Hansu S Kim

List of Publications by Year
in descending order

Version: 2024-02-01

119 papers	9,141 citations	53751 45 h-index	39638 94 g-index
124 all docs	124 docs citations	124 times ranked	10289 citing authors

#	Article	IF	Citations
1	New Highly Stable Ionic Compounds Composed of Multivalent Graphene Quantum Dot Anions and Alkali Metal Cations. Batteries and Supercaps, 2022, 5, .	2.4	2
2	Topology Optimized Prelithiated SiO Anode Materials for Lithiumâ€Ion Batteries. Small, 2022, 18, .	5.2	7
3	Double-buffer-phase embedded Si/TiSi2/Li2SiO3 nanocomposite lithium storage materials by phase-selective reaction of SiO with metal hydrides. Energy Storage Materials, 2022, 50, 740-750.	9.5	9
4	Ambidextrous Polymeric Binder for Silicon Anodes in Lithium-Ion Batteries. Chemistry of Materials, 2022, 34, 5791-5798.	3.2	13
5	Selfâ€Formulated Naâ€Based Dualâ€Ion Battery Using Nonflammable SO₂â€Based Inorganic Liquid Electrolyte. Small, 2021, 17, e1902144.	5.2	7
6	New Costâ€Effective Halide Solid Electrolytes for Allâ€Solidâ€State Batteries: Mechanochemically Prepared Fe³⁺â€Substituted Li₂ZrCl₆. Advanced Energy Materials, 2021, 11, 2003190.	10.2	132
7	Allâ€Solidâ€State Batteries: New Costâ€Effective Halide Solid Electrolytes for Allâ€Solidâ€State Batteries: Mechanochemically Prepared Fe³⁺â€Substituted Li₂ZrCl₆ (Adv.) Tj ETQq1 10.784314 rgBT /Ov	10.2	4
8	Hollow Graphene as an Expansion-Inhibiting Electrical Interconnector for Silicon Electrodes in Lithium-Ion Batteries. ACS Applied Materials & Interfaces, 2021, 13, 35759-35766.	4.0	8
9	Natural Activation of CuO to CuCl2 as a Cathode Material for Dual-Ion Lithium Metal Batteries. Energy Storage Materials, 2021, 41, 466-474.	9.5	16
10	Dehydrogenation-driven Li metal-free prelithiation for high initial efficiency SiO-based lithium storage materials. Nano Energy, 2021, 89, 106378.	8.2	33
11	Robust design optimisation of adaptive cruise controller considering uncertainties of vehicle parameters and occupants. Vehicle System Dynamics, 2020, 58, 987-1005.	2.2	4
12	Chemically anchored two-dimensional-SiOx/zero-dimensional-MoO2 nanocomposites for high-capacity lithium storage materials. RSC Advances, 2020, 10, 21375-21381.	1.7	4
13	Everlasting Living and Breathing Gyroid 3D Network in Si@SiOx/C Nanoarchitecture for Lithium Ion Battery. ACS Nano, 2019, 13, 9607-9619.	7.3	165
14	Lyotropic Liquid Crystalline Mesophases Made of Saltâ€Acidâ€Surfactant Systems for the Synthesis of Novel Mesoporous Lithium Metal Phosphates. ChemPlusChem, 2019, 84, 1544-1553.	1.3	6
15	Pre-lithiated carbon-coated Si/SiO nanospheres as a negative electrode material for advanced lithium ion capacitors. Journal of Power Sources, 2019, 440, 227094.	4.0	26
16	Reversible dual-ion battery via mesoporous Cu2O cathode in SO2-in-salt non-flammable electrolyte. Nano Energy, 2019, 66, 104138.	8.2	14
17	Biphasic silicon oxide nanocomposites as high-performance lithium storage materials. Journal of Materials Chemistry A, 2019, 7, 15621-15626.	5.2	13
18	Chemically encoded self-organized quantum chain supracrystals with exceptional charge and ion transport properties. Nano Energy, 2019, 62, 764-771.	8.2	20

#	Article	IF	Citations
19	An artificial solid interphase with polymers of intrinsic microporosity for highly stable Li metal anodes. Chemical Communications, 2019, 55, 6313-6316.	2.2	29
