Sung-Soo Kim

List of Publications by Year
in descending order

75 papers	2,704 citations	236925 25 h-index	182427 51 g-index
77 all docs	77 docs citations	77 times ranked	3449 citing authors

#	Article	IF	Citations
1	Facile fabrication of polyacrylonitrileâ€derived porous carbon beads via electron beam irradiation as anode materials for Liâ€ion batteries. International Journal of Energy Research, 2021, 45, 9530-9540.	4.5	6
2	The Effect of Oxygen Content in Binderless Cokes for High-Density Carbon Blocks from Coal Tar Pitch. Materials, 2021, 14, 1832.	2.9	6
3	Understanding the relationship of electrochemical properties and structure of microstructure-controlled core shell gradient type Ni-rich cathode material by single particle measurement. Electrochimica Acta, 2021, 390, 138813.	5.2	7
4	Li-incorporated porous carbon monoliths derived from carboxymethyl cellulose as anode material for high power lithium-ion batteries. Journal of Power Sources, 2021, 506, 230050.	7.8	10
5	Grain size effect of nanocrystalline-Si embedded in buffering alloy-matrix as anode for Li-ion batteries. Journal of Alloys and Compounds, 2021, 882, 160558.	5.5	5
6	Thermal stability and reduction mechanism of LiNi0.8Co0.1Mn0.1O2 and LiNi0.5Co0.2Mn0.3O2 cathode materials studied by a Temperature Programmed Reduction. Thermochimica Acta, 2021, 706, 179069.	2.7	1
7	Novel silane-treated polyacrylonitrile as a promising negative electrode binder for LIBs. Journal of Alloys and Compounds, 2020, 815, 152481.	5.5	12
8	Understanding the effect of p-, n-type dopants and vinyl carbonate electrolyte additive on electrochemical performance of Si thin film anodes for lithium-ion battery. Electrochimica Acta, 2020, 330, 135179.	5.2	15
9	Onion-Structured Si Anode Constructed with Coating by Li4Ti5O12 and Cyclized-Polyacrylonitrile for Lithium-Ion Batteries. Nanomaterials, 2020, 10, 1995.	4.1	1
10	Pragmatic Approach to Design Silicon Alloy Anode by the Equilibrium Method. ACS Applied Materials & Interfaces, 2020, 12, 17406-17414.	8.0	10
11	Synergistic effect of 3D current collector structure and Ni inactive matrix on the electrochemical performances of Sn-based anodes for lithium-ion batteries. Materials Today Energy, 2020, 16, 100397.	4.7	20
12	Strong stress-composition coupling in lithium alloy nanoparticles. Nature Communications, 2019, 10, 3428.	12.8	13
13	Analysis of intrinsic properties of Li4Ti5O12 using single-particle technique. Journal of Electroanalytical Chemistry, 2019, 855, 113514.	3.8	19
14	Microalgae-derived hollow carbon-MoS2 composite as anode for lithium-ion batteries. Journal of Industrial and Engineering Chemistry, 2019, 79, 106-114.	5.8	25
15	3D electrochemical model for a Single Secondary Particle and its application for operando analysis. Nano Energy, 2019, 62, 810-817.	16.0	16
16	The Electrochemical Performances of n-Type Extended Lattice Spaced Si Negative Electrodes for Lithium-Ion Batteries. Frontiers in Chemistry, 2019, 7, 389.	3.6	15
17	RGO/sAC composites as electrode materials for supercapacitors to enhance electrochemical performance. Journal of Physics and Chemistry of Solids, 2019, 131, 69-78.	4.0	7
18	Massâ€Production of Electrospun Carbon Nanofiber Containing SiO_x for Lithiumâ€Ion Batteries with Enhanced Capacity. Macromolecular Materials and Engineering, 2019, 304, 1800564.	3.6	15

