Yang Yu

List of Publications by Year in descending order

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	Reactivity with Water and Bulk Ruthenium Redox of Lithium Ruthenate in Basic Solutions. Advanced Functional Materials, 2021, 31, 2002249.	14.9	5
2	Theory of coupled ion-electron transfer kinetics. Electrochimica Acta, 2021, 367, 137432.	5.2	64
3	Towards controlling the reversibility of anionic redox in transition metal oxides for high-energy Li-ion positive electrodes. Energy and Environmental Science, 2021, 14, 2322-2334.	30.8	41
4	Cation-Dependent Interfacial Structures and Kinetics for Outer-Sphere Electron-Transfer Reactions. Journal of Physical Chemistry C, 2021, 125, 4397-4411.	3.1	38
5	Ultra-high-voltage Ni-rich layered cathodes in practical Li metal batteries enabled by a sulfonamide-based electrolyte. Nature Energy, 2021, 6, 495-505.	39.5	323
6	Finding the right balance. Nature Energy, 2021, 6, 692-693.	39.5	1
7	Enhanced Cycling of Ni-Rich Positive Electrodes by Fluorine Modification. Journal of the Electrochemical Society, 2021, 168, 060538.	2.9	10
8	Regulating oxygen activity of perovskites to promote NOx oxidation and reduction kinetics. Nature Catalysis, 2021, 4, 663-673.	34.4	54
9	Stabilizing electrodeâ€“electrolyte interfaces to realize high-voltage Li||LiCoO₂ batteries by a sulfonamide-based electrolyte. Energy and Environmental Science, 2021, 14, 6030-6040.	30.8	84
10	Moving beyond 99.9% Coulombic efficiency for lithium anodes in liquid electrolytes. Nature Energy, 2021, 6, 951-960.	39.5	237
11	FSI-inspired solvent and â€œfull fluorosulfonylâ€•electrolyte for 4 V class lithium-metal batteries. Energy and Environmental Science, 2020, 13, 212-220.	30.8	198
12	Revealing electrolyte oxidation via carbonate dehydrogenation on Ni-based oxides in Li-ion batteries by in situ Fourier transform infrared spectroscopy. Energy and Environmental Science, 2020, 13, 183-199.	30.8	202
13	Conversion of Methane into Liquid Fuelsâ€”Bridging Thermal Catalysis with Electrocatalysis. Advanced Energy Materials, 2020, 10, 2002154.	19.5	57
14	Oxygen Evolution Reaction in Ba_{0.5}Sr_{0.5}Co_{0.8}Fe_{0.2}O_{3-Î´} Aided by Intrinsic Co/Fe Spinel-Like Surface. Journal of the American Chemical Society, 2020, 142, 15876-15883.	13.7	81
15	Probing Depth-Dependent Transition-Metal Redox of Lithium Nickel, Manganese, and Cobalt Oxides in Li-Ion Batteries. ACS Applied Materials & Interfaces, 2020, 12, 55865-55875.	8.0	14
16	Toward Establishing Electronic and Phononic Signatures of Reversible Lattice Oxygen Oxidation in Lithium Transition Metal Oxides For Li-Ion Batteries. Chemistry of Materials, 2020, 32, 5502-5514.	6.7	17
17	Interrogation of the Reaction Mechanism in a Naâ€“O₂ Battery Using In Situ Transmission Electron Microscopy. ACS Nano, 2020, 14, 3669-3677.	14.6	39
18	The Role of Diphenyl Carbonate Additive on the Interfacial Reactivity of Positive Electrodes in Li-ion Batteries. Journal of the Electrochemical Society, 2020, 167, 040522.	2.9	8