20	Improved fast charging capability of graphite anodes via amorphous Al2O3 coating for high power lithium ion batteries. Journal of Power Sources, 2019, 422, 18-24.	4.0	115
21	Boosting the sodium storage capability of Prussian blue nanocubes by overlaying PEDOT:PSS layer. Journal of Alloys and Compounds, 2019, 791, 385-390.	2.8	14
22	Realâ€Time Dilation Observation of Siâ€Alloy Electrode Using Thermally Treated Poly (Amideâ€Imide) as a Binder for Lithium Ion Battery. Bulletin of the Korean Chemical Society, 2019, 40, 248-253.	1.0	3
23	Lithium-Ion Intercalation into Graphite in SO₂-Based Inorganic Electrolyte toward High-Rate-Capable and Safe Lithium-Ion Batteries. ACS Applied Materials & Interfaces, 2019, 11, 9054-9061.	4.0	15
24	Cycleâ€dependent Microstructural Changes of Siliconâ€Carbon Composite Anodes for Lithiumâ€Ion Batteries. Bulletin of the Korean Chemical Society, 2019, 40, 150-156.	1.0	5
25	Direct Nitradated Graphite Felt as an Electrode Material for the Vanadium Redox Flow Battery. Bulletin of the Korean Chemical Society, 2018, 39, 281-286.	1.0	6
26	Multiscale Engineered Si/SiO_x Nanocomposite Electrodes for Lithium-Ion Batteries Using Layer-by-Layer Spray Deposition. ACS Applied Materials & Interfaces, 2018, 10, 15624-15633.	4.0	44
27	Microstructure Controlled Porous Silicon Particles as a High Capacity Lithium Storage Material via Dual Step Pore Engineering. Advanced Functional Materials, 2018, 28, 1800855.	7.8	106
28	Fabrication of ternary silicon-carbon nanotubes-graphene composites by Co-assembly in evaporating droplets for enhanced electrochemical energy storage. Journal of Alloys and Compounds, 2018, 751, 43-48.	2.8	12
29	Nanostructural Uniformity of Ordered Mesoporous Materials: Governing Lithium Storage Behaviors. Small, 2018, 14, e1702985.	5.2	17
30	Si Nanocrystal-Embedded SiO x nanofoils: Two-Dimensional Nanotechnology-Enabled High Performance Li Storage Materials. Scientific Reports, 2018, 8, 6904.	1.6	11
31	Batteries: Nanostructural Uniformity of Ordered Mesoporous Materials: Governing Lithium Storage Behaviors (Small 43/2018). Small, 2018, 14, 1870197.	5.2	0
32	Dendrite-Free Li Metal Anode for Rechargeable Liâ€“SO₂ Batteries Employing Surface Modification with a NaAlCl₄â€“2SO₂ Electrolyte. ACS Applied Materials & Interfaces, 2018, 10, 34699-34705.	4.0	18
33	Revisiting Solid Electrolyte Interphase on the Carbonaceous Electrodes Using Soft X-ray Absorption Spectroscopy. ACS Applied Materials & Interfaces, 2018, 10, 29992-29999.	4.0	8
34	Synthesis of Hollow Coâ€“Fe Prussian Blue Analogue Cubes by using Silica Spheres as a Sacrificial Template. ChemistryOpen, 2018, 7, 599-603.	0.9	27
35	Dual-textured Prussian Blue nanocubes as sodium ion storage materials. Electrochimica Acta, 2017, 240, 300-306.	2.6	50
36	Foamed silicon particles as a high capacity anode material for lithium-ion batteries. Chemical Communications, 2017, 53, 11897-11900.	2.2	26

#	Article	IF	Citations
37	Surface engineering of graphite anode material with black TiO2-x for fast chargeable lithium ion battery. Electrochimica Acta, 2017, 258, 336-342.	2.6	44
38	Discovering a Dualâ€Buffer Effect for Lithium Storage: Durable Nanostructured Ordered Mesoporous Coâ€“Sn Intermetallic Electrodes. Advanced Functional Materials, 2016, 26, 2800-2808.	7.8	50
