

Yang Yu

List of Publications by Year in descending order

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46
papers

4,933
citations

136950

32
h-index

223800

46
g-index

46
all docs

46
docs citations

46
times ranked

6275
citing authors

#	ARTICLE	IF	CITATIONS
1	Perovskites in catalysis and electrocatalysis. <i>Science</i> , 2017, 358, 751-756.	12.6	1,138
2	Ultra-high-voltage Ni-rich layered cathodes in practical Li metal batteries enabled by a sulfonamide-based electrolyte. <i>Nature Energy</i> , 2021, 6, 495-505.	39.5	323
3	Tuning Redox Transitions via Inductive Effect in Metal Oxides and Complexes, and Implications in Oxygen Electrocatalysis. <i>Joule</i> , 2018, 2, 225-244.	24.0	283
4	Towards identifying the active sites on RuO ₂ (110) in catalyzing oxygen evolution. <i>Energy and Environmental Science</i> , 2017, 10, 2626-2637.	30.8	278
5	Orientation-Dependent Oxygen Evolution on RuO ₂ without Lattice Exchange. <i>ACS Energy Letters</i> , 2017, 2, 876-881.	17.4	251
6	Moving beyond 99.9% Coulombic efficiency for lithium anodes in liquid electrolytes. <i>Nature Energy</i> , 2021, 6, 951-960.	39.5	237
7	Revealing electrolyte oxidation <i>via</i> carbonate dehydrogenation on Ni-based oxides in Li-ion batteries by <i>in situ</i> Fourier transform infrared spectroscopy. <i>Energy and Environmental Science</i> , 2020, 13, 183-199.	30.8	202
8	FSI-inspired solvent and full fluorosulfonyl electrolyte for 4 V class lithium-metal batteries. <i>Energy and Environmental Science</i> , 2020, 13, 212-220.	30.8	198
9	The Effect of Electrode-Electrolyte Interface on the Electrochemical Impedance Spectra for Positive Electrode in Li-Ion Battery. <i>Journal of the Electrochemical Society</i> , 2019, 166, A5090-A5098.	2.9	190
10	Tuning mobility and stability of lithium ion conductors based on lattice dynamics. <i>Energy and Environmental Science</i> , 2018, 11, 850-859.	30.8	158
11	Redox Processes of Manganese Oxide in Catalyzing Oxygen Evolution and Reduction: An <i>in Situ</i> Soft X-ray Absorption Spectroscopy Study. <i>Journal of Physical Chemistry C</i> , 2017, 121, 17682-17692.	3.1	138
12	Coupled LiPF ₆ Decomposition and Carbonate Dehydrogenation Enhanced by Highly Covalent Metal Oxides in High-Energy Li-Ion Batteries. <i>Journal of Physical Chemistry C</i> , 2018, 122, 27368-27382.	3.1	127
13	Chemical Reactivity Descriptor for the Oxide-Electrolyte Interface in Li-Ion Batteries. <i>Journal of Physical Chemistry Letters</i> , 2017, 8, 3881-3887.	4.6	104
14	Stabilizing electrode-electrolyte interfaces to realize high-voltage Li LiCoO ₂ batteries by a sulfonamide-based electrolyte. <i>Energy and Environmental Science</i> , 2021, 14, 6030-6040.	30.8	84
15	Oxygen Evolution Reaction in Ba _{0.5} Sr _{0.5} Co _{0.8} Fe _{0.2} O _{3-δ} Aided by Intrinsic Co/Fe Spinel-Like Surface. <i>Journal of the American Chemical Society</i> , 2020, 142, 15876-15883.	13.7	81
16	In Situ Spectroscopy and Mechanistic Insights into CO Oxidation on Transition-Metal-Substituted Ceria Nanoparticles. <i>ACS Catalysis</i> , 2017, 7, 6843-6857.	11.2	78
17	Lithium Conductivity and Meyer-Neldel Rule in Li ₃ PO ₄ ·Li ₃ VO ₄ ·Li ₄ GeO ₄ Lithium Superionic Conductors. <i>Chemistry of Materials</i> , 2018, 30, 5573-5582.	6.7	74
18	Oxygen Reduction Reaction in Highly Concentrated Electrolyte Solutions of Lithium Bis(trifluoromethanesulfonyl)amide/Dimethyl Sulfoxide. <i>Journal of Physical Chemistry C</i> , 2017, 121, 9162-9172.	3.1	70

