Seok Hyun Song

List of Publications by Year
in descending order

57 papers	4,568 citations	126907 33 h-index	149698 56 g-index
61 all docs	61 docs citations	61 times ranked	4920 citing authors

#	Article	IF	Citations
1	Recent Progress in Electrode Materials for Sodiumâ€Ion Batteries. Advanced Energy Materials, 2016, 6, 1600943.	19.5	815
2	New Iron-Based Mixed-Polyanion Cathodes for Lithium and Sodium Rechargeable Batteries: Combined First Principles Calculations and Experimental Study. Journal of the American Chemical Society, 2012, 134, 10369-10372.	13.7	395
3	A combined first principles and experimental study on Na3V2(PO4)2F3 for rechargeable Na batteries. Journal of Materials Chemistry, 2012, 22, 20535.	6.7	306
4	Unexpected discovery of low-cost maricite NaFePO₄as a high-performance electrode for Na-ion batteries. Energy and Environmental Science, 2015, 8, 540-545.	30.8	299
5	A Family of Highâ€Performance Cathode Materials for Naâ€ion Batteries, Na₃(VO_{1â^'<i>x</i>}PO₄)₂ F_{1+2<i>x</i>} (0 â‰) Tj ETQq1 1 0.78431 24, 4603-4614.	14.9	271
6	Understanding the Electrochemical Mechanism of the New Iron-Based Mixed-Phosphate Na₄Fe₃(PO₄)₂(P₂O₇) in a Na Rechargeable Battery. Chemistry of Materials, 2013, 25, 3614-3622.	6.7	237
7	Ultraconcentrated Sodium Bis(fluorosulfonyl)imide-Based Electrolytes for High-Performance Sodium Metal Batteries. ACS Applied Materials & Interfaces, 2017, 9, 3723-3732.	8.0	177
8	Anomalous Jahnâ€"Teller behavior in a manganese-based mixed-phosphate cathode for sodium ion batteries. Energy and Environmental Science, 2015, 8, 3325-3335.	30.8	175
9	A new catalyst-embedded hierarchical air electrode for high-performance Liâ€"O2 batteries. Energy and Environmental Science, 2013, 6, 3570.	30.8	152
10	Neutron and X-ray Diffraction Study of Pyrophosphate-Based Li_{2â€"<i>x</i>}MP₂O₇ (M = Fe, Co) for Lithium Rechargeable Battery Electrodes. Chemistry of Materials, 2011, 23, 3930-3937.	6.7	106
11	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
12	Lithium-free transition metal monoxides for positive electrodes in lithium-ion batteries. Nature Energy, 2017, 2, .	39.5	94
13	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
14	High-energy and durable lithium metal batteries using garnet-type solid electrolytes with tailored lithium-metal compatibility. Nature Communications, 2022, 13, 1883.	12.8	67
15	Highly Stable Iron- and Manganese-Based Cathodes for Long-Lasting Sodium Rechargeable Batteries. Chemistry of Materials, 2016, 28, 7241-7249.	6.7	66
16	Tailoring a New 4Vâ€Class Cathode Material for Naâ€Ion Batteries. Advanced Energy Materials, 2016, 6, 1502147.	19.5	65
17	Conversionâ€Based Cathode Materials for Rechargeable Sodium Batteries. Advanced Energy Materials, 2018, 8, 1702646.	19.5	62
18	LiFePO4 with an alluaudite crystal structure for lithium ion batteries. Energy and Environmental Science, 2013, 6, 830.	30.8	61

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19	Understanding Origin of Voltage Hysteresis in Conversion Reaction for Na Rechargeable Batteries: The Case of Cobalt Oxides. Advanced Functional Materials, 2016, 26, 5042-5050.	14.9	61
20	New Insight on Openâ€Structured Sodium Vanadium Oxide as Highâ€Capacity and Long Life Cathode for Znâ€"Ion Storage: Structure, Electrochemistry, and Firstâ€Principles Calculation. Advanced Energy Materials, 2020, 10, 2001595.	19.5	54
21	In situ multiscale probing of the synthesis of a Ni-rich layered oxide cathode reveals reaction heterogeneity driven by competing kinetic pathways. Nature Chemistry, 2022, 14, 614-622.	13.6	52
22	P2â€K_{0.75}[Ni_{1/3}Mn_{2/3}]O₂ Cathode Material for High Power and Long Life Potassiumâ€Ion Batteries. Advanced Energy Materials, 2020, 10, 1903605.	19.5	50
23	Lithium-excess olivine electrode for lithium rechargeable batteries. Energy and Environmental Science, 2016, 9, 2902-2915.	30.8	49
24	High-energy O3-Na_{1âˆ'2x}Ca_x[Ni_{0.5}Mn_{0.5}]O₂ cathodes for long-life sodium-ion batteries. Journal of Materials Chemistry A, 2020, 8, 13776-13786.	10.3	46
25	Hysteresisâ€Suppressed Reversible Oxygenâ€Redox Cathodes for Sodiumâ€Ion Batteries. Advanced Energy Materials, 2022, 12, .	19.5	42
26	Na₃V(PO₄)₂: A New Layered-Type Cathode Material with High Water Stability and Power Capability for Na-Ion Batteries. Chemistry of Materials, 2018, 30, 3683-3689.	6.7	41
27	Defect-free solvothermally assisted synthesis of microspherical mesoporous LiFePO4/C. RSC Advances, 2013, 3, 3421.	3.6	40
28	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
29	Anelasticity and Damping of Thin Aluminum Films on Silicon Substrates. Journal of Microelectromechanical Systems, 2004, 13, 230-237.	2.5	38
30	Janus Graphene Oxide Sheets with Fe₃O₄ Nanoparticles and Polydopamine as Anodes for Lithium-Ion Batteries. ACS Applied Materials & Interfaces, 2021, 13, 14786-14795.	8.0	38
31	A New Perspective on Liâ€"SO₂ Batteries for Rechargeable Systems. Angewandte Chemie - International Edition, 2015, 54, 9663-9667.	13.8	37
32	Polymorphism and phase transformations of Li2âˆ'xFeSiO4(0â©½xâ©½2) from first principles. Physical Review B, 2011, 84, .	3.2	35
33	Size-selective synthesis of mesoporous LiFePO₄/C microspheres based on nucleation and growth rate control of primary particles. Journal of Materials Chemistry A, 2014, 2, 5922-5927.	10.3	35
34	Alluaudite LiMnPO4: a new Mn-based positive electrode for Li rechargeable batteries. Journal of Materials Chemistry A, 2014, 2, 8632-8636.	10.3	32
35	Development of K4Fe3(PO4)2(P2O7) as a novel Fe-based cathode with high energy densities and excellent cyclability in rechargeable potassium batteries. Energy Storage Materials, 2020, 28, 47-54.	18.0	32
36	Development of Na2FePO4F/Conducting-Polymer composite as an exceptionally high performance cathode material for Na-ion batteries. Journal of Power Sources, 2019, 432, 1-7.	7.8	29

