Sung-Wook Kim

List of Publications by Year
in descending order

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Version: 2024-02-01

77 papers	8,667 citations	109264 35 h-index	85498 71 g-index
78 all docs	78 docs citations	78 times ranked	10454 citing authors

#	Article	IF	Citations
1	Electrode Materials for Rechargeable Sodiumâ€Ion Batteries: Potential Alternatives to Current Lithiumâ€Ion Batteries. Advanced Energy Materials, 2012, 2, 710-721.	10.2	2,944
2	Aqueous Rechargeable Li and Na Ion Batteries. Chemical Reviews, 2014, 114, 11788-11827.	23.0	1,183
3	New Iron-Based Mixed-Polyanion Cathodes for Lithium and Sodium Rechargeable Batteries: Combined First Principles Calculations and Experimental Study. Journal of the American Chemical Society, 2012, 134, 10369-10372.	6.6	395
4	Highly reversible Co3O4/graphene hybrid anode for lithium rechargeable batteries. Carbon, 2011, 49, 326-332.	5.4	357
5	A combined first principles and experimental study on Na3V2(PO4)2F3 for rechargeable Na batteries. Journal of Materials Chemistry, 2012, 22, 20535.	6.7	306
6	Fabrication of FeF₃ Nanoflowers on CNT Branches and Their Application to High Power Lithium Rechargeable Batteries. Advanced Materials, 2010, 22, 5260-5264.	11.1	270
7	Critical Role of Oxygen Evolved from Layered Liâ€“Excess Metal Oxides in Lithium Rechargeable Batteries. Chemistry of Materials, 2012, 24, 2692-2697.	3.2	255
8	Structural evolution of layered Li1.2Ni0.2Mn0.6O2 upon electrochemical cycling in a Li rechargeable battery. Journal of Materials Chemistry, 2010, 20, 10179.	6.7	211
9	Fabrication and Electrochemical Characterization of TiO₂ Three-Dimensional Nanonetwork Based on Peptide Assembly. ACS Nano, 2009, 3, 1085-1090.	7.3	195
10	SnO2/graphene composite with high lithium storage capability for lithium rechargeable batteries. Nano Research, 2010, 3, 813-821.	5.8	178
11	Electrochemical performance and ex situ analysis of ZnMn2O4 nanowires as anode materials for lithium rechargeable batteries. Nano Research, 2011, 4, 505-510.	5.8	170
12	Synthesis of Diphenylalanine/Cobalt Oxide Hybrid Nanowires and Their Application to Energy Storage. ACS Nano, 2010, 4, 159-164.	7.3	150
13	Ternary metal fluorides as high-energy cathodes with low cycling hysteresis. Nature Communications, 2015, 6, 6668.	5.8	138
14	Mineralization of Selfâ€assembled Peptide Nanofibers for Rechargeable Lithium Ion Batteries. Advanced Materials, 2010, 22, 5537-5541.	11.1	127
15	Combined Firstâ€Principle Calculations and Experimental Study on Multiâ€Component Olivine Cathode for Lithium Rechargeable Batteries. Advanced Functional Materials, 2009, 19, 3285-3292.	7.8	121
16	Phase Stability Study of Li[sub 1â^'x]MnPO[sub 4] (0â‰xâ‰1) Cathode for Li Rechargeable Battery. Journal of the Electrochemical Society, 2009, 156, A635.	1.3	113
17	Carbon nanotube-amorphous FePO4 coreâ€“shell nanowires as cathode material for Li ion batteries. Chemical Communications, 2010, 46, 7409.	2.2	107
18	A comparative study on Na2MnPO4F and Li2MnPO4F for rechargeable battery cathodes. Physical Chemistry Chemical Physics, 2012, 14, 3299.	1.3	98

