Hun-Gi Jung

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118 85 7,471 42 h-index g-index citations papers 6.22 8,498 12 123 L-index ext. citations avg, IF ext. papers

#	Paper	IF	Citations
118	An improved high-performance lithium-air battery. <i>Nature Chemistry</i> , 2012 , 4, 579-85	17.6	909
117	Nanostructured high-energy cathode materials for advanced lithium batteries. <i>Nature Materials</i> , 2012 , 11, 942-7	27	781
116	Microscale spherical carbon-coated Li4Ti5O12 as ultra high power anode material for lithium batteries. <i>Energy and Environmental Science</i> , 2011 , 4, 1345	35.4	399
115	Ruthenium-based electrocatalysts supported on reduced graphene oxide for lithium-air batteries. <i>ACS Nano</i> , 2013 , 7, 3532-9	16.7	348
114	A high-rate long-life Li4Ti5O12/Li[Ni0.45Co0.1Mn1.45]O4 lithium-ion battery. <i>Nature Communications</i> , 2011 , 2, 516	17.4	301
113	An Advanced Lithium-Sulfur Battery. Advanced Functional Materials, 2013, 23, 1076-1080	15.6	284
112	NaCrO2 cathode for high-rate sodium-ion batteries. <i>Energy and Environmental Science</i> , 2015 , 8, 2019-20	255.4	239
111	Redox Mediators for Li-O Batteries: Status and Perspectives. <i>Advanced Materials</i> , 2018 , 30, 1704162	24	206
110	Improved Cycling Stability of Li[Ni0.90Co0.05Mn0.05]O2 Through Microstructure Modification by Boron Doping for Li-Ion Batteries. <i>Advanced Energy Materials</i> , 2018 , 8, 1801202	21.8	194
109	LiD2 cells with LiBr as an electrolyte and a redox mediator. <i>Energy and Environmental Science</i> , 2016 , 9, 2334-2345	35.4	190
108	A high energy and power density hybrid supercapacitor based on an advanced carbon-coated Li4Ti5O12 electrode. <i>Journal of Power Sources</i> , 2013 , 221, 266-271	8.9	165
107	A contribution to the progress of high energy batteries: A metal-free, lithium-ion, siliconBulfur battery. <i>Journal of Power Sources</i> , 2012 , 202, 308-313	8.9	146
106	A metal-free, lithium-ion oxygen battery: a step forward to safety in lithium-air batteries. <i>Nano Letters</i> , 2012 , 12, 5775-9	11.5	141
105	Study on the Catalytic Activity of Noble Metal Nanoparticles on Reduced Graphene Oxide for Oxygen Evolution Reactions in Lithium-Air Batteries. <i>Nano Letters</i> , 2015 , 15, 4261-8	11.5	123
104	Micron-sized, carbon-coated Li4Ti5O12 as high power anode material for advanced lithium batteries. <i>Journal of Power Sources</i> , 2011 , 196, 7763-7766	8.9	111
103	Self-Rearrangement of Silicon Nanoparticles Embedded in Micro-Carbon Sphere Framework for High-Energy and Long-Life Lithium-Ion Batteries. <i>Nano Letters</i> , 2017 , 17, 5600-5606	11.5	108
102	Mesoporous Anatase TiO2 with High Surface Area and Controllable Pore Size by F⊞on Doping: Applications for High-Power Li-Ion Battery Anode. <i>Journal of Physical Chemistry C</i> , 2009 , 113, 21258-212	2 <i>6</i> 3 ⁸	108

(2013-2012)

101	A transmission electron microscopy study of the electrochemical process of lithium-oxygen cells. <i>Nano Letters</i> , 2012 , 12, 4333-5	11.5	102
100	Three-dimensional silicon/carbon coreShell electrode as an anode material for lithium-ion batteries. <i>Journal of Power Sources</i> , 2015 , 279, 13-20	8.9	92
99	High-voltage performance of concentration-gradient Li[Ni0.67Co0.15Mn0.18]O2 cathode material for lithium-ion batteries. <i>Electrochimica Acta</i> , 2010 , 55, 8621-8627	6.7	91
