Jihyun Hong

List of Publications by Year
in descending order

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72	10,532	57758	71685
papers	citations	44 h-index	76 g-index

79	79	79	11861
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Bi₂O₃/BiO₂ Nanoheterojunction for Highly Efficient Electrocatalytic CO₂ Reduction to Formate. Nano Letters, 2022, 22, 1656-1664.	9.1	72
2	Exceptionally increased reversible capacity of O3-type NaCrO2 cathode by preventing irreversible phase transition. Energy Storage Materials, 2022, 46, 289-299.	18.0	17
3	Stimulating Cuâ€“Zn alloying for compact Zn metal growth towards high energy aqueous batteries and hybrid supercapacitors. Energy and Environmental Science, 2022, 15, 2889-2899.	30.8	63
4	Liâ€Rich Mnâ€“Mg Layered Oxide as a Novel Niâ€Coâ€Free Cathode. Advanced Functional Materials, 2022, 32, .	14.9	13
5	Hydrogen storage behavior and microstructural feature of a TiFeâ€“ZrCr2 alloy. Journal of Alloys and Compounds, 2021, 853, 157099.	5.5	22
6	Effect of Cr Addition on Magnetic Properties and Corrosion Resistance of Optimized Co and Fe-Based Amorphous Alloys. Metals, 2021, 11, 304.	2.3	6
7	Fictitious phase separation in Li layered oxides driven by electro-autocatalysis. Nature Materials, 2021, 20, 991-999.	27.5	101
8	Activation of Tiâ€“Feâ€“Cr alloys containing identical AB2 fractions. Journal of Alloys and Compounds, 2021, 864, 158876.	5.5	20
9	Weakly Solvating Solution Enables Chemical Prelithiation of Graphiteâ€“SiO_x Anodes for High-Energy Li-Ion Batteries. Journal of the American Chemical Society, 2021, 143, 9169-9176.	13.7	106
10	Critical Role of Ti⁴⁺ in Stabilizing Highâ€Voltage Redox Reactions in Liâ€Rich Layered Material. Small, 2021, 17, e2100840.	10.0	13
11	Na₂Fe₂F₇: a fluoride-based cathode for high power and long life Na-ion batteries. Energy and Environmental Science, 2021, 14, 1469-1479.	30.8	16
12	Selective Anionic Redox and Suppressed Structural Disordering Enabling Highâ€Energy and Longâ€Life Liâ€Rich Layeredâ€Oxide Cathode. Advanced Energy Materials, 2021, 11, 2102311.	19.5	25
13	Galvanostatic Intermittent Titration Technique Reinvented: Part II. Experiments. Journal of the Electrochemical Society, 2021, 168, 120503.	2.9	10
14	Real-time visualization of Zn metal plating/stripping in aqueous batteries with high areal capacities. Journal of Power Sources, 2020, 472, 228334.	7.8	27
15	Innentitelbild: Molecularly Tailored Lithiumâ€“Arene Complex Enables Chemical Prelithiation of Highâ€Capacity Lithiumâ€Ion Battery Anodes (Angew. Chem. 34/2020). Angewandte Chemie, 2020, 132, 14270-14270.	2.0	0
16	Exceptionally high-energy tunnel-type V1.5Cr0.5O4.5H nanocomposite as a novel cathode for Na-ion batteries. Nano Energy, 2020, 77, 105175.	16.0	10
17	Highâ€Voltageâ€Driven Surface Structuring and Electrochemical Stabilization of Niâ€Rich Layered Cathode Materials for Li Rechargeable Batteries. Advanced Energy Materials, 2020, 10, 2000521.	19.5	90
18	Molecularly Tailored Lithiumâ€“Arene Complex Enables Chemical Prelithiation of Highâ€Capacity Lithiumâ€Ion Battery Anodes. Angewandte Chemie - International Edition, 2020, 59, 14473-14480.	13.8	127

