

# Xuelong Wang

## List of Publications by Year in descending order

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36  
papers

2,554  
citations

236925

25  
h-index

345221

36  
g-index

37  
all docs

37  
docs citations

37  
times ranked

2980  
citing authors

#	ARTICLE	IF	CITATIONS
1	Anionic Redox Reaction-Induced High-Capacity and Low-Strain Cathode with Suppressed Phase Transition. <i>Joule</i> , 2019, 3, 503-517.	24.0	262
2	High-Voltage Charging-Induced Strain, Heterogeneity, and Micro-Cracks in Secondary Particles of a Nickel-Rich Layered Cathode Material. <i>Advanced Functional Materials</i> , 2019, 29, 1900247.	14.9	219
3	Increasing Poly(ethylene oxide) Stability to 4.5 V by Surface Coating of the Cathode. <i>ACS Energy Letters</i> , 2020, 5, 826-832.	17.4	192
4	Investigations on the Fundamental Process of Cathode Electrolyte Interphase Formation and Evolution of High-Voltage Cathodes. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 2319-2326.	8.0	186
5	Identification of LiH and nanocrystalline LiF in the solid-electrolyte interphase of lithium metal anodes. <i>Nature Nanotechnology</i> , 2021, 16, 549-554.	31.5	171
6	In situ Visualization of State-of-Charge Heterogeneity within a $\text{LiCoO}_2$ Particle that Evolves upon Cycling at Different Rates. <i>ACS Energy Letters</i> , 2017, 2, 1240-1245.	17.4	159
7	Additive engineering for robust interphases to stabilize high-Ni layered structures at ultra-high voltage of 4.8 V. <i>Nature Energy</i> , 2022, 7, 484-494.	39.5	138
8	High air-stability and superior lithium ion conduction of $\text{Li}_3\text{P}_1\text{-Zn S}_4\text{-O}$ by aliovalent substitution of ZnO for all-solid-state lithium batteries. <i>Energy Storage Materials</i> , 2019, 17, 266-274.	18.0	114
9	In-situ visualization of lithium plating in all-solid-state lithium-metal battery. <i>Nano Energy</i> , 2019, 63, 103895.	16.0	109
10	Local structure adaptability through multi cations for oxygen redox accommodation in Li-Rich layered oxides. <i>Energy Storage Materials</i> , 2020, 24, 384-393.	18.0	101
11	Probing the Complexities of Structural Changes in Layered Oxide Cathode Materials for Li-Ion Batteries during Fast Charge-Discharge Cycling and Heating. <i>Accounts of Chemical Research</i> , 2018, 51, 290-298.	15.6	78
12	Li-Ti Cation Mixing Enhanced Structural and Performance Stability of Li-Rich Layered Oxide. <i>Advanced Energy Materials</i> , 2019, 9, 1901530.	19.5	76
13	Oxygen-driven transition from two-dimensional to three-dimensional transport behaviour in $\text{Li}_3\text{PS}_4$ electrolyte. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 21269-21277.	2.8	66
14	Stabilizing Cathode Materials of Lithium-Ion Batteries by Controlling Interstitial Sites on the Surface. <i>CheM</i> , 2018, 4, 1685-1695.	11.7	63
15	Mn Ion Dissolution Mechanism for Lithium-Ion Battery with $\text{LiMn}_2\text{O}_4$ Cathode: <i>In Situ</i> Ultraviolet-Visible Spectroscopy and <i>Ab Initio</i> Molecular Dynamics Simulations. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 3051-3057.	4.6	60
16	Oxysulfide $\text{LiAlSO}$ : A Lithium Superionic Conductor from First Principles. <i>Physical Review Letters</i> , 2017, 118, 195901.	7.8	58
17	Oxygen-redox reactions in $\text{LiCoO}_2$ cathode without O-O bonding during charge-discharge. <i>Joule</i> , 2021, 5, 720-736.	24.0	56
18	Size effect on the growth and pulverization behavior of Si nanodomains in $\text{SiO}$ anode. <i>Nano Energy</i> , 2020, 78, 105101.	16.0	51

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19	Surface-to-Bulk Redox Coupling through Thermally Driven Li Redistribution in Li- and Mn-Rich Layered Cathode Materials. <i>Journal of the American Chemical Society</i> , 2019, 141, 12079-12086.	13.7	47
20	Cesium-Induced Active Sites for C-C Coupling and Ethanol Synthesis from CO <sub>2</sub> Hydrogenation on Cu/ZnO(0001̄...) Surfaces. <i>Journal of the American Chemical Society</i> , 2021, 143, 13103-13112.	13.7	47
21	Finding a Needle in the Haystack: Identification of Functionally Important Minority Phases in an Operating Battery. <i>Nano Letters</i> , 2017, 17, 7782-7788.	9.1	42
22	Depth-dependent valence stratification driven by oxygen redox in lithium-rich layered oxide. <i>Nature Communications</i> , 2020, 11, 6342.	12.8	34
23	Anionic redox induced anomalous structural transition in Ni-rich cathodes. <i>Energy and Environmental Science</i> , 2021, 14, 6441-6454.	30.8	33
24	Another Strategy, Detouring Potential Decay by Fast Completion of Cation Mixing. <i>Advanced Energy Materials</i> , 2018, 8, 1703092.	19.5	30
25	Quantitative structure-property relationship study of cathode volume changes in lithium ion batteries using ab-initio and partial least squares analysis. <i>Journal of Materiomics</i> , 2017, 3, 178-183.	5.7	29
26	General Descriptors for CO <sub>2</sub> -Assisted Selective H/C Bond Scission in Ethane. <i>Journal of the American Chemical Society</i> , 2022, 144, 4186-4195.	13.7	26
27	Pair distribution function analysis: Fundamentals and application to battery materials. <i>Chinese Physics B</i> , 2020, 29, 028802.	1.4	23
28	Nucleation and Initial Stages of Growth during the Atomic Layer Deposition of Titanium Oxide on Mesoporous Silica. <i>Nano Letters</i> , 2020, 20, 6884-6890.	9.1	23
29	Unified View of the Local Cation-Ordered State in Inverse Spinel Oxides. <i>Inorganic Chemistry</i> , 2019, 58, 14389-14402.	4.0	21
30	The Role of Electron Localization in Covalency and Electrochemical Properties of Lithium-ion Battery Cathode Materials. <i>Advanced Functional Materials</i> , 2021, 31, 2001633.	14.9	21
31	Rationalization of promoted reverse water gas shift reaction by Pt <sub>3</sub> Ni alloy: Essential contribution from ensemble effect. <i>Journal of Chemical Physics</i> , 2021, 154, 014702.	3.0	6
32	Reaction-driven selective CO <sub>2</sub> hydrogenation to formic acid on Pd(111). <i>Physical Chemistry Chemical Physics</i> , 2022, 24, 16997-17003.	2.8	5
33	Anionic Redox Reaction-Induced High-Capacity and Low-Strain Cathode with Suppressed Phase Transition. <i>Joule</i> , 2019, 3, 612.	24.0	3
34	Discovery and design of lithium battery materials via high-throughput modeling. <i>Chinese Physics B</i> , 2018, 27, 128801.	1.4	2
35	Oxysulfide Li <sub>2</sub> BeSO: A potential new material for solid electrolyte predicted from first principles. <i>Journal of Alloys and Compounds</i> , 2020, 818, 152844.	5.5	1
36	Synchrotron Radiation Nanoscale X-ray Imaging Technology And Scientific Big Data Mining Assist Energy Materials Research. <i>Microscopy and Microanalysis</i> , 2018, 24, 542-543.	0.4	0