Sung-Fu Hung

List of Publications by Year
in descending order

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64 papers	15,555 citations	53794 45 h-index	133252 59 g-index
65 all docs	65 docs citations	65 times ranked	15150 citing authors

#	Article	IF	Citations
1	Electrocatalysis for the oxygen evolution reaction: recent development and future perspectives. Chemical Society Reviews, 2017, 46, 337-365.	38.1	4,505
2	Atomically dispersed Ni(i) as the active site for electrochemical CO2 reduction. Nature Energy, 2018, 3, 140-147.	39.5	1,594
3	Identification of catalytic sites for oxygen reduction and oxygen evolution in N-doped graphene materials: Development of highly efficient metal-free bifunctional electrocatalyst. Science Advances, 2016, 2, e1501122.	10.3	1,078
4	In Operando Identification of Geometrical-Site-Dependent Water Oxidation Activity of Spinel Co₃O₄. Journal of the American Chemical Society, 2016, 138, 36-39.	13.7	787
5	Copper atom-pair catalyst anchored on alloy nanowires for selective and efficient electrochemical reduction of CO2. Nature Chemistry, 2019, 11, 