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19	Bismuth Substituted Strontium Cobalt Perovskites for Catalyzing Oxygen Evolution. Journal of Physical Chemistry C, 2020, 124, 6562-6570.	3.1	41
20	Surface Changes of LiNi_xMn_yCo_{1â€“xâ€“y}O₂ in Li-Ion Batteries Using in Situ Surface-Enhanced Raman Spectroscopy. Journal of Physical Chemistry C, 2020, 124, 4024-4031.	3.1	29
21	A scaling law to determine phase morphologies during ion intercalation. Energy and Environmental Science, 2020, 13, 2142-2152.	30.8	43
22	Design of S-Substituted Fluorinated Aryl Sulfonamide-Tagged (S-FAST) Anions To Enable New Solvate Ionic Liquids for Battery Applications. Chemistry of Materials, 2019, 31, 7558-7564.	6.7	11
23	Enhanced Cycling Performance of Ni-Rich Positive Electrodes (NMC) in Li-Ion Batteries by Reducing Electrolyte Free-Solvent Activity. ACS Applied Materials & Interfaces, 2019, 11, 34973-34988.	8.0	63
24	Ligand-Dependent Energetics for Dehydrogenation: Implications in Li-Ion Battery Electrolyte Stability and Selective Oxidation Catalysis of Hydrogen-Containing Molecules. Chemistry of Materials, 2019, 31, 5464-5474.	6.7	28
25	Solid-State Gelation for Nanostructured Perovskite Oxide Aerogels. Chemistry of Materials, 2019, 31, 9422-9429.	6.7	17
26	A Perovskite Electronic Structure Descriptor for Electrochemical CO₂ Reduction and the Competing H₂ Evolution Reaction. Journal of Physical Chemistry C, 2019, 123, 24469-24476.	3.1	26
27	Revealing Electronic Signatures of Lattice Oxygen Redox in Lithium Ruthenates and Implications for High-Energy Li-Ion Battery Material Designs. Chemistry of Materials, 2019, 31, 7864-7876.	6.7	47
28	Concentrated Electrolytes for Enhanced Stability of Al-Alloy Negative Electrodes in Li-Ion Batteries. Journal of the Electrochemical Society, 2019, 166, A1867-A1874.	2.9	28
29	Editors' Choiceâ€”Coating-Dependent Electrode-Electrolyte Interface for Ni-Rich Positive Electrodes in Li-Ion Batteries. Journal of the Electrochemical Society, 2019, 166, A1022-A1030.	2.9	41
30	The Effect of Electrode-Electrolyte Interface on the Electrochemical Impedance Spectra for Positive Electrode in Li-Ion Battery. Journal of the Electrochemical Society, 2019, 166, A5090-A5098.	2.9	190
31	Tuning mobility and stability of lithium ion conductors based on lattice dynamics. Energy and Environmental Science, 2018, 11, 850-859.	30.8	158
32	Tuning Redox Transitions via Inductive Effect in Metal Oxides and Complexes, and Implications in Oxygen Electrocatalysis. Joule, 2018, 2, 225-244.	24.0	283
33	Oxidation of Ethylene Carbonate on Li Metal Oxide Surfaces. Journal of Physical Chemistry C, 2018, 122, 10442-10449.	3.1	60
34	Coupled LiPF₆ Decomposition and Carbonate Dehydrogenation Enhanced by Highly Covalent Metal Oxides in High-Energy Li-Ion Batteries. Journal of Physical Chemistry C, 2018, 122, 27368-27382.	3.1	127
35	Tuning NaO₂ Cube Sizes by Controlling Na⁺ and Solvent Activity in Naâ€“O₂ Batteries. Journal of Physical Chemistry C, 2018, 122, 18316-18328.	3.1	29
36	Lithium Conductivity and Meyer-Neldel Rule in Li₃PO₄â€“Li₃VO₄â€“Li₄GeO₄ Lithium Superionic Conductors. Chemistry of Materials, 2018, 30, 5573-5582.	6.7	74

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37	Surface Orientation Dependent Water Dissociation on Rutile Ruthenium Dioxide. Journal of Physical Chemistry C, 2018, 122, 17802-17811.	3.1	44
38	Probing Surface Chemistry Changes Using LiCoO₂-only Electrodes in Li-Ion Batteries. Journal of the Electrochemical Society, 2018, 165, A1377-A1387.	2.9	46
39	CO₂ Reactivity on Cobalt-Based Perovskites. Journal of Physical Chemistry C, 2018, 122, 20391-20401.	3.1	18
40	Oxygen Reduction Reaction in Highly Concentrated Electrolyte Solutions of Lithium Bis(trifluoromethanesulfonyl)amide/Dimethyl Sulfoxide. Journal of Physical Chemistry C, 2017, 121, 9162-9172.	3.1	70
41	Orientation-Dependent Oxygen Evolution on RuO₂ without Lattice Exchange. ACS Energy Letters, 2017, 2, 876-881.	17.4	251
42	In Situ Spectroscopy and Mechanistic Insights into CO Oxidation on Transition-Metal-Substituted Ceria Nanoparticles. ACS Catalysis, 2017, 7, 6843-6857.	11.2	78
43	Redox Processes of Manganese Oxide in Catalyzing Oxygen Evolution and Reduction: An in Situ Soft X-ray Absorption Spectroscopy Study. Journal of Physical Chemistry C, 2017, 121, 17682-17692.	3.1	138
44	Chemical Reactivity Descriptor for the Oxide-Electrolyte Interface in Li-Ion Batteries. Journal of Physical Chemistry Letters, 2017, 8, 3881-3887.	4.6	104
45	Towards identifying the active sites on RuO₂(110) in catalyzing oxygen evolution. Energy and Environmental Science, 2017, 10, 2626-2637.	30.8	278
46	Perovskites in catalysis and electrocatalysis. Science, 2017, 358, 751-756.	12.6	1,138