Jang Wook Choi

List of Publications by Year in descending order

Source: https://exaly.com/author-pdf/1812688/publications.pdf

Version: 2024-02-01

248 papers 38,882 citations

91 h-index 193 g-index

257 all docs

257 docs citations

times ranked

257

32982 citing authors

#	Article	IF	CITATIONS
1	Icephobic Coating through a Self-Formed Superhydrophobic Surface Using a Polymer and Microsized Particles. ACS Applied Materials & Samp; Interfaces, 2022, 14, 3334-3343.	8.0	31
2	Host–Guest Interlocked Complex Binder for Silicon–Graphite Composite Electrodes in Lithium Ion Batteries. Advanced Energy Materials, 2022, 12, .	19.5	32
3	Block copolymer binders with hard and soft segments for scalable fabrication of sulfideâ€based allâ€solidâ€state batteries. EcoMat, 2022, 4, .	11.9	7
4	Elastic Binder for High-Performance Sulfide-Based All-Solid-State Batteries. ACS Energy Letters, 2022, 7, 1374-1382.	17.4	27
5	Integrated Ringâ€Chain Design of a New Fluorinated Ether Solvent for Highâ€Voltage Lithiumâ€Metal Batteries. Angewandte Chemie, 2022, 134, .	2.0	8
6	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
7	Glycerol as a Binder Additive for Low-Resistance Graphite Anodes in Lithium-Ion Batteries. Journal of the Electrochemical Society, 2022, 169, 040558.	2.9	4
8	Fluorinated ether electrolyte with controlled solvation structure for high voltage lithium metal batteries. Nature Communications, 2022, 13, 2575.	12.8	147
9	Corrosion as the origin of limited lifetime of vanadium oxide-based aqueous zinc ion batteries. Nature Communications, 2022, 13, 2371.	12.8	126
10	Dual Functional High Donor Electrolytes for Lithium–Sulfur Batteries under Lithium Nitrate Free and Lean Electrolyte Conditions. ACS Energy Letters, 2022, 7, 2459-2468.	17.4	23
11	High-performance bifunctional electrocatalyst for iron-chromium redox flow batteries. Chemical Engineering Journal, 2021, 421, 127855.	12.7	31
12	Cesium Ionâ∈Mediated Microporous Carbon for CO ₂ Capture and Lithiumâ€ion Storage. ChemNanoMat, 2021, 7, 150-157.	2.8	6
13	High transference number enabled by sulfated zirconia superacid for lithium metal batteries with carbonate electrolytes. Energy and Environmental Science, 2021, 14, 1420-1428.	30.8	23
14	Designing Adaptive Binders for Microenvironment Settings of Silicon Anode Particles. Advanced Materials, 2021, 33, e2007460.	21.0	46
15	Zn ²⁺ –Imidazole Coordination Crosslinks for Elastic Polymeric Binders in Highâ€Capacity Silicon Electrodes. Advanced Science, 2021, 8, 2004290.	11.2	30
16	Tetradiketone macrocycle for divalent aluminium ion batteries. Nature Communications, 2021, 12, 2386.	12.8	84
17	Stable Solid Electrolyte Interphase Formation Induced by Monoquat-Based Anchoring in Lithium Metal Batteries. ACS Energy Letters, 2021, 6, 1711-1718.	17.4	40
18	Synergistic Composite Coating for Separators in Lithium Metal Batteries. ACS Applied Energy Materials, 2021, 4, 5237-5245.	5.1	13

