Jihyeon Gim

List of Publications by Year
in descending order

99 papers	5,199 citations	101384 36 h-index	88477 70 g-index
101 all docs	101 docs citations	101 times ranked	6136 citing authors

#	Article	IF	Citations
1	Ultra-small ZnS quantum dots embedded in N-doped carbon matrix for high-performance Li-ion battery anode. Composites Part B: Engineering, 2022, 231, 109548.	5.9	15
2	Intercalation of Ca into a Highly Defective Manganese Oxide at Room Temperature. Chemistry of Materials, 2022, 34, 836-846.	3.2	10
3	Effect of Electrolytes on the Cathode-Electrolyte Interfacial Stability of Fe-Based Layered Cathodes for Sodium-Ion Batteries. Journal of the Electrochemical Society, 2022, 169, 030536.	1.3	10
4	Investigation of Ca Insertion into Î±-MoO₃ Nanoparticles for High Capacity Ca-Ion Cathodes. Nano Letters, 2022, 22, 2228-2235.	4.5	16
5	Facile Electrochemical Mg-Ion Transport in a Defect-Free Spinel Oxide. Chemistry of Materials, 2022, 34, 3789-3797.	3.2	5
6	Concealed Cathode Degradation in Lithium-Ion Cells with a Ni-Rich Oxide. Journal of the Electrochemical Society, 2022, 169, 040539.	1.3	9
7	Unravelling the Nature of the Intrinsic Complex Structure of Binaryâ€Phase Naâ€Layered Oxides. Advanced Materials, 2022, 34, e2202137.	11.1	21
8	New Highâ€Performance Pbâ€Based Nanocomposite Anode Enabled by Wideâ€Range Pb Redox and Zintl Phase Transition. Advanced Functional Materials, 2021, 31, 2005362.	7.8	6
9	Performance Loss Mechanisms in Lithium-Ion Cells with Nickel-Dominant Oxide Cathodes. ECS Meeting Abstracts, 2021, MA2021-01, 92-92.	0.0	0
10	Dual-Salt Electrolytes to Effectively Reduce Impedance Rise of High-Nickel Lithium-Ion Batteries. ACS Applied Materials & Interfaces, 2021, 13, 40502-40512.	4.0	13
11	LT-LiMn_{0.5}Ni_{0.5}O₂: a unique co-free cathode for high energy Li-ion cells. Chemical Communications, 2021, 57, 11009-11012.	2.2	8
12	Rational design of mechanically robust Ni-rich cathode materials via concentration gradient strategy. Nature Communications, 2021, 12, 6024.	5.8	80
13	Performance Optimization of High Ni (â‰¥90%) Cathode Materials: Synthesis & Calcination. ECS Meeting Abstracts, 2021, MA2021-02, 397-397.	0.0	0
14	Room-Temperature Aerosol Deposition of Dense Li6.25 Al0.25La3Zr2O12 Thick Film Electrolyte for All-Solid-State Batteries. ECS Meeting Abstracts, 2021, MA2021-02, 146-146.	0.0	0
15	Electrolyte Engineering to Improve Cathode-Electrolyte Interface of Na1-XFeO2 Cathode for Sodium Ion Batteries. ECS Meeting Abstracts, 2021, MA2021-02, 203-203.	0.0	0
16	Understanding the constant-voltage fast-charging process using a high-rate Ni-rich cathode material for lithium-ion batteries. Journal of Materials Chemistry A, 2021, 10, 288-295.	5.2	10
17	Origins of Irreversibility in Layered NaNi_{<i>x</i>}Fe_{<i>y</i>}Mn_{<i>z</i>}O₂ Cathode Materials for Sodium Ion Batteries. ACS Applied Materials & Interfaces, 2020, 12, 51397-51408.	4.0	18
18	Revealing the Structural Evolution and Phase Transformation of O3-Type NaNi_{1/3}Fe_{1/3}Mn_{1/3}O₂ Cathode Material on Sintering and Cycling Processes. ACS Applied Energy Materials, 2020, 3, 6107-6114.	2.5	19

#	Article	IF	Citations
19	Probing solid-state reaction through microstrain: A case study on synthesis of LiCoO2. Journal of Power Sources, 2020, 469, 228422.	4.0	17
20	(Invited) Performance and (de)lithiation Mechanism of Lithium-Lead (Pb) Anode for Li Battery. ECS Meeting Abstracts, 2020, MA2020-02, 31-31.	0.0	0
