Daiwon Choi

List of Publications by Year
in descending order

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75 papers	15,455 citations	61857 43 h-index	110170 64 g-index
78 all docs	78 docs citations	78 times ranked	18383 citing authors

#	Article	IF	Citations
1	Electrochemical Energy Storage for Green Grid. Chemical Reviews, 2011, 111, 3577-3613.	23.0	4,276
2	Self-Assembled TiO₂â€“Graphene Hybrid Nanostructures for Enhanced Li-Ion Insertion. ACS Nano, 2009, 3, 907-914.	7.3	1,596
3	Nanostructures and lithium electrochemical reactivity of lithium titanites and titanium oxides: A review. Journal of Power Sources, 2009, 192, 588-598.	4.0	804
4	Ternary Self-Assembly of Ordered Metal Oxideâ^'Graphene Nanocomposites for Electrochemical Energy Storage. ACS Nano, 2010, 4, 1587-1595.	7.3	795
5	Fast and Reversible Surface Redox Reaction in Nanocrystalline Vanadium Nitride Supercapacitors. Advanced Materials, 2006, 18, 1178-1182.	11.1	720
6	Exfoliated MoS₂ Nanocomposite as an Anode Material for Lithium Ion Batteries. Chemistry of Materials, 2010, 22, 4522-4524.	3.2	714
7	Reversible Sodium Ion Insertion in Single Crystalline Manganese Oxide Nanowires with Long Cycle Life. Advanced Materials, 2011, 23, 3155-3160.	11.1	638
8	Highâ€Performance LiNi_{0.5}Mn_{1.5}O₄ Spinel Controlled by Mn³⁺ Concentration and Site Disorder. Advanced Materials, 2012, 24, 2109-2116.	11.1	434
9	Chemically Bonded Phosphorus/Graphene Hybrid as a High Performance Anode for Sodium-Ion Batteries. Nano Letters, 2014, 14, 6329-6335.	4.5	434
10	LiMnPO₄ Nanoplate Grown via Solid-State Reaction in Molten Hydrocarbon for Li-Ion Battery Cathode. Nano Letters, 2010, 10, 2799-2805.	4.5	354
11	Nanostructured calcium phosphates for biomedical applications: novel synthesis and characterization. Acta Biomaterialia, 2005, 1, 65-83.	4.1	325
12	Effect of entropy change of lithium intercalation in cathodes and anodes on Li-ion battery thermal management. Journal of Power Sources, 2010, 195, 3720-3729.	4.0	313
13	Surfactant based solâ€“gel approach to nanostructured LiFePO4 for high rate Li-ion batteries. Journal of Power Sources, 2007, 163, 1064-1069.	4.0	309
14	In Situ Transmission Electron Microscopy Observation of Microstructure and Phase Evolution in a SnO₂Nanowire during Lithium Intercalation. Nano Letters, 2011, 11, 1874-1880.	4.5	266
15	Synthesis and Li-Ion Insertion Properties of Highly Crystalline Mesoporous Rutile TiO₂. Chemistry of Materials, 2008, 20, 3435-3442.	3.2	254
16	Anthraquinone with tailored structure for a nonaqueous metalâ€“organic redox flow battery. Chemical Communications, 2012, 48, 6669.	2.2	217
17	Controlling Porosity in Ligninâ€Derived Nanoporous Carbon for Supercapacitor Applications. ChemSusChem, 2015, 8, 428-432.	3.6	196
18	Nanocrystalline TiN Derived by a Two-Step Halide Approach for Electrochemical Capacitors. Journal of the Electrochemical Society, 2006, 153, A2298.	1.3	165