#	Article	IF	CITATIONS
19	Atomic-scale unveiling of multiphase evolution during hydrated Zn-ion insertion in vanadium oxide. Nature Communications, 2021, 12, 4599.	12.8	23
20	Issues and Advances in Scaling up Sulfide-Based All-Solid-State Batteries. Accounts of Chemical Research, 2021, 54, 3390-3402.	15.6	97
21	Highly Reversible, Grainâ€Directed Zinc Deposition in Aqueous Zinc Ion Batteries. Advanced Energy Materials, 2021, 11, 2100676.	19.5	95
22	lonic Liquid Functionalized Gel Polymer Electrolytes for Stable Lithium Metal Batteries. Angewandte Chemie, 2021, 133, 22973-22978.	2.0	19
23	Cobalt(II)â€Centered Fluorinated Phthalocyanineâ€Sulfur S _N Ar Chemistry for Robust Lithium–Sulfur Batteries with Superior Conversion Kinetics. Advanced Functional Materials, 2021, 31, 2106679.	14.9	28
24	lonic Liquid Functionalized Gel Polymer Electrolytes for Stable Lithium Metal Batteries. Angewandte Chemie - International Edition, 2021, 60, 22791-22796.	13.8	58
25	Electrospun Li-confinable hollow carbon fibers for highly stable Li-metal batteries. Chemical Engineering Journal, 2021, 422, 130017.	12.7	33
26	Lithium-Conducting Self-Assembled Organic Nanotubes. Journal of the American Chemical Society, 2021, 143, 17655-17665.	13.7	7
27	Photochemically driven solid electrolyte interphase for extremely fast-charging lithium-ion batteries. Nature Communications, 2021, 12, 6807.	12.8	32
28	Entropymetry for non-destructive structural analysis of LiCoO ₂ cathodes. Energy and Environmental Science, 2020, 13, 286-296.	30.8	19
29	Effect of Binding Affinity of Crystal Water on the Electrochemical Performance of Layered Double Hydroxides. ChemSusChem, 2020, 13, 6546-6551.	6.8	7
30	New High Donor Electrolyte for Lithium–Sulfur Batteries. Advanced Materials, 2020, 32, e2005022.	21.0	95
31	In Situ Deprotection of Polymeric Binders for Solutionâ€Processible Sulfideâ€Based Allâ€Solidâ€State Batteries. Advanced Materials, 2020, 32, e2001702.	21.0	43
32	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
33	Fluorinated Aromatic Diluent for Highâ€Performance Lithium Metal Batteries. Angewandte Chemie, 2020, 132, 14979-14986.	2.0	16
34	Fluorinated Aromatic Diluent for Highâ€Performance Lithium Metal Batteries. Angewandte Chemie - International Edition, 2020, 59, 14869-14876.	13.8	130
35	Recent Progress in High Donor Electrolytes for Lithium–Sulfur Batteries. Advanced Energy Materials, 2020, 10, 2001456.	19.5	112
36	Opportunities and Reality of Aqueous Rechargeable Batteries. Advanced Energy Materials, 2020, 10, 2001386.	19.5	92

#	Article	IF	Citations
37	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
38	Directional Change of Interfacial Electric Field by Carbon Insertion in Heterojunction System TiO ₂ /WO ₃ . ACS Applied Materials & Amp; Interfaces, 2020, 12, 15239-15245.	8.0	32
39	Pyrazine-Linked 2D Covalent Organic Frameworks as Coating Material for High-Nickel Layered Oxide Cathodes in Lithium-Ion Batteries. ACS Applied Materials & Samp; Interfaces, 2020, 12, 10597-10606.	8.0	35
40	Preparation of a hydrophobic cerium oxide nanoparticle coating with polymer binder via a facile solution route. Ceramics International, 2020, 46, 12209-12215.	4.8	5
41	Elucidating the Extraordinary Rate and Cycling Performance of Phenanthrenequinone in Aluminum-Complex-Ion Batteries. Journal of Physical Chemistry Letters, 2020, 11, 2384-2392.	4.6	25
42	Aqueous zinc ion batteries: focus on zinc metal anodes. Chemical Science, 2020, 11, 2028-2044.	7.4	440
43	Covalent Triazine Frameworks Incorporating Charged Polypyrrole Channels for High-Performance Lithium–Sulfur Batteries. Chemistry of Materials, 2020, 32, 4185-4193.	6.7	55
44	Switching between Local and Global Aromaticity in a Conjugated Macrocycle for Highâ€Performance Organic Sodiumâ€Ion Battery Anodes. Angewandte Chemie, 2020, 132, 13058-13064.	2.0	12
45	Covalent Triazine Frameworks Incorporating Charged Polypyrrole Channels for High-Performance Lithium-Sulfur Batteries. ECS Meeting Abstracts, 2020, MA2020-02, 3440-3440.	0.0	0
46	Mussel-Inspired Self-Healing Metallopolymers for Silicon Nanoparticle Anodes. ACS Nano, 2019, 13, 8364-8373.	14.6	101
47	Lithiumâ€Salt Mediated Synthesis of a Covalent Triazine Framework for Highly Stable Lithium Metal Batteries. Angewandte Chemie, 2019, 131, 16951-16955.	2.0	26
48	Lithiumâ€Salt Mediated Synthesis of a Covalent Triazine Framework for Highly Stable Lithium Metal Batteries. Angewandte Chemie - International Edition, 2019, 58, 16795-16799.	13.8	72
49	A Pyrene–Poly(acrylic acid)–Polyrotaxane Supramolecular Binder Network for Highâ€Performance Silicon Negative Electrodes. Advanced Materials, 2019, 31, e1905048.	21.0	77
50	Marginal Magnesium Doping for Highâ€Performance Lithium Metal Batteries. Advanced Energy Materials, 2019, 9, 1902278.	19.5	47
51	Fluorinated Covalent Organic Polymers for High Performance Sulfur Cathodes in Lithium–Sulfur Batteries. Chemistry of Materials, 2019, 31, 7910-7921.	6.7	66
52	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
53	Highly Elastic Polyrotaxane Binders for Mechanically Stable Lithium Hosts in Lithiumâ€Metal Batteries. Advanced Materials, 2019, 31, e1901645.	21.0	68
54	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