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19	Multicomponent Olivine Cathode for Lithium Rechargeable Batteries: A First-Principles Study. Chemistry of Materials, 2010, 22, 518-523.	3.2	91
20	Scalable Functionalized Graphene Nano-platelets as Tunable Cathodes for High-performance Lithium Rechargeable Batteries. Scientific Reports, 2013, 3, 1506.	1.6	84
21	Mn based olivine electrode material with high power and energy. Chemical Communications, 2010, 46, 1305.	2.2	81
22	First-principles study on lithium metal borate cathodes for lithium rechargeable batteries. Physical Review B, 2011, 83, .	1.1	69
23	Synthesis of Multicomponent Olivine by a Novel Mixed Transition Metal Oxalate Coprecipitation Method and Electrochemical Characterization. Chemistry of Materials, 2010, 22, 2573-2581.	3.2	66
24	Structure Stabilization by Mixed Anions in Oxyfluoride Cathodes for High-Energy Lithium Batteries. ACS Nano, 2015, 9, 10076-10084.	7.3	54
25	Synthesis of graphene-wrapped CuO hybrid materials by CO2 mineralization. Green Chemistry, 2012, 14, 2391.	4.6	53
26	Mg and Fe Co-doped Mn Based Olivine Cathode Material for High Power Capability. Journal of the Electrochemical Society, 2011, 158, A250.	1.3	52
27	Highly entangled hollow TiO2 nanoribbons templating diphenylalanine assembly. Journal of Materials Chemistry, 2009, 19, 3512.	6.7	50
28	Mechanism of Co3O4/graphene catalytic activity in Liâ€“O2 batteries using carbonate based electrolytes. Electrochimica Acta, 2013, 90, 63-70.	2.6	48
29	Improvement of the Morphological Stability by Stacking RuO[sub 2] on Ru Thin Films with Atomic Layer Deposition. Journal of the Electrochemical Society, 2007, 154, H773.	1.3	46
30	Graphene-Based Hybrid Electrode Material for High-Power Lithium-Ion Batteries. Journal of the Electrochemical Society, 2011, 158, A930.	1.3	44
31	Energy storage in composites of a redox couple host and a lithium ion host. Nano Today, 2012, 7, 168-173.	6.2	44
32	Ion-Exchange Mechanism of Layered Transition-Metal Oxides: Case Study of LiNi_{0.5}Mn_{0.5}O₂. Inorganic Chemistry, 2014, 53, 8083-8087.	1.9	43
33	Electrochemical and ex-situ analysis on manganese oxide/graphene hybrid anode for lithium rechargeable batteries. Journal of Materials Research, 2011, 26, 2665-2671.	1.2	39
34	Phase control of iridium and iridium oxide thin films in atomic layer deposition. Journal of Applied Physics, 2008, 103, .	1.1	37
35	Improvement of Copper Diffusion Barrier Properties of Tantalum Nitride Films by Incorporating Ruthenium Using PEALD. Journal of the Electrochemical Society, 2008, 155, H885.	1.3	37
36	Nano-graphite platelet loaded with LiFePO4 nanoparticles used as the cathode in a high performance Li-ion battery. Carbon, 2012, 50, 1966-1971.	5.4	36

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37	Comparative study of Li(Li1/3Ti5/3)O4 and Li(Ni1/2â^'Li2/3Ti/3)Ti3/2O4 (x= 1/3) anodes for Li rechargeable batteries. Electrochimica Acta, 2009, 54, 5914-5918.	2.6	32
38	In Situ Tracking Kinetic Pathways of Li⁺/Na⁺ Substitution during Ion-Exchange Synthesis of Li_xNa_{1.5â€“x}VOPO₄F_{0.5}. Journal of the American Chemical Society, 2017, 139, 12504-12516.	6.6	28
39	Electrolytic reduction of a simulated oxide spent fuel and the fates of representative elements in a Li2O-LiCl molten salt. Journal of Nuclear Materials, 2016, 477, 59-66.	1.3	26
40	Electrolytic reduction runs of 0.6Âkg scale-simulated oxide fuel in a Li 2 O-LiCl molten salt using metal anode shrouds. Journal of Nuclear Materials, 2017, 489, 1-8.	1.3	22
41	A conductive oxide as an O2 evolution anode for the electrolytic reduction of metal oxides. Electrochemistry Communications, 2015, 55, 14-17.	2.3	21
42	Carbon anode with repeatable use of LiCl molten salt for electrolytic reduction in pyroprocessing. Journal of Radioanalytical and Nuclear Chemistry, 2016, 310, 463-467.	0.7	20
43	The Effect of Particle Size on Phase Stability of the Delithiated Li_xMnPO₄. Journal of the Electrochemical Society, 2011, 159, A55-A59.	1.3	18
44	Reoxidation of uranium metal immersed in a Li2O-LiCl molten salt after electrolytic reduction of uranium oxide. Journal of Nuclear Materials, 2017, 485, 90-97.	1.3	18
45	Improvement of Morphological Stability of PEALD-Iridium Thin Films by Adopting Two-Step Annealing Process. Electrochemical and Solid-State Letters, 2008, 11, H303.	2.2	17
46	Factors that Affect the Phase Behavior of Multi-Component Olivine (LiFe_xMn_yCo_{1-x-y}PO₄; 0) Tj ETQq0 0 0 rgBT /Overlock Reaction. Journal of the Electrochemical Society, 2013, 160, A444-A448.	1.3	16
47	Production of uranium metal via electrolytic reduction of uranium oxide in molten LiCl and salt distillation. Journal of Radioanalytical and Nuclear Chemistry, 2015, 304, 535-546.	0.7	16
48	A preliminary study of pilot-scale electrolytic reduction of UO 2 using aÂgraphite anode. Nuclear Engineering and Technology, 2017, 49, 1451-1456.	1.1	13
49	Electrochemical properties of noble metal anodes for electrolytic reduction of uranium oxide. Journal of Radioanalytical and Nuclear Chemistry, 2017, 311, 809-814.	0.7	11
50	Use of a single fuel containment material during pyroprocessing tests. Annals of Nuclear Energy, 2015, 76, 305-314.	0.9	10
51	Hot corrosion behavior of magnesia-stabilized ceramic material in a lithium molten salt. Journal of Nuclear Materials, 2017, 490, 85-93.	1.3	10
52	Invited paper: Preparation and electrochemical characterization of doped spinel LiMn1.88Ge0.1Li0.02O4 cathode material. Electronic Materials Letters, 2011, 7, 105-108.	1.0	9
53	Distillation characteristics of LiClâ€“Li2O electrolyte for UO2 electrolytic reduction process. Journal of Radioanalytical and Nuclear Chemistry, 2016, 310, 1165-1171.	0.7	8
54	Evaluation of Pt anode stability in repeated electrochemical oxide reduction reactions for pyroprocessing. Journal of Radioanalytical and Nuclear Chemistry, 2018, 316, 1053-1058.	0.7	8

