Ji Heon Ryu

List of Publications by Year
in descending order

103 papers	5,125 citations	159585 30 h-index	88630 70 g-index
104 all docs	104 docs citations	104 times ranked	6705 citing authors

#	Article	IF	Citations
1	Concentration Gradient Induced Delithiation Failure of MoO₃ for Li-Ion Batteries. Nano Letters, 2022, 22, 761-767.	9.1	10
2	Li-Salt Concentration Effects on Quick-Charge Performances of Spinel Lithium Titanium Oxide Negative Electrodes for Lithium-Ion Batteries. Journal of the Electrochemical Society, 2021, 168, 040523.	2.9	3
3	Decrease in dendritic growth and overpotential through inâ€situ generated lithiumâ€aluminum alloys for lithium metal batteries. International Journal of Energy Research, 2021, 45, 16884-16890.	4.5	4
4	Surface nitridation of Li4Ti5O12 by thermal decomposition of urea to improve quick charging capability of lithium ion batteries. Scientific Reports, 2021, 11, 13095.	3.3	4
5	Permeable characteristics of surface film deposited on LiMn2O4 positive electrode revealed by redox-active indicator. Nano Convergence, 2021, 8, 21.	12.1	3
6	Dissolution of cathodeâ€“electrolyte interphase deposited on LiNi0.5Mn1.5O4 for lithium-ion batteries. Journal of Power Sources, 2021, 503, 230051.	7.8	35
7	A comparative study of reaction mechanism of MoS2 negative electrode materials for sodium-ion batteries. Journal of Alloys and Compounds, 2021, 876, 160182.	5.5	2
8	An Azamacrocyclic Ligand-Functionalized Transition-Metal Scavenging Polymer for 5.0 V Class High-Energy Lithium-Ion Batteries. ACS Applied Energy Materials, 2021, 4, 128-133.	5.1	8
9	A comparative study of increased lithium storage with low resistance at structural defects in amorphous titanium dioxide electrode. Electrochimica Acta, 2021, 398, 139358.	5.2	4
10	Electrochemical characteristics of high-capacity Mg/V2O5 hybrid batteries with Mg-Li dual salt electrolytes. Korean Journal of Chemical Engineering, 2020, 37, 184-187.	2.7	1
11	Preparation and Characterization of Solâ€“Gel-Driven Li_xLa₃Zr₂O₁₂ Solid Electrolytes and LiCoO₂ Cathodes for All-Solid-State Lithium-Ion Batteries. Journal of Nanoscience and Nanotechnology, 2020, 20, 7002-7009.	0.9	8
12	<scp>Oneâ€step</scp> surface nitridation of <scp>CoO</scp> for <scp>highâ€energyâ€density</scp> lithiumâ€ion batteries. International Journal of Energy Research, 2020, 44, 9233-9239.	4.5	5
13	Ordered mesoporous tungsten oxideâ€“carbon nanocomposite for use as a highly reversible negative electrode in lithium-ion batteries. Journal of Alloys and Compounds, 2020, 832, 154816.	5.5	2
14	Communicationâ€”Aliphatic Chain Substitution for Enhancing Energy Density of p-Benzoquinone Redox Couple for Non-Aqueous Flow Batteries. Journal of the Electrochemical Society, 2020, 167, 020551.	2.9	3
15	Communicationâ€”Lithium Bis(fluorosulfonyl)imide (LiFSI) as a Promising Salt to Suppress Solid Electrolyte Interphase Degradation at Elevated Temperatures. Journal of the Electrochemical Society, 2020, 167, 080529.	2.9	6
16	Effect of Radicalâ€“Solvent Interaction on Battery Performance in Benzophenone-Based Charge Storage Systems. Journal of the Electrochemical Society, 2020, 167, 160526.	2.9	3
17	N-(Î±-ferrocenyl)ethylphthalimide as a single redox couple for non-aqueous flow batteries. Journal of Power Sources, 2019, 421, 1-5.	7.8	17
18	A Bifunctional Electrolyte Additive for High-Voltage LiNi_{0.5}Mn_{1.5}O₄ Positive Electrodes. ACS Applied Materials & Interfaces, 2019, 11, 11306-11316.	8.0	69

#	Article	IF	Citations
19	Amorphous V2O5 Positive Electrode Materials by Precipitation Method in Magnesium Rechargeable Batteries. Electronic Materials Letters, 2019, 15, 415-420.	2.2	12
