Kyu-Young Park

List of Publications by Year in Descending Order

64 papers	6,170 citations	36 h-index	66 g-index
66 ext. papers	7,053 ext. citations	17.8 avg, IF	5.7 L-index

#	Paper	IF	Citations
64	Elucidating and Mitigating High-Voltage Degradation Cascades in Cobalt-Free LiNiO 2 Lithium-Ion Battery Cathodes (Adv. Mater. 3/2022). *Advanced Materials*, **2022**, 34, 2270026	24	
63	Elucidating and Mitigating High-Voltage Degradation Cascades in Cobalt-Free LiNiO Lithium-Ion Battery Cathodes. *Advanced Materials*, **2021**, e2106402	24	10
62	Concurrent and Selective Determination of Dopamine and Serotonin with Flexible WS2/Graphene/Polyimide Electrode Using Cold Plasma (Small 45/2021). *Small*, **2021**, 17, 2170235	11	
61	Realization of Wafer-Scale 1T-MoS Film for Efficient Hydrogen Evolution Reaction. *ChemSusChem*, **2021**, 14, 1344-1350	8.3	7
60	Concurrent and Selective Determination of Dopamine and Serotonin with Flexible WS /Graphene/Polyimide Electrode Using Cold Plasma. *Small*, **2021**, 17, e2102757	11	4
59	Concurrently Approaching Volumetric and Specific Capacity Limits of Lithium Battery Cathodes via Conformal Pickering Emulsion Graphene Coatings. *Advanced Energy Materials*, **2020**, 10, 2001216	21.8	15
58	Understanding capacity fading mechanism of thick electrodes for lithium-ion rechargeable batteries. *Journal of Power Sources*, **2020**, 468, 228369	8.9	14
57	Phase-Inversion Polymer Composite Separators Based on Hexagonal Boron Nitride Nanosheets for High-Temperature Lithium-Ion Batteries. *ACS Applied Materials & Interfaces*, **2020**, 12, 8107-8114	9.5	25
56	Flexible MoS-Polyimide Electrode for Electrochemical Biosensors and Their Applications for the Highly Sensitive Quantification of Endocrine Hormones: PTH, T3, and T4. *Analytical Chemistry*, **2020**, 92, 6327-6333	7.8	19
55	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
54	Nanoscale Phenomena in Lithium-Ion Batteries. *Chemical Reviews*, **2020**, 120, 6684-6737	68.1	67
53	n-Doping of Quantum Dots by Lithium Ion Intercalation. *ACS Applied Materials & Interfaces*, **2020**, 12, 36523-36529	9.5	2
52	Enhancing nanostructured nickel-rich lithium-ion battery cathodes via surface stabilization. *Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films*, **2020**, 38, 063210	2.9	5
51	High Volumetric Energy and Power Density Li2TiSiO5 Battery Anodes via Graphene Functionalization. *Matter*, **2020**, 3, 522-533	12.7	13
50	A bifunctional auxiliary electrode for safe lithium metal batteries. *Journal of Materials Chemistry A*, **2019**, 7, 24807-24813	13	3
49	Visualization of regulated nucleation and growth of lithium sulfides for high energy lithium sulfur batteries. *Energy and Environmental Science*, **2019**, 12, 3144-3155	35.4	64
48	Tailoring sodium intercalation in graphite for high energy and power sodium ion batteries. *Nature Communications*, **2019**, 10, 2598	17.4	115

47	Toward a low-cost high-voltage sodium aqueous rechargeable battery. *Materials Today*, **2019**, 29, 26-36	21.8	101
46	Chemical Origins of Electrochemical Overpotential in Surface-Conversion Nanocomposite Cathodes. *Advanced Energy Materials*, **2019**, 9, 1900503	21.8	4
45	Abnormal self-discharge in lithium-ion batteries. *Energy and Environmental Science*, **2018**, 11, 970-978	35.4	57
44	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
43	Intrinsic Nanodomains in Triplite LiFeSO4F and Its Implication in Lithium-Ion Diffusion. *Advanced Energy Materials*, **2018**, 8, 1701408	21.8	10
42	Engineering Solid Electrolyte Interphase for Pseudocapacitive Anatase TiO2 Anodes in Sodium-Ion Batteries. *Advanced Functional Materials*, **2018**, 28, 1802099	15.6	83
41	Lithium-free transition metal monoxides for positive electrodes in lithium-ion batteries. *Nature Energy*, **2017**, 2,	62.3	72
40	TiO2@SnO2@TiO2 triple-shell nanotube anode for high-performance lithium-ion batteries. *Journal of Solid State Electrochemistry*, **2017**, 21, 2365-2371	2.6	14
39	All-carbon-based cathode for a true high-energy-density Li-O2 battery. *Carbon*, **2017**, 114, 311-316	10.4	24
38	Simple and Effective Gas-Phase Doping for Lithium Metal Protection in Lithium Metal Batteries. *Chemistry of Materials*, **2017**, 29, 9182-9191	9.6	25
37	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	35.4	5
36	Thermal structural stability of a multi-component olivine electrode for lithium ion batteries. *CrystEngComm*, **2016**, 18, 7463-7470	3.3	5
35	Unveiling origin of additional capacity of SnO2 anode in lithium-ion batteries by realistic ex situ TEM analysis. *Nano Energy*, **2016**, 19, 234-245	17.1	86
34	Tailoring a New 4V-Class Cathode Material for Na-Ion Batteries. *Advanced Energy Materials*, **2016**, 6, 1502147	21.8	52
33	First-principles Study on the Charge Transport Mechanism of Lithium Sulfide (Li2 S) in Lithium-Sulfur Batteries. *Chemistry - an Asian Journal*, **2016**, 11, 1288-92	4.5	22
32	Highly Stable Iron- and Manganese-Based Cathodes for Long-Lasting Sodium Rechargeable Batteries. *Chemistry of Materials*, **2016**, 28, 7241-7249	9.6	43
31	Lithium-excess olivine electrode for lithium rechargeable batteries. *Energy and Environmental Science*, **2016**, 9, 2902-2915	35.4	36
30	Sodium intercalation chemistry in graphite. *Energy and Environmental Science*, **2015**, 8, 2963-2969	35.4	287

