Se-Hee Lee

List of Publications by Year
in descending order

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86 papers	7,201 citations	61984 43 h-index	54911 84 g-index
86 all docs	86 docs citations	86 times ranked	8314 citing authors

#	Article	IF	Citations
1	Effect of Polyacrylonitrile Surface Coating on Electrochemical Performance of LiNi_{0.8}Mn_{0.1}Co_{0.1}O₂ in All Solid-State Batteries. Journal of the Electrochemical Society, 2022, 169, 060541.	2.9	2
2	Covalent organic framework based lithium-ion battery: Fundamental, design and characterization. EnergyChem, 2021, 3, 100048.	19.1	94
3	Effect of Amorphous LiPON Coating on Electrochemical Performance of LiNi_{0.8}Mn_{0.1}Co_{0.1}O₂ (NMC811) in All Solid-State Batteries. Journal of the Electrochemical Society, 2021, 168, 060537.	2.9	18
4	Helical Covalent Polymers with Unidirectional Ion Channels as Single Lithium-Ion Conducting Electrolytes. CCS Chemistry, 2021, 3, 2762-2770.	7.8	23
5	A Truxenoneâ€based Covalent Organic Framework as an Allâ€Solidâ€State Lithiumâ€Ion Battery Cathode with High Capacity. Angewandte Chemie, 2020, 132, 20565-20569.	2.0	5
6	A Truxenoneâ€based Covalent Organic Framework as an Allâ€Solidâ€State Lithiumâ€Ion Battery Cathode with High Capacity. Angewandte Chemie - International Edition, 2020, 59, 20385-20389.	13.8	110
7	Solid State Electrolytes: Nonuniform Ionic and Electronic Transport of Ceramic and Polymer/Ceramic Hybrid Electrolyte by Nanometerâ€Scale Operando Imaging for Solidâ€State Battery (Adv. Energy Mater.) Tj ETQq1 1 0.784314 rgBT /O	19.5	1
8	Nonuniform Ionic and Electronic Transport of Ceramic and Polymer/Ceramic Hybrid Electrolyte by Nanometerâ€Scale Operando Imaging for Solidâ€State Battery. Advanced Energy Materials, 2020, 10, 2000219.	19.5	22
9	Towards the Commercialization of the All-Solid-State Li-ion Battery: Local Bonding Structure and the Reversibility of Sheet-Style Si-PAN Anodes. Journal of the Electrochemical Society, 2020, 167, 060522.	2.9	25
10	Improved Stability and Rate Capability of Ionic Liquid Electrolyte with High Concentration of LiFSI. Journal of the Electrochemical Society, 2019, 166, A1860-A1866.	2.9	35
11	Electrochemical Analysis of Factors Affecting the Kinetic Capabilities of an Ionic Liquid Electrolyte. Journal of the Electrochemical Society, 2019, 166, A1677-A1684.	2.9	7
12	Crystalline Lithium Imidazolate Covalent Organic Frameworks with High Li-Ion Conductivity. Journal of the American Chemical Society, 2019, 141, 7518-7525.	13.7	261
13	Slurry-Coated Sheet-Style Sn-PAN Anodes for All-Solid-State Li-Ion Batteries. Journal of the Electrochemical Society, 2019, 166, A915-A922.	2.9	15
14	High-Energy Nickel-Rich Layered Cathode Stabilized by Ionic Liquid Electrolyte. Journal of the Electrochemical Society, 2019, 166, A873-A879.	2.9	27
15	Lithium Dendrite Growth Suppression and Ionic Conductivity of Li₂S-P₂S₅-P₂O₅ÂGlass Solid Electrolytes Prepared by Mechanical Milling. Journal of the Electrochemical Society, 2019, 166, A3997-A4004.	2.9	19
16	Self-Contained Fragmentation and Interfacial Stability in Crude Micron-Silicon Anodes. Journal of the Electrochemical Society, 2018, 165, A244-A250.	2.9	10
17	Electrophoretic kinetics of concentrated TiO2 nanoparticle suspensions in aprotic solvent. Electronic Materials Letters, 2018, 14, 79-82.	2.2	2
18	Nanostructured Si/C Fibers as a Highly Reversible Anode Material for All-Solid-State Lithium-Ion Batteries. Journal of the Electrochemical Society, 2018, 165, A1903-A1908.	2.9	19