#	Article	IF	Citations
55	Critical role of elemental copper for enhancing conversion kinetics of sulphur cathodes in rechargeable magnesium batteries. Applied Surface Science, 2019, 484, 933-940.	6.1	22
56	Lewis acidity controlled heme catalyst for lithium-oxygen battery. Energy Storage Materials, 2019, 19, 16-23.	18.0	10
57	Atomicâ€Scale Direct Identification of Surface Variations in Cathode Oxides for Aqueous and Nonaqueous Lithiumâ€Ion Batteries. ChemSusChem, 2019, 12, 787-794.	6.8	13
58	Hydrated Intercalation for Highâ€Performance Aqueous Zinc Ion Batteries. Advanced Energy Materials, 2019, 9, 1900083.	19.5	243
59	Prospect for Supramolecular Chemistry in High-Energy-Density Rechargeable Batteries. Joule, 2019, 3, 662-682.	24.0	66
60	Cobalt oxide-porous carbon composite derived from CO2 for the enhanced performance of lithium-ion battery. Journal of CO2 Utilization, 2019, 30, 28-37.	6.8	26
61	Rechargeable aluminium organic batteries. Nature Energy, 2019, 4, 51-59.	39.5	283
62	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
63	Rechargeable Aluminum Organic Batteries. ECS Meeting Abstracts, 2019, , .	0.0	0
64	Multifunctional Gel Polymer/Microspheres Composite Electrolyte Coated Separator for Lithium Metal Batteries. ECS Meeting Abstracts, 2019, , .	0.0	0
65	Superlattice Formation of Crystal Water in Layered Double Hydroxides for Longâ€Term and Fast Operation of Aqueous Rechargeable Batteries. Advanced Energy Materials, 2018, 8, 1703572.	19.5	17
66	Intercalated Water and Organic Molecules for Electrode Materials of Rechargeable Batteries. Advanced Materials, 2018, 30, e1705851.	21.0	64
67	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
68	The emerging era of supramolecular polymeric binders in silicon anodes. Chemical Society Reviews, 2018, 47, 2145-2164.	38.1	341
69	Solutionâ€Processed Metal Coating to Nonwoven Fabrics forÂWearable Rechargeable Batteries. Small, 2018, 14, e1703028.	10.0	14
70	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
71	Li ₂ O–B ₂ O ₃ –GeO ₂ glass as a high performance anode material for rechargeable lithium-ion batteries. Journal of Materials Chemistry A, 2018, 6, 6860-6866.	10.3	25
72	Origin of unusual spinel-to-layered phase transformation by crystal water. Chemical Science, 2018, 9, 433-438.	7.4	31

#	Article	IF	CITATIONS
73	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
74	Mussel-Inspired Coating and Adhesion for Rechargeable Batteries: A Review. ACS Applied Materials & Lamp; Interfaces, 2018, 10, 7562-7573.	8.0	84
7 5	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
76	Effect of Pelletizing and Temperature in Silicon Production Using Magnesiothermic Reduction. Journal of Chemical Engineering of Japan, 2018, 51, 794-799.	0.6	3
77	Li-Intercalation Oxides: Atomic-Scale Observation of LiFePO4 and LiCoO2 Dissolution Behavior in Aqueous Solutions (Adv. Funct. Mater. 45/2018). Advanced Functional Materials, 2018, 28, 1870320.	14.9	2
78	Ultrastable Grapheneâ€Encapsulated 3 nm Nanoparticles by In Situ Chemical Vapor Deposition. Advanced Materials, 2018, 30, e1805023.	21.0	24
79	Lithium-Mediated Ammonia Electro-Synthesis: Effect of CsClO ₄ on Lithium Plating Efficiency and Ammonia Synthesis. Journal of the Electrochemical Society, 2018, 165, F1027-F1031.	2.9	16
80	Atomicâ€Scale Observation of LiFePO ₄ and LiCoO ₂ Dissolution Behavior in Aqueous Solutions. Advanced Functional Materials, 2018, 28, 1804564.	14.9	31
81	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
82	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
83	A Colloidalâ€Quantumâ€Dotâ€Based Selfâ€Charging System via the Nearâ€Infrared Band. Advanced Materials, 2018, 30, e1707224.	21.0	17
84	Supramolecular Chemistries for Polymeric Binders of High Capacity Lithium-Ion Batteries. , 2018, , .		0
85	Ordered Mesoporous Titanium Nitride as a Promising Carbon-Free Cathode for Aprotic Lithium-Oxygen Batteries. ACS Nano, 2017, 11, 1736-1746.	14.6	128
86	Tungsten Disulfide Catalysts Supported on a Carbon Cloth Interlayer for High Performance Li–S Battery. Advanced Energy Materials, 2017, 7, 1602567.	19.5	309
87	EEWS 2016: Progress and Perspectives of Energy Science and Technology. ACS Energy Letters, 2017, 2, 592-594.	17.4	О
88	Delicate Structural Control of Si–SiO _{<i>x</i>} –C Composite via High-Speed Spray Pyrolysis for Li-lon Battery Anodes. Nano Letters, 2017, 17, 1870-1876.	9.1	156
89	Stable Performance of Aluminumâ€Metal Battery by Incorporating Lithiumâ€Ion Chemistry. ChemElectroChem, 2017, 4, 2345-2351.	3.4	20
90	The Importance of Confined Sulfur Nanodomains and Adjoining Electron Conductive Pathways in Subreaction Regimes of Li‧ Batteries. Advanced Energy Materials, 2017, 7, 1700074.	19.5	127