98	Nano/Microstructured Silicon-Carbon Hybrid Composite Particles Fabricated with Corn Starch Biowaste as Anode Materials for Li-Ion Batteries. <i>Nano Letters</i> , 2020 , 20, 625-635	11.5	88
97	Mesoporous TiO2 nano networks: Anode for high power lithium battery applications. <i>Electrochemistry Communications</i> , 2009 , 11, 756-759	5.1	87
96	Enhanced electrochemical performance of carbon∏iMn1⊠FexPO4 nanocomposite cathode for lithium-ion batteries. <i>Journal of Power Sources</i> , 2011 , 196, 6924-6928	8.9	86
95	Control of electrochemical properties of nickel-rich layered cathode materials for lithium ion batteries by variation of the manganese to cobalt ratio. <i>Journal of Power Sources</i> , 2015 , 275, 877-883	8.9	85
94	A high-capacity Li[Ni0.8Co0.06Mn0.14]O2 positive electrode with a dual concentration gradient for next-generation lithium-ion batteries. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 22183-22190	13	74
93	A review of challenges and issues concerning interfaces for all-solid-state batteries. <i>Energy Storage Materials</i> , 2020 , 25, 224-250	19.4	74
92	Optimized Concentration of Redox Mediator and Surface Protection of Li Metal for Maintenance of High Energy Efficiency in Lit Batteries. <i>Advanced Energy Materials</i> , 2018 , 8, 1702258	21.8	71
91	Study on the Electrochemical Reaction Mechanism of NiFeO as a High-Performance Anode for Li-Ion Batteries. <i>ACS Applied Materials & Acs Applied & Acs </i>	9.5	68
90	Coating lithium titanate with nitrogen-doped carbon by simple refluxing for high-power lithium-ion batteries. <i>ACS Applied Materials & Documents amp; Interfaces</i> , 2015 , 7, 10250-7	9.5	57
89	Synthesis of Li[Li1.19Ni0.16Co0.08Mn0.57]O2 cathode materials with a high volumetric capacity for Li-ion batteries. <i>Journal of Power Sources</i> , 2012 , 203, 115-120	8.9	57
88	Anatase TiO2 spheres with high surface area and mesoporous structure via a hydrothermal process for dye-sensitized solar cells. <i>Electrochimica Acta</i> , 2010 , 55, 4637-4641	6.7	56
87	Improved electrochemical performance of boron-doped carbon-coated lithium titanate as an anode material for sodium-ion batteries. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 2802-2810	13	54
86	Optimized Bicompartment Two Solution Cells for Effective and Stable Operation of LiD2 Batteries. <i>Advanced Energy Materials</i> , 2017 , 7, 1701232	21.8	54
85	Toward the Sustainable Lithium Metal Batteries with a New Electrolyte Solvation Chemistry. <i>Advanced Energy Materials</i> , 2020 , 10, 2000567	21.8	53
84	Silicon/copper dome-patterned electrodes for high-performance hybrid supercapacitors. <i>Scientific Reports</i> , 2013 , 3, 3183	4.9	52

83	Influence of temperature on lithium-oxygen battery behavior. Nano Letters, 2013, 13, 2971-5	11.5	52
82	Review Comparative Evaluation of Redox Mediators for Li-O2Batteries: A Critical Review. <i>Journal of the Electrochemical Society</i> , 2018 , 165, A2274-A2293	3.9	51
81	Investigation of anode-supported SOFC with cobalt-containing cathode and GDC interlayer. <i>Solid State Ionics</i> , 2008 , 179, 1535-1539	3.3	50
80	Deactivation of redox mediators in lithium-oxygen batteries by singlet oxygen. <i>Nature Communications</i> , 2019 , 10, 1380	17.4	49