39	Metal-assisted mechanochemical reduction of graphene oxide. Carbon, 2016, 110, 79-86.	5.4	24
40	Li-S Batteries: A Scaled-Up Lithium (Ion)-Sulfur Battery: Newly Faced Problems and Solutions (Adv.) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	3.0	2
41	Enhanced Rate Capability of Naâ€“<scp>SO₂</scp> Rechargeable Battery by Ureaâ€templated Meso/Macroporous Carbon Electrode. Bulletin of the Korean Chemical Society, 2016, 37, 1285-1289.	1.0	2
42	Si/SiO_xâ€Conductive Polymer Coreâ€Shell Nanospheres with an Improved Conducting Path Preservation for Lithiumâ€Ion Battery. ChemSusChem, 2016, 9, 2754-2758.	3.6	42
43	Room temperature magnesium electrorefining by using non-aqueous electrolyte. Metals and Materials International, 2016, 22, 907-914.	1.8	3
44	<scp>TiO₂</scp>â€coated Nonstoichiometric SiO_x Nanosphere for High Capacity Anode Material for Lithium Ion Batteries. Bulletin of the Korean Chemical Society, 2016, 37, 1039-1043.	1.0	4
45	Grapheneâ€Mimicking 2D Porous Co₃O₄ Nanofoils for Lithium Battery Applications. Advanced Functional Materials, 2016, 26, 7605-7613.	7.8	68
46	Simultaneous fluorination of active material and conductive agent for improving the electrochemical performance of LiNi0.5Mn1.5O4 electrode for lithium-ion batteries. Journal of Power Sources, 2016, 326, 156-161.	4.0	10
47	High Performance Naâ€“CuCl₂ Rechargeable Battery toward Room Temperature ZEBRAâ€Type Battery. Advanced Energy Materials, 2016, 6, 1600862.	10.2	28
48	A Scaledâ€Up Lithium (Ion)â€Sulfur Battery: Newly Faced Problems and Solutions. Advanced Materials Technologies, 2016, 1, 1600052.	3.0	29
49	Discovery of abnormal lithium-storage sites in molybdenum dioxide electrodes. Nature Communications, 2016, 7, 11049.	5.8	112
50	One-Step Formation of Silicon-Graphene Composites from Silicon Sludge Waste and Graphene Oxide via Aerosol Process for Lithium Ion Batteries. Scientific Reports, 2016, 6, 33688.	1.6	21
51	Carbon Nanofiber/3D Nanoporous Silicon Hybrids as High Capacity Lithium Storage Materials. ChemSusChem, 2016, 9, 834-840.	3.6	22
52	A swelling-suppressed Si/SiOx nanosphere lithium storage material fabricated by graphene envelopment. Chemical Communications, 2016, 52, 8030-8033.	2.2	7
53	Effect of the Heat Treatment on the Dimensional Stability of Si Electrodes with PVDF Binder. Electrochimica Acta, 2016, 211, 356-363.	2.6	26
54	Microstructural Tuning of Si/TiFeSi2 Nanocomposite as Lithium Storage Materials by Mechanical Deformation. Electrochimica Acta, 2016, 210, 301-307.	2.6	13

#	Article	IF	Citations
55	Highly reversible insertion of lithium into MoO2 as an anode material for lithium ion battery. Journal of Alloys and Compounds, 2016, 681, 301-306.	2.8	22
56	Mesoporous transition metal dichalcogenide ME₂ (M = Mo, W; E = S, Se) with 2-D layered crystallinity as anode materials for lithium ion batteries. RSC Advances, 2016, 6, 14253-14260.	1.7	52
57	High-Performance Si/SiO_x Nanosphere Anode Material by Multipurpose Interfacial Engineering with Black TiO_{2â€“x}. ACS Applied Materials & Interfaces, 2016, 8, 4541-4547.	4.0	62
58	Porous Siliconâ€“Carbon Composite Materials Engineered by Simultaneous Alkaline Etching for High-Capacity Lithium Storage Anodes. Electrochimica Acta, 2016, 196, 197-205.	2.6	37