21	Structural and electrochemical behavior of a NiMnO₃/Mn₂O₃ nanocomposite as an anode for high rate and long cycle lithium ion batteries. New Journal of Chemistry, 2019, 43, 12916-12922.	1.4	4
22	Correlation between manganese dissolution and dynamic phase stability in spinel-based lithium-ion battery. Nature Communications, 2019, 10, 4721.	5.8	182
23	Identifying Active Sites for Parasitic Reactions at the Cathodeâ€"Electrolyte Interface. Journal of Physical Chemistry Letters, 2019, 10, 589-594.	2.1	31
24	Facile synthesis of reduced graphene oxide by modified Hummer's method as anode material for Li-, Na- and K-ion secondary batteries. Royal Society Open Science, 2019, 6, 181978.	1.1	60
25	The Correlation between the Particle Morphology and the Electrochemical Stability for High-Ni Cathode and Understanding of the Mechanism of Parasitic Reaction.. ECS Meeting Abstracts, 2019, , .	0.0	0
26	Insight into Caâ€Substitution Effects on O3â€Type NaNi_{1/3}Fe_{1/3}Mn_{1/3}O₂ Cathode Materials for Sodiumâ€Ion Batteries Application. Small, 2018, 14, e1704523.	5.2	97
27	Sodium manganese oxide electrodes accompanying self-ion exchange for lithium/sodium hybrid ion batteries. Electrochimica Acta, 2018, 261, 42-48.	2.6	10
28	A Lithiumâ€"Sulfur Battery using a 2D Current Collector Architecture with a Largeâ€Sized Sulfur Host Operated under High Areal Loading and Low E/S Ratio. Advanced Materials, 2018, 30, e1804271.	11.1	74
29	In Situ Monitoring of the Growth of Nickel, Manganese, and Cobalt Hydroxide Precursors during Co-Precipitation Synthesis of Li-Ion Cathode Materials. Journal of the Electrochemical Society, 2018, 165, A3077-A3083.	1.3	18
30	Evolution of Nickel, Manganese, and Cobalt Hydroxide Precursor for Li-Ion Battery Cathode Materials in Co-Precipitation Reactions. ECS Meeting Abstracts, 2018, , .	0.0	0
31	Insights into the structural effects of layered cathode materials for high voltage sodium-ion batteries. Energy and Environmental Science, 2017, 10, 1677-1693.	15.6	143
32	One-pot pyro-synthesis of a high energy density LiFePO 4 -Li 3 V 2 (PO 4) 3 nanocomposite cathode for lithium-ion battery applications. Ceramics International, 2017, 43, 4288-4294.	2.3	11
33	The Effect of Tailoring Morphology of Ni-Rich Cathode Oxides on Electrochemical Stability for Lithium Ion Batteries. ECS Meeting Abstracts, 2017, , .	0.0	0
34	Conditioning Safety Index of Ni-Rich Cathode Oxides for Lithium Ion Batteries. ECS Meeting Abstracts, 2017, , .	0.0	0
35	An Enhanced High-Rate Na₃V₂(PO₄)₃-Ni₂P Nanocomposite Cathode with Stable Lifetime for Sodium-Ion Batteries. ACS Applied Materials & Interfaces, 2016, 8, 35235-35242.	4.0	35
36	An in-situ gas chromatography investigation into the suppression of oxygen gas evolution by coated amorphous cobalt-phosphate nanoparticles on oxide electrode. Scientific Reports, 2016, 6, 23394.	1.6	6

#	Article	IF	Citations
37	High rate performance of a NaTi₂(PO₄)₃/rGO composite electrode via pyro synthesis for sodium ion batteries. Journal of Materials Chemistry A, 2016, 4, 7815-7822.	5.2	60
38	Oneâ€Step Pyroâ€Synthesis of a Nanostructured Mn₃O₄/C Electrode with Long Cycle Stability for Rechargeable Lithiumâ€Ion Batteries. Chemistry - A European Journal, 2016, 22, 2039-2045.	1.7	40
39	Direct formation of LiFePO4/graphene composite via microwave-assisted polyol process. Journal of Power Sources, 2016, 304, 354-359.	4.0	35