79	Stabilization of Lithium-Metal Batteries Based on the in Situ Formation of a Stable Solid Electrolyte Interphase Layer. <i>ACS Applied Materials & Amp; Interfaces</i> , 2018 , 10, 17985-17993	9.5	49
78	Nitrogen-doped Carbon Coated Porous Silicon as High Performance Anode Material for Lithium-Ion Batteries. <i>Electrochimica Acta</i> , 2016 , 209, 299-307	6.7	47
77	Improved Co-substituted, LiNi0.5\(\mathbb{Q}\)Co2xMn1.5\(\mathbb{Q}\)O4 lithium ion battery cathode materials. <i>Journal of Power Sources</i> , 2012 , 220, 354-359	8.9	45
76	A nano-LiNbO3 coating layer and diffusion-induced surface control towards high-performance 5 V spinel cathodes for rechargeable batteries. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 25077-25089	13	42
75	Electrochemical Investigations on TiO 2 -B Nanowires as a Promising High Capacity Anode for Sodium-ion Batteries. <i>Electrochimica Acta</i> , 2016 , 200, 21-28	6.7	40
74	Carbon-Free TiO2 Microspheres as Anode Materials for Sodium Ion Batteries. <i>ACS Energy Letters</i> , 2019 , 4, 494-501	20.1	38
73	Superionic Halogen-Rich Li-Argyrodites Using In Situ Nanocrystal Nucleation and Rapid Crystal Growth. <i>Nano Letters</i> , 2020 , 20, 2303-2309	11.5	36
72	Quantitative Analysis of Microstructures and Reaction Interfaces on Composite Cathodes in All-Solid-State Batteries Using a Three-Dimensional Reconstruction Technique. <i>ACS Applied Materials & Amp; Interfaces</i> , 2018 , 10, 23740-23747	9.5	36
71	Formation of a Continuous Solid-Solution Particle and its Application to Rechargeable Lithium Batteries. <i>Advanced Functional Materials</i> , 2013 , 23, 1028-1036	15.6	36
70	Elucidating the reaction mechanism of SnF2@C nanocomposite as a high-capacity anode material for Na-ion batteries. <i>Nano Energy</i> , 2017 , 42, 106-114	17.1	34
69	A new P2-type layered oxide cathode with superior full-cell performances for K-ion batteries. Journal of Materials Chemistry A, 2019 , 7, 21362-21370	13	33
68	High-performance Ti-doped O3-type Na[Tix(Ni0.6Co0.2Mn0.2)1-x]O2 cathodes for practical sodium-ion batteries. <i>Journal of Power Sources</i> , 2019 , 422, 1-8	8.9	33
67	Controversial Topics on Lithium Superoxide in LiD2 Batteries. ACS Energy Letters, 2017, 2, 2756-2760	20.1	33
66	Probing the Sodium Insertion/Extraction Mechanism in a Layered NaVO Anode Material. <i>ACS Applied Materials & Applied & Applied Materials & Applied & Applied</i>	9.5	28

(2020-2019)

65	Mutual Conservation of Redox Mediator and Singlet Oxygen Quencher in Lithium Dxygen Batteries. ACS Catalysis, 2019 , 9, 9914-9922	13.1	28
64	Improved electrochemical performances of LiM0.05Co0.95O1.95F0.05 (M=Mg, Al, Zr) at high voltage. <i>Electrochimica Acta</i> , 2012 , 68, 153-157	6.7	28
63	SOFCs with Sc-Doped Zirconia Electrolyte and Co-Containing Perovskite Cathodes. <i>Journal of the Electrochemical Society</i> , 2007 , 154, B480	3.9	28
62	Theoretical Design of Lithium Chloride Superionic Conductors for All-Solid-State High-Voltage Lithium-Ion Batteries. <i>ACS Applied Materials & Design</i> , Interfaces, 2020 , 12, 34806-34814	9.5	26
61	Revealing the Reaction Mechanism of NaD2 Batteries using Environmental Transmission Electron Microscopy. <i>ACS Energy Letters</i> , 2018 , 3, 393-399	20.1	26
60	Silver nanowires as catalytic cathodes for stabilizing lithium-oxygen batteries. <i>Journal of Power Sources</i> , 2016 , 311, 49-56	8.9	25
