Jihyeon Gim

List of Publications by Year
in descending order

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99 papers	5,199 citations	101543 36 h-index	88630 70 g-index
101 all docs	101 docs citations	101 times ranked	6136 citing authors

#	Article	IF	Citations
1	Electrochemically Induced Structural Transformation in a Î³-MnO₂ Cathode of a High Capacity Zinc-Ion Battery System. Chemistry of Materials, 2015, 27, 3609-3620.	6.7	788
2	A layered Î´-MnO 2 nanoflake cathode with high zinc-storage capacities for eco-friendly battery applications. Electrochemistry Communications, 2015, 60, 121-125.	4.7	434
3	Enhanced reversible divalent zinc storage in a structurally stable Î±-MnO2 nanorod electrode. Journal of Power Sources, 2015, 288, 320-327.	7.8	322
4	Amorphous iron phosphate: potential host for various charge carrier ions. NPG Asia Materials, 2014, 6, e138-e138.	7.9	213
5	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
6	Correlation between manganese dissolution and dynamic phase stability in spinel-based lithium-ion battery. Nature Communications, 2019, 10, 4721.	12.8	182
7	High performance of Co-doped NiO nanoparticle anode material forÂrechargeable lithium ion batteries. Journal of Power Sources, 2015, 292, 23-30.	7.8	159
8	Insights into the structural effects of layered cathode materials for high voltage sodium-ion batteries. Energy and Environmental Science, 2017, 10, 1677-1693.	30.8	143
9	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.	2.6	142
10	Partially reduced Co3O4/graphene nanocomposite as an anode material for secondary lithium ion battery. Electrochimica Acta, 2013, 100, 63-71.	5.2	124
11	Facile approach to synthesize CuO/reduced graphene oxide nanocomposite as anode materials for lithium-ion battery. Journal of Power Sources, 2013, 244, 435-441.	7.8	116
12	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.	3.1	100
13	Simple synthesis and particle size effects of TiO2 nanoparticle anodes for rechargeable lithium ion batteries. Electrochimica Acta, 2013, 90, 112-118.	5.2	98
14	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.	10.0	97
15	Rational design of mechanically robust Ni-rich cathode materials via concentration gradient strategy. Nature Communications, 2021, 12, 6024.	12.8	80
16	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.	5.5	78
17	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.	2.9	77
18	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.	3.3	76

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19	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.	21.0	74
20	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.	7.8	73
21	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.	4.1	73
22	Electrochemical properties of NaxCoO2 (x~0.71) cathode for rechargeable sodium-ion batteries. Ceramics International, 2014, 40, 2411-2417.	4.8	68
23	Fully activated Li2MnO3 nanoparticles by oxidation reaction. Journal of Materials Chemistry, 2012, 22, 11772.	6.7	63
24	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.	10.3	60
25	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.	2.4	60
26	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.	5.5	59
27	One-step synthesis of CoO anode material for rechargeable lithium-ion batteries. Ceramics International, 2013, 39, 9325-9330.	4.8	58
28	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.	3.3	57
29	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.	4.4	53
30	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.	10.3	45
31	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.	4.0	43
32	Pyro-Synthesis of Functional Nanocrystals. Scientific Reports, 2012, 2, 946.	3.3	42
33	Electrochemical and safety characteristics of TiP2O7â€“graphene nanocomposite anode for rechargeable lithium-ion batteries. Electrochimica Acta, 2012, 75, 247-253.	5.2	41
34	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.	3.3	40
35	Self-assembled mesoporous manganese oxide with high surface area by ambient temperature synthesis and its enhanced electrochemical properties. Electrochemistry Communications, 2011, 13, 730-733.	4.7	39
36	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.	10.3	39

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37	Synthesis of xLi2MnO3Â·(1â^'x)LiMO2 (M=Cr, Mn, Co, Ni) nanocomposites and their electrochemical properties. Materials Research Bulletin, 2010, 45, 252-255.	5.2	35
38	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.	8.0	35
39	Direct formation of LiFePO4/graphene composite via microwave-assisted polyol process. Journal of Power Sources, 2016, 304, 354-359.	7.8	35
40	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.	6.1	32
41	Identifying Active Sites for Parasitic Reactions at the Cathodeâ€"Electrolyte Interface. Journal of Physical Chemistry Letters, 2019, 10, 589-594.	4.6	31
42	Electrochemical lithium storage of a ZnFe₂O₄/graphene nanocomposite as an anode material for rechargeable lithium ion batteries. RSC Advances, 2014, 4, 47087-47095.	3.6	27
43	A two-step solid state synthesis of LiFePO4/C cathode with varying carbon contents for Li-ion batteries. Ceramics International, 2014, 40, 1561-1567.	4.8	25
44	Morphology-controlled LiFePO4 cathodes by a simple polyol reaction for Li-ion batteries. Materials Characterization, 2014, 89, 93-101.	4.4	24
45	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.	5.2	23
46	A Sodium Manganese Oxide Cathode by Facile Reduction for Sodium Batteries. Chemistry - an Asian Journal, 2014, 9, 1550-1556.	3.3	23
47	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.	2.5	23
48	Li3V2(PO4)3/graphene nanocomposite as a high performance cathode material for lithium ion battery. Ceramics International, 2015, 41, 389-396.	4.8	23
49	Unravelling the Nature of the Intrinsic Complex Structure of Binaryâ€Phase Naâ€Layered Oxides. Advanced Materials, 2022, 34, e2202137.	21.0	21
50	Synthesis of LiFePO4Nanoparticles and Crystal Formation Mechanism during Solvothermal Reaction. Journal of the Electrochemical Society, 2012, 159, A479-A484.	2.9	20
51	Plate-Type NaV3O8 Cathode by Solid State Reaction for Sodium-Ion Batteries. ECS Electrochemistry Letters, 2014, 3, A69-A71.	1.9	20
52	Low temperature synthesis of porous tin oxide anode for high-performance lithium-ion battery. Electrochimica Acta, 2013, 109, 461-467.	5.2	19
53	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.	5.1	19
54	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.	2.9	18