#	Article	IF	Citations
19	Microstructure and electrochemical properties of rapidly solidified Siâ€“Ni alloys as anode for lithium-ion batteries. Journal of Industrial and Engineering Chemistry, 2019, 71, 351-360.	5.8	27
20	Thermal and Structural Stabilities of LixCoO2 cathode for Li Secondary Battery Studied by a Temperature Programmed Reduction. Eurasian Chemico-Technological Journal, 2019, , 3.	0.6	9
21	Nâ€Type Doped Silicon Thin Film on a Porous Cu Current Collector as the Negative Electrode for Liâ€Ion Batteries. ChemistryOpen, 2018, 7, 92-96.	1.9	35
22	N-type doped amorphous Si thin film on a surface of rough current collector as anode for Li-ion batteries. Materials Today: Proceedings, 2018, 5, 22759-22763.	1.8	3
23	Three-dimensional Ni3Sn4 Negative Electrodes for Lithium-Ion Batteries. International Journal of Electrochemical Science, 2018, 13, 7111-7120.	1.3	6
24	A mini-review on the development of Si-based thin film anodes for Li-ion batteries. Materials Today Energy, 2018, 9, 49-66.	4.7	92
25	Electrochemical Study of Graphene Coated Nickel Foam as an Anode for Lithium-Ion Battery. Eurasian Chemico-Technological Journal, 2018, 20, 91.	0.6	4
26	Fundamental Approach to Capacity Prediction of Si-Alloys as Anode Material for Li-ion Batteries. Journal of Electrochemical Science and Technology, 2018, 9, 51-59.	2.2	9
27	Improvement of rate capability by graphite foam anode for Li secondary batteries. Journal of Power Sources, 2017, 355, 164-170.	7.8	51
28	Interfacial Architectures Derived by Lithium Difluoro(bisoxalato) Phosphate for Lithium-Rich Cathodes with Superior Cycling Stability and Rate Capability. ChemElectroChem, 2017, 4, 3-3.	3.4	4
29	Synthesis and Electrochemical Reaction of Tin Oxalate-Reduced Graphene Oxide Composite Anode for Rechargeable Lithium Batteries. ACS Applied Materials & Interfaces, 2017, 9, 25941-25951.	8.0	35
30	Silicon thin film on graphene coated nickel foam as an anode for Li-ion batteries. Electrochimica Acta, 2017, 258, 800-806.	5.2	36
31	Interfacial Architectures Derived by Lithium Difluoro(bisoxalato) Phosphate for Lithiumâ€Rich Cathodes with Superior Cycling Stability and Rate Capability. ChemElectroChem, 2017, 4, 56-65.	3.4	45
32	Novel Cathode Materials for Naâ€Ion Batteries Composed of Spokeâ€Like Nanorods of Na[Ni_{0.61}Co_{0.12}Mn_{0.27}]O₂ Assembled in Spherical Secondary Particles. Advanced Functional Materials, 2016, 26, 8083-8093.	14.9	78
33	Quantitative relationships between microstructures and electrochemical properties in Si core-SiOx shell nanoparticles for Li-ion battery anodes. Journal of Power Sources, 2016, 329, 79-87.	7.8	28
34	Epicyanohydrin as an Interface Stabilizer Agent for Cathodes of Li-Ion Batteries. Journal of the Electrochemical Society, 2016, 163, A171-A177.	2.9	29
35	Observation of Electrochemically Driven Elemental Segregation in a Si Alloy Thinâ€Film Anode and its Effects on Cyclic Stability for Liâ€Ion Batteries. Advanced Energy Materials, 2015, 5, 1501136.	19.5	21
36	One-dimensional nanofiber architecture of an anatase TiO₂â€“carbon composite with improved sodium storage performance. RSC Advances, 2015, 5, 106252-106257.	3.6	13

#	Article	IF	Citations
37	Power Enhancement of Lithium-Ion Batteries by a Graphene Interfacial Layer. Journal of Nanoscience and Nanotechnology, 2015, 15, 9034-9038.	0.9	0
38	Effects of phosphorous incorporation on the microstructure of Si nanoparticles as an anode material for lithium-ion battery. Thin Solid Films, 2015, 587, 142-149.	1.8	9
39	Effect of titanium addition as nickel oxide formation inhibitor in nickel-rich cathode material for lithium-ion batteries. Journal of Power Sources, 2015, 299, 425-433.	7.8	54
40	Physical mixtures of Si nanoparticles and carbon nanofibers as anode materials for lithium-ion batteries. Japanese Journal of Applied Physics, 2015, 54, 085001.	1.5	2
41	Synthesis of TiO₂nanoparticles induced by electron beam irradiation and their electrochemical performance as anode materials for Li-ion batteries. Journal of Electrochemical Science and Technology, 2015, 6, 75-80.	2.2	3
42	Nitrided LATP Solid Electrolyte for Enhanced Chemical Stability in Alkaline Media. Journal of the Korean Electrochemical Society, 2015, 18, 45-50.	0.1	0
43	Microstructures and Electrochemical Properties of Si-M (M : Cr, Ni) as Alloy Anode for Li Secondary Batteries. Journal of the Korean Electrochemical Society, 2015, 18, 68-74.	0.1	2
44	Electrochemical Characterization of Phosphorous-doped Soft Carbon using Single Particle for Lithium Battery Anode. Electrochimica Acta, 2014, 130, 60-65.	5.2	23
45	Thermal Reactions of Lithiated and Delithiated Sulfur Electrodes in Lithium-Sulfur Batteries. ECS Electrochemistry Letters, 2014, 3, A26-A29.	1.9	10
46	Interfacial Origin of Performance Improvement and Fade for 4.6 V LiNi_{0.5}Co_{0.2}Mn_{0.3}O₂ Battery Cathodes. Journal of Physical Chemistry C, 2014, 118, 10631-10639.	3.1	160
47	Effect of Lithium Bis(Oxalato)Borate Additive on Thermal Stability of Si Nanoparticle-based Anode. Journal of the Korean Electrochemical Society, 2014, 17, 79-85.	0.1	1
48	Microstructural Analysis of Si-Ti-Fe Alloy Anode Materials for Li-ion Secondary Batteries. Journal of Korean Institute of Metals and Materials, 2013, 51, 429-436.	1.0	5
49	Self-organized Artificial SEI for Improving the Cycling Ability of Silicon-based Battery Anode Materials. Bulletin of the Korean Chemical Society, 2013, 34, 1296-1299.	1.9	17
50	Effects of Phosphorous-doping on Electrochemical Performance and Surface Chemistry of Soft Carbon Electrodes. Bulletin of the Korean Chemical Society, 2013, 34, 2029-2035.	1.9	13
51	Electrochemical Characteristics of an Electric Double Layer Supercapacitor Electrode using Cooked-Rice based Activated Carbon. Journal of the Korean Electrochemical Society, 2013, 16, 129-137.	0.1	1
52	Influence of Precursor on the Electrochemical Properties of Li(Ni_{0.5}Co_{0.2}Mn_{0.3})O₂Cathode for the Lithium Secondary Battery. Journal of the Korean Electrochemical Society, 2013, 16, 191-197.	0.1	5
53	Enhanced Dilation Properties of Silicon-Silicide, Si-TiFeSi2, Nanocomposite as a Lithium Battery Anode. ECS Electrochemistry Letters, 2012, 2, A10-A13.	1.9	9
54	Degradation of spinel lithium manganese oxides by low oxidation durability of LiPF6-based electrolyte at 60 Â°C. Solid State Ionics, 2012, 219, 41-48.	2.7	39