59	A room-temperature sodium rechargeable battery using an SO2-based nonflammable inorganic liquid catholyte. Scientific Reports, 2015, 5, 12827.	1.6	27
60	Size Effect of Chevrel <scp>Mg_xMo₆S₈</scp> as Cathode Material for Magnesium Rechargeable Batteries. Bulletin of the Korean Chemical Society, 2015, 36, 1209-1214.	1.0	10
61	Probing the Additional Capacity and Reaction Mechanism of the RuO₂ Anode in Lithium Rechargeable Batteries. ChemSusChem, 2015, 8, 2378-2384.	3.6	52
62	In Operando Monitoring of the Pore Dynamics in Ordered Mesoporous Electrode Materials by Small Angle X-ray Scattering. ACS Nano, 2015, 9, 5470-5477.	7.3	38
63	Dendrite-Free Polygonal Sodium Deposition with Excellent Interfacial Stability in a NaAlCl₄â€“2SO₂ Inorganic Electrolyte. ACS Applied Materials & Interfaces, 2015, 7, 27206-27214.	4.0	68
64	A Highly Resilient Mesoporous SiO_x Lithium Storage Material Engineered by Oilâ€“Water Templating. ChemSusChem, 2015, 8, 688-694.	3.6	45
65	Dual-Size Silicon Nanocrystal-Embedded SiO_x Nanocomposite as a High-Capacity Lithium Storage Material. ACS Nano, 2015, 9, 7690-7696.	7.3	107
66	Aerosol-Assisted Extraction of Silicon Nanoparticles from Wafer Slicing Waste for Lithium Ion Batteries. Scientific Reports, 2015, 5, 9431.	1.6	50
67	Highly Cyclable Lithiumâ€“Sulfur Batteries with a Dual-Type Sulfur Cathode and a Lithiated Si/SiO_x Nanosphere Anode. Nano Letters, 2015, 15, 2863-2868.	4.5	116
68	Nanotechnology enabled rechargeable Liâ€“SO₂ batteries: another approach towards post-lithium-ion battery systems. Energy and Environmental Science, 2015, 8, 3173-3180.	15.6	23
69	Highly Ordered Mesoporous Antimony-Doped SnO₂ Materials for Lithium-ion Battery. Nano, 2015, 10, 1550090.	0.5	6
70	Self-assembled porous MoO2/graphene microspheres towards high performance anodes for lithium ion batteries. Journal of Power Sources, 2015, 275, 351-361.	4.0	133
71	New Insight into the Reaction Mechanism for Exceptional Capacity of Ordered Mesoporous SnO₂ Electrodes via Synchrotron-Based X-ray Analysis. Chemistry of Materials, 2014, 26, 6361-6370.	3.2	114
72	Hydrogen Silsequioxane-Derived Si/SiO_x Nanospheres for High-Capacity Lithium Storage Materials. ACS Applied Materials & Interfaces, 2014, 6, 9608-9613.	4.0	93

#	Article	IF	Citations
73	Recent advances in the Si-based nanocomposite materials as high capacity anode materials for lithium ion batteries. Materials Today, 2014, 17, 285-297.	8.3	140
74	Oriented TiO2 nanotubes as a lithium metal storage medium. Journal of Electroanalytical Chemistry, 2014, 726, 51-54.	1.9	21
75	Metallic anodes for next generation secondary batteries. Chemical Society Reviews, 2013, 42, 9011.	18.7	872
76	Porous carbon spheres as a functional conducting framework for use in lithiumâ€“sulfur batteries. RSC Advances, 2013, 3, 11774.	1.7	51
77	Reversible storage of Li-ion in nano-Si/SnO2 coreâ€“shell nanostructured electrode. Journal of Materials Chemistry A, 2013, 1, 3733.	5.2	33
78	Thermal Stability Enhancement of Polyethylene Separators by Gamma-ray Irradiation for Lithium Ion Batteries. Japanese Journal of Applied Physics, 2012, 51, 09MB03.	0.8	0
79	Synthesis of Multilayer Graphene Balls by Carbon Segregation from Nickel Nanoparticles. ACS Nano, 2012, 6, 6803-6811.	7.3	160