#	Article	IF	Citations
91	Lithiumâ€Sulfur Batteries: Tungsten Disulfide Catalysts Supported on a Carbon Cloth Interlayer for High Performance Li–S Battery (Adv. Energy Mater. 11/2017). Advanced Energy Materials, 2017, 7, .	19.5	2
92	Lattice Water for the Enhanced Performance of Amorphous Iron Phosphate in Sodium-Ion Batteries. ACS Energy Letters, 2017, 2, 998-1004.	17.4	45
93	Stabilized Octahedral Frameworks in Layered Double Hydroxides by Solidâ€Solution Mixing of Transition Metals. Advanced Functional Materials, 2017, 27, 1605225.	14.9	58
94	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
95	Low Molecular Weight Spandex as a Promising Polymeric Binder for LiFePO ₄ Electrodes. Advanced Energy Materials, 2017, 7, 1602147.	19.5	27
96	Lithiumâ€Sulfur Batteries: The Importance of Confined Sulfur Nanodomains and Adjoining Electron Conductive Pathways in Subreaction Regimes of Liâ€S Batteries (Adv. Energy Mater. 19/2017). Advanced Energy Materials, 2017, 7, .	19.5	0
97	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
98	Selection of Binder and Solvent for Solution-Processed All-Solid-State Battery. Journal of the Electrochemical Society, 2017, 164, A2075-A2081.	2.9	122
99	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
100	Role of Ordered Ni Atoms in Li Layers for Liâ€Rich Layered Cathode Materials. Advanced Functional Materials, 2017, 27, 1700982.	14.9	36
101	Unveiling anomalous CO ₂ -to-N ₂ selectivity of graphene oxide. Physical Chemistry Chemical Physics, 2017, 19, 22743-22748.	2.8	21
102	Highly elastic binders integrating polyrotaxanes for silicon microparticle anodes in lithium ion batteries. Science, 2017, 357, 279-283.	12.6	943
103	Nanoscale Zirconium-Abundant Surface Layers on Lithium- and Manganese-Rich Layered Oxides for High-Rate Lithium-lon Batteries. Nano Letters, 2017, 17, 7869-7877.	9.1	40
104	Graphene balls for lithium rechargeable batteries with fast charging and high volumetric energy densities. Nature Communications, 2017, 8, 1561.	12.8	151
105	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
106	Rice husk-originating silicon–graphite composites for advanced lithium ion battery anodes. Nano Convergence, 2017, 4, 24.	12.1	16
107	Defectâ€Controlled Formation of Triclinic Na ₂ CoP ₂ O ₇ for 4â€V Sodiumâ€lon Batteries. Angewandte Chemie, 2016, 128, 6774-6778.	2.0	5
108	Graphene Coating of Silicon Nanoparticles with CO ₂ â€Enhanced Chemical Vapor Deposition. Small, 2016, 12, 658-667.	10.0	27

