

# Liang Yin

## List of Publications by Year in descending order

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38  
papers

742  
citations

567281

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h-index

610901

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38  
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38  
docs citations

38  
times ranked

867  
citing authors

#	ARTICLE	IF	CITATIONS
1	Probing the Thermal-Driven Structural and Chemical Degradation of Ni-Rich Layered Cathodes by Co/Mn Exchange. <i>Journal of the American Chemical Society</i> , 2020, 142, 19745-19753.	13.7	122
2	In situ observation of thermal-driven degradation and safety concerns of lithiated graphite anode. <i>Nature Communications</i> , 2021, 12, 4235.	12.8	74
3	High-Voltage Phosphate Cathodes for Rechargeable Ca-Ion Batteries. <i>ACS Energy Letters</i> , 2020, 5, 3203-3211.	17.4	65
4	Origin and regulation of oxygen redox instability in high-voltage battery cathodes. <i>Nature Energy</i> , 2022, 7, 808-817.	39.5	55
5	Dynamics of Hydroxyl Anions Promotes Lithium Ion Conduction in Antiperovskite $\text{Li}_2\text{OHCl}$ . <i>Chemistry of Materials</i> , 2020, 32, 8481-8491.	6.7	53
6	Quantification of Honeycomb Number-Type Stacking Faults: Application to $\text{Na}_3\text{Ni}_2\text{BiO}_6$ Cathodes for Na-Ion Batteries. <i>Inorganic Chemistry</i> , 2016, 55, 8478-8492.	4.0	51
7	High Voltage Mg-Ion Battery Cathode via a Solid Solution $\text{Cr}^{\text{II}}\text{Mn}$ Spinel Oxide. <i>Chemistry of Materials</i> , 2020, 32, 6577-6587.	6.7	48
8	High Capacity for $\text{Mg}^{2+}$ Deintercalation in Spinel Vanadium Oxide Nanocrystals. <i>ACS Energy Letters</i> , 2020, 5, 2721-2727.	17.4	48
9	Thermodynamics of Antisite Defects in Layered NMC Cathodes: Systematic Insights from High-Precision Powder Diffraction Analyses. <i>Chemistry of Materials</i> , 2020, 32, 1002-1010.	6.7	44
10	Stress- and Interface-Compatible Red Phosphorus Anode for High-Energy and Durable Sodium-Ion Batteries. <i>ACS Energy Letters</i> , 2021, 6, 547-556.	17.4	33
11	Operando X-ray Diffraction Studies of the Mg-Ion Migration Mechanisms in Spinel Cathodes for Rechargeable Mg-Ion Batteries. <i>Journal of the American Chemical Society</i> , 2021, 143, 10649-10658.	13.7	24
12	Extending the limits of powder diffraction analysis: Diffraction parameter space, occupancy defects, and atomic form factors. <i>Review of Scientific Instruments</i> , 2018, 89, 093002.	1.3	18
13	Synchrotron Operando Depth Profiling Studies of State-of-Charge Gradients in Thick $\text{Li}(\text{Ni}_{0.8}\text{Mn}_{0.1}\text{Co}_{0.1})\text{O}_2$ Cathode Films. <i>Chemistry of Materials</i> , 2020, 32, 6358-6364.	6.7	17
14	Investigation of Ca Insertion into $\text{V}_2\text{MoO}_3$ Nanoparticles for High Capacity Ca-Ion Cathodes. <i>Nano Letters</i> , 2022, 22, 2228-2235.	9.1	16
15	Enhanced charge storage of nanometric $\text{V}_2\text{O}_5$ in Mg electrolytes. <i>Nanoscale</i> , 2020, 12, 22150-22160.	5.6	15
16	$\text{Li}_3\text{VP}_3\text{O}_9\text{N}$ as a Multielectron Redox Cathode for Li-Ion Battery. <i>Chemistry of Materials</i> , 2018, 30, 4609-4616.	6.7	12
17	Operando Synchrotron Studies of Inhomogeneity during Anode-Free Plating of Li Metal in Pouch Cell Batteries. <i>Journal of the Electrochemical Society</i> , 2022, 169, 020571.	2.9	12
18	Intercalation of Ca into a Highly Defective Manganese Oxide at Room Temperature. <i>Chemistry of Materials</i> , 2022, 34, 836-846.	6.7	10