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19	Simple and inexpensive coal-tar-pitch derived Si-C anode composite for all-solid-state Li-ion batteries. Solid State Ionics, 2018, 324, 207-217.	2.7	36
20	Ex Situ Investigation of Anisotropic Interconnection in Silicon-Titanium-Nickel Alloy Anode Material. Journal of the Electrochemical Society, 2017, 164, A968-A972.	2.9	5
21	In Situ Engineering of the Electrodeâ€“Electrolyte Interface for Stabilized Overlithiated Cathodes. Advanced Materials, 2017, 29, 1604549.	21.0	26
22	Stable Lithium Deposition Using a Self-Optimizing Solid Electrolyte Composite. Journal of the Electrochemical Society, 2017, 164, A2962-A2966.	2.9	12
23	All-solid-state disordered LiTiS2pseudocapacitor. Journal of Materials Chemistry A, 2017, 5, 15661-15668.	10.3	13
24	FeS₂â€Embedded Mixed Conducting Matrix as a Solid Battery Cathode. Advanced Energy Materials, 2016, 6, 1600495.	19.5	50
25	Optimized Silicon Electrode Architecture, Interface, and Microgeometry for Nextâ€Generation Lithiumâ€Ion Batteries. Advanced Materials, 2016, 28, 188-193.	21.0	37
26	Ionic Covalent Organic Frameworks with Spiroborate Linkage. Angewandte Chemie - International Edition, 2016, 55, 1737-1741.	13.8	503
27	Observations of stress accumulation and relaxation in solidâ€state lithiation and delithiation of suspended Si microcantilevers. Physica Status Solidi (A) Applications and Materials Science, 2016, 213, 2156-2168.	1.8	7
28	High-Capacity and Highly Reversible Silicon-Tin Hybrid Anode for Solid-State Lithium-Ion Batteries. Journal of the Electrochemical Society, 2016, 163, A251-A254.	2.9	25
29	Ultraâ€thin Solidâ€State Liâ€Ion Electrolyte Membrane Facilitated by a Selfâ€Healing Polymer Matrix. Advanced Materials, 2015, 27, 6922-6927.	21.0	182
30	The effect of energetically coated ZrO_x on enhanced electrochemical performances of Li(Ni_{1/3}Co_{1/3}Mn_{1/3})O₂ cathodes using modified radio frequency (RF) sputtering. Journal of Materials Chemistry A, 2015, 3, 12982-12991.	10.3	12
31	Electrospun polyacrylonitrile microfiber separators for ionic liquid electrolytes in Li-ion batteries. Journal of Power Sources, 2015, 292, 1-6.	7.8	52
32	Tin Networked Electrode Providing Enhanced Volumetric Capacity and Pressureless Operation for All-Solid-State Li-Ion Batteries. Journal of the Electrochemical Society, 2015, 162, A711-A715.	2.9	32
33	Utilization of Al₂O₃Atomic Layer Deposition for Li Ion Pathways in Solid State Li Batteries. Journal of the Electrochemical Society, 2015, 162, A344-A349.	2.9	45
34	Stable silicon-ionic liquid interface for next-generation lithium-ion batteries. Nature Communications, 2015, 6, 6230.	12.8	212
35	Mitigating irreversible capacity losses from carbon agents via surface modification. Journal of Power Sources, 2015, 275, 605-611.	7.8	14
36	Tunable Sn structures in porosity-controlled carbon nanofibers for all-solid-state lithium-ion battery anodes. Journal of Materials Chemistry A, 2015, 3, 11021-11030.	10.3	49

