

# Yan-Yan Hu

## List of Publications by Year in descending order

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56  
papers

4,764  
citations

186265

28  
h-index

149698

56  
g-index

59  
all docs

59  
docs citations

59  
times ranked

5516  
citing authors

#	ARTICLE	IF	CITATIONS
1	Origin of additional capacities in metal oxide lithium-ion battery electrodes. <i>Nature Materials</i> , 2013, 12, 1130-1136.	27.5	635
2	Lithium Ion Pathway within $\text{Li}_7\text{La}_3\text{Zr}_2\text{O}_{12}$ –Polyethylene Oxide Composite Electrolytes. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 12538-12542.	13.8	438
3	New Insights into the Compositional Dependence of Li-Ion Transport in Polymer–Ceramic Composite Electrolytes. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 4113-4120.	8.0	341
4	Composite Polymer Electrolytes with $\text{Li}_7\text{La}_3\text{Zr}_2\text{O}_{12}$ Garnet-Type Nanowires as Ceramic Fillers: Mechanism of Conductivity Enhancement and Role of Doping and Morphology. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 21773-21780.	8.0	316
5	Copper-coordinated cellulose ion conductors for solid-state batteries. <i>Nature</i> , 2021, 598, 590-596.	27.8	262
6	Enhanced Surface Interactions Enable Fast $\text{Li}^+$ Conduction in Oxide/Polymer Composite Electrolyte. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 4131-4137.	13.8	242
7	High-performance all-solid-state batteries enabled by salt bonding to perovskite in poly(ethylene) Tj ETQq1 1 0.784314 rgBT /Overlock 18815-18821.	7.1	213
8	Fast $\text{Li}^+$ Conduction Mechanism and Interfacial Chemistry of a NASICON/Polymer Composite Electrolyte. <i>Journal of the American Chemical Society</i> , 2020, 142, 2497-2505.	13.7	199
9	Lithium-Doping Stabilized High-Performance $\text{P}_2\text{Na}_{0.66}\text{Li}_{0.18}\text{Fe}_{0.12}\text{Mn}_{0.7}\text{O}_2$ Cathode for Sodium Ion Batteries. <i>Journal of the American Chemical Society</i> , 2019, 141, 6680-6689.	13.7	187
10	Sidorenkite ( $\text{Na}_3\text{MnPO}_4\text{CO}_3$ ): A New Intercalation Cathode Material for Na-Ion Batteries. <i>Chemistry of Materials</i> , 2013, 25, 2777-2786.	6.7	163
11	Local Structure and Dynamics in the Na Ion Battery Positive Electrode Material $\text{Na}_3\text{V}_2(\text{PO}_4)_2\text{F}_3$ . <i>Chemistry of Materials</i> , 2014, 26, 2513-2521.	6.7	156
12	Lithium Ion Pathway within $\text{Li}_7\text{La}_3\text{Zr}_2\text{O}_{12}$ –Polyethylene Oxide Composite Electrolytes. <i>Angewandte Chemie</i> , 2016, 128, 12726-12730.	2.0	114
13	Understanding the Low-Voltage Hysteresis of Anionic Redox in $\text{Na}_2\text{Mn}_3\text{O}_7$ . <i>Chemistry of Materials</i> , 2019, 31, 3756-3765.	6.7	112
14	Li-ion transport in a representative ceramic–polymer–plasticizer composite electrolyte: $\text{Li}_7\text{La}_3\text{Zr}_2\text{O}_{12}$ –polyethylene oxide–tetraethylene glycol dimethyl ether. <i>Journal of Materials Chemistry A</i> , 2017, 5, 18457-18463.	10.3	109
15	Interface-Enabled Ion Conduction in $\text{Li}_{10}\text{GeP}_2\text{S}_{12}$ –Poly(ethylene) Tj ETQq1 1 0.784314 rgBT /Overlock 3.1 90	3.1	90
16	Li Distribution Heterogeneity in Solid Electrolyte $\text{Li}_{10}\text{GeP}_2\text{S}_{12}$ upon Electrochemical Cycling Probed by $^7\text{Li}$ MRI. <i>Journal of Physical Chemistry Letters</i> , 2018, 9, 1990-1998.	4.6	80
17	Chemical Insights into $\text{PbSe}$ – $\text{HgSe}$ : High Power Factor and Improved Thermoelectric Performance by Alloying with Discordant Atoms. <i>Journal of the American Chemical Society</i> , 2018, 140, 18115-18123.	13.7	80
18	Tunable Lithium-Ion Transport in Mixed-Halide Argyrodites $\text{Li}_6\text{PS}_5\text{ClBr}$ : An Unusual Compositional Space. <i>Chemistry of Materials</i> , 2021, 33, 1435-1443.	6.7	78