#	ARTICLE	IF	CITATIONS
19	Best practices for <i>operando</i> depth-resolving battery experiments. Journal of Applied Crystallography, 2020, 53, 133-139.	4.5	8
20	Control of crystal size tailors the electrochemical performance of $\text{V}_2\text{O}_5$ as a $\text{Mg}^{2+}$ intercalation host. Nanoscale, 2021, 13, 10081-10091.	5.6	7
21	Facile Electrochemical Mg-Ion Transport in a Defect-Free Spinel Oxide. Chemistry of Materials, 2022, 34, 3789-3797.	6.7	5
22	Non-Arrhenius Ionic Conductivity Transitions in Sodium Antiperovskite Ionic Conductors. ECS Meeting Abstracts, 2021, MA2021-02, 43-43.	0.0	2
23	Understanding the Structural Disorder Related to Ionic Conductivity Enhancement in Anti-Perovskite Ion Conductors. ECS Meeting Abstracts, 2020, MA2020-02, 967-967.	0.0	2
24	The Role of Cobalt and Manganese for the Safety of Ni-Rich NMC Cathode. ECS Meeting Abstracts, 2021, MA2021-01, 304-304.	0.0	1
25	Calcium-Ion Materials: A Next Generation MV Energy Storage System. ECS Meeting Abstracts, 2021, MA2021-01, 307-307.	0.0	0
26	Structural and Electrochemical Investigation of High Energy Spinel $\text{LiMn}_{1.5}\text{Ni}_{0.5}\text{O}_4$ Produced at Low Temperature. ECS Meeting Abstracts, 2021, MA2021-01, 144-144.	0.0	0
27	Quantification and Prediction of NMC Defect Concentrations. ECS Meeting Abstracts, 2018, , .	0.0	0
28	In Operando Depth Profiling Studies of Thick NMC Cathodes. ECS Meeting Abstracts, 2018, , .	0.0	0
29	Understanding Local Distortions in NMC Cathodes. ECS Meeting Abstracts, 2019, , .	0.0	0
30	Temperature Dependent Anion Rotational Dynamics Correlated to Cation Transport in Cluster Ion Anti-Perovskites. ECS Meeting Abstracts, 2021, MA2021-02, 1-1.	0.0	0
31	Probing Depth-Dependent Performance Limitations in Thick NMC Cathodes with Fine Spatial and Temporal Resolution. ECS Meeting Abstracts, 2021, MA2021-02, 281-281.	0.0	0
32	Mapping the Deposition of Li Metal in Pouch Cells By Synchrotron Diffraction. ECS Meeting Abstracts, 2021, MA2021-02, 129-129.	0.0	0
33	Toward High Voltage Mg-Ion Battery Cathode Via a Solid-Solution Cr-Mn Spinel Oxide. ECS Meeting Abstracts, 2020, MA2020-02, 269-269.	0.0	0
34	Tuning Ionic Conductivity in Sodium Anti-Perovskite Ionic Conductors. ECS Meeting Abstracts, 2020, MA2020-02, 945-945.	0.0	0
35	Temperature-Dependent Atomistic Dynamics Correlated to Cation Transport in Cluster-Ion Anti-Perovskites. ECS Meeting Abstracts, 2020, MA2020-02, 966-966.	0.0	0
36	Ion Transport in Chromite Spinel for Multivalent Battery Applications. ECS Meeting Abstracts, 2020, MA2020-02, 315-315.	0.0	0

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37	(Invited) Calcium-Ion Cathode Materials. ECS Meeting Abstracts, 2020, MA2020-02, 222-222.	0.0	0
38	(Digital Presentation) Regulating Anion Redox during Cycling of Spinel $\text{LiMn}_{1.5}\text{Ni}_{0.5}\text{O}_4$ As Cathodes for Lithium Ion Batteries. ECS Meeting Abstracts, 2022, MA2022-01, 380-380.	0.0	0