40	MOF-derived mesoporous anatase TiO2 as anode material for lithiumâ€"ion batteries with high rate capability and long cycle stability. Journal of Alloys and Compounds, 2016, 674, 174-178.	2.8	78
41	High rate capability of LiFePO 4 cathodes doped with a high amount of Ti. Ceramics International, 2016, 42, 7230-7236.	2.3	12
42	A high surface area tunnel-type Î±-MnO2 nanorod cathode by a simple solvent-free synthesis for rechargeable aqueous zinc-ion batteries. Chemical Physics Letters, 2016, 650, 64-68.	1.2	142
43	Porous TiN nanoparticles embedded in a N-doped carbon composite derived from metalâ€"organic frameworks as a superior anode in lithium-ion batteries. Journal of Materials Chemistry A, 2016, 4, 4706-4710.	5.2	39
44	Hierarchical porous anatase TiO₂ derived from a titanium metalâ€"organic framework as a superior anode material for lithium ion batteries. Chemical Communications, 2015, 51, 12274-12277.	2.2	73
45	Enhanced reversible divalent zinc storage in a structurally stable Î±-MnO2 nanorod electrode. Journal of Power Sources, 2015, 288, 320-327.	4.0	322
46	A Porous TiO₂Electrode Prepared by an Energy Efficient Pyro-Synthesis for Advanced Lithium-Ion Batteries. Journal of the Electrochemical Society, 2015, 162, A1220-A1226.	1.3	16
47	Electrochemically Induced Structural Transformation in a Î³-MnO₂ Cathode of a High Capacity Zinc-Ion Battery System. Chemistry of Materials, 2015, 27, 3609-3620.	3.2	788
48	High performance of Co-doped NiO nanoparticle anode material forÂrechargeable lithium ion batteries. Journal of Power Sources, 2015, 292, 23-30.	4.0	159
49	Enhanced Electrochemical Properties of LiMnPO₄/C by Glucose-Assisted Polyol Synthesis. Journal of Nanoscience and Nanotechnology, 2015, 15, 6053-6057.	0.9	3
50	Carbon Coated CoO Electrode Synthesized by Urea-Assisted Auto Combustion for Rechargeable Lithium Battery. Journal of Nanoscience and Nanotechnology, 2015, 15, 540-543.	0.9	5
51	Rapid Polyol-Assisted Microwave Synthesis of Nanocrystalline LiFePO₄/C Cathode for Lithium-Ion Batteries. Journal of Nanoscience and Nanotechnology, 2015, 15, 6168-6171.	0.9	1
52	A layered Î´-MnO 2 nanoflake cathode with high zinc-storage capacities for eco-friendly battery applications. Electrochemistry Communications, 2015, 60, 121-125.	2.3	434
53	Li3V2(PO4)3/graphene nanocomposite as a high performance cathode material for lithium ion battery. Ceramics International, 2015, 41, 389-396.	2.3	23
54	Amorphous iron phosphate: potential host for various charge carrier ions. NPG Asia Materials, 2014, 6, e138-e138.	3.8	213

#	Article	IF	Citations
55	A Sodium Manganese Oxide Cathode by Facile Reduction for Sodium Batteries. Chemistry - an Asian Journal, 2014, 9, 1550-1556.	1.7	23
56	Plate-Type NaV3O8 Cathode by Solid State Reaction for Sodium-Ion Batteries. ECS Electrochemistry Letters, 2014, 3, A69-A71.	1.9	20
57	Effect of Mo6+ doping on electrochemical performance of anatase TiO2 as a high performance anode material for secondary lithium-ion batteries. Journal of Alloys and Compounds, 2014, 598, 16-22.	2.8	59
58	Morphology-controlled LiFePO4 cathodes by a simple polyol reaction for Li-ion batteries. Materials Characterization, 2014, 89, 93-101.	1.9	24
59	A two-step solid state synthesis of LiFePO4/C cathode with varying carbon contents for Li-ion batteries. Ceramics International, 2014, 40, 1561-1567.	2.3	25