#	Article	IF	Citations
109	Nanomaterials for Energy Conversion and Storage. ChemNanoMat, 2016, 2, 560-561.	2.8	22
110	Elementalâ€Sulfurâ€Mediated Facile Synthesis of a Covalent Triazine Framework for Highâ€Performance Lithium–Sulfur Batteries. Angewandte Chemie, 2016, 128, 3158-3163.	2.0	96
111	Elementalâ€Sulfurâ€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
112	Sprayable Ultrafast Polydopamine Surface Modifications. Advanced Materials Interfaces, 2016, 3, 1500857.	3.7	99
113	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
114	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
115	Tuning the Phase Stability of Sodium Metal Pyrophosphates for Synthesis of High Voltage Cathode Materials. Chemistry of Materials, 2016, 28, 6724-6730.	6.7	14
116	Rational Sulfur Cathode Design for Lithium–Sulfur Batteries: Sulfur-Embedded Benzoxazine Polymers. ACS Energy Letters, 2016, 1, 566-572.	17.4	107
117	A stable lithium-rich surface structure for lithium-rich layered cathode materials. Nature Communications, 2016, 7, 13598.	12.8	153
118	Effective Polysulfide Rejection by Dipoleâ€Aligned BaTiO ₃ Coated Separator in Lithium–Sulfur Batteries. Advanced Functional Materials, 2016, 26, 7817-7823.	14.9	170
119	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
120	Promise and reality of post-lithium-ion batteries with high energy densities. Nature Reviews Materials, $2016, 1, .$	48.7	3,562
121	5L-Scale Magnesio-Milling Reduction of Nanostructured SiO ₂ for High Capacity Silicon Anodes in Lithium-lon Batteries. Nano Letters, 2016, 16, 7261-7269.	9.1	67
122	Enhanced Pseudocapacitance in Multicomponent Transitionâ€Metal Oxides by Local Distortion of Oxygen Octahedra. Angewandte Chemie, 2016, 128, 4026-4030.	2.0	7
123	Enhanced Pseudocapacitance in Multicomponent Transitionâ€Metal Oxides by Local Distortion of Oxygen Octahedra. Angewandte Chemie - International Edition, 2016, 55, 3958-3962.	13.8	21
124	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
125	Atomic thin titania nanosheet-coupled reduced graphene oxide 2D heterostructures for enhanced photocatalytic activity and fast lithium storage. Electronic Materials Letters, 2016, 12, 211-218.	2.2	13
126	Flexible Few-Layered Graphene for the Ultrafast Rechargeable Aluminum-Ion Battery. Journal of Physical Chemistry C, 2016, 120, 13384-13389.	3.1	164

#	Article	IF	Citations
127	Optimal Activation of Porous Carbon for High Performance CO ₂ Capture. ChemNanoMat, 2016, 2, 528-533.	2.8	11
128	A Moisture―and Oxygenâ€Impermeable Separator for Aprotic Liâ€O ₂ Batteries. Advanced Functional Materials, 2016, 26, 1747-1756.	14.9	122
129	Deep eutectic solvents as attractive media for CO ₂ capture. Green Chemistry, 2016, 18, 2834-2842.	9.0	209
130	Computational Analysis of Pressure-Dependent Optimal Pore Size for CO ₂ Capture with Graphitic Surfaces. Journal of Physical Chemistry C, 2016, 120, 3978-3985.	3.1	15
131	Controlled Prelithiation of Silicon Monoxide for High Performance Lithium-Ion Rechargeable Full Cells. Nano Letters, 2016, 16, 282-288.	9.1	386
132	Direct Observation of an Anomalous Spinelâ€toâ€Layered Phase Transition Mediated by Crystal Water Intercalation. Angewandte Chemie - International Edition, 2015, 54, 15094-15099.	13.8	86
133	Multiphase LiNi _{0.33} Mn _{0.54} Co _{0.13} O ₂ Cathode Material with High Capacity Retention for Liâ€ion Batteries. ChemElectroChem, 2015, 2, 1957-1965.	3.4	16
134	Poreless Separator and Electrolyte Additive for Lithium–Sulfur Batteries with High Areal Energy Densities. ChemNanoMat, 2015, 1, 240-245.	2.8	45
135	A Half Millimeter Thick Coplanar Flexible Battery with Wireless Recharging Capability. Nano Letters, 2015, 15, 2350-2357.	9.1	78
136	The High Performance of Crystal Water Containing Manganese Birnessite Cathodes for Magnesium Batteries. Nano Letters, 2015, 15, 4071-4079.	9.1	400
137	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
138	Highly Oriented Carbon Nanotube Sheets for Rechargeable Lithium Oxygen Battery Electrodes. Journal of Nanoscience and Nanotechnology, 2015, 15, 7611-7614.	0.9	11
139	Millipede-inspired structural design principle for high performance polysaccharide binders in silicon anodes. Energy and Environmental Science, 2015, 8, 1224-1230.	30.8	222
140	Nanoporous networks as caging supports for uniform, surfactant-free Co ₃ O ₄ nanocrystals and their applications in energy storage and conversion. Journal of Materials Chemistry A, 2015, 3, 15489-15497.	10.3	18
141	Important Role of Functional Groups for Sodium Ion Intercalation in Expanded Graphite. Chemistry of Materials, 2015, 27, 5402-5406.	6.7	79
142	Silicon carbide-free graphene growth on silicon for lithium-ion battery with high volumetric energy density. Nature Communications, 2015, 6, 7393.	12.8	449
143	Critical Role of Crystal Water for a Layered Cathode Material in Sodium Ion Batteries. Chemistry of Materials, 2015, 27, 3721-3725.	6.7	174
144	An Electrochemical Cell for Selective Lithium Capture from Seawater. Environmental Science & Emp; Technology, 2015, 49, 9415-9422.	10.0	74