59	Presodiation Strategies and Their Effect on Electrode-Electrolyte Interphases for High-Performance Electrodes for Sodium-Ion Batteries. <i>ACS Applied Materials & Discrete Applied & Discrete Appl</i>	9.5	25
58	Kinetic and Electrochemical Reaction Mechanism Investigations of Rodlike CoMoO Anode Material for Sodium-Ion Batteries. <i>ACS Applied Materials & Discrete Ma</i>	9.5	25
57	Improved performance of dual-conducting polymer-coated sulfur composite with high sulfur utilization for lithium-sulfur batteries. <i>Journal of Alloys and Compounds</i> , 2018 , 742, 868-876	5.7	22
56	Plasma-polymerized C60 as a functionalized coating layer on fluorine-doped tin oxides for anode materials of lithium-ion batteries. <i>Carbon</i> , 2015 , 81, 835-838	10.4	20
55	Chemically Evolved Composite Lithium-Ion Conductors with Lithium Thiophosphates and Nickel Sulfides. <i>ACS Energy Letters</i> , 2017 , 2, 1740-1745	20.1	20
54	Anatase TiO2-reduced graphene oxide nanostructures with high-rate sodium storage performance. <i>Journal of Alloys and Compounds</i> , 2017 , 690, 390-396	5.7	20
53	Effect of Elastic Network of Ceramic Fillers on Thermal Cycle Stability of a Solid Oxide Fuel Cell Stack. <i>Advanced Energy Materials</i> , 2012 , 2, 461-468	21.8	20
52	Lithium intercalation mechanism into FeFID.5HO as a highly stable composite cathode material. <i>Scientific Reports</i> , 2017 , 7, 42237	4.9	19
51	Functionalized Sulfide Solid Electrolyte with Air-Stable and Chemical-Resistant Oxysulfide Nanolayer for All-Solid-State Batteries. <i>ACS Omega</i> , 2020 , 5, 26015-26022	3.9	19
50	High-energy O3-Na1¤xCax[Ni0.5Mn0.5]O2 cathodes for long-life sodium-ion batteries. <i>Journal of Materials Chemistry A</i> , 2020 , 8, 13776-13786	13	18
49	Nanostructured TiO2 microspheres for dye-sensitized solar cells employing a solid state polymer electrolyte. <i>Electrochimica Acta</i> , 2013 , 89, 848-853	6.7	18
48	Sustainable Encapsulation Strategy of Silicon Nanoparticles in Microcarbon Sphere for High-Performance Lithium-Ion Battery Anode. <i>ACS Sustainable Chemistry and Engineering</i> , 2020 , 8, 14	150 ⁸ 741	5 § 7

47	Material Design Strategy for Halide Solid Electrolytes Li3MX6 (X = Cl, Br, and I) for All-Solid-State High-Voltage Li-Ion Batteries. <i>Chemistry of Materials</i> , 2021 , 33, 3669-3677	9.6	16
46	Long-Lasting Solid Electrolyte Interphase for Stable Li-Metal Batteries. ACS Energy Letters, 2021 , 6, 215	3 22 16′	l ₁₄
45	Verification for trihalide ions as redox mediators in Li-O2 batteries. <i>Energy Storage Materials</i> , 2019 , 19, 148-153	19.4	14
44	Quasi-compensatory effect in emerging anode-free lithium batteries. <i>EScience</i> , 2021 , 1, 3-3		13
43	Self-assembled nickel-cobalt oxide microspheres from rods with enhanced electrochemical performance for sodium ion battery. <i>Electrochimica Acta</i> , 2017 , 258, 220-227	6.7	12
42	Unveiling the mechanism of sodium ion storage for needle-shaped ZnCoO nanosticks as anode materials. <i>Nanoscale</i> , 2019 , 11, 1065-1073	7.7	12
41	Perpendicularly aligned TiC-coated carbon cloth cathode for high-performance Li-O2 batteries. <i>Chemical Engineering Journal</i> , 2020 , 399, 125699	14.7	12
40	Superionic Si-Substituted Lithium Argyrodite Sulfide Electrolyte Li6+xSb1\(\mathbb{R}\)SixS5I for All-Solid-State Batteries. <i>ACS Sustainable Chemistry and Engineering</i> , 2021 , 9, 120-128	8.3	12