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19	Theory of coupled ion-electron transfer kinetics. <i>Electrochimica Acta</i> , 2021, 367, 137432.	5.2	64
20	Enhanced Cycling Performance of Ni-Rich Positive Electrodes (NMC) in Li-Ion Batteries by Reducing Electrolyte Free-Solvent Activity. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 34973-34988.	8.0	63
21	Oxidation of Ethylene Carbonate on Li Metal Oxide Surfaces. <i>Journal of Physical Chemistry C</i> , 2018, 122, 10442-10449.	3.1	60
22	Conversion of Methane into Liquid Fuels—Bridging Thermal Catalysis with Electrocatalysis. <i>Advanced Energy Materials</i> , 2020, 10, 2002154.	19.5	57
23	Regulating oxygen activity of perovskites to promote NO _x oxidation and reduction kinetics. <i>Nature Catalysis</i> , 2021, 4, 663-673.	34.4	54
24	Revealing Electronic Signatures of Lattice Oxygen Redox in Lithium Ruthenates and Implications for High-Energy Li-Ion Battery Material Designs. <i>Chemistry of Materials</i> , 2019, 31, 7864-7876.	6.7	47
25	Probing Surface Chemistry Changes Using LiCoO ₂ -only Electrodes in Li-Ion Batteries. <i>Journal of the Electrochemical Society</i> , 2018, 165, A1377-A1387.	2.9	46
26	Surface Orientation Dependent Water Dissociation on Rutile Ruthenium Dioxide. <i>Journal of Physical Chemistry C</i> , 2018, 122, 17802-17811.	3.1	44
27	A scaling law to determine phase morphologies during ion intercalation. <i>Energy and Environmental Science</i> , 2020, 13, 2142-2152.	30.8	43
28	Editors' Choice—Coating-Dependent Electrode-Electrolyte Interface for Ni-Rich Positive Electrodes in Li-Ion Batteries. <i>Journal of the Electrochemical Society</i> , 2019, 166, A1022-A1030.	2.9	41
29	Bismuth Substituted Strontium Cobalt Perovskites for Catalyzing Oxygen Evolution. <i>Journal of Physical Chemistry C</i> , 2020, 124, 6562-6570.	3.1	41
30	Towards controlling the reversibility of anionic redox in transition metal oxides for high-energy Li-ion positive electrodes. <i>Energy and Environmental Science</i> , 2021, 14, 2322-2334.	30.8	41
31	Interrogation of the Reaction Mechanism in a NaO ₂ Battery Using <i>In Situ</i> Transmission Electron Microscopy. <i>ACS Nano</i> , 2020, 14, 3669-3677.	14.6	39
32	Cation-Dependent Interfacial Structures and Kinetics for Outer-Sphere Electron-Transfer Reactions. <i>Journal of Physical Chemistry C</i> , 2021, 125, 4397-4411.	3.1	38
33	Tuning NaO ₂ Cube Sizes by Controlling Na ⁺ and Solvent Activity in NaO ₂ Batteries. <i>Journal of Physical Chemistry C</i> , 2018, 122, 18316-18328.	3.1	29
34	Surface Changes of LiNi _x Mn _y Co _{1-x-y} O ₂ in Li-Ion Batteries Using <i>In Situ</i> Surface-Enhanced Raman Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2020, 124, 4024-4031.	3.1	29
35	Ligand-Dependent Energetics for Dehydrogenation: Implications in Li-Ion Battery Electrolyte Stability and Selective Oxidation Catalysis of Hydrogen-Containing Molecules. <i>Chemistry of Materials</i> , 2019, 31, 5464-5474.	6.7	28
36	Concentrated Electrolytes for Enhanced Stability of Al-Alloy Negative Electrodes in Li-Ion Batteries. <i>Journal of the Electrochemical Society</i> , 2019, 166, A1867-A1874.	2.9	28

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37	A Perovskite Electronic Structure Descriptor for Electrochemical CO ₂ Reduction and the Competing H ₂ Evolution Reaction. <i>Journal of Physical Chemistry C</i> , 2019, 123, 24469-24476.	3.1	26
38	CO ₂ Reactivity on Cobalt-Based Perovskites. <i>Journal of Physical Chemistry C</i> , 2018, 122, 20391-20401.	3.1	18
39	Solid-State Gelation for Nanostructured Perovskite Oxide Aerogels. <i>Chemistry of Materials</i> , 2019, 31, 9422-9429.	6.7	17
40	Toward Establishing Electronic and Phononic Signatures of Reversible Lattice Oxygen Oxidation in Lithium Transition Metal Oxides For Li-Ion Batteries. <i>Chemistry of Materials</i> , 2020, 32, 5502-5514.	6.7	17
41	Probing Depth-Dependent Transition-Metal Redox of Lithium Nickel, Manganese, and Cobalt Oxides in Li-Ion Batteries. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 55865-55875.	8.0	14
42	Design of S-Substituted Fluorinated Aryl Sulfonamide-Tagged (S-FAST) Anions To Enable New Solvate Ionic Liquids for Battery Applications. <i>Chemistry of Materials</i> , 2019, 31, 7558-7564.	6.7	11
43	Enhanced Cycling of Ni-Rich Positive Electrodes by Fluorine Modification. <i>Journal of the Electrochemical Society</i> , 2021, 168, 060538.	2.9	10
44	The Role of Diphenyl Carbonate Additive on the Interfacial Reactivity of Positive Electrodes in Li-ion Batteries. <i>Journal of the Electrochemical Society</i> , 2020, 167, 040522.	2.9	8
45	Reactivity with Water and Bulk Ruthenium Redox of Lithium Ruthenate in Basic Solutions. <i>Advanced Functional Materials</i> , 2021, 31, 2002249.	14.9	5
46	Finding the right balance. <i>Nature Energy</i> , 2021, 6, 692-693.	39.5	1