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37	<i>In Situ</i> Tracking Kinetic Pathways of Li⁺/Na⁺ Substitution during Ion-Exchange Synthesis of Li_{<i>x</i>}Na_{1.5â€“<i>x</i>}VOPO₄F_{0.5}. Journal of the American Chemical Society, 2017, 139, 12504-12516.	13.7	28
38	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
39	Unveiling the Role of Transitionâ€Metal Ions in the Thermal Degradation of Layered Niâ€“Coâ€“Mn Cathodes for Lithium Rechargeable Batteries. Advanced Functional Materials, 2022, 32, .	14.9	21
40	Development of a new alluaudite-based cathode material with high power and long cyclability for application in Na ion batteries in real-life. Journal of Materials Chemistry A, 2017, 5, 22334-22340.	10.3	20
41	Development of a New Mixed-Polyanion Cathode with Superior Electrochemical Performances for Na-Ion Batteries. ACS Sustainable Chemistry and Engineering, 2020, 8, 163-171.	6.7	20
42	High Power Cathode Material Na₄VO(PO₄)₂ with Open Framework for Na Ion Batteries. Chemistry of Materials, 2017, 29, 3363-3366.	6.7	18
43	Enabling Stable and Nonhysteretic Oxygen Redox Capacity in Liâ€Excess Na Layered Oxides. Advanced Energy Materials, 2022, 12, .	19.5	18
44	NaFâ€“FeF2 nanocomposite: New type of Na-ion battery cathode material. Nano Research, 2017, 10, 4388-4397.	10.4	17
45	Hollanditeâ€Type VO_{1.75}(OH)_{0.5}: Effective Sodium Storage for Highâ€Performance Sodiumâ€Ion Batteries. Advanced Energy Materials, 2019, 9, 1900603.	19.5	16
46	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
47	Oxalate-Based High-Capacity Conversion Anode for Potassium Storage. ACS Sustainable Chemistry and Engineering, 2020, 8, 3743-3750.	6.7	15
48	Critical Role of Ti⁴⁺ in Stabilizing Highâ€Voltage Redox Reactions in Liâ€Rich Layered Material. Small, 2021, 17, e2100840.	10.0	13
49	Low-cost and high-power K₄[Mn₂Fe](PO₄)₂(P₂O₇) as a novel cathode with outstanding cyclability for K-ion batteries. Journal of Materials Chemistry A, 2021, 9, 9898-9908.	10.3	9
50	Structural and Chemical Compatibilities of Li_{1âˆ’}<i>_x</i>Ni_{0.5}Co_{0.2}Mn_{0.3}O₂ Cathode Material with Garnetâ€Type Solid Electrolyte for Allâ€Solidâ€State Batteries. Small, 2021, 17, e2103306.	10.0	9
51	Are type 316L stainless steel coin cells stable in nonaqueous carbonate solutions containing NaPF₆ or KPF₆ salt?. Journal of Materials Chemistry A, 2019, 7, 26250-26260.	10.3	8
52	Recycling of Li(Ni,Co,Mn)O2 via a chlorination technique. Korean Journal of Chemical Engineering, 0, , 1.	2.7	7
53	Thermal structural stability of a multi-component olivine electrode for lithium ion batteries. CrystEngComm, 2016, 18, 7463-7470.	2.6	5
54	Exceptional effect of glassy lithium fluorophosphate on Mn-rich olivine cathode material for high-performance Li ion batteries. Journal of Power Sources, 2018, 374, 55-60.	7.8	4

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55	Gamma-ray irradiated graphene nanosheets/polydopamine hybrids as a superior anode material for lithium-ion batteries. Carbon Letters, 2022, 32, 305.	5.9	3
56	RÃ¼cktitelbild: A New Perspective on Li-SO2Batteries for Rechargeable Systems (Angew. Chem. 33/2015). Angewandte Chemie, 2015, 127, 9860-9860.	2.0	0
57	Enabling Stable and Nonhysteretic Oxygen Redox Capacity in Liâ€Excess Na Layered Oxides (Adv. Energy) Tj ETQq1 1 0.784314 rgBT /O	19.5	0