39	Atomistic Assessments of Lithium-Ion Conduction Behavior in Glass-Ceramic Lithium Thiophosphates. <i>ACS Applied Materials & Discrete Mat</i>	9.5	11
38	Limited effects of a redox mediator in lithiumBxygen batteries: indecomposable by-products. <i>Journal of Materials Chemistry A</i> , 2020 , 8, 5622-5628	13	10
37	Effect of micro-patterned fluorine-doped tin oxide films on electrochromic properties of Prussian blue films. <i>Applied Surface Science</i> , 2014 , 313, 864-869	6.7	10
36	Tomographical analysis of electrochemical lithiation and delithiation of LiNi0.6Co0.2Mn0.2O2 cathodes in all-solid-state batteries. <i>Scripta Materialia</i> , 2019 , 165, 10-14	5.6	9
35	Multiscale Understanding of Covalently Fixed Sulfur-Polyacrylonitrile Composite as Advanced Cathode for Metal-Sulfur Batteries. <i>Advanced Science</i> , 2021 , 8, e2101123	13.6	9
34	State-of-the-art anodes of potassium-ion batteries: synthesis, chemistry, and applications. <i>Chemical Science</i> , 2021 , 12, 7623-7655	9.4	9
33	Configuring PSx tetrahedral clusters in Li-excess Li7P3S11 solid electrolyte. APL Materials, 2018, 6, 047	9 9 27	8
32	Spinel lithium manganese oxide synthesized under a pressurized oxygen atmosphere. <i>Electrochimica Acta</i> , 2010 , 55, 8397-8401	6.7	8
31	Entangled reduced graphene oxide nanosheets as an insertion anode with large interlayer spacing for high rate Na-ion batteries. <i>Ceramics International</i> , 2020 , 46, 27711-27716	5.1	8
30	Lithium Argyrodite Sulfide Electrolytes with High Ionic Conductivity and Air Stability for All-Solid-State Li-Ion Batteries. <i>ACS Energy Letters</i> , 2022 , 7, 171-179	20.1	8

29	A 4 V Li-Ion Battery using All-Spinel-Based Electrodes. <i>ChemSusChem</i> , 2018 , 11, 2165-2170	8.3	7	
28	A New Approach to Stable Cationic and Anionic Redox Activity in O3-Layered Cathode for Sodium-Ion Batteries. <i>Advanced Energy Materials</i> , 2021 , 11, 2100901	21.8	7	
27	Role of strontium as doping agent in LaMn0.5Ni0.5O3 for oxygen electro-catalysis. <i>Journal of Industrial and Engineering Chemistry</i> , 2020 , 85, 94-101	6.3	6	
26	Effect of the interfacial protective layer on the NaFe0.5Ni0.5O2 cathode for rechargeable sodium-ion batteries. <i>Journal of Materials Chemistry A</i> , 2020 , 8, 13964-13970	13	6	
25	Electrochemically Induced Metallization of NaCl: Use of the Main Component of Salt as a Cost-Effective Electrode Material for Sodium-Ion Batteries. <i>ACS Energy Letters</i> , 2019 , 4, 2060-2068	20.1	6	
24	Triple Hierarchical Porous Carbon Spheres as Effective Cathodes for LiD2 Batteries. <i>Journal of the Electrochemical Society</i> , 2019 , 166, A455-A463	3.9	5	
23	Glyme-based electrolytes: suitable solutions for next-generation lithium batteries. <i>Green Chemistry</i> , 2022 , 24, 1021-1048	10	5	
22	Hysteresis-Suppressed Reversible Oxygen-Redox Cathodes for Sodium-Ion Batteries. <i>Advanced Energy Materials</i> ,2103939	21.8	5	
21	Micro Emulsion Synthesis of LaCoO3Nanoparticles and their Electrochemical Catalytic Activity. Journal of Electrochemical Science and Technology, 2015 , 6, 121-130	3.2	4	
20	Electrochemical storage behavior of NiCo2O4 nanoparticles anode with structural and morphological evolution in lithium-ion and sodium-ion batteries. <i>International Journal of Energy Research</i> , 2021 , 45, 15036-15048	4.5	4	
