Young-Jun Kim

List of Publications by Year in descending order

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73 papers	5,390 citations	101543 36 h-index	79698 73 g-index
74 all docs	74 docs citations	74 times ranked	6419 citing authors

#	Article	IF	Citations
1	Densification and charge transport characterization of composite cathodes with single-crystalline LiNi0.8Co0.15Al0.05O2 for solid-state batteries. Energy Storage Materials, 2022, 46, 155-164.	18.0	9
2	Self-adaptive anode design with graphene-coated SiOx/graphite for high-energy Li-ion batteries. Chemical Engineering Journal, 2022, 442, 136166.	12.7	24
3	Carbon <scp>nanotubesâ€coated Niâ€rich</scp> cathodes for the green manufacturing process of <scp>lithiumâ€ion</scp> batteries. International Journal of Energy Research, 2022, 46, 16061-16074.	4.5	10
4	Selfâ€Formulated Naâ€Based Dualâ€Ion Battery Using Nonflammable SO₂â€Based Inorganic Liquid Electrolyte. Small, 2021, 17, e1902144.	10.0	7
5	Effects of Various Transition Metals on the Thermal Oxidative Stabilization of Polyacrylonitrile Nanofibers. Journal of Inorganic and Organometallic Polymers and Materials, 2021, 31, 3368-3377.	3.7	8
6	Graphene/PVDF Composites for Ni-rich Oxide Cathodes toward High-Energy Density Li-ion Batteries. Materials, 2021, 14, 2271.	2.9	7
7	Graphene collage on Ni-rich layered oxide cathodes for advanced lithium-ion batteries. Nature Communications, 2021, 12, 2145.	12.8	54
8	Natural Activation of CuO to CuCl2 as a Cathode Material for Dual-Ion Lithium Metal Batteries. Energy Storage Materials, 2021, 41, 466-474.	18.0	16
9	Comparative study of thermal runaway and cell failure of lab-scale Li-ion batteries using accelerating rate calorimetry. Journal of Industrial and Engineering Chemistry, 2020, 83, 247-251.	5.8	19
10	Electrode Engineering with CNTs to Enhance the Electrochemical Performance of LiNi 0.6 Co 0.2 Mn 0.2 O 2 Cathodes with Commercial Level Design Parameters. ChemElectroChem, 2020, 7, 2621-2628.	3.4	11
11	Effect of electrode design parameters on the rate performance of LiNi0.6Co0.2Mn0.2O2 cathodes using pulse measurements. Electrochimica Acta, 2020, 341, 135936.	5.2	8
12	Thermal and chemical characterization of the solid-electrolyte interphase in Li-ion batteries using a novel separator sampling method. Journal of Power Sources, 2019, 440, 227083.	7.8	26
13	Reversible dual-ion battery via mesoporous Cu2O cathode in SO2-in-salt non-flammable electrolyte. Nano Energy, 2019, 66, 104138.	16.0	14
14	Robust Design of Dualâ€Phasic Carbon Cathode for Lithiumâ€“Oxygen Batteries. Advanced Functional Materials, 2019, 29, 1902915.	14.9	34
15	New insights into the phase evolution in CuS during lithiation and delithiation processes. Journal of Materials Chemistry A, 2019, 7, 11699-11708.	10.3	16
16	Si Nanocrystal-Embedded SiO x nanofoils: Two-Dimensional Nanotechnology-Enabled High Performance Li Storage Materials. Scientific Reports, 2018, 8, 6904.	3.3	11
17	Junction Welding Techniques for Metal Nanowire Network Electrodes. Macromolecular Research, 2018, 26, 1066-1073.	2.4	19
18	Facile Mn Surface Doping of Ni-Rich Layered Cathode Materials for Lithium Ion Batteries. ACS Applied Materials & Interfaces, 2018, 10, 38915-38921.	8.0	69