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55	Origins of Irreversibility in Layered NaNi_xFe_yMn_zO₂ Cathode Materials for Sodium Ion Batteries. ACS Applied Materials & Interfaces, 2020, 12, 51397-51408.	8.0	18
56	SYNTHESIS OF HIGHLY CRYSTALLINE OLIVINE-TYPE LiFePO4 NANOPARTICLES BY SOLUTION-BASED REACTIONS. Surface Review and Letters, 2010, 17, 111-119.	1.1	17
57	Probing solid-state reaction through microstrain: A case study on synthesis of LiCoO2. Journal of Power Sources, 2020, 469, 228422.	7.8	17
58	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
59	A Porous TiO₂Electrode Prepared by an Energy Efficient Pyro-Synthesis for Advanced Lithium-Ion Batteries. Journal of the Electrochemical Society, 2015, 162, A1220-A1226.	2.9	16
60	Investigation of Ca Insertion into Î±-MoO₃ Nanoparticles for High Capacity Ca-Ion Cathodes. Nano Letters, 2022, 22, 2228-2235.	9.1	16
61	A high voltage LiMnPO4â€“LiMn2O4 nanocomposite cathode synthesized by a one-pot pyro synthesis for Li-ion batteries. RSC Advances, 2013, 3, 25640.	3.6	15
62	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.	12.0	15
63	Effects of praseodymium substitution on electrical properties of CaCu3Ti4O12 ceramics. Ceramics International, 2014, 40, 181-189.	4.8	13
64	Dual-Salt Electrolytes to Effectively Reduce Impedance Rise of High-Nickel Lithium-Ion Batteries. ACS Applied Materials & Interfaces, 2021, 13, 40502-40512.	8.0	13
65	Impact of glucose on the electrochemical performance of nano-LiCoPO4 cathode for Li-ion batteries. Journal of Solid State Electrochemistry, 2012, 16, 149-155.	2.5	12
66	Mesoporous manganese dioxide cathode prepared by an ambient temperature synthesis for Na-ion batteries. RSC Advances, 2013, 3, 26328.	3.6	12
67	High rate capability of LiFePO 4 cathodes doped with a high amount of Ti. Ceramics International, 2016, 42, 7230-7236.	4.8	12
68	Highly reversible capacity nanocomposite anode for secondary lithium-ion batteries. Electrochemistry Communications, 2012, 19, 9-12.	4.7	11
69	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.	4.8	11
70	Sodium manganese oxide electrodes accompanying self-ion exchange for lithium/sodium hybrid ion batteries. Electrochimica Acta, 2018, 261, 42-48.	5.2	10
71	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.	10.3	10
72	Intercalation of Ca into a Highly Defective Manganese Oxide at Room Temperature. Chemistry of Materials, 2022, 34, 836-846.	6.7	10

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73	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.	2.9	10
74	Concealed Cathode Degradation in Lithium-Ion Cells with a Ni-Rich Oxide. Journal of the Electrochemical Society, 2022, 169, 040539.	2.9	9
75	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
76	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.	4.1	8
77	Synthesis and characterization of integrated layered nanocomposites for lithium ion batteries. Nanoscale Research Letters, 2012, 7, 60.	5.7	7
78	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.	2.9	7
79	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.	3.3	6
80	New Highâ€Performance Pbâ€Based Nanocomposite Anode Enabled by Wideâ€Range Pb Redox and Zintl Phase Transition. Advanced Functional Materials, 2021, 31, 2005362.	14.9	6
81	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.	5.2	5
82	Optimized Li₄Ti₅O₁₂ Nanoparticles by Solvothermal Route for Li-Ion Batteries. Journal of Nanoscience and Nanotechnology, 2011, 11, 7294-7298.	0.9	5
83	Synthesis of LiFePO4Using Fe3+Precursors in Polyol Medium. Journal of the Electrochemical Society, 2012, 159, A459-A463.	2.9	5
84	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
85	Facile Electrochemical Mg-Ion Transport in a Defect-Free Spinel Oxide. Chemistry of Materials, 2022, 34, 3789-3797.	6.7	5
86	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.	3.2	4
87	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.	2.8	4
88	Enhanced Electrochemical Properties of LiMnPO₄/C by Glucose-Assisted Polyol Synthesis. Journal of Nanoscience and Nanotechnology, 2015, 15, 6053-6057.	0.9	3
89	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.	2.9	1
90	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

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91	Performance Loss Mechanisms in Lithium-Ion Cells with Nickel-Dominant Oxide Cathodes. ECS Meeting Abstracts, 2021, MA2021-01, 92-92.	0.0	0
92	The Effect of Tailoring Morphology of Ni-Rich Cathode Oxides on Electrochemical Stability for Lithium Ion Batteries. ECS Meeting Abstracts, 2017, , .	0.0	0
93	Conditioning Safety Index of Ni-Rich Cathode Oxides for Lithium Ion Batteries. ECS Meeting Abstracts, 2017, , .	0.0	0
94	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
95	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
96	Performance Optimization of High Ni (â‰¥90%) Cathode Materials: Synthesis & Calcination. ECS Meeting Abstracts, 2021, MA2021-02, 397-397.	0.0	0
97	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
98	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
99	(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