Seok Hyun Song

List of Publications by Citations

57 papers	3,350 citations	28 h-index	57 g-index
61 ext. papers	3,875 ext. citations	16.6 avg, IF	5.2 L-index

#	Paper	IF	Citations
57	Recent Progress in Electrode Materials for Sodium-Ion Batteries. *Advanced Energy Materials*, **2016**, 6, 1600943	21.8	686
56	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, 10369-72	16.4	323
55	A combined first principles and experimental study on Na3V2(PO4)2F3 for rechargeable Na batteries. *Journal of Materials Chemistry*, **2012**, 22, 20535		253
54	Unexpected discovery of low-cost maricite NaFePO4 as a high-performance electrode for Na-ion batteries. *Energy and Environmental Science*, **2015**, 8, 540-545	35.4	236
53	A Family of High-Performance Cathode Materials for Na-ion Batteries, Na3(VO1−xPO4)2 F1+2x (0 ≤ x ≤ 1): Combined First-Principles and Experimental Study. *Advanced Functional Materials*, **2014**, 24, 4603-4614	15.6	206
52	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	9.6	174
51	A new catalyst-embedded hierarchical air electrode for high-performance Li-O2 batteries. *Energy and Environmental Science*, **2013**, 6, 3570	35.4	134
50	Ultraconcentrated Sodium Bis(fluorosulfonyl)imide-Based Electrolytes for High-Performance Sodium Metal Batteries. *ACS Applied Materials & Interfaces*, **2017**, 9, 3723-3732	9.5	126
49	Anomalous Jahn–Teller behavior in a manganese-based mixed-phosphate cathode for sodium ion batteries. *Energy and Environmental Science*, **2015**, 8, 3325-3335	35.4	114
48	Neutron and X-ray Diffraction Study of Pyrophosphate-Based Li2−2xMP2O7 (M = Fe, Co) for Lithium Rechargeable Battery Electrodes. *Chemistry of Materials*, **2011**, 23, 3930-3937	9.6	92
47	Lithium-free transition metal monoxides for positive electrodes in lithium-ion batteries. *Nature Energy*, **2017**, 2,	62.3	72
46	LiFePO4 with an alluaudite crystal structure for lithium ion batteries. *Energy and Environmental Science*, **2013**, 6, 830	35.4	57
45	Suppression of Voltage Decay through Manganese Deactivation and Nickel Redox Buffering in High-Energy Layered Lithium-Rich Electrodes. *Advanced Energy Materials*, **2018**, 8, 1800606	21.8	54
44	Understanding Origin of Voltage Hysteresis in Conversion Reaction for Na Rechargeable Batteries: The Case of Cobalt Oxides. *Advanced Functional Materials*, **2016**, 26, 5042-5050	15.6	54
43	Tailoring a New 4V-Class Cathode Material for Na-Ion Batteries. *Advanced Energy Materials*, **2016**, 6, 1502147	21.8	52
42	Conversion-Based Cathode Materials for Rechargeable Sodium Batteries. *Advanced Energy Materials*, **2018**, 8, 1702646	21.8	50
41	High-Voltage-Driven Surface Structuring and Electrochemical Stabilization of Ni-Rich Layered Cathode Materials for Li Rechargeable Batteries. *Advanced Energy Materials*, **2020**, 10, 2000521	21.8	43

40	Highly Stable Iron- and Manganese-Based Cathodes for Long-Lasting Sodium Rechargeable Batteries. *Chemistry of Materials*, **2016**, 28, 7241-7249	9.6	43
39	Defect-free solvothermally assisted synthesis of microspherical mesoporous LiFePO4/C. *RSC Advances*, **2013**, 3, 3421	3.7	37
38	Lithium-excess olivine electrode for lithium rechargeable batteries. *Energy and Environmental Science*, **2016**, 9, 2902-2915	35.4	36
37	Polymorphism and phase transformations of Li2□FeSiO4 (0?x?2) from first principles. *Physical Review B*, **2011**, 84,	3.3	34
36	Anelasticity and damping of thin aluminum films on silicon substrates. *Journal of Microelectromechanical Systems*, **2004**, 13, 230-237	2.5	33
35	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	9.6	33
34	New Insight on Open-Structured Sodium Vanadium Oxide as High-Capacity and Long Life Cathode for Zn□bn Storage: Structure, Electrochemistry, and First-Principles Calculation. *Advanced Energy Materials*, **2020**, 10, 2001595	21.8	32
33	Alluaudite LiMnPO4: a new Mn-based positive electrode for Li rechargeable batteries. *Journal of Materials Chemistry A*, **2014**, 2, 8632-8636	13	31
32	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	13	31
31	A New Perspective on Li-SO2 Batteries for Rechargeable Systems. *Angewandte Chemie - International Edition*, **2015**, 54, 9663-7	16.4	29
30	P2-K0.75[Ni1/3Mn2/3]O2 Cathode Material for High Power and Long Life Potassium-Ion Batteries. *Advanced Energy Materials*, **2020**, 10, 1903605	21.8	28
29	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	19.4	20
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	35.4	20
27	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	8.9	19
26	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	13	18
25	High-energy O3-Na1□xCax[Ni0.5Mn0.5]O2 cathodes for long-life sodium-ion batteries. *Journal of Materials Chemistry A*, **2020**, 8, 13776-13786	13	18
24	In Situ Tracking Kinetic Pathways of Li/Na Substitution during Ion-Exchange Synthesis of LiNaVOPOF. *Journal of the American Chemical Society*, **2017**, 139, 12504-12516	16.4	18
23	Development of a New Mixed-Polyanion Cathode with Superior Electrochemical Performances for Na-Ion Batteries. *ACS Sustainable Chemistry and Engineering*, **2020**, 8, 163-171	8.3	14