20	Counter anion effects on the energy density of Ni(II)-chelated tetradentate azamacrocyclic complex cation as single redox couple for non-aqueous flow batteries. Electrochimica Acta, 2019, 308, 227-230.	5.2	11
21	One pot synthesis of ordered mesoporous carbonâ€“silicaâ€“titania with parallel alignment against graphene as advanced anode material in lithium ion batteries. Journal of Industrial and Engineering Chemistry, 2019, 71, 93-98.	5.8	9
22	Surface Film Degradation on LiCoO2 Electrode by Hydrogen Fluoride Attack at Moderately Elevated Temperature and CuO Addition to Mitigate the Degradation. Journal of the Electrochemical Society, 2019, 166, A195-A200.	2.9	0
23	Electrolyte Additives for Mg Stripping Reaction in Lithium-Magnesium Hybrid Batteries. ECS Meeting Abstracts, 2019, , .	0.0	0
24	Solid Permeable Interface (SPI) on a High-Voltage Positive Electrode of Lithium-Ion Batteries. Journal of the Electrochemical Society, 2018, 165, A575-A583.	2.9	16
25	The Investigation of Electrolyte Oxidation and Film Deposition Characteristics at High Potentials in a Carbonate-Based Electrolyte Using Pt Electrode. Journal of the Electrochemical Society, 2018, 165, A1095-A1098.	2.9	14
26	Bi-functional effects of lengthening aliphatic chain of phthalimide-based negative redox couple and its non-aqueous flow battery performance at stack cell. APL Materials, 2018, 6, .	5.1	10
27	Degradation of surface film on LiCoO2 electrode by hydrogen fluoride attack at moderately elevated temperature. Electrochimica Acta, 2018, 277, 59-66.	5.2	6
28	Cointercalation of Mg²⁺ Ions into Graphite for Magnesium-Ion Batteries. Chemistry of Materials, 2018, 30, 3199-3203.	6.7	71
29	Novel siliconâ€“tungsten oxideâ€“carbon composite as advanced negative electrode for lithium-ion batteries. Solid State Ionics, 2018, 314, 41-45.	2.7	8
30	N-ferrocenylphthalimide; A single redox couple formed by attaching a ferrocene moiety to phthalimide for non-aqueous flow batteries. Journal of Power Sources, 2018, 395, 60-65.	7.8	40
31	Grafting Nitrophenyl Groups on Carbon Surfaces by Diazonium Chemistry to Suppress Irreversible Reactions in High-Voltage LiNi_{0.5}Mn_{1.5}O₄Positive Electrodes. Journal of the Electrochemical Society, 2018, 165, A1372-A1376.	2.9	8
32	Passivating film artificially built on LiNi0.5Mn1.5O4 by molecular layer deposition of (pentafluorophenylpropyl)trimethoxysilane. Journal of Power Sources, 2018, 392, 159-167.	7.8	21
33	Solâ€“Gel-Driven Al and Ta Co-Doped Li₇La₃Zr₂O₁₂ Solid Ceramic Electrolyte for All-Solid-State Lithium Ion Batteries. Nanoscience and Nanotechnology Letters, 2018, 10, 491-496.	0.4	0
34	Communicationâ€”Electrochemical Conversion of CuV₂O₆into Metallic Cu and LiVO₃with Highly Reversible Lithium Storage. Journal of the Electrochemical Society, 2017, 164, A864-A866.	2.9	2
35	A comparative study on the solubility and stability of p -phenylenediamine-based organic redox couples for non-aqueous flow batteries. Journal of Power Sources, 2017, 348, 264-269.	7.8	24
36	Ni(II)-chelated thio-crown complex as a single redox couple for non-aqueous flow batteries. Electrochemistry Communications, 2017, 85, 36-39.	4.7	13

#	Article	IF	Citations
37	Artificially-built solid electrolyte interphase via surface-bonded vinylene carbonate derivative on graphite by molecular layer deposition. Journal of Power Sources, 2017, 370, 131-137.	7.8	4
38	A comparative study of polarization during the initial lithiation step in tungsten-oxide negative electrodes for lithium-ion batteries. Solid State Ionics, 2017, 311, 1-5.	2.7	3
39	Copper Oxide as a Hydrogen Fluoride Scavenger for High-Voltage LiNi0.5Mn1.5O4Positive Electrode. Journal of the Electrochemical Society, 2017, 164, A2677-A2682.	2.9	11