#	Article	IF	CITATIONS
145	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
146	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
147	Anomalous Stretchable Conductivity Using an Engineered Tricot Weave. ACS Nano, 2015, 9, 12214-12223.	14.6	35
148	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
149	Initiated Chemical Vapor Deposition (iCVD) of Highly Cross <i>-</i> Lithium-lon Battery Separators. ACS Applied Materials & Samp; Interfaces, 2015, 7, 18849-18855.	8.0	40
150	Superior Lithiumâ€lon Storage Properties of Siâ€Based Composite Powders with Unique Si@Carbon@Void@Graphene Configuration. Chemistry - A European Journal, 2015, 21, 2076-2082.	3.3	23
151	A Bendable Li″on Battery with a Nanoâ€Hairy Electrode: Direct Integration Scheme on the Polymer Substrate. Advanced Energy Materials, 2015, 5, 1400611.	19.5	19
152	Systematic Molecular‣evel Design of Binders Incorporating Meldrum's Acid for Silicon Anodes in Lithium Rechargeable Batteries. Advanced Materials, 2014, 26, 7979-7985.	21.0	155
153	Scalable Fracture-free SiOC Glass Coating for Robust Silicon Nanoparticle Anodes in Lithium Secondary Batteries. Nano Letters, 2014, 14, 7120-7125.	9.1	94
154	Areal Energy Density: A Lithium-Sulfur Battery with a High Areal Energy Density (Adv. Funct. Mater.) Tj ETQq0 0 C	rgBT/Ove	erlock 10 Tf 5
155	Modified graphite and graphene electrodes for high-performance lithium ion hybrid capacitors. Materials for Renewable and Sustainable Energy, 2014, 3, 1.	3.6	37
156	Effective Liquid-Phase Exfoliation and Sodium Ion Battery Application of MoS ₂ Nanosheets. ACS Applied Materials & Samp; Interfaces, 2014, 6, 7084-7089.	8.0	443
157	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
158	Hyperbranched \hat{l}^2 -Cyclodextrin Polymer as an Effective Multidimensional Binder for Silicon Anodes in Lithium Rechargeable Batteries. Nano Letters, 2014, 14, 864-870.	9.1	277
159	Large area multi-stacked lithium-ion batteries for flexible and rollable applications. Journal of Materials Chemistry A, 2014, 2, 10862-10868.	10.3	48
160	Enhanced Durability of Polymer Electrolyte Membrane Fuel Cells by Functionalized 2D Boron Nitride Nanoflakes. ACS Applied Materials & Samp; Interfaces, 2014, 6, 7751-7758.	8.0	106
161	Atom-Level Understanding of the Sodiation Process in Silicon Anode Material. Journal of Physical Chemistry Letters, 2014, 5, 1283-1288.	4.6	127
162	An Aqueous Sodium Ion Hybrid Battery Incorporating an Organic Compound and a Prussian Blue Derivative. Advanced Energy Materials, 2014, 4, 1400133.	19.5	106

#	Article	IF	CITATIONS
163	Hierarchical Porous Carbon by Ultrasonic Spray Pyrolysis Yields Stable Cycling in Lithium–Sulfur Battery. Nano Letters, 2014, 14, 4418-4425.	9.1	234
164	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
165	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
166	Optically tunable and reconfigurable azobenzene photonic crystal. Macromolecular Research, 2014, 22, 606-612.	2.4	3
167	A Lithiumâ€Sulfur Battery with a High Areal Energy Density. Advanced Functional Materials, 2014, 24, 5359-5367.	14.9	206
168	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
169	Role of intermediate phase for stable cycling of Na ₇ V ₄ (P ₂ O) Tj ETQq1 Academy of Sciences of the United States of America, 2014, 111, 599-604.	1 0.78431 7.1	.4 rgBT /Ove 136
170	DNA metallization for high performance Li-ion battery anodes. Nano Energy, 2014, 8, 17-24.	16.0	8
171	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
172	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
173	One-Dimensional Carbon–Sulfur Composite Fibers for Na–S Rechargeable Batteries Operating at Room Temperature. Nano Letters, 2013, 13, 4532-4538.	9.1	387
174	Restacking-Inhibited 3D Reduced Graphene Oxide for High Performance Supercapacitor Electrodes. ACS Nano, 2013, 7, 9366-9374.	14.6	384
175	2-(triphenylphosphoranylidene) succinic anhydride as a new electrolyte additive to improve high temperature cycle performance of LiMn2O4/graphite Li-ion batteries. Electrochimica Acta, 2013, 102, 97-103.	5.2	20
176	Nitrogen-doped carbon coating for a high-performance SiO anode in lithium-ion batteries. Electrochemistry Communications, 2013, 34, 98-101.	4.7	84
177	Mechanism of Co3O4/graphene catalytic activity in Li–O2 batteries using carbonate based electrolytes. Electrochimica Acta, 2013, 90, 63-70.	5.2	48
178	Wearable Textile Battery Rechargeable by Solar Energy. Nano Letters, 2013, 13, 5753-5761.	9.1	400
179	Mussel-inspired polydopamine-treated composite electrolytes for long-term operations of polymer electrolyte membrane fuel cells. Journal of Materials Chemistry A, 2013, 1, 14484.	10.3	27
180	A bifunctional approach for the preparation of graphene and ionic liquid-based hybrid gels. Journal of Materials Chemistry A, 2013, 1, 43-48.	10.3	32