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19	Li-ion batteries from LiFePO4 cathode and anatase/graphene composite anode for stationary energy storage. Electrochemistry Communications, 2010, 12, 378-381.	2.3	145
20	GeO_x/Reduced Graphene Oxide Composite as an Anode for Liâ€Ion Batteries: Enhanced Capacity via Reversible Utilization of Li₂O along with Improved Rate Performance. Advanced Functional Materials, 2014, 24, 1059-1066.	7.8	143
21	Enhanced performance of graphite anode materials by AlF3 coating for lithium-ion batteries. Journal of Materials Chemistry, 2012, 22, 12745.	6.7	129
22	Amorphous Zn2GeO4 nanoparticles as anodes with high reversible capacity and long cycling life for Li-ion batteries. Nano Energy, 2013, 2, 498-504.	8.2	120
23	In situ transmission electron microscopy and spectroscopy studies of interfaces in Li ion batteries: Challenges and opportunities. Journal of Materials Research, 2010, 25, 1541-1547.	1.2	112
24	Stabilization of Silicon Anode for Li-Ion Batteries. Journal of the Electrochemical Society, 2010, 157, A1047.	1.3	108
25	Thermal stability and phase transformation of electrochemically charged/discharged LiMnPO4 cathode for Li-ion batteries. Energy and Environmental Science, 2011, 4, 4560.	15.6	107
26	Template free synthesis of LiV₃O₈nanorods as a cathode material for high-rate secondary lithium batteries. Journal of Materials Chemistry, 2011, 21, 1153-1161.	6.7	105
27	Chemical synthesis of hydroxyapatite/poly(Îµ-caprolactone) composites. Materials Research Bulletin, 2004, 39, 417-432.	2.7	101
28	Direct detection of Pb in urine and Cd, Pb, Cu, and Ag in natural waters using electrochemical sensors immobilized with DMSA functionalized magnetic nanoparticles. Analyst, The, 2008, 133, 348.	1.7	100
29	High-rate cathodes based on Li3V2(PO4)3 nanobelts prepared via surfactant-assisted fabrication. Journal of Power Sources, 2011, 196, 3646-3649.	4.0	100
30	Synthesis, Structure, and Electrochemical Characterization of Nanocrystalline Tantalum and Tungsten Nitrides. Journal of the American Ceramic Society, 2007, 90, 3113-3120.	1.9	97
31	Rechargeable Mgâ€“Li hybrid batteries: status and challenges. Journal of Materials Research, 2016, 31, 3125-3141.	1.2	92
32	Li-ion battery technology for grid application. Journal of Power Sources, 2021, 511, 230419.	4.0	87
33	Chemically Synthesized Nanostructured VN for Pseudocapacitor Application. Electrochemical and Solid-State Letters, 2005, 8, A418.	2.2	81
34	Synthesis and Characterization of Lithium Manganese Phosphate by a Precipitation Method. Journal of the Electrochemical Society, 2010, 157, A142.	1.3	76
35	Nanostructured ceramics in medical devices: Applications and prospects. Jom, 2004, 56, 38-43.	0.9	73
36	Synthesis and Characterization of Nanostructured Niobium and Molybdenum Nitrides by a Two-Step Transition Metal Halide Approach. Journal of the American Ceramic Society, 2011, 94, 2371-2378.	1.9	71

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37	Mechano-chemical synthesis and characterization of nanostructured Î²-TCP powder. Materials Science and Engineering C, 2007, 27, 377-381.	3.8	66
38	EQCM immunoassay for phosphorylated acetylcholinesterase as a biomarker for organophosphate exposures based on selective zirconia adsorption and enzyme-catalytic precipitation. Biosensors and Bioelectronics, 2009, 24, 2377-2383.	5.3	65
39	Toward the design of high voltage magnesiumâ€“lithium hybrid batteries using dual-salt electrolytes. Chemical Communications, 2016, 52, 5379-5382.	2.2	60
40	Lithium-ion batteries for stationary energy storage. Jom, 2010, 62, 24-30.	0.9	59
41	Simply AlF3-treated Li4Ti5O12 composite anode materials for stable and ultrahigh power lithium-ion batteries. Journal of Power Sources, 2013, 236, 169-174.	4.0	51
42	Lifecycle comparison of selected Li-ion battery chemistries under grid and electric vehicle duty cycle combinations. Journal of Power Sources, 2018, 380, 185-193.	4.0	49
43	An Alternative Chemical Route for the Synthesis and Thermal Stability of Chemically Enriched Hydroxyapatite. Journal of the American Ceramic Society, 2006, 89, 444-449.	1.9	46
44	Effects of waterâ€based binders on electrochemical performance of manganese dioxide cathode in mild aqueous zinc batteries. , 2021, 3, 473-481.		44
45	Multi-electron redox reaction of an organic radical cathode induced by a mesopore carbon network with nitroxide polymers. Physical Chemistry Chemical Physics, 2013, 15, 20921.	1.3	40
46	Li-Ion Battery with LiFePO4 Cathode and Li4Ti5O12 Anode for Stationary Energy Storage. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2013, 44, 21-25.	1.1	38
47	Synthesis of Nanostructured TiN Using a Twoâ€Step Transition Metal Halide Approach. Journal of the American Ceramic Society, 2005, 88, 2030-2035.	1.9	32
48	Electrochemical performances of LiMnPO4 synthesized from non-stoichiometric Li/Mn ratio. Physical Chemistry Chemical Physics, 2011, 13, 18099.	1.3	31
49	Catalytic templating approaches for three-dimensional hollow carbon/graphene oxide nano-architectures. Nanoscale, 2013, 5, 6291.	2.8	31
50	Lithium-ion battery physics and statistics-based state of health model. Journal of Power Sources, 2021, 501, 230032.	4.0	23
51	Crystal and electronic structure of lithiated nanosized rutile TiO2 by electron diffraction and electron energy-loss spectroscopy. Applied Physics Letters, 2009, 94, .	1.5	21
52	Lithium Insertion Mechanism in Iron Fluoride Nanoparticles Prepared by Catalytic Decomposition of Fluoropolymer. ACS Applied Energy Materials, 2019, 2, 1832-1843.	2.5	21
53	Mechanistic investigation of redox processes in Znâ€“MnO₂ battery in mild aqueous electrolytes. Journal of Materials Chemistry A, 2021, 9, 20766-20775.	5.2	18
54	Vapor-induced solidâ€“liquidâ€“solid process for silicon-based nanowire growth. Journal of Power Sources, 2010, 195, 1691-1697.	4.0	16