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19	Fast Ion Conduction and Its Origin in $\text{Li}_6\text{PS}_5\text{Br}$ . <i>Chemistry of Materials</i> , 2020, 32, 3833-3840.	6.7	75
20	Operando EPR for Simultaneous Monitoring of Anionic and Cationic Redox Processes in Li-Rich Metal Oxide Cathodes. <i>Journal of Physical Chemistry Letters</i> , 2017, 8, 4009-4016.	4.6	70
21	Design of high-performance cathode materials with single-phase pathway for sodium ion batteries: A study on $\text{P2-Nax(LiyMn1-y)O}_2$ compounds. <i>Journal of Power Sources</i> , 2018, 381, 171-180.	7.8	65
22	Discordant nature of Cd in PbSe: off-centering and core-shell nanoscale CdSe precipitates lead to high thermoelectric performance. <i>Energy and Environmental Science</i> , 2020, 13, 200-211.	30.8	57
23	Studies of Functional Defects for Fast $\text{Na}^+$ Ion Conduction in $\text{Na}_3\text{YPS}_4\text{Cl}$ with a Combined Experimental and Computational Approach. <i>Advanced Functional Materials</i> , 2019, 29, 1807951.	14.9	51
24	Understanding the Conduction Mechanism of the Protonic Conductor $\text{CsH}_2\text{PO}_4$ by Solid-State NMR Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2013, 117, 6504-6515.	3.1	44
25	Lithiation and Delithiation Dynamics of Different Li Sites in Li-Rich Battery Cathodes Studied by Operando Nuclear Magnetic Resonance. <i>Chemistry of Materials</i> , 2017, 29, 8282-8291.	6.7	41
26	Coaxial Carbon Nanotube Supported $\text{TiO}_2@MoO_2@Carbon$ Core-Shell Anode for Ultrafast and High-Capacity Sodium Ion Storage. <i>ACS Nano</i> , 2019, 13, 671-680.	14.6	41
27	Polymer-based hybrid battery electrolytes: theoretical insights, recent advances and challenges. <i>Journal of Materials Chemistry A</i> , 2021, 9, 6050-6069.	10.3	40
28	Radical Dimerization in a Plastic Organic Crystal Leads to Structural and Magnetic Bistability with Wide Thermal Hysteresis. <i>Journal of the American Chemical Society</i> , 2019, 141, 17989-17994.	13.7	31
29	Experimental and theoretical evidence for hydrogen doping in polymer solution-processed indium gallium oxide. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 18231-18239.	7.1	31
30	Self-assembled calcium phosphate nanocomposites using block copolypeptide templates. <i>Soft Matter</i> , 2009, 5, 4311.	2.7	30
31	Enhanced Surface Interactions Enable Fast $\text{Li}^+$ Conduction in Oxide/Polymer Composite Electrolyte. <i>Angewandte Chemie</i> , 2020, 132, 4160-4166.	2.0	27
32	Frequency-Agile Low-Temperature Solution-Processed Alumina Dielectrics for Inorganic and Organic Electronics Enhanced by Fluoride Doping. <i>Journal of the American Chemical Society</i> , 2020, 142, 12440-12452.	13.7	27
33	Structures of Delithiated and Degraded $\text{LiFeBO}_3$ , and Their Distinct Changes upon Electrochemical Cycling. <i>Inorganic Chemistry</i> , 2014, 53, 6585-6595.	4.0	26
34	Synthesis and characterizations of highly conductive and stable electrolyte $\text{Li}_10\text{P}_3\text{S}_{12}$ . <i>Energy Storage Materials</i> , 2019, 22, 397-401.	18.0	24
35	Deep Eutectic Solvent with Prussian Blue and Tungsten Oxide for Green and Low-Cost Electrochromic Devices. <i>ACS Applied Electronic Materials</i> , 2019, 1, 1038-1045.	4.3	24
36	On the origin of high ionic conductivity in Na-doped $\text{SrSiO}_3$ . <i>Chemical Science</i> , 2016, 7, 3667-3675.	7.4	23