22	High-energy and durable lithium metal batteries using garnet-type solid electrolytes with tailored lithium-metal compatibility.. *Nature Communications*, **2022**, 13, 1883	17.4	14
21	Hollandite-Type VO1.75(OH)0.5: Effective Sodium Storage for High-Performance Sodium-Ion Batteries. *Advanced Energy Materials*, **2019**, 9, 1900603	21.8	13
20	High Power Cathode Material Na4VO(PO4)2 with Open Framework for Na Ion Batteries. *Chemistry of Materials*, **2017**, 29, 3363-3366	9.6	12
19	Janus Graphene Oxide Sheets with FeO Nanoparticles and Polydopamine as Anodes for Lithium-Ion Batteries. *ACS Applied Materials & Interfaces*, **2021**, 13, 14786-14795	9.5	12
18	NaFeF2 nanocomposite: New type of Na-ion battery cathode material. *Nano Research*, **2017**, 10, 4388-4397	10	11
17	A New Perspective on LiSO2 Batteries for Rechargeable Systems. *Angewandte Chemie*, **2015**, 127, 9799-9803	3.3	9
16	Selective Anionic Redox and Suppressed Structural Disordering Enabling High-Energy and Long-Life Li-Rich Layered-Oxide Cathode. *Advanced Energy Materials*,2102311	21.8	7
15	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	13	7
14	Oxalate-Based High-Capacity Conversion Anode for Potassium Storage. *ACS Sustainable Chemistry and Engineering*, **2020**, 8, 3743-3750	8.3	6
13	Na2Fe2F7: a fluoride-based cathode for high power and long life Na-ion batteries. *Energy and Environmental Science*, **2021**, 14, 1469-1479	35.4	6
12	Thermal structural stability of a multi-component olivine electrode for lithium ion batteries. *CrystEngComm*, **2016**, 18, 7463-7470	3.3	5
11	Hysteresis-Suppressed Reversible Oxygen-Redox Cathodes for Sodium-Ion Batteries. *Advanced Energy Materials*,2103939	21.8	5
10	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	13	4
9	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	8.9	3
8	Unveiling the Role of Transition-Metal Ions in the Thermal Degradation of Layered NiCoMn Cathodes for Lithium Rechargeable Batteries. *Advanced Functional Materials*, **2022**, 32, 2108790	15.6	3
7	Enabling Stable and Nonhysteretic Oxygen Redox Capacity in Li-Excess Na Layered Oxides. *Advanced Energy Materials*,2103384	21.8	2
6	Critical Role of Ti in Stabilizing High-Voltage Redox Reactions in Li-Rich Layered Material. *Small*, **2021**, 17, e2100840	11	2
5	Structural and Chemical Compatibilities of Li Ni Co Mn O Cathode Material with Garnet-Type Solid Electrolyte for All-Solid-State Batteries. *Small*, **2021**, 17, e2103306	11	1

4	Recycling of Li(Ni,Co,Mn)O2 via a chlorination technique. *Korean Journal of Chemical Engineering*,1	2.8	1
3	R□ktitelbild: A New Perspective on Li□O2 Batteries for Rechargeable Systems (Angew. Chem. 33/2015). *Angewandte Chemie*, **2015**, 127, 9860-9860	3.6	
2	Gamma-ray irradiated graphene nanosheets/polydopamine hybrids as a superior anode material for lithium-ion batteries. *Carbon Letters*, **2022**, 32, 305	2.3	
1	Enabling Stable and Nonhysteretic Oxygen Redox Capacity in Li-Excess Na Layered Oxides (Adv. Energy Mater. 11/2022). *Advanced Energy Materials*, **2022**, 12, 2270045	21.8	