Se-Hee Lee

List of Publications by Year
in descending order

86 papers	7,201 citations	61977 43 h-index	54911 84 g-index
86 all docs	86 docs citations	86 times ranked	8314 citing authors

#	Article	IF	Citations
1	Ionic Covalent Organic Frameworks with Spiroborate Linkage. Angewandte Chemie - International Edition, 2016, 55, 1737-1741.	13.8	503
2	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
3	Ultrathin Coatings on Nano-LiCoO₂for Li-Ion Vehicular Applications. Nano Letters, 2011, 11, 414-418.	9.1	357
4	Reversible Lithiumâ€Ion Insertion in Molybdenum Oxide Nanoparticles. Advanced Materials, 2008, 20, 3627-3632.	21.0	330
5	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
6	Crystalline Lithium Imidazolate Covalent Organic Frameworks with High Li-Ion Conductivity. Journal of the American Chemical Society, 2019, 141, 7518-7525.	13.7	261
7	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
8	Stable silicon-ionic liquid interface for next-generation lithium-ion batteries. Nature Communications, 2015, 6, 6230.	12.8	212
9	Unexpected Improved Performance of ALD Coated LiCoO₂/Graphite Liâ€Ion Batteries. Advanced Energy Materials, 2013, 3, 213-219.	19.5	206
10	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
11	Ultraâ€thin Solidâ€State Liâ€Ion Electrolyte Membrane Facilitated by a Selfâ€Healing Polymer Matrix. Advanced Materials, 2015, 27, 6922-6927.	21.0	182
12	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
13	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
14	Reversible Highâ€Capacity Si Nanocomposite Anodes for Lithiumâ€ion Batteries Enabled by Molecular Layer Deposition. Advanced Materials, 2014, 26, 1596-1601.	21.0	169
15	Solid State Enabled Reversible Four Electron Storage. Advanced Energy Materials, 2013, 3, 120-127.	19.5	155
16	Empowering the Lithium Metal Battery through a Silicon-Based Superionic Conductor. Journal of the Electrochemical Society, 2014, 161, A1812-A1817.	2.9	137
17	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
18	Conformal Coatings of Cyclizedâ€PAN for Mechanically Resilient Si nanoâ€Composite Anodes. Advanced Energy Materials, 2013, 3, 697-702.	19.5	134

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19	Stress generation in silicon particles during lithium insertion. Applied Physics Letters, 2010, 97, .	3.3	128
20	Conformal Surface Coatings to Enable High Volume Expansion Liâ€Ion Anode Materials. ChemPhysChem, 2010, 11, 2124-2130.	2.1	126
21	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
22	Effect of Compressive Stress on Electrochemical Performance of Silicon Anodes. Journal of the Electrochemical Society, 2013, 160, A77-A81.	2.9	119
23	Ionic Liquid Enabled FeS₂ for Highâ€Energyâ€Density Lithiumâ€Ion Batteries. Advanced Materials, 2014, 26, 7386-7392.	21.0	116
24	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
25	Anodic properties of hollow carbon nanofibers for Li-ion battery. Journal of Power Sources, 2012, 199, 53-60.	7.8	109
26	A Stabilized PANâ€FeS₂ Cathode with an EC/DEC Liquid Electrolyte. Advanced Energy Materials, 2014, 4, 1300961.	19.5	100
27	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
28	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
29	Covalent organic framework based lithium-ion battery: Fundamental, design and characterization. EnergyChem, 2021, 3, 100048.	19.1	94
30	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
31	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
32	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
33	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
34	Microstructure Study of Electrochemically Driven Li_xSi. Advanced Energy Materials, 2011, 1, 1199-1204.	19.5	61
35	Nanostructured all-solid-state supercapacitor based on Li₂S-P₂S₅ glass-ceramic electrolyte. Applied Physics Letters, 2012, 100, 103902.	3.3	61
36	Electrospun polyacrylonitrile microfiber separators for ionic liquid electrolytes in Li-ion batteries. Journal of Power Sources, 2015, 292, 1-6.	7.8	52

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37	FeS₂â€Embedded Mixed Conducting Matrix as a Solid Battery Cathode. Advanced Energy Materials, 2016, 6, 1600495.	19.5	50
38	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
39	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
40	Binder-free three-dimensional silicon/carbon nanowire networks for high performance lithium-ion battery anodes. Nano Energy, 2013, 2, 943-950.	16.0	47
41	Hierarchical Porous Framework of Siâ€Based Electrodes for Minimal Volumetric Expansion. Advanced Materials, 2014, 26, 3520-3525.	21.0	47
42	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
43	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
44	Microstructural evolution induced by micro-cracking during fast lithiation of single-crystalline silicon. Journal of Power Sources, 2014, 265, 160-165.	7.8	38
45	Facile conductive bridges formed between silicon nanoparticles inside hollow carbon nanofibers. Nanoscale, 2013, 5, 4790.	5.6	37
46	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
47	Optimized Silicon Electrode Architecture, Interface, and Microgeometry for Nextâ€Generation Lithiumâ€Ion Batteries. Advanced Materials, 2016, 28, 188-193.	21.0	37
48	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
49	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
50	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
51	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
52	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
53	High-Energy Nickel-Rich Layered Cathode Stabilized by Ionic Liquid Electrolyte. Journal of the Electrochemical Society, 2019, 166, A873-A879.	2.9	27
54	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

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55	In Situ Engineering of the Electrodeâ€“Electrolyte Interface for Stabilized Overlithiated Cathodes. Advanced Materials, 2017, 29, 1604549.	21.0	26
56	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
57	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
58	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
59	Li2Sâ€“Li2Oâ€“P2S5 solid electrolyte for all-solid-state lithium batteries. Solid State Ionics, 2012, 214, 25-30.	2.7	24
60	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
61	Helical Covalent Polymers with Unidirectional Ion Channels as Single Lithium-Ion Conducting Electrolytes. CCS Chemistry, 2021, 3, 2762-2770.	7.8	23
62	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
63	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
64	Electrochemically induced and orientation dependent crack propagation in single crystal silicon. Journal of Power Sources, 2014, 267, 739-743.	7.8	21
65	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
66	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
67	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
68	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
69	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
70	Nanostructured silicon electrodes for solid-state 3-d rechargeable lithium batteries. Sensors and Actuators A: Physical, 2011, 167, 139-145.	4.1	15
71	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
72	Mitigating irreversible capacity losses from carbon agents via surface modification. Journal of Power Sources, 2015, 275, 605-611.	7.8	14

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73	In situ lithiation of TiS2 enabled by spontaneous decomposition of Li3N. Journal of Power Sources, 2011, 196, 9830-9834.	7.8	13
74	All-solid-state disordered LiTiS2pseudocapacitor. Journal of Materials Chemistry A, 2017, 5, 15661-15668.	10.3	13
75	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
76	Stable Lithium Deposition Using a Self-Optimizing Solid Electrolyte Composite. Journal of the Electrochemical Society, 2017, 164, A2962-A2966.	2.9	12
77	Self-Contained Fragmentation and Interfacial Stability in Crude Micron-Silicon Anodes. Journal of the Electrochemical Society, 2018, 165, A244-A250.	2.9	10
78	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
79	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
80	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
81	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
82	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
83	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	19.6	5
84	Electrophoretic kinetics of concentrated TiO2 nanoparticle suspensions in aprotic solvent. Electronic Materials Letters, 2018, 14, 79-82.	2.2	2
85	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
86	Advancing Conversion Electrode Reversibility with Bulk Solid-State Batteries. Materials and Energy, 2015, , 627-655.	2.5	0