60	A rapid polyol combustion strategy towards scalable synthesis of nanostructured LiFePO4/C cathodes for Li-ion batteries. Journal of Solid State Electrochemistry, 2014, 18, 1557-1567.	1.2	23
61	Electrochemical properties of NaxCoO2 (x~0.71) cathode for rechargeable sodium-ion batteries. Ceramics International, 2014, 40, 2411-2417.	2.3	68
62	Potassium-doped copper oxide nanoparticles synthesized by a solvothermal method as an anode material for high-performance lithium ion secondary battery. Applied Surface Science, 2014, 305, 617-625.	3.1	32
63	High Rate Capability and Long Cycle Stability of Co₃O₄/CoFe₂O₄Nanocomposite as an Anode Material for High-Performance Secondary Lithium Ion Batteries. Journal of Physical Chemistry C, 2014, 118, 11234-11243.	1.5	100
64	Nucleation and Growth Controlled Polyol Synthesis of Size-Focused Nanocrystalline LiFePO4Cathode for High Performance Li-Ion Batteries. Journal of the Electrochemical Society, 2014, 161, A1468-A1473.	1.3	7
65	Co 1â˘’x Fe 2+x O 4 (x Â=Â0.1, 0.2) anode materials for rechargeable lithium-ion batteries. Solid State Sciences, 2014, 36, 1-7.	1.5	4
66	Combustion synthesis of MgFe 2 O 4 /graphene nanocomposite as a high-performance negative electrode for lithium ion batteries. Materials Characterization, 2014, 95, 259-265.	1.9	53
67	Effect of Extended Nickel Doping and Secondary Heat Treatment on the Electrochemical Properties of High Energy Spinel LiMn_{1.3}Ni_{0.7}O_yCathode. Journal of the Electrochemical Society, 2014, 161, A1508-A1513.	1.3	1
68	Electrochemical lithium storage of a ZnFe₂O₄/graphene nanocomposite as an anode material for rechargeable lithium ion batteries. RSC Advances, 2014, 4, 47087-47095.	1.7	27
69	Effects of praseodymium substitution on electrical properties of CaCu3Ti4O12 ceramics. Ceramics International, 2014, 40, 181-189.	2.3	13
70	Enhanced electrochemical performance of novel K-doped Co₃O₄ as the anode material for secondary lithium-ion batteries. Journal of Materials Chemistry A, 2014, 2, 6966-6975.	5.2	45
71	Pyro-synthesis of a high rate nano-Li3V2(PO4)3/C cathode with mixed morphology for advanced Li-ion batteries. Scientific Reports, 2014, 4, 4047.	1.6	57
72	Partially reduced Co3O4/graphene nanocomposite as an anode material for secondary lithium ion battery. Electrochimica Acta, 2013, 100, 63-71.	2.6	124

#	Article	IF	Citations
73	A high voltage LiMnPO4â€"LiMn2O4 nanocomposite cathode synthesized by a one-pot pyro synthesis for Li-ion batteries. RSC Advances, 2013, 3, 25640.	1.7	15
74	Mesoporous manganese dioxide cathode prepared by an ambient temperature synthesis for Na-ion batteries. RSC Advances, 2013, 3, 26328.	1.7	12
75	Simple, robust metal fluoride coating on layered Li1.23Ni0.13Co0.14Mn0.56O2 and its effects on enhanced electrochemical properties. Electrochimica Acta, 2013, 100, 10-17.	2.6	23
76	Low temperature synthesis of porous tin oxide anode for high-performance lithium-ion battery. Electrochimica Acta, 2013, 109, 461-467.	2.6	19
77	Facile approach to synthesize CuO/reduced graphene oxide nanocomposite as anode materials for lithium-ion battery. Journal of Power Sources, 2013, 244, 435-441.	4.0	116
78	Simple synthesis and particle size effects of TiO2 nanoparticle anodes for rechargeable lithium ion batteries. Electrochimica Acta, 2013, 90, 112-118.	2.6	98