80	Si/Ge Double-Layered Nanotube Array as a Lithium Ion Battery Anode. ACS Nano, 2012, 6, 303-309.	7.3	225
81	Composite gel polymer electrolytes containing core-shell structured SiO2(Li+) particles for lithium-ion polymer batteries. Electrochemistry Communications, 2012, 17, 18-21.	2.3	101
82	Enhancement of electrochemical and thermal properties of polyethylene separators coated with polyvinylidene fluorideâ€“hexafluoropropylene co-polymer for Li-ion batteries. Journal of Power Sources, 2012, 198, 298-302.	4.0	106
83	Nanostructured Materials for Energy Storage Devices. The Electrical Engineering Handbook, 2012, , 713-738.	0.2	0
84	Incorporation of phosphorus into the surface of natural graphite anode for lithium ion batteries. Journal of Materials Chemistry, 2011, 21, 17960.	6.7	42
85	Silicon nanowires with a carbon nanofiber branch as lithium-ion anode material. Journal of Materials Chemistry, 2011, 21, 12619.	6.7	35
86	Nitridated TiO2 hollow nanofibers as an anode material for high power lithium ion batteries. Energy and Environmental Science, 2011, 4, 4532.	15.6	242
87	Electrochemical behavior of SiO anode for Li secondary batteries. Journal of Electroanalytical Chemistry, 2011, 661, 245-249.	1.9	118
88	Prospective materials and applications for Li secondary batteries. Energy and Environmental Science, 2011, 4, 1986.	15.6	558
89	Development of metal-based electrodes for non-aqueous redox flow batteries. Electrochemistry Communications, 2011, 13, 997-1000.	2.3	80
90	Growth and optical properties of aluminum-doped zinc oxide nanostructures on flexible substrates in flexible electronics. Journal of Materials Science: Materials in Electronics, 2011, 22, 1350-1356.	1.1	12

#	Article	IF	Citations
91	Preparation of carbon-coated TiO2 nanostructures for lithium-ion batteries. Electrochimica Acta, 2011, 56, 5355-5362.	2.6	77
92	Strategic dispersion of carbon black and its application to ink-jet-printed lithium cobalt oxide electrodes for lithium ion batteries. Journal of Power Sources, 2011, 196, 6449-6455.	4.0	33
93	Li-alloy based anode materials for Li secondary batteries. Chemical Society Reviews, 2010, 39, 3115.	18.7	1,498
94	Polymer microsphere embedded Si/graphite composite anode material for lithium rechargeable battery. Electrochimica Acta, 2010, 55, 3236-3239.	2.6	43
95	Improvement of electrochemical behavior of Sn2Fe/C nanocomposite anode with Al2O3 addition for lithium-ion batteries. Journal of Power Sources, 2010, 195, 5044-5048.	4.0	22
96	Room temperature cross-linkable gel polymer electrolytes for lithium ion batteries by in situ cationic polymerization of divinyl ether. Electrochemistry Communications, 2010, 12, 916-919.	2.3	50
97	Enhancement of cyclability using recombination reaction of Cu for Sn2Fe nanocomposite anode for lithium-ion batteries. Electrochemistry Communications, 2010, 12, 928-932.	2.3	24
98	Evaluation of Surface Acid and Base Properties of LiFePO₄in Aqueous Medium with pH and Its Electrochemical Properties. Journal of Physical Chemistry C, 2010, 114, 4466-4472.	1.5	25
99	Arrays of Sealed Silicon Nanotubes As Anodes for Lithium Ion Batteries. Nano Letters, 2010, 10, 1710-1716.	4.5	804