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19	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.	8.0	18
20	Defect-Free Copolymer Gate Dielectrics for Gating MoS₂ Transistors. Journal of Physical Chemistry C, 2018, 122, 12193-12199.	3.1	15
21	Improved particle hardness of Ti-doped LiNi1/3Co1/3Mn1/3-xTixO2 as high-voltage cathode material for lithium-ion batteries. Journal of Physics and Chemistry of Solids, 2018, 123, 271-278.	4.0	22
22	Magnesium Anode Pretreatment Using a Titanium Complex for Magnesium Battery. ACS Sustainable Chemistry and Engineering, 2017, 5, 5733-5739.	6.7	22
23	Superior Electrocatalytic Activity of a Robust Carbonâ€Felt Electrode with Oxygenâ€Rich Phosphate Groups for Allâ€Vanadium Redox Flow Batteries. ChemSusChem, 2016, 9, 1329-1338.	6.8	95
24	Mechanism of Oxygen Vacancy on Impeded Phase Transformation and Electrochemical Activation in Inactive Li₂MnO₃. ChemElectroChem, 2016, 3, 943-949.	3.4	44
25	Facile Synthesis of Carbon-Coated Silicon/Graphite Spherical Composites for High-Performance Lithium-Ion Batteries. ACS Applied Materials & Interfaces, 2016, 8, 12109-12117.	8.0	130
26	Rosin-Embedded Poly(acrylic acid) Binder for Silicon/Graphite Negative Electrode. ACS Sustainable Chemistry and Engineering, 2016, 4, 6362-6370.	6.7	22
27	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.	1.9	2
28	A joint experimental and theoretical determination of the structure of discharge products in Naâ€“SO₂ batteries. Physical Chemistry Chemical Physics, 2016, 18, 24841-24844.	2.8	5
29	Few-Layer Graphene Island Seeding for Dendrite-Free Li Metal Electrodes. ACS Applied Materials & Interfaces, 2016, 8, 26895-26901.	8.0	63
30	High Performance Naâ€“CuCl₂ Rechargeable Battery toward Room Temperature ZEBRAâ€Type Battery. Advanced Energy Materials, 2016, 6, 1600862.	19.5	28
31	Insight into the electrochemical behaviors of 5Vâ€“class highâ€voltage batteries composed of lithiumâ€rich layered oxide with multifunctional additive. Journal of Power Sources, 2016, 336, 465-474.	7.8	24
32	Size effect of SO₂ receptors on the energy efficiency of Naâ€“SO₂ batteries: gallium-based inorganic electrolytes. RSC Advances, 2016, 6, 105105-105109.	3.6	4
33	Polymeric binder based on PAA and conductive PANI for high performance silicon-based anodes. RSC Advances, 2016, 6, 101622-101625.	3.6	28
34	Capacity fading behavior of Ni-rich layered cathode materials in Li-ion full cells. Journal of Electroanalytical Chemistry, 2016, 782, 168-173.	3.8	76
35	Investigation of new manganese orthophosphate Mn3(PO4)2 coating for nickel-rich LiNi0.6Co0.2Mn0.2O2 cathode and improvement of its thermal properties. Electrochimica Acta, 2016, 198, 77-83.	5.2	117
36	Shutdown-functionalized nonwoven separator with improved thermal and electrochemical properties for lithium-ion batteries. Journal of Power Sources, 2016, 305, 225-232.	7.8	62

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37	Communicationâ€"Improvement of Structural Stability during High-Voltage Cycling in High-Nickel Cathode Materials with B₂O₃Addition. Journal of the Electrochemical Society, 2016, 163, A748-A750.	2.9	28
38	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.	8.0	62
39	Co-intercalation of Mg²⁺ and Na⁺ in Na_{0.69}Fe₂(CN)₆ as a High-Voltage Cathode for Magnesium Batteries. ACS Applied Materials & Interfaces, 2016, 8, 8554-8560.	8.0	57
40	Understanding the effects of a multi-functionalized additive on the cathodeâ€"electrolyte interfacial stability of Ni-rich materials. Journal of Power Sources, 2016, 302, 431-438.	7.8	82
41	A room-temperature sodium rechargeable battery using an SO2-based nonflammable inorganic liquid catholyte. Scientific Reports, 2015, 5, 12827.	3.3	27
42	Understanding of Surface Redox Behaviors of Li₂MnO₃ in Liâ€Ion Batteries: Firstâ€Principles Prediction and Experimental Validation. ChemSusChem, 2015, 8, 3255-3262.	6.8	31
43	The origins and mechanism of phase transformation in bulk Li₂MnO₃: first-principles calculations and experimental studies. Journal of Materials Chemistry A, 2015, 3, 7066-7076.	10.3	91
44	Dendrite-Free Polygonal Sodium Deposition with Excellent Interfacial Stability in a NaAlCl₄â€"2SO₂ Inorganic Electrolyte. ACS Applied Materials & Interfaces, 2015, 7, 27206-27214.	8.0	68
45	Conductive porous carbon film as a lithium metal storage medium. Electrochimica Acta, 2015, 176, 172-178.	5.2	62
46	5V-class high-voltage batteries with over-lithiated oxide and a multi-functional additive. Journal of Materials Chemistry A, 2015, 3, 6157-6167.	10.3	51
47	Improved electrochemical and thermal properties of nickel rich LiNi0.6Co0.2Mn0.2O2 cathode materials by SiO2 coating. Journal of Power Sources, 2015, 282, 45-50.	7.8	270
48	A Highly Resilient Mesoporous SiO_x Lithium Storage Material Engineered by Oilâ€"Water Templating. ChemSusChem, 2015, 8, 688-694.	6.8	45
49	Hard Carbonâ€coated Natural Graphite Electrodes for Highâ€Energy and Power Lithiumâ€Ion Capacitors. Bulletin of the Korean Chemical Society, 2015, 36, 150-155.	1.9	13
50	Dual-Size Silicon Nanocrystal-Embedded SiO_x Nanocomposite as a High-Capacity Lithium Storage Material. ACS Nano, 2015, 9, 7690-7696.	14.6	107
51	A technology review of electrodes and reaction mechanisms in vanadium redox flow batteries. Journal of Materials Chemistry A, 2015, 3, 16913-16933.	10.3	565
52	Physically Cross-linked Polymer Binder Induced by Reversible Acidâ€"Base Interaction for High-Performance Silicon Composite Anodes. ACS Applied Materials & Interfaces, 2015, 7, 23545-23553.	8.0	88
53	Nanotechnology enabled rechargeable Liâ€"SO₂ batteries: another approach towards post-lithium-ion battery systems. Energy and Environmental Science, 2015, 8, 3173-3180.	30.8	23
54	1,3-Propanesultone as an effective functional additive to enhance the electrochemical performance of over-lithiated layered oxides. RSC Advances, 2014, 4, 19172.	3.6	15