19	Stable Solid Electrolyte Interphase for Long-Life Potassium Metal Batteries. <i>ACS Energy Letters</i> , 2022 , 7, 401-409	20.1	4	
18	Bundle-type silicon nanorod anodes produced by electroless etching using silver ions and their electrochemical characteristics in lithium ion cells. <i>International Journal of Hydrogen Energy</i> , 2014 , 39, 21420-21428	6.7	3	
17	Microscopic Analysis of High Lithium-Ion Conducting Glass-Ceramic Sulfides. <i>Journal of the Korean Ceramic Society</i> , 2016 , 53, 568-573	2.2	3	
16	A high voltage Li-ion full-cell battery with MnCo2O4/LiCoPO4 electrodes. <i>Ceramics International</i> , 2020 , 46, 26147-26155	5.1	3	
15	A facile control in free-carbon domain with divinylbenzene for the high-rate-performing Sb/SiOC composite anode material in sodium-ion batteries. <i>International Journal of Energy Research</i> , 2020 , 44, 11473-11486	4.5	3	
14	Lithium-Substituted Tunnel/Spinel Heterostructured Cathode Material for High-Performance Sodium-Ion Batteries. <i>Advanced Functional Materials</i> , 2021 , 31, 2008569	15.6	3	
13	Lithium-Sulfur Batteries: An Advanced Lithium-Sulfur Battery (Adv. Funct. Mater. 8/2013). <i>Advanced Functional Materials</i> , 2013 , 23, 1092-1092	15.6	2	
12	Ambilaterality of Redox Mediators towards 1O2 in Li-O2 Batteries: Trap and Quencher. <i>Advanced Functional Materials</i> , 2021 , 31, 2102442	15.6	2	

11	Uniformly distributed reaction by 3D host-lithium composite anode for high rate capability and reversibility of Li-O2 batteries. <i>Chemical Engineering Journal</i> , 2022 , 427, 130914	14.7	2
10	Lithium-Oxygen Batteries: Optimized Bicompartment Two Solution Cells for Effective and Stable Operation of LiD2 Batteries (Adv. Energy Mater. 21/2017). <i>Advanced Energy Materials</i> , 2017 , 7,	21.8	1
9	Self-Constructed Intimate Interface on a Silicon Anode Enabled by a Phase-Convertible Electrolyte for Lithium-Ion Batteries ACS Applied Materials & Interfaces, 2022,	9.5	1
8	Facilitating sustainable oxygen-redox chemistry for P3-type cathode materials for sodium-ion batteries. <i>Energy Storage Materials</i> , 2022 , 46, 329-343	19.4	O
7	Micro Emulsion Synthesis of LaCoO3 Nanoparticles and their Electrochemical Catalytic Activity. Journal of Electrochemical Science and Technology, 2015 , 6, 121-130	3.2	O
6	Elucidation of the role of lithium iodide as an additive for the liquid-based synthesis of Li7P2S8I solid electrolyte. <i>International Journal of Energy Research</i> , 2020 , 44, 11542-11549	4.5	O
5	A phase-convertible fast ionic conductor with a monolithic plastic crystalline host. <i>Journal of Materials Chemistry A</i> , 2021 , 9, 10838-10845	13	0
4	CO2-adsorbent spongy electrode for non-aqueous LiD2 batteries. <i>Journal of Energy Chemistry</i> , 2022 , 65, 646-653	12	0
3	Self-standing Co2.4Sn0.6O4 nano rods as high performance anode materials for sodium-ion battery and investigation on its reaction mechanism. <i>Chemical Engineering Journal</i> , 2022 , 439, 135791	14.7	0
2	Investigating the energy storage performance of the ZnMn 2 O 4 anode for its potential application in lithium-ion batteries. <i>International Journal of Energy Research</i> , 2022 , 46, 6444-6456	4.5	О
1	Sulfurized Carbon Composite with Unprecedentedly High Tap Density for Sodium Storage. Advanced Energy Materials, 2022, 12, 2102836	21.8	