100	An Snâ€“Fe/carbon nanocomposite as an alternative anode material for rechargeable lithium batteries. Electrochimica Acta, 2009, 54, 2699-2705.	2.6	55
101	Nano-propping effect of residual silicas on reversible lithium storage over highly ordered mesoporous SnO2 materials. Journal of Materials Chemistry, 2009, 19, 6727.	6.7	41
102	Reaction mechanism and electrochemical characterization of a Snâ€“Coâ€“C composite anode for Li-ion batteries. Electrochimica Acta, 2008, 54, 364-369.	2.6	51
103	Synthesis and Optimization of Nanoparticle Ge Confined in a Carbon Matrix for Lithium Battery Anode Material. Journal of the Electrochemical Society, 2007, 154, A343.	1.3	91
104	Sn0.9Si0.1/Carbon Coreâ˜Shell Nanoparticles for High-Density Lithium Storage Materials. Chemistry of Materials, 2007, 19, 982-986.	3.2	58
105	Electrochemical properties of Siâ€“Znâ€“C composite as an anode material for lithium-ion batteries. Journal of Power Sources, 2007, 167, 520-523.	4.0	27
106	Enhanced cycle performance of SiO-C composite anode for lithium-ion batteries. Journal of Power Sources, 2007, 170, 456-459.	4.0	179
107	Electrochemical properties of Ni-based inert phases incorporated Si/graphite composite anode. Journal of Power Sources, 2007, 174, 588-591.	4.0	12
108	Surface Selective Polymerization of Polypyrrole on Ordered Mesoporous Carbon:Â Enhancing Interfacial Conductivity for Direct Methanol Fuel Cell Application. Macromolecules, 2006, 39, 3275-3282.	2.2	64

#	Article	IF	Citations
109	Enhancement of the rate capability and cyclability of an Mgâ€“C composite electrode for Li secondary batteries. Journal of Power Sources, 2006, 158, 1451-1455.	4.0	44
110	Enhancement of capacity of carbon-coated Siâ€“Cu3Si composite anode using metalâ€“organic compound for lithium-ion batteries. Journal of Power Sources, 2006, 161, 1319-1323.	4.0	67
111	Electrochemical Characteristics of Tiâ€“P Composites Prepared by Mechanochemical Synthesis. Journal of the Electrochemical Society, 2006, 153, A1979.	1.3	36
112	Observation of Reversible Pore Change in Mesoporous Tin Phosphate Anode Material during Li Alloying/Dealloying. Journal of the Electrochemical Society, 2006, 153, A1633.	1.3	16
113	Triethyl 2-(1,3-oxazolidin-3-yl)ethyl orthosilicate as a new type electrolyte additive for lithium-ion batteries with graphite anodes. Journal of Power Sources, 2005, 147, 260-263.	4.0	11
114	Addition of Cu for carbon coated Si-based composites as anode materials for lithium-ion batteries. Electrochemistry Communications, 2005, 7, 557-561.	2.3	97
115	Electrochemical characteristics of rancieite-type manganese oxide by mechanochemical synthesis. Journal of Power Sources, 2003, 124, 174-181.	4.0	3
116	Nanosized Snâ€“Cuâ€“B alloy anode prepared by chemical reduction for secondary lithium batteries. Journal of Power Sources, 2002, 104, 221-225.	4.0	75
117	Mechanochemical synthesis and electrochemical characteristics of Mg2Sn as an anode material for Li-ion batteries. Solid State Ionics, 2001, 144, 41-49.	1.3	66
118	Electrochemical characteristics of Mgâ€“Ni alloys as anode materials for secondary Li batteries. Journal of Power Sources, 2000, 90, 59-63.	4.0	45
119	The Insertion Mechanism of Lithium into Mg2Si Anode Material for Liâ€ion Batteries. Journal of the Electrochemical Society, 1999, 146, 4401-4405.	1.3	176