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37	Aqueous Route Synthesis of Mesoporous $\text{ZrO}_2$ by Agarose Templation. <i>Journal of the American Ceramic Society</i> , 2012, 95, 3455-3462.	3.8	19
38	Structure, defects and thermal stability of delithiated olivine phosphates. <i>Journal of Materials Chemistry</i> , 2012, 22, 20482.	6.7	18
39	<i>In situ</i> synthesis and <i>in operando</i> NMR studies of a high-performance $\text{Ni}_5\text{P}_4$ -nanosheet anode. <i>Journal of Materials Chemistry A</i> , 2018, 6, 22240-22247.	10.3	18
40	Recent Advances in Solid-State Nuclear Magnetic Resonance Techniques for Materials Research. <i>Annual Review of Materials Research</i> , 2020, 50, 493-520.	9.3	18
41	Broadband $\infty$ -Speed-Magic-Angle Spinning NMR Spectroscopy. <i>Journal of the American Chemical Society</i> , 2009, 131, 8390-8391.	13.7	17
42	Real-time monitoring of the lithiation process in organic electrode 7,7,8,8-tetracyanoquinodimethane by <i>in situ</i> EPR. <i>Journal of Energy Chemistry</i> , 2021, 60, 9-15.	12.9	17
43	Stacking-Enhanced Oxygen Redox in $\text{Li}_2\text{MnO}_3$ . <i>Advanced Energy Materials</i> , 2022, 12, .	19.5	17
44	Enhanced rate performance of $\text{Li}_4\text{Ti}_5\text{O}_{12}$ anodes with bridged grain boundaries. <i>Journal of Power Sources</i> , 2017, 354, 172-178.	7.8	14
45	Alterations in Molecular Composition of Humic Substances from Eucalypt Plantation Soils Assessed by $^{13}\text{C}$ -NMR Spectroscopy. <i>Soil Science Society of America Journal</i> , 2013, 77, 293-306.	2.2	13
46	Improving the electrochemical performance of $\text{Li}_4\text{Ti}_5\text{O}_{12}$ anode by phosphorus reduction at a relatively low temperature. <i>Chemical Communications</i> , 2018, 54, 14120-14123.	4.1	11
47	Structure and Properties of $\text{Cs}_7(\text{H}_4\text{PO}_4)_2(\text{H}_2\text{PO}_4)_4$ : A New Superprotonic Solid Acid Featuring the Unusual Polycation $(\text{H}_4\text{PO}_4)_4^{+}$ . <i>Journal of the American Chemical Society</i> , 2020, 142, 19992-20001.	13.7	9
48	Enhanced Ion Conduction in $\text{Li}_{2.5}\text{Zn}_{0.25}\text{PS}_4$ via Anion Doping. <i>Chemistry of Materials</i> , 2020, 32, 3036-3042.	6.7	9
49	Lithium Thiostannate Spinel: Air-Stable Cubic Semiconductors. <i>Chemistry of Materials</i> , 2021, 33, 2080-2089.	6.7	6
50	Combustion Synthesis and Polymer Doping of Metal Oxides for High-Performance Electronic Circuitry. <i>Accounts of Chemical Research</i> , 2022, 55, 429-441.	15.6	6
51	Interrupted anion-network enhanced $\text{Li}^+$ -ion conduction in $\text{Li}_{3+y}\text{PO}_4$ . <i>Energy Storage Materials</i> , 2022, 51, 88-96.	18.0	6
52	Microscopic Insights into the Reconstructive Phase Transition of $\text{KNaNbO}_5$ with $^{19}\text{F}$ NMR Spectroscopy. <i>Chemistry of Materials</i> , 2020, 32, 5715-5722.	6.7	5
53	Phase Behavior and Superprotonic Conductivity in the System $(1-x)\text{CsH}_2\text{PO}_4-x\text{H}_3\text{PO}_4$ : Discovery of Off-Stoichiometric $\text{H}^+$ -[ $\text{Cs}_{1-x}\text{H}_x$ ] $\text{H}_2\text{PO}_4$ . <i>Chemistry of Materials</i> , 2022, 34, 1809-1820.	6.7	5
54	Nanoscale Encapsulation of Hybrid Perovskites Using Hybrid Atomic Layer Deposition. <i>Journal of Physical Chemistry Letters</i> , 2022, 13, 4082-4089.	4.6	5

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55	Phase transitions and potential ferroelectricity in noncentrosymmetric KNaNbOF <sub>5</sub> . Physical Review Materials, 2021, 5, .	2.4	1
56	Fluoride Doping in Crystalline and Amorphous Indium Oxide Semiconductors. Chemistry of Materials, 0, , .	6.7	1