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19	Redoxâ€Active Organic Compounds for Future Sustainable Energy Storage System. Advanced Energy Materials, 2020, 10, 2001445.	19.5	139
20	Utilizing Latent Multiâ€Redox Activity of pâ€Type Organic Cathode Materials toward High Energy Density Lithiumâ€Organic Batteries. Advanced Energy Materials, 2020, 10, 2001635.	19.5	47
21	Molecularly Tailored Lithiumâ€“Arene Complex Enables Chemical Prelithiation of Highâ€Capacity Lithiumâ€Ion Battery Anodes. Angewandte Chemie, 2020, 132, 14581-14588.	2.0	20
22	A new lithium diffusion model in layered oxides based on asymmetric but reversible transition metal migration. Energy and Environmental Science, 2020, 13, 1269-1278.	30.8	39
23	Metalâ€“oxygen decoordination stabilizes anion redox in Li-rich oxides. Nature Materials, 2019, 18, 256-265.	27.5	280
24	Charge-transfer complexes for high-power organic rechargeable batteries. Energy Storage Materials, 2019, 20, 462-469.	18.0	70
25	The role of substituents in determining the redox potential of organic electrode materials in Li and Na rechargeable batteries: electronic effects vs. substituent-Li/Na ionic interaction. Journal of Materials Chemistry A, 2019, 7, 11438-11443.	10.3	33
26	Suppression of Voltage Decay through Manganese Deactivation and Nickel Redox Buffering in Highâ€Energy Layered Lithiumâ€Rich Electrodes. Advanced Energy Materials, 2018, 8, 1800606.	19.5	97
27	Fluid-enhanced surface diffusion controls intraparticle phase transformations. Nature Materials, 2018, 17, 915-922.	27.5	104
28	Multi-redox Molecule for High-Energy Redox Flow Batteries. Joule, 2018, 2, 1771-1782.	24.0	123
29	Understanding Chemomechanical Li-ion Cathode Degradation through Multi-Scale, Multi-Modal X-ray Spectromicroscopy. Microscopy and Microanalysis, 2018, 24, 426-427.	0.4	2
30	Lithium-free transition metal monoxides for positive electrodes in lithium-ion batteries. Nature Energy, 2017, 2, .	39.5	94
31	Multi-electron redox phenazine for ready-to-charge organic batteries. Green Chemistry, 2017, 19, 2980-2985.	9.0	139
32	High-performance sodiumâ€“organic battery by realizing four-sodium storage in disodium rhodizonate. Nature Energy, 2017, 2, 861-868.	39.5	372
33	Trackable galvanostatic history in phase separation based electrodes for lithium-ion batteries: a mosaic sub-grouping intercalation model. Energy and Environmental Science, 2017, 10, 2352-2364.	30.8	5
34	Coupling between oxygen redox and cation migration explains unusual electrochemistry in lithium-rich layered oxides. Nature Communications, 2017, 8, 2091.	12.8	469
35	Highly Stable Iron- and Manganese-Based Cathodes for Long-Lasting Sodium Rechargeable Batteries. Chemistry of Materials, 2016, 28, 7241-7249.	6.7	66
36	Thermal structural stability of a multi-component olivine electrode for lithium ion batteries. CrystEngComm, 2016, 18, 7463-7470.	2.6	5

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37	Rational design of redox mediators for advanced Liâ€“O2 batteries. Nature Energy, 2016, 1, .	39.5	321
38	Sodium Storage Behavior in Natural Graphite using Etherâ€based Electrolyte Systems. Advanced Functional Materials, 2015, 25, 534-541.	14.9	625
39	Energy Storage: Sodium Storage Behavior in Natural Graphite using Ether-based Electrolyte Systems (Adv. Funct. Mater. 4/2015). Advanced Functional Materials, 2015, 25, 652-652.	14.9	3
40	Sodium intercalation chemistry in graphite. Energy and Environmental Science, 2015, 8, 2963-2969.	30.8	369
41	High Energy Organic Cathode for Sodium Rechargeable Batteries. Chemistry of Materials, 2015, 27, 7258-7264.	6.7	160
42	Reviewâ€"Lithium-Excess Layered Cathodes for Lithium Rechargeable Batteries. Journal of the Electrochemical Society, 2015, 162, A2447-A2467.	2.9	141
43	Understanding the Degradation Mechanisms of LiNi_{0.5}Co_{0.2}Mn_{0.3}O₂ Cathode Material in Lithium Ion Batteries. Advanced Energy Materials, 2014, 4, 1300787.	19.5	893
44	Superior Rechargeability and Efficiency of Lithiumâ€“Oxygen Batteries: Hierarchical Air Electrode Architecture Combined with a Soluble Catalyst. Angewandte Chemie - International Edition, 2014, 53, 3926-3931.	13.8	407
45	Recent progress on flexible lithium rechargeable batteries. Energy and Environmental Science, 2014, 7, 538-551.	30.8	355
46	Novel transition-metal-free cathode for high energy and power sodium rechargeable batteries. Nano Energy, 2014, 4, 97-104.	16.0	71
47	Biologically inspired pteridine redox centres for rechargeable batteries. Nature Communications, 2014, 5, 5335.	12.8	254
48	Ion-Exchange Mechanism of Layered Transition-Metal Oxides: Case Study of LiNi_{0.5}Mn_{0.5}O₂. Inorganic Chemistry, 2014, 53, 8083-8087.	4.0	43
49	Aqueous Rechargeable Li and Na Ion Batteries. Chemical Reviews, 2014, 114, 11788-11827.	47.7	1,183
50	Lithiumâ€Ion Batteries: Organic Nanohybrids for Fast and Sustainable Energy Storage (Adv. Mater.) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	21.0	0
51	Organic Nanohybrids for Fast and Sustainable Energy Storage. Advanced Materials, 2014, 26, 2558-2565.	21.0	210
52	Anti-Site Reordering in LiFePO₄: Defect Annihilation on Charge Carrier Injection. Chemistry of Materials, 2014, 26, 5345-5351.	6.7	52
53	Highâ€Performance Hybrid Supercapacitor Based on Grapheneâ€Wrapped Li₄Ti₅O₁₂ and Activated Carbon. ChemElectroChem, 2014, 1, 125-130.	3.4	137
54	Extremely High Yield Conversion from Lowâ€Cost Sand to Highâ€Capacity Si Electrodes for Liâ€Ion Batteries. Advanced Energy Materials, 2014, 4, 1400622.	19.5	75