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37	Advancing Conversion Electrode Reversibility with Bulk Solid-State Batteries. Materials and Energy, 2015, , 627-655.	0.1	0
38	Doped Si nanoparticles with conformal carbon coating and cyclized-polyacrylonitrile network as high-capacity and high-rate lithium-ion battery anodes. Nanotechnology, 2015, 26, 365401.	2.6	9
39	Electrochemically induced and orientation dependent crack propagation in single crystal silicon. Journal of Power Sources, 2014, 267, 739-743.	7.8	21
40	Reversible Highâ€Capacity Si Nanocomposite Anodes for Lithiumâ€ion Batteries Enabled by Molecular Layer Deposition. Advanced Materials, 2014, 26, 1596-1601.	21.0	169
41	Unexpected high power performance of atomic layer deposition coated Li[Ni1/3Mn1/3Co1/3]O2 cathodes. Journal of Power Sources, 2014, 254, 190-197.	7.8	73
42	Microstructural evolution induced by micro-cracking during fast lithiation of single-crystalline silicon. Journal of Power Sources, 2014, 265, 160-165.	7.8	38
43	A Stabilized PANâ€FeS₂ Cathode with an EC/DEC Liquid Electrolyte. Advanced Energy Materials, 2014, 4, 1300961.	19.5	100
44	Empowering the Lithium Metal Battery through a Silicon-Based Superionic Conductor. Journal of the Electrochemical Society, 2014, 161, A1812-A1817.	2.9	137
45	Designing thermal and electrochemical oxidation processes for Î´-MnO₂ nanofibers for high-performance electrochemical capacitors. Journal of Materials Chemistry A, 2014, 2, 7197-7204.	10.3	23
46	Corrosion of stainless steel battery components by bis(fluorosulfonyl)imide based ionic liquid electrolytes. Journal of Power Sources, 2014, 269, 616-620.	7.8	26
47	Ionic Liquid Enabled FeS₂ for Highâ€Energyâ€Density Lithiumâ€ion Batteries. Advanced Materials, 2014, 26, 7386-7392.	21.0	116
48	Derivation of an Iron Pyrite All-Solid-State Composite Electrode with Ferrophosphorus, Sulfur, and Lithium Sulfide as Precursors. Journal of the Electrochemical Society, 2014, 161, A663-A667.	2.9	16
49	Hierarchical Porous Framework of Siâ€Based Electrodes for Minimal Volumetric Expansion. Advanced Materials, 2014, 26, 3520-3525.	21.0	47
50	Effect of organic solvent addition to PYR13FSIÂ+ÂLiFSI electrolytes on aluminum oxidation and rate performance of Li(Ni1/3Mn1/3Co1/3)O2 cathodes. Journal of Power Sources, 2014, 265, 132-139.	7.8	37
51	Conformal Coatings of Cyclizedâ€PAN for Mechanically Resilient Si nanoâ€Composite Anodes. Advanced Energy Materials, 2013, 3, 697-702.	19.5	134
52	Binder-free three-dimensional silicon/carbon nanowire networks for high performance lithium-ion battery anodes. Nano Energy, 2013, 2, 943-950.	16.0	47
53	Facile conductive bridges formed between silicon nanoparticles inside hollow carbon nanofibers. Nanoscale, 2013, 5, 4790.	5.6	37
54	An All-Solid-State Li-Ion Battery with a Pre-Lithiated Si-Ti-Ni Alloy Anode. Journal of the Electrochemical Society, 2013, 160, A1497-A1501.	2.9	49

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55	Electrochemical Evolution of an Iron Sulfide and Sulfur Based Cathode for All-Solid-State Li-Ion Batteries. Journal of the Electrochemical Society, 2013, 160, A1009-A1015.	2.9	25
56	Solid State Enabled Reversible Four Electron Storage. Advanced Energy Materials, 2013, 3, 120-127.	19.5	155
57	Unexpected Improved Performance of ALD Coated LiCoO₂/Graphite Liâ€Ion Batteries. Advanced Energy Materials, 2013, 3, 213-219.	19.5	206
58	Effect of Compressive Stress on Electrochemical Performance of Silicon Anodes. Journal of the Electrochemical Society, 2013, 160, A77-A81.	2.9	119
59	Efficient photocatalytic degradation of acid orange 7 on metal oxide pâ€“n junction composites under visible light. Journal of Physics and Chemistry of Solids, 2012, 73, 1372-1377.	4.0	19
60	Nanoscale Interface Modification of LiCoO₂by Al₂O₃Atomic Layer Deposition for Solid-State Li Batteries. Journal of the Electrochemical Society, 2012, 159, A1120-A1124.	2.9	173
61	Nanostructured all-solid-state supercapacitor based on Li₂S-P₂S₅ glass-ceramic electrolyte. Applied Physics Letters, 2012, 100, 103902.	3.3	61
62	Effect of Pores in Hollow Carbon Nanofibers on Their Negative Electrode Properties for a Lithium Rechargeable Battery. ACS Applied Materials & Interfaces, 2012, 4, 6702-6710.	8.0	84
63	Pd effect on reliability of Ag bonding wires in microelectronic devices in high-humidity environments. Metals and Materials International, 2012, 18, 881-885.	3.4	22
64	Controlled synthesis of aligned Ni-NiO core-shell nanowire arrays on glass substrates as a new supercapacitor electrode. RSC Advances, 2012, 2, 8281.	3.6	62
65	Improved Functionality of Lithiumâ€Ion Batteries Enabled by Atomic Layer Deposition on the Porous Microstructure of Polymer Separators and Coating Electrodes. Advanced Energy Materials, 2012, 2, 1022-1027.	19.5	213
66	A Highly Reversible Nanoâ€Si Anode Enabled by Mechanical Confinement in an Electrochemically Activated Li_xTi₄Ni₄Si₇ Matrix. Advanced Energy Materials, 2012, 2, 1226-1231.	19.5	94
67	Anodic properties of hollow carbon nanofibers for Li-ion battery. Journal of Power Sources, 2012, 199, 53-60.	7.8	109
68	Fabrication of Si core/C shell nanofibers and their electrochemical performances as a lithium-ion battery anode. Journal of Power Sources, 2012, 206, 267-273.	7.8	136
69	Li2Sâ€“Li2Oâ€“P2S5 solid electrolyte for all-solid-state lithium batteries. Solid State Ionics, 2012, 214, 25-30.	2.7	24
70	Using Atomic Layer Deposition to Hinder Solvent Decomposition in Lithium Ion Batteries: First-Principles Modeling and Experimental Studies. Journal of the American Chemical Society, 2011, 133, 14741-14754.	13.7	174
71	Ultrathin Coatings on Nano-LiCoO₂for Li-Ion Vehicular Applications. Nano Letters, 2011, 11, 414-418.	9.1	357
72	In situ lithiation of TiS2 enabled by spontaneous decomposition of Li3N. Journal of Power Sources, 2011, 196, 9830-9834.	7.8	13