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55	Electron-beam-irradiated polyethylene membrane with improved electrochemical and thermal properties for lithium-ion batteries. Journal of Applied Electrochemistry, 2014, 44, 345-352.	2.9	19
56	Effect of additives on electrochemical performance of lithium nickel cobalt manganese oxide at high temperature. Journal of Power Sources, 2014, 253, 48-54.	7.8	82
57	Effect of Residual Lithium Compounds on Layer Ni-Rich Li[Ni_{0.7}Mn_{0.3}]O₂. Journal of the Electrochemical Society, 2014, 161, A920-A926.	2.9	267
58	Hydrogen Silsequioxane-Derived Si/SiO_x Nanospheres for High-Capacity Lithium Storage Materials. ACS Applied Materials & Interfaces, 2014, 6, 9608-9613.	8.0	93
59	A case study on fibrous porous SnO 2 anode for robust, high-capacity lithium-ion batteries. Nano Energy, 2014, 10, 53-62.	16.0	179
60	Ceramic composite separators coated with moisturized ZrO₂ nanoparticles for improving the electrochemical performance and thermal stability of lithium ion batteries. Physical Chemistry Chemical Physics, 2014, 16, 9337-9343.	2.8	65
61	NH₄PF₆ as a Structural Modifier for Building a Robust Carbonâ€Coated Natural Graphite Anode for Lithiumâ€Ion Batteries. ChemElectroChem, 2014, 1, 1672-1678.	3.4	10
62	Coreâ€“Shell Structured Silicon Nanoparticles@TiO_{2â€“x}/Carbon Mesoporous Microfiber Composite as a Safe and High-Performance Lithium-Ion Battery Anode. ACS Nano, 2014, 8, 2977-2985.	14.6	227
63	Oriented TiO2 nanotubes as a lithium metal storage medium. Journal of Electroanalytical Chemistry, 2014, 726, 51-54.	3.8	21
64	A new strategy for integrating abundant oxygen functional groups into carbon felt electrode for vanadium redox flow batteries. Scientific Reports, 2014, 4, 6906.	3.3	136
65	Tuning the surface chemistry of natural graphite anode by H3PO4 and H3BO3 treatments for improving electrochemical and thermal properties. Carbon, 2013, 62, 278-287.	10.3	29
66	Capacity fading mechanism of LiFePO4-based lithium secondary batteries for stationary energy storage. Journal of Power Sources, 2013, 229, 190-197.	7.8	118
67	Multifunctional TiO2 coating for a SiO anode in Li-ion batteries. Journal of Materials Chemistry, 2012, 22, 7999.	6.7	97
68	Novel catalytic effects of Mn3O4 for all vanadium redox flow batteries. Chemical Communications, 2012, 48, 5455.	4.1	250
69	Effect of aluminum fluoride coating on the electrochemical and thermal properties of 0.5Li2MnO3Â·0.5LiNi0.5Co0.2Mn0.3O2 composite material. Journal of Alloys and Compounds, 2012, 517, 20-25.	5.5	63
70	Incorporation of phosphorus into the surface of natural graphite anode for lithium ion batteries. Journal of Materials Chemistry, 2011, 21, 17960.	6.7	42
71	Prospective materials and applications for Li secondary batteries. Energy and Environmental Science, 2011, 4, 1986.	30.8	558
72	The effects of surface modification on carbon felt electrodes for use in vanadium redox flow batteries. Materials Chemistry and Physics, 2011, 131, 547-553.	4.0	264

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73	Effect of gamma ray irradiation on thermal and electrochemical properties of polyethylene separator for Li ion batteries. Journal of Power Sources, 2010, 195, 6075-6080.	7.8	46