149	Monodispersed PtCo nanoparticles on hexadecyltrimethylammonium bromide treated graphene as an effective oxygen reduction reaction catalyst for proton exchange membrane fuel cells. Carbon, 2012, 50, 3739-3747.	10.3	43
150	Robust Cycling of Li–O ₂ Batteries through the Synergistic Effect of Blended Electrolytes. ChemSusChem, 2013, 6, 443-448.	6.8	43
151	Mussel-Inspired Polydopamine Coating for Enhanced Thermal Stability and Rate Performance of Graphite Anodes in Li-Ion Batteries. ACS Applied Materials & Interfaces, 2016, 8, 13973-13981.	8.0	43
152	In Situ Deprotection of Polymeric Binders for Solutionâ€Processible Sulfideâ€Based Allâ€Solidâ€State Batteries. Advanced Materials, 2020, 32, e2001702.	21.0	43
153	Initiated Chemical Vapor Deposition (iCVD) of Highly Cross <i>-</i> Linked Polymer Films for Advanced Lithium-Ion Battery Separators. ACS Applied Materials & Interfaces, 2015, 7, 18849-18855.	8.0	40
154	Nanoscale Zirconium-Abundant Surface Layers on Lithium- and Manganese-Rich Layered Oxides for High-Rate Lithium-Ion Batteries. Nano Letters, 2017, 17, 7869-7877.	9.1	40
155	Stable Solid Electrolyte Interphase Formation Induced by Monoquat-Based Anchoring in Lithium Metal Batteries. ACS Energy Letters, 2021, 6, 1711-1718.	17.4	40
156	Site-Specific Transition Metal Occupation in Multicomponent Pyrophosphate for Improved Electrochemical and Thermal Properties in Lithium Battery Cathodes: A Combined Experimental and Theoretical Study. Journal of the American Chemical Society, 2012, 134, 11740-11748.	13.7	37
157	Modified graphite and graphene electrodes for high-performance lithium ion hybrid capacitors. Materials for Renewable and Sustainable Energy, 2014, 3, 1.	3.6	37
158	Energy-efficient hybrid FCDI-NF desalination process with tunable salt rejection and high water recovery. Journal of Membrane Science, 2017, 541, 580-586.	8.2	37
159	Role of Ordered Ni Atoms in Li Layers for Liâ€Rich Layered Cathode Materials. Advanced Functional Materials, 2017, 27, 1700982.	14.9	36
160	Anomalous Stretchable Conductivity Using an Engineered Tricot Weave. ACS Nano, 2015, 9, 12214-12223.	14.6	35
161	Pyrazine-Linked 2D Covalent Organic Frameworks as Coating Material for High-Nickel Layered Oxide Cathodes in Lithium-Ion Batteries. ACS Applied Materials & Interfaces, 2020, 12, 10597-10606.	8.0	35
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