#	Article	IF	CITATIONS
181	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
182	Lithium-Ion Batteries: Mussel-Inspired Adhesive Binders for High-Performance Silicon Nanoparticle Anodes in Lithium-Ion Batteries (Adv. Mater. 11/2013). Advanced Materials, 2013, 25, 1570-1570.	21.0	8
183	Perfluorosulfonic acid-functionalized Pt/graphene as a high-performance oxygen reduction reaction catalyst for proton exchange membrane fuel cells. Journal of Solid State Electrochemistry, 2013, 17, 767-774.	2.5	17
184	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
185	A Radically Configurable Six-State Compound. Science, 2013, 339, 429-433.	12.6	158
186	Factors that Affect the Phase Behavior of Multi-Component Olivine (LiFe <i>>_x</i> Mn <i>_y</i> Co _{1-<i>x</i>-<i>y</i>} PO ₄ ; 0) Tj ETC	0q0 <u>.</u> g0 rg	BT/Overlock
187	Reaction. Journal of the Electrochemical Society, 2013, 160, A444-A448. Spray Drying Method for Large-Scale and High-Performance Silicon Negative Electrodes in Li-lon Batteries. Nano Letters, 2013, 13, 2092-2097.	9.1	237
188	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
189	Musselâ€Inspired Adhesive Binders for Highâ€Performance Silicon Nanoparticle Anodes in Lithiumâ€Ion Batteries. Advanced Materials, 2013, 25, 1571-1576.	21.0	532
190	Cotton-templated hierarchical porous structures for high power lithium rechargeable batteries. Journal of Materials Chemistry A, 2013, 1, 5320.	10.3	23
191	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
192	Robust Cycling of Li–O ₂ Batteries through the Synergistic Effect of Blended Electrolytes. ChemSusChem, 2013, 6, 443-448.	6.8	43
193	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
194	Encapsulated Monoclinic Sulfur for Stable Cycling of Li–S Rechargeable Batteries. Advanced Materials, 2013, 25, 6547-6553.	21.0	330
195	Electrochemically Controlled Nanopore and Crystal Structure Evolution in Zinc Oxide Nanorods. Journal of the Electrochemical Society, 2012, 159, A2143-A2147.	2.9	9
196	Nanomechanical properties of lithiated Si nanowires probed with atomic force microscopy. Journal Physics D: Applied Physics, 2012, 45, 275301.	2.8	10
197	Anisotropic Volume Expansion of Crystalline Silicon during Electrochemical Lithium Insertion: An Atomic Level Rationale. Nano Letters, 2012, 12, 5342-5347.	9.1	116
198	Bendable Inorganic Thin-Film Battery for Fully Flexible Electronic Systems. Nano Letters, 2012, 12, 4810-4816.	9.1	494

#	Article	IF	Citations
199	Functionalized Graphene for High Performance Lithium Ion Capacitors. ChemSusChem, 2012, 5, 2328-2333.	6.8	115
200	A Truncated Manganese Spinel Cathode for Excellent Power and Lifetime in Lithium-Ion Batteries. Nano Letters, 2012, 12, 6358-6365.	9.1	272
201	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
202	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
203	Electrospun Core–Shell Fibers for Robust Silicon Nanoparticle-Based Lithium Ion Battery Anodes. Nano Letters, 2012, 12, 802-807.	9.1	587
204	Effect of N-substitution in naphthalenediimides on the electrochemical performance of organic rechargeable batteries. RSC Advances, 2012, 2, 7968.	3.6	76
205	Mechanochemical synthesis and electrochemical behavior of Na3FeF6 in sodium and lithium batteries. Solid State Ionics, 2012, 218, 35-40.	2.7	30
206	3D Macroporous Graphene Frameworks for Supercapacitors with High Energy and Power Densities. ACS Nano, 2012, 6, 4020-4028.	14.6	1,186
207	Stable cycling of double-walled silicon nanotube battery anodes through solid–electrolyte interphase control. Nature Nanotechnology, 2012, 7, 310-315.	31.5	2,144
208	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
209	Oxide Nanostructures for Energy Storage. Springer Series in Materials Science, 2012, , 269-302.	0.6	4
210	Co-polyimide-coated polyethylene separators for enhanced thermal stability of lithium ion batteries. Electrochimica Acta, 2012, 85, 524-530.	5.2	148
211	Effects of lithium salts on thermal stabilities of lithium alkyl carbonates in SEI layer. Electrochimica Acta, 2012, 83, 259-263.	5. 2	68
212	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
213	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
214	Nitrogen-Doped Multiwall Carbon Nanotubes for Lithium Storage with Extremely High Capacity. Nano Letters, 2012, 12, 2283-2288.	9.1	468
215	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
216	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