40	Thermal Degradation of Solid Electrolyte Interphase (SEI) Layers by Phosphorus Pentafluoride (PF₅) Attack. Journal of the Electrochemical Society, 2017, 164, A2418-A2425.	2.9	42
41	Tris(pentafluorophenyl)silane as a Solid Electrolyte Interphase (SEI)-Forming Agent for Graphite Electrodes. Journal of the Electrochemical Society, 2017, 164, A1887-A1892.	2.9	2
42	Carbon fabric as a current collector for electroless-plated Cu6Sn5 negative electrode for lithium-ion batteries. Journal of Alloys and Compounds, 2017, 692, 583-588.	5.5	16
43	Mechanical Damage of Surface Films and Failure of Nano-Sized Silicon Electrodes in Lithium Ion Batteries. Journal of the Electrochemical Society, 2017, 164, A6103-A6109.	2.9	25
44	Communicationâ€"A Phosphorus Pentafluoride Scavenger to Suppress Solid Electrolyte Interphase Damage at Moderately Elevated Temperature. Journal of the Electrochemical Society, 2017, 164, A3699-A3701.	2.9	8
45	Effect of Pre-Cycling Rate on the Passivating Ability of Surface Films on Li4Ti5O12 Electrodes. Journal of Electrochemical Science and Technology, 2017, 8, 15-24.	2.2	0
46	Unusual Conversion-type Lithiation in LiVO₃ Electrode for Lithium-Ion Batteries. Chemistry of Materials, 2016, 28, 5314-5320.	6.7	27
47	Development of La0.8Sr0.2MnO3+Î´ electrocatalysts by Pechini's methods as cathode electrocatalysts in alkaline anion exchange membrane fuel cells. Solid State Ionics, 2016, 290, 124-129.	2.7	2
48	Highly flexible TiO2-coated stainless steel fabric electrode prepared by liquid-phase deposition. Journal of Power Sources, 2016, 330, 204-210.	7.8	4
49	Binderâ€•and Carbonâ€free Porous Thick Tin Foil Electrode via a Spontaneous Electrochemical and Chemical Process. Bulletin of the Korean Chemical Society, 2016, 37, 48-51.	1.9	5
50	Low-Temperature Performance Improvement of Graphite Electrode by Allyl Sulfide Additive and Its Film-Forming Mechanism. Journal of the Electrochemical Society, 2016, 163, A1798-A1804.	2.9	34
51	Increase of both solubility and working voltage by acetyl substitution on ferrocene for non-aqueous flow battery. Electrochemistry Communications, 2016, 69, 72-75.	4.7	37
52	Tris(pentafluorophenyl)silane as an Electrolyte Additive for 5 V LiNi_{0.5}Mn_{1.5}O₄Positive Electrode. Journal of the Electrochemical Society, 2016, 163, A898-A903.	2.9	23
53	Amorphous Vanadium Titanates as a Negative Electrode for Lithium-ion Batteries. Journal of Electrochemical Science and Technology, 2016, 7, 306-315.	2.2	5
54	Amorphous Vanadium Titanates as a Negative Electrode for Lithium-ion Batteries. Journal of Electrochemical Science and Technology, 2016, 7, 306-315.	2.2	1

#	Article	IF	Citations
55	Enhanced High-Temperature Performance of LiNi0.6Co0.2Mn0.2O2Positive Electrode Materials by the Addition of nano-Al2O3during the Synthetic Process. Journal of the Korean Electrochemical Society, 2016, 19, 80-86.	0.1	1
56	Reduction of Li4Ti5O12Powder Agglomeration by the Addition of Carbon Black during Solid-state Synthesis. Journal of the Korean Electrochemical Society, 2016, 19, 63-68.	0.1	1
57	Poly(phenanthrenequinone)-Poly(acrylic acid) Composite as a Conductive Polymer Binder for Submicrometer-Sized Silicon Negative Electrodes. Journal of the Korean Electrochemical Society, 2016, 19, 87-94.	0.1	0
58	Influence of Surface Area Change of Spinel Cathode on Highâ€Temperature Storage Behavior of Lithiumâ€Ion Pouch Cell. Bulletin of the Korean Chemical Society, 2015, 36, 2658-2663.	1.9	4
59	Poly(phenanthrenequinone) as a conductive binder for nano-sized silicon negative electrodes. Energy and Environmental Science, 2015, 8, 1538-1543.	30.8	75
60	A tetradentate Ni(II) complex cation as a single redox couple for non-aqueous flow batteries. Journal of Power Sources, 2015, 283, 300-304.	7.8	41