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55	All-graphene-battery: bridging the gap between supercapacitors and lithium ion batteries. Scientific Reports, 2014, 4, 5278.	3.3	185
56	Scalable Functionalized Graphene Nano-platelets as Tunable Cathodes for High-performance Lithium Rechargeable Batteries. Scientific Reports, 2013, 3, 1506.	3.3	84
57	Factors that Affect the Phase Behavior of Multi-Component Olivine (LiFe_xMn_yCo_{1-x-y}PO₄; 0) Tj ETQq1 1 0.784314 rgBT /O Reaction. Journal of the Electrochemical Society, 2013, 160, A444-A448.	2.9	16
58	Toward a Lithiumâ€“â€œAirâ€•Battery: The Effect of CO₂ on the Chemistry of a Lithiumâ€“Oxygen Cell. Journal of the American Chemical Society, 2013, 135, 9733-9742.	13.7	307
59	Redox Cofactor from Biological Energy Transduction as Molecularly Tunable Energyâ€Storage Compound. Angewandte Chemie - International Edition, 2013, 52, 8322-8328.	13.8	147
60	Titelbild: Redox Cofactor from Biological Energy Transduction as Molecularly Tunable Energy-Storage Compound (Angew. Chem. 32/2013). Angewandte Chemie, 2013, 125, 8329-8329.	2.0	1
61	Thermal stability of Feâ€“Mn binary olivine cathodes for Li rechargeable batteries. Journal of Materials Chemistry, 2012, 22, 11964.	6.7	43
62	Multicomponent Effects on the Crystal Structures and Electrochemical Properties of Spinel-Structured M₃O₄ (M = Fe, Mn, Co) Anodes in Lithium Rechargeable Batteries. Chemistry of Materials, 2012, 24, 720-725.	6.7	138
63	Critical Role of Oxygen Evolved from Layered Liâ€“Excess Metal Oxides in Lithium Rechargeable Batteries. Chemistry of Materials, 2012, 24, 2692-2697.	6.7	255
64	Energy storage in composites of a redox couple host and a lithium ion host. Nano Today, 2012, 7, 168-173.	11.9	44
65	Synthesis of graphene-wrapped CuO hybrid materials by CO2 mineralization. Green Chemistry, 2012, 14, 2391.	9.0	53
66	The potential for long-term operation of a lithiumâ€“oxygen battery using a non-carbonate-based electrolyte. Chemical Communications, 2012, 48, 8374.	4.1	100
67	Polymorphism and phase transformations of Li2â^'xFeSiO4(0â©½xâ©½2) from first principles. Physical Review B, 2011, 84, .	3.2	35
68	Graphene-Based Hybrid Electrode Material for High-Power Lithium-Ion Batteries. Journal of the Electrochemical Society, 2011, 158, A930.	2.9	44
69	Invited paper: Preparation and electrochemical characterization of doped spinel LiMn1.88Ge0.1Li0.02O4 cathode material. Electronic Materials Letters, 2011, 7, 105-108.	2.2	9
70	Electrochemical and ex-situ analysis on manganese oxide/graphene hybrid anode for lithium rechargeable batteries. Journal of Materials Research, 2011, 26, 2665-2671.	2.6	39
71	Noncovalent functionalization of graphene with end-functional polymers. Journal of Materials Chemistry, 2010, 20, 1907.	6.7	553
72	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