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55	Chemical Stability of Conductive Ceramic Anodes in LiClâ€“Li 2 O Molten Salt for Electrolytic Reduction in Pyroprocessing. Nuclear Engineering and Technology, 2016, 48, 997-1001.	1.1	7
56	Recycling of Li(Ni,Co,Mn)O2 via a chlorination technique. Korean Journal of Chemical Engineering, 0, , 1.	1.2	7
57	Two Step Annealing of Iridium Thin Films prepared by Plasma-Enhanced Atomic Layer Deposition. ECS Transactions, 2008, 16, 309-314.	0.3	6
58	Energy storage in in vivo synthesizable biominerals. RSC Advances, 2012, 2, 5499.	1.7	6
59	Electrochemical behavior of liquid Sb anode system for electrolytic reduction of UO2. Journal of Radioanalytical and Nuclear Chemistry, 2015, 303, 1041-1046.	0.7	6
60	Electrolytic reduction rate of porous UO2 pellets. Korean Journal of Chemical Engineering, 2016, 33, 2235-2239.	1.2	6
61	Chemical behavior of grey phases in LiCl molten salt for oxide reduction in pyroprocessing. Journal of Radioanalytical and Nuclear Chemistry, 2018, 318, 1923-1930.	0.7	5
62	Stability of yttria-stabilized zirconia during pyroprocessing tests. Journal of Nuclear Materials, 2016, 475, 57-61.	1.3	4
63	TiN Anode for Electrolytic Reduction of UO2 in Pyroprocessing. Journal of Nuclear Fuel Cycle and Waste Technology, 2015, 13, 229-233.	0.1	4
64	Chlorination behavior of LiCoO2. Korean Journal of Chemical Engineering, 0, , 1.	1.2	4
65	Electrolytic behavior of SrCl2 and BaCl2 in LiCl molten salt during oxide reduction in pyroprocessing. Journal of Radioanalytical and Nuclear Chemistry, 2019, 321, 361-365.	0.7	3
66	Dilution of Li-Li2O in a metallic fuel produced through oxide reduction using ZrO2-assisted rinsing in molten LiCl. Journal of Nuclear Materials, 2020, 533, 152107.	1.3	3
67	Residual salt separation technique using centrifugal force for pyroprocessing. Nuclear Engineering and Technology, 2018, 50, 1184-1189.	1.1	2
68	Employing high-temperature gas flux in a residual salt separation technique for pyroprocessing. Nuclear Engineering and Technology, 2019, 51, 1866-1870.	1.1	2
69	Chlorination technique for decontamination of radioactive concrete waste contaminated by Sr. Journal of Radioanalytical and Nuclear Chemistry, 2021, 328, 195-203.	0.7	2
70	Bio-Inspired Synthesis of Electrode Materials for Lithium Rechargeable Batteries. , 2011, , .		1
71	Thermodynamic investigation on the behavior of rare earth oxides during electrolytic reduction process. Journal of Radioanalytical and Nuclear Chemistry, 2018, 317, 1089-1093.	0.7	1
72	Cesium Removal from Nonexpandable Illite Clay by Chloride Salt Treatment. ACS Omega, 2021, 6, 17923-17930.	1.6	1

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73	Electrolytic Reduction of 1 kg-UO2in Li2O-LiCl Molten Salt using Porous Anode Shroud. Journal of the Korean Electrochemical Society, 2015, 18, 121-129.	0.1	1
74	Dissolution Behavior of Simulated Spent Nuclear Fuel in LiCl-KCl-UCl3 Molten Salt. Science and Technology of Nuclear Installations, 2021, 2021, 1-6.	0.3	1
75	Probing the Local Chemical and Structural Ordering of Iron Oxyfluoride. Microscopy and Microanalysis, 2014, 20, 430-431.	0.2	0
76	Electrochemical Behavior of CsI in LiCl Molten Salt. Science and Technology of Nuclear Installations, 2020, 2020, 1-6.	0.3	0
77	Electrolytic Reduction Characteristics of Titanium Oxides in a LiCl-Li₂O Molten Salt. Journal of the Korean Electrochemical Society, 2015, 18, 156-160.	0.1	0