61	Effects of Interlayer Distance and van der Waals Energy on Electrochemical Activation of Partially Reduced Graphite Oxide. Electrochimica Acta, 2015, 173, 827-833.	5.2	12
62	Electrode Performances of Amorphous Molybdenum Oxides of Different Molybdenum Valence for Lithiumâ€ion Batteries. Israel Journal of Chemistry, 2015, 55, 604-610.	2.3	13
63	An azamacrocyclic electrolyte additive to suppress metal deposition in lithium-ion batteries. Electrochemistry Communications, 2015, 58, 25-28.	4.7	23
64	A Calculation Model to Assess Two Irreversible Capacities Evolved in Silicon Negative Electrodes. Journal of the Electrochemical Society, 2015, 162, A1579-A1584.	2.9	19
65	Reinforcement of an electrically conductive network with ethanol as a dispersing agent in the slurry preparation step. Journal of Power Sources, 2015, 287, 359-362.	7.8	12
66	Thermal Behavior of Solid Electrolyte Interphase Films Deposited on Graphite Electrodes with Different States-of-Charge. Journal of the Electrochemical Society, 2015, 162, A892-A896.	2.9	25
67	Improvement of Rate Capability and Low-temperature Performances of Graphite Negative Electrode by Surface Treatment with Copper Phthalocyanine. Journal of the Korean Electrochemical Society, 2015, 18, 130-135.	0.1	0
68	Re-Deposition of Aluminum Species after Dissolution to Improve Electrode Performances of Lithium Manganese Oxide. Journal of the Electrochemical Society, 2014, 161, A2020-A2025.	2.9	4
69	Tin Phosphide as a Promising Anode Material for Naâ€Ion Batteries. Advanced Materials, 2014, 26, 4139-4144.	21.0	356
70	Compositional Change of Surface Film Deposited on LiNi0.5Mn1.5O4Positive Electrode. Journal of the Electrochemical Society, 2014, 161, A519-A523.	2.9	31
71	Reversible Lithium Storage at Highly Populated Vacant Sites in an Amorphous Vanadium Pentoxide Electrode. Chemistry of Materials, 2014, 26, 5874-5881.	6.7	137
72	A Firstâ€Cycle Coulombic Efficiency Higher than 100â€‰% Observed for a Li₂MO₃ (M=Mo or Ru) Electrode. Angewandte Chemie - International Edition, 2014, 53, 10654-10657.	13.8	26

#	Article	IF	Citations
73	Impedance analysis of porous carbon electrodes to predict rate capability of electric double-layer capacitors. Journal of Power Sources, 2014, 267, 411-420.	7.8	164
74	Effect of Lithium Bis(oxalate)borate as an Electrolyte Additive on Carbon-coated SiO Negative Electrode. Journal of the Korean Electrochemical Society, 2014, 17, 49-56.	0.1	2
75	Performance Improvement of Nano-Sized Zinc Oxide Electrode by Embedding in Carbon Matrix for Lithium-Ion Batteries. Journal of the Electrochemical Society, 2013, 160, A11-A14.	2.9	39
76	Reduction of heat generation for lithiated graphite by forming a local galvanic cell with Cu3Sn at elevated temperature. Electrochemistry Communications, 2013, 37, 88-90.	4.7	4
77	Capacity variation of carbon-coated silicon monoxide negative electrode for lithium-ion batteries. Electrochimica Acta, 2013, 103, 226-230.	5.2	43
78	Li2NiO2 as a sacrificing positive additive for lithium-ion batteries. Electrochimica Acta, 2013, 108, 591-595.	5.2	63
79	Solid-state synthesis of Li4Ti5O12 for high power lithium ion battery applications. Journal of Alloys and Compounds, 2013, 570, 144-149.	5.5	47
80	An Amorphous Red Phosphorus/Carbon Composite as a Promising Anode Material for Sodium Ion Batteries. Advanced Materials, 2013, 25, 3045-3049.	21.0	770
81	A Comparative Study on Thermal Stability of Two Solid Electrolyte Interphase (SEI) Films on Graphite Negative Electrode. Journal of the Electrochemical Society, 2013, 160, A1539-A1543.	2.9	37