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55	In situ electrochemical-electron spin resonance investigations of multi-electron redox reaction for organic radical cathodes. Journal of Power Sources, 2016, 306, 812-816.	4.0	16
56	Electrochemically Controlled Ionâ€exchange Property of Carbon Nanotubes/Polypyrrole Nanocomposite in Various Electrolyte Solutions. Electroanalysis, 2017, 29, 929-936.	1.5	14
57	Composite organic radicalâ€“inorganic hybrid cathode for lithium-ion batteries. Journal of Power Sources, 2013, 233, 69-73.	4.0	11
58	LiCoPO4 cathode from a CoHPO4Â·xH2O nanoplate precursor for high voltage Li-ion batteries. Heliyon, 2016, 2, e00081.	1.4	10
59	Synthesis, surface chemistry and pseudocapacitance mechanisms of VN nanocrystals derived by a simple two-step halide approach. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2018, 230, 8-19.	1.7	8
60	Controlling Porosity in Ligninâ€Derived Nanoporous Carbon for Supercapacitor Applications. ChemSusChem, 2015, 8, 411-411.	3.6	7
61	Transparent oxygen impermeable AlOx thin films on polycarbonate deposited by reactive ion beam sputtering. Applied Surface Science, 2005, 249, 60-64.	3.1	4
62	Silicon-Based Anodes for Li-Ion Batteries. , 2013, , 471-504.		4
63	Silicon-Based Anodes for Li-Ion Batteries. , 2012, , 9293-9316.		4
64	Effect of assisted ion energy on properties of silicon oxide thin film deposited by dual ion-beam sputtering. Journal of Applied Polymer Science, 2007, 105, 2444-2452.	1.3	3
65	Nanomaterials-Enhanced Electrically Switched Ion Exchange Process for Water Treatment. , 2009, , 179-189.		2
66	In-Situ and Ex-situ TEM Imaging and Spectroscopy Study of Li-Ion Battery. Microscopy and Microanalysis, 2009, 15, 726-727.	0.2	1
67	Nanomaterials-Enhanced Electrically Switched Ion Exchange Process for Water Treatment. , 2014, , 271-280.		1
68	Exploring Lithium Deficiency in Layered Oxide Cathode for Liâ€Ion Battery. Advanced Sustainable Systems, 2017, 1, 1700026.	2.7	1
69	Porous LiFePO4 for High Rate Li-ion Cathode by Carboxylic Surfactant Assisted Mechanochemical Approach. ECS Meeting Abstracts, 2008, , .	0.0	0
70	Full Cell Design and Performance for Stationary Li-Ion Battery System. ECS Meeting Abstracts, 2010, , .	0.0	0
71	Polyanion Type Cathodes for Stationary Lithium Ion Batteries. ECS Meeting Abstracts, 2012, , .	0.0	0
72	Olivine Type Cathodes for Stationary Lithium-Ion Batteries. ECS Meeting Abstracts, 2012, , .	0.0	0

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73	Liâ€Ion Batteries: Exploring Lithium Deficiency in Layered Oxide Cathode for Liâ€Ion Battery (Adv.) Tj ETQq1 1 0.784314 rgBT /Overlo	2.7	0
74	Development of Lithium-Organic Redox Flow Battery. ECS Meeting Abstracts, 2013, , .	0.0	0
75	(Invited) Comparative Reliability Testing of Li-Ion Battery Chemistries Under Grid Services. ECS Meeting Abstracts, 2020, MA2020-02, 1064-1064.	0.0	0