29	Sodium-Ion Storage in Pyroprotein-Based Carbon Nanoplates. *Advanced Materials*, **2015**, 27, 6914-21	24	107
28	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
27	Synergistic multi-doping effects on the Li7La3Zr2O12 solid electrolyte for fast lithium ion conduction. *Scientific Reports*, **2015**, 5, 18053	4.9	100
26	Carbonization of a stable □-sheet-rich silk protein into a pseudographitic pyroprotein. *Nature Communications*, **2015**, 6, 7145	17.4	147
25	All-graphene-battery: bridging the gap between supercapacitors and lithium ion batteries. *Scientific Reports*, **2014**, 4, 5278	4.9	153
24	Superior rechargeability and efficiency of lithium-oxygen batteries: hierarchical air electrode architecture combined with a soluble catalyst. *Angewandte Chemie - International Edition*, **2014**, 53, 3926-31	16.4	360
23	Novel transition-metal-free cathode for high energy and power sodium rechargeable batteries. *Nano Energy*, **2014**, 4, 97-104	17.1	57
22	Alluaudite LiMnPO4: a new Mn-based positive electrode for Li rechargeable batteries. *Journal of Materials Chemistry A*, **2014**, 2, 8632-8636	13	31
21	First-Principles Study of the Reaction Mechanism in Sodium□Oxygen Batteries. *Chemistry of Materials*, **2014**, 26, 1048-1055	9.6	82
20	Aqueous rechargeable Li and Na ion batteries. *Chemical Reviews*, **2014**, 114, 11788-827	68.1	929
19	Superior Rechargeability and Efficiency of Lithium□Oxygen Batteries: Hierarchical Air Electrode Architecture Combined with a Soluble Catalyst. *Angewandte Chemie*, **2014**, 126, 4007-4012	3.6	80
18	Anti-Site Reordering in LiFePO4: Defect Annihilation on Charge Carrier Injection. *Chemistry of Materials*, **2014**, 26, 5345-5351	9.6	36
17	High-Performance Hybrid Supercapacitor Based on Graphene-Wrapped Li4Ti5O12 and Activated Carbon. *ChemElectroChem*, **2014**, 1, 125-130	4.3	127
16	Understanding the Degradation Mechanisms of LiNi0.5Co0.2Mn0.3O2 Cathode Material in Lithium Ion Batteries. *Advanced Energy Materials*, **2014**, 4, 1300787	21.8	709
15	LiFePO4 with an alluaudite crystal structure for lithium ion batteries. *Energy and Environmental Science*, **2013**, 6, 830	35.4	57
14	A Novel High-Energy Hybrid Supercapacitor with an Anatase TiO2□Reduced Graphene Oxide Anode and an Activated Carbon Cathode. *Advanced Energy Materials*, **2013**, 3, 1500-1506	21.8	451
13	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
12	A new catalyst-embedded hierarchical air electrode for high-performance Li□O2 batteries. *Energy and Environmental Science*, **2013**, 6, 3570	35.4	134

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11	Enhanced power and rechargeability of a Li-O2 battery based on a hierarchical-fibril CNT electrode. *Advanced Materials*, **2013**, 25, 1348-52	24	282
10	Factors that Affect the Phase Behavior of Multi-Component Olivine (LiFexMnyCo1-x-yPO4; 0 . *Journal of the Electrochemical Society*, **2013**, 160, A444-A448	3.9	15
9	Toward a lithium-"air" battery: the effect of CO2 on the chemistry of a lithium-oxygen cell. *Journal of the American Chemical Society*, **2013**, 135, 9733-42	16.4	262
8	Thermal stability of FeMn binary olivine cathodes for Li rechargeable batteries. *Journal of Materials Chemistry*, **2012**, 22, 11964		42
7	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	9.6	122
6	Energy storage in in vivo synthesizable biominerals. *RSC Advances*, **2012**, 2, 5499	3.7	4
5	The potential for long-term operation of a lithium-oxygen battery using a non-carbonate-based electrolyte. *Chemical Communications*, **2012**, 48, 8374-6	5.8	96
4	A comparative study on Na2MnPO4F and Li2MnPO4F for rechargeable battery cathodes. *Physical Chemistry Chemical Physics*, **2012**, 14, 3299-303	3.6	87
3	Nano-graphite platelet loaded with LiFePO4 nanoparticles used as the cathode in a high performance Li-ion battery. *Carbon*, **2012**, 50, 1966-1971	10.4	30
2	The Effect of Particle Size on Phase Stability of the Delithiated LixMnPO4. *Journal of the Electrochemical Society*, **2011**, 159, A55-A59	3.9	15
1	Elucidating and Mitigating High-Voltage Interfacial Chemomechanical Degradation of Nickel-Rich Lithium-Ion Battery Cathodes via Conformal Graphene Coating. *ACS Applied Energy Materials*,	6.1	2