#	Article	IF	Citations
55	Effect of Conductive Additives on the Structural and Electrochemical Properties of Li₄Ti₅O₁₂Spinel. Bulletin of the Korean Chemical Society, 2012, 33, 4059-4062.	1.9	6
56	Structural and Electrochemical Properties of Li₂Mn_{0.5}Fe_{0.5}SiO₄/C Cathode Nanocomposite. Bulletin of the Korean Chemical Society, 2011, 32, 4205-4209.	1.9	11
57	Improving the electrochemical properties of graphite/LiCoO2 cells in ionic liquid-containing electrolytes. Journal of Power Sources, 2010, 195, 2368-2371.	7.8	40
58	Effect of SEI on Capacity Losses of Spinel Lithium Manganese Oxide/Graphite Batteries Stored at 60Â°C. Electrochemical and Solid-State Letters, 2010, 13, A168.	2.2	88
59	Electrochemical properties of lithium vanadium oxide as an anode material for lithium-ion battery. Materials Chemistry and Physics, 2009, 116, 603-606.	4.0	43
60	Enhanced thermal properties of the solid electrolyte interphase formed on graphite in an electrolyte with fluoroethylene carbonate. Electrochimica Acta, 2009, 54, 4445-4450.	5.2	144
61	Design of Non-Flammable Electrolytes for Highly Safe Lithium-Ion Battery. Journal of the Korean Electrochemical Society, 2009, 12, 203-218.	0.1	1
62	Enhanced electrochemical properties of a Si-based anode using an electrochemically active polyamide imide binder. Journal of Power Sources, 2008, 177, 590-594.	7.8	143
63	Thermal reactions of lithiated graphite anode in LiPF6-based electrolyte. Thermochimica Acta, 2008, 480, 10-14.	2.7	63
64	Structural Analysis and First-Principles Calculation of Lithium Vanadium Oxide for Advanced Li-Ion Batteries. Advances in Quantum Chemistry, 2008, , 23-33.	0.8	13
65	Phase transitions explanatory of the electrochemical degradation mechanism of Si based materials. Electrochemistry Communications, 2007, 9, 959-964.	4.7	72
66	Surface layer formed on silicon thin-film electrode in lithium bis(oxalato) borate-based electrolyte. Journal of Power Sources, 2007, 172, 404-409.	7.8	109
67	Local atomic characterization of LiCo1/3Ni1/3Mn1/3O2 cathode material. Electrochimica Acta, 2006, 52, 1467-1471.	5.2	17
68	The effect of Coâ€“Co3O4 coating on the electrochemical properties of Si as an anode material for Li ion battery. Electrochimica Acta, 2006, 52, 450-454.	5.2	19
69	Effect of fluoroethylene carbonate additive on interfacial properties of silicon thin-film electrode. Journal of Power Sources, 2006, 161, 1254-1259.	7.8	554
70	Enhancement of Electrochemical Reaction Rate by Deposition of Alumina on Natural Graphite Surface. Electrochemistry, 2001, 69, 830-833.	1.4	7
71	Synthesis of MnMoO4as High Capacity Anode Material for Li Secondary Battery. Chemistry Letters, 2001, 30, 760-761.	1.3	27
72	Synthesis and characterization of MnV2O6 as a high capacity anode material for a lithium secondary battery. Solid State Ionics, 2001, 139, 57-65.	2.7	106

#	Article	IF	Citations
73	Electrochemical Performance of Natural Graphite by Surface Modification Using Aluminum. Electrochemical and Solid-State Letters, 2001, 4, A109.	2.2	87
74	Relationship between Mechanical and Electrochemical Property in Silicon Alloy Designed by Grain Size as Anode for Lithium-Ion Batteries. Journal of the Electrochemical Society, 0, , .	2.9	3
75	Thermally Crosslinked Polyimide Binders for Si-alloy Anodes in Li-ion Batteries. Journal of Electrochemical Science and Technology, 0, , .	2.2	3