79	One-step synthesis of CoO anode material for rechargeable lithium-ion batteries. Ceramics International, 2013, 39, 9325-9330.	2.3	58
80	Improving the electrochemical performance of anatase titanium dioxide by vanadium doping as an anode material for lithium-ion batteries. Journal of Power Sources, 2013, 243, 891-898.	4.0	73
81	Enhanced Storage Capacities in Carbon-Coated Triclinic-LiVOPO4 Cathode with Porous Structure for Li-Ion Batteries. ECS Electrochemistry Letters, 2012, 1, A63-A65.	1.9	16
82	Pyro-Synthesis of Functional Nanocrystals. Scientific Reports, 2012, 2, 946.	1.6	42
83	Synthesis of LiFePO4Using Fe3+Precursors in Polyol Medium. Journal of the Electrochemical Society, 2012, 159, A459-A463.	1.3	5
84	Synthesis of LiFePO4Nanoparticles and Crystal Formation Mechanism during Solvothermal Reaction. Journal of the Electrochemical Society, 2012, 159, A479-A484.	1.3	20
85	High rate performance of a Na3V2(PO4)3/C cathode prepared by pyro-synthesis for sodium-ion batteries. Journal of Materials Chemistry, 2012, 22, 20857.	6.7	182
86	Improved electrochemical performance of Li4Ti5O12 with a variable amount of graphene as a conductive agent for rechargeable lithium-ion batteries by solvothermal method. Materials Chemistry and Physics, 2012, 136, 1044-1051.	2.0	43
87	The effects of Mo doping on 0.3Li[Li0.33Mn0.67]O2Â·0.7Li[Ni0.5Co0.2Mn0.3]O2 cathode material. Dalton Transactions, 2012, 41, 3053.	1.6	76
88	Fully activated Li2MnO3 nanoparticles by oxidation reaction. Journal of Materials Chemistry, 2012, 22, 11772.	6.7	63
89	Synthesis and characterization of integrated layered nanocomposites for lithium ion batteries. Nanoscale Research Letters, 2012, 7, 60.	3.1	7
90	Highly reversible capacity nanocomposite anode for secondary lithium-ion batteries. Electrochemistry Communications, 2012, 19, 9-12.	2.3	11

#	Article	IF	Citations
91	Electrochemical and safety characteristics of TiP2O7â€“graphene nanocomposite anode for rechargeable lithium-ion batteries. Electrochimica Acta, 2012, 75, 247-253.	2.6	41
92	Impact of glucose on the electrochemical performance of nano-LiCoPO4 cathode for Li-ion batteries. Journal of Solid State Electrochemistry, 2012, 16, 149-155.	1.2	12
93	Enhanced High-Rate Performance of Li[sub 4]Ti[sub 5]O[sub 12] Nanoparticles for Rechargeable Li-Ion Batteries. Journal of the Electrochemical Society, 2011, 158, A275.	1.3	77
94	Optimized Li₄Ti₅O₁₂ Nanoparticles by Solvothermal Route for Li-Ion Batteries. Journal of Nanoscience and Nanotechnology, 2011, 11, 7294-7298.	0.9	5
95	Self-assembled mesoporous manganese oxide with high surface area by ambient temperature synthesis and its enhanced electrochemical properties. Electrochemistry Communications, 2011, 13, 730-733.	2.3	39
96	Synthesis of xLi2MnO3Â·(1âˆ’x)LiMO2 (M=Cr, Mn, Co, Ni) nanocomposites and their electrochemical properties. Materials Research Bulletin, 2010, 45, 252-255.	2.7	35
97	Nanorod-assembled spinel Li1.05Mn1.95O4 rods with a central tunnel along the rod-axis for high rate capability of rechargeable lithium-ion batteries. Electrochimica Acta, 2010, 55, 8888-8893.	2.6	5
98	Synthesis and Electrochemical Properties of LiMPO₄ (M = Fe, Mn, Co) Nanocrystals in Polyol Medium. Journal of Nanoscience and Nanotechnology, 2010, 10, 3357-3361.	0.9	8
99	SYNTHESIS OF HIGHLY CRYSTALLINE OLIVINE-TYPE LiFePO4 NANOPARTICLES BY SOLUTION-BASED REACTIONS. Surface Review and Letters, 2010, 17, 111-119.	0.5	17