

# Peng Bai

## List of Publications by Year in descending order

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35  
papers

3,476  
citations

361413

20  
h-index

414414

32  
g-index

35  
all docs

35  
docs citations

35  
times ranked

4594  
citing authors

#	ARTICLE	IF	CITATIONS
1	Interphases for Alkali Metal Anodes. , 2022, , 137-145.		0
2	Gradient lithiation to load controllable, high utilization lithium in graphitic carbon host for high-energy batteries. Nano Energy, 2022, 93, 106808.	16.0	14
3	Fast Charging Limits of Ideally Stable Metal Anodes in Liquid Electrolytes. Advanced Energy Materials, 2022, 12, .	19.5	14
4	Impacts of negative to positive capacities ratios on the performance of next-generation lithium-ion batteries. Electrochimica Acta, 2022, 406, 139878.	5.2	9
5	Cobalt-Free Cathode Materials: Families and their Prospects. Advanced Energy Materials, 2022, 12, .	19.5	77
6	Dynamic interplay between phase transformation instabilities and reaction heterogeneities in particulate intercalation electrodes. Cell Reports Physical Science, 2022, 3, 100854.	5.6	8
7	Cobalt-Free Cathode Materials: Families and their Prospects (Adv. Energy Mater. 16/2022). Advanced Energy Materials, 2022, 12, .	19.5	2
8	Overlimiting ion transport dynamic toward Sand's time in solid polymer electrolytes. Materials Today Energy, 2022, 27, 101037.	4.7	4
9	Effects of Interfacial Solvation Structures on the Morphological Stability of Potassium Metal Anodes Revealed by <i>Operando</i> Diagnosis. ACS Applied Energy Materials, 2022, 5, 7124-7133.	5.1	6
10	Theory of coupled ion-electron transfer kinetics. Electrochimica Acta, 2021, 367, 137432.	5.2	64
11	<i>Operando</i> Electrochemical Kinetics in Particulate Porous Electrodes by Quantifying the Mesoscale Spatiotemporal Heterogeneities. Advanced Energy Materials, 2021, 11, 2003344.	19.5	11
12	Dynamic Interfacial Stability Confirmed by Microscopic Optical <i>Operando</i> Experiments Enables High-Retention Rate Anode-Free Na Metal Full Cells. Advanced Science, 2021, 8, 2005006.	11.2	24
13	IEEE Access Special Section Editorial: Advanced Energy Storage Technologies and Their Applications. IEEE Access, 2020, 8, 218685-218693.	4.2	7
14	Concentration polarization and metal dendrite initiation in isolated electrolyte microchannels. Energy and Environmental Science, 2020, 13, 3504-3513.	30.8	40
15	Active control of viscous fingering using electric fields. Nature Communications, 2019, 10, 4002.	12.8	40
16	Nano-sized Titanium Nitride Functionalized Separator Improves Cycling Performance of Lithium Sulfur Batteries. ChemistrySelect, 2019, 4, 698-704.	1.5	19
17	Interactions between Lithium Growths and Nanoporous Ceramic Separators. Joule, 2018, 2, 2434-2449.	24.0	180
18	Interplay of phase boundary anisotropy and electro-auto-catalytic surface reactions on the lithium intercalation dynamics in $\text{Li}_x\text{X}_{28}$ plateletlike nanoparticles. Physical Review Materials, 2018, 2, .		

#	ARTICLE	IF	CITATIONS
19	A soft non-porous separator and its effectiveness in stabilizing Li metal anodes cycling at 10 mA cm <sup>-2</sup> observed in situ in a capillary cell. <i>Journal of Materials Chemistry A</i> , 2017, 5, 4300-4307.	10.3	66
20	Low-Temperature Carbon Coating of Nanosized Li <sub>1.015</sub> Al <sub>0.06</sub> Mn <sub>1.925</sub> O <sub>4</sub> and High-Density Electrode for High-Power Li-Ion Batteries. <i>Nano Letters</i> , 2017, 17, 3744-3751.	9.1	45
21	Liquid cell transmission electron microscopy observation of lithium metal growth and dissolution: Root growth, dead lithium and lithium flotsams. <i>Nano Energy</i> , 2017, 32, 271-279.	16.0	361
22	Using Scanning Transmission X-ray Microscopy to Reveal the Origin of Lithium Compositional Spatiodynamics in Battery Materials. <i>Microscopy and Microanalysis</i> , 2017, 23, 888-889.	0.4	0
23	A thin multifunctional coating on a separator improves the cyclability and safety of lithium sulfur batteries. <i>Chemical Science</i> , 2017, 8, 6619-6625.	7.4	94
24	Performance and Degradation of A Lithium-Bromine Rechargeable Fuel Cell Using Highly Concentrated Catholytes. <i>Electrochimica Acta</i> , 2016, 202, 216-223.	5.2	19
25	Origin and hysteresis of lithium compositional spatiodynamics within battery primary particles. <i>Science</i> , 2016, 353, 566-571.	12.6	367
26	Transition of lithium growth mechanisms in liquid electrolytes. <i>Energy and Environmental Science</i> , 2016, 9, 3221-3229.	30.8	1,054
27	Dendrite Suppression by Shock Electrodeposition in Charged Porous Media. <i>Scientific Reports</i> , 2016, 6, 28054.	3.3	45
28	A dual-mode rechargeable lithium-bromine/oxygen fuel cell. <i>Journal of Materials Chemistry A</i> , 2015, 3, 14165-14172.	10.3	17
29	Simple formula for asymmetric Marcus-Hush kinetics. <i>Journal of Electroanalytical Chemistry</i> , 2015, 748, 52-57.	3.8	30
30	Charge transfer kinetics at the solid-solid interface in porous electrodes. <i>Nature Communications</i> , 2014, 5, 3585.	12.8	205
31	Simple formula for Marcus-Hush-Chidsey kinetics. <i>Journal of Electroanalytical Chemistry</i> , 2014, 735, 77-83.	3.8	82
32	Over-limiting Current and Control of Dendritic Growth by Surface Conduction in Nanopores. <i>Scientific Reports</i> , 2014, 4, 7056.	3.3	92
33	Statistical kinetics of phase-transforming nanoparticles in LiFePO <sub>4</sub> porous electrodes. <i>Electrochimica Acta</i> , 2013, 89, 644-651.	5.2	45
34	Suppression of Phase Separation in LiFePO <sub>4</sub> Nanoparticles During Battery Discharge. <i>Nano Letters</i> , 2011, 11, 4890-4896.	9.1	404
35	Response time analysis of FlexRay communication in fuel cell hybrid vehicle. , 2008, , .		3