#	Article	IF	Citations
217	Lithium-Ion Batteries: Excellent Cycle Life of Lithium-Metal Anodes in Lithium-Ion Batteries with Mussel-Inspired Polydopamine-Coated Separators (Adv. Energy Mater. 6/2012). Advanced Energy Materials, 2012, 2, 610-610.	19.5	4
218	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
219	A gel polymer electrolyte based on initiator-free photopolymerization for lithium secondary batteries. Electrochimica Acta, 2012, 60, 23-30.	5.2	71
220	Thiophene–nitroxide radical as a novel combination of sensitizer–redox mediator for dye-sensitized solar cells. Journal of Solid State Electrochemistry, 2012, 16, 657-663.	2.5	16
221	A Carbon Nanotubes-Silicon Nanoparticles Network for High Performance Lithium Rechargeable Battery Anodes. Journal of Electrochemical Science and Technology, 2012, 3, 116-122.	2.2	3
222	A Carbon Nanotubes-Silicon Nanoparticles Network for High Performance Lithium Rechargeable Battery Anodes. Journal of Electrochemical Science and Technology, 2012, 3, 116-122.	2.2	3
223	Novel Size and Surface Oxide Effects in Silicon Nanowires as Lithium Battery Anodes. Nano Letters, 2011, 11, 4018-4025.	9.1	284
224	Anomalous Shape Changes of Silicon Nanopillars by Electrochemical Lithiation. Nano Letters, 2011, 11, 3034-3039.	9.1	364
225	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
226	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
227	A hydrophobic blend binder for anti-water flooding of cathode catalyst layers in polymer electrolyte membrane fuel cells. International Journal of Hydrogen Energy, 2011, 36, 13695-13702.	7.1	23
228	Musselâ€Inspired Polydopamineâ€Treated Polyethylene Separators for Highâ€Power Liâ€Ion Batteries. Advanced Materials, 2011, 23, 3066-3070.	21.0	635
229	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
230	Size-dependent fracture of Si nanowire battery anodes. Journal of the Mechanics and Physics of Solids, 2011, 59, 1717-1730.	4.8	355
231	Inorganic Glue Enabling High Performance of Silicon Particles as Lithium Ion Battery Anode. Journal of the Electrochemical Society, 2011, 158, A592.	2.9	68
232	Scalable LiCoO2 Nanoparticle Fibers for High Power Lithium Battery Cathodes. Journal of the Electrochemical Society, 2011, 158, A1150.	2.9	9
233	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
234	Stepwise Nanopore Evolution in One-Dimensional Nanostructures. Nano Letters, 2010, 10, 1409-1413.	9.1	229

#	Article	IF	CITATIONS
235	Light-Weight Free-Standing Carbon Nanotube-Silicon Films for Anodes of Lithium Ion Batteries. ACS Nano, 2010, 4, 3671-3678.	14.6	507
236	Fast and Scalable Printing of Large Area Monolayer Nanoparticles for Nanotexturing Applications. Nano Letters, 2010, 10, 2989-2994.	9.1	87
237	Stretchable, Porous, and Conductive Energy Textiles. Nano Letters, 2010, 10, 708-714.	9.1	1,415
238	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
239	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
240	Carbon nanofiber supercapacitors with large areal capacitances. Applied Physics Letters, 2009, 95, .	3.3	123
241	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
242	A 160-kilobit molecular electronic memory patterned at 1011 bits per square centimetre. Nature, 2007, 445, 414-417.	27.8	1,176
243	Spiers Memorial Lecture: Molecular mechanics and molecular electronics. Faraday Discussions, 2006, 131, 9-22.	3.2	63
244	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
245	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
246	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
247	Synthesis of mesoporous \hat{I}^3 -aluminas of controlled pore properties using alkyl carboxylate assisted method. Studies in Surface Science and Catalysis, 2003, 146, 209-212.	1.5	17
248	Off-Stoichiometry Induced Few-Nanometer Surface Layer for High-Performance Layered Cathode in Nonaqueous and Aqueous Electrolytes. ACS Applied Energy Materials, 0, , .	5.1	2