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73	Enhancing Niâ€“Sn nanowire lithium-ion anode performance by tailoring active/inactive material interfaces. Journal of Power Sources, 2011, 196, 10207-10212.	7.8	36
74	Electrochemical effects of ALD surface modification on combustion synthesized LiNi1/3Mn1/3Co1/3O2 as a layered-cathode material. Journal of Power Sources, 2011, 196, 3317-3324.	7.8	198
75	Nanostructured silicon electrodes for solid-state 3-d rechargeable lithium batteries. Sensors and Actuators A: Physical, 2011, 167, 139-145.	4.1	15
76	Microstructure Study of Electrochemically Driven Li_xSi. Advanced Energy Materials, 2011, 1, 1199-1204.	19.5	61
77	High lithium ion conducting Li2Sâ€“GeS2â€“P2S5 glassâ€“ceramic solid electrolyte with sulfur additive for all solid-state lithium secondary batteries. Electrochimica Acta, 2011, 56, 4243-4247.	5.2	68
78	Conformal Surface Coatings to Enable High Volume Expansion Liâ€ion Anode Materials. ChemPhysChem, 2010, 11, 2124-2130.	2.1	126
79	Ultrathin Direct Atomic Layer Deposition on Composite Electrodes for Highly Durable and Safe Liâ€ion Batteries. Advanced Materials, 2010, 22, 2172-2176.	21.0	486
80	Preparation of Li2Sâ€“GeSe2â€“P2S5 electrolytes by a single step ball milling for all-solid-state lithium secondary batteries. Journal of Power Sources, 2010, 195, 4984-4989.	7.8	28
81	Stress generation in silicon particles during lithium insertion. Applied Physics Letters, 2010, 97, .	3.3	128
82	Improved Performance of All-Solid-State Lithium-Ion Batteries Using Nanosilicon Active Material with Multiwalled-Carbon-Nanotubes as a Conductive Additive. Electrochemical and Solid-State Letters, 2010, 13, A154.	2.2	46
83	Enhanced Stability of LiCoO[sub 2] Cathodes in Lithium-Ion Batteries Using Surface Modification by Atomic Layer Deposition. Journal of the Electrochemical Society, 2010, 157, A75.	2.9	319
84	Glassâ€“ceramic Li2Sâ€“P2S5 electrolytes prepared by a single step ball billing process and their application for all-solid-state lithiumâ€“ion batteries. Electrochemistry Communications, 2009, 11, 1830-1833.	4.7	99
85	Electrochemical reactivity of ball-milled MoO3â^'y as anode materials for lithium-ion batteries. Journal of Power Sources, 2009, 188, 286-291.	7.8	125
86	Reversible Lithiumâ€ion Insertion in Molybdenum Oxide Nanoparticles. Advanced Materials, 2008, 20, 3627-3632.	21.0	330