82	Composites: An Amorphous Red Phosphorus/Carbon Composite as a Promising Anode Material for Sodium Ion Batteries (Adv. Mater. 22/2013). Advanced Materials, 2013, 25, 3010-3010.	21.0	9
83	Failure mechanisms of LiNi0.5Mn1.5O4 electrode at elevated temperature. Journal of Power Sources, 2012, 215, 312-316.	7.8	158
84	Corrosion/passivation of aluminum current collector in bis(fluorosulfonyl)imide-based ionic liquid for lithium-ion batteries. Electrochemistry Communications, 2012, 22, 1-3.	4.7	142
85	Effects of Li/Ti ratios on the electrochemical properties of Li4Ti5O12 examined by time-resolved X-ray diffraction. Applied Physics A: Materials Science and Processing, 2012, 107, 769-775.	2.3	12
86	Reversible Lithium Storage with High Mobility at Structural Defects in Amorphous Molybdenum Dioxide Electrode. Advanced Functional Materials, 2012, 22, 3658-3664.	14.9	166
87	The Current Move of Lithium Ion Batteries Towards the Next Phase. Advanced Energy Materials, 2012, 2, 860-872.	19.5	611
88	Effects of post-treatments on the electrochemical properties of solid-state reacted Li4Ti5O12â€"high energy milling and annealing. Journal of Electroceramics, 2012, 28, 178-184.	2.0	12
89	Effects of the starting materials and mechanochemical activation on the properties of solid-state reacted Li4Ti5O12 for lithium ion batteries. Ceramics International, 2012, 38, 301-310.	4.8	46
90	Thermo-electrochemical activation of Cu3Sn negative electrode for lithium-ion batteries. Journal of Alloys and Compounds, 2011, 509, 7595-7599.	5.5	31

#	Article	IF	Citations
91	The feasibility of a pyrrolidinium-based ionic liquid solvent for non-graphitic carbon electrodes. Electrochemistry Communications, 2011, 13, 1256-1259.	4.7	14
92	Electrochemical activation behaviors studied with graphitic carbon electrodes of different interlayer distance. Electrochimica Acta, 2011, 56, 9931-9936.	5.2	27
93	Passivating Ability of Surface Film Derived from Vinylene Carbonate on Tin Negative Electrode. Journal of the Electrochemical Society, 2011, 158, A498.	2.9	36
94	Mediator-free glucose/O2 biofuel cell based on a 3-dimensional glucose oxidase/SWNT/polypyrrole composite electrode. Biotechnology and Bioprocess Engineering, 2010, 15, 371-375.	2.6	29
95	Effect of slurry preparation process on electrochemical performances of LiCoO2 composite electrode. Journal of Power Sources, 2010, 195, 6049-6054.	7.8	166
96	Performance of electrochemically generated Li21Si5 phase for lithium-ion batteries. Electrochimica Acta, 2010, 55, 8051-8055.	5.2	37
97	Iron oxide/carbon black (Fe2O3/CB) composite electrode for the detection of reduced nicotinamide cofactors using an amperometric method under a low overpotential. Biosensors and Bioelectronics, 2010, 25, 1160-1165.	10.1	25
98	Nano-scale uniform distribution of Ge/Cu3Ge phase and its electrochemical performance for lithium-ion batteries. Electrochimica Acta, 2010, 55, 2894-2900.	5.2	33
99	Linear-Sweep Thermammetry Study on Corrosion Behavior of Al Current Collector in Ionic Liquid Solvent. Electrochemical and Solid-State Letters, 2010, 13, A109.	2.2	52
100	Improvement of silicon powder negative electrodes by copper electroless deposition for lithium secondary batteries. Journal of Power Sources, 2005, 147, 227-233.	7.8	154
101	Sn-Carbon Core-Shell Powder for Anode in Lithium Secondary Batteries. Journal of the Electrochemical Society, 2005, 152, A1452.	2.9	133
102	Failure Modes of Silicon Powder Negative Electrode in Lithium Secondary Batteries. Electrochemical and Solid-State Letters, 2004, 7, A306.	2.2	576
103	Charge/discharge Capacity of Natural Graphite Anode According to the Charge/discharge Rate in Lithium Secondary Batteries. Journal of the Korean Electrochemical Society, 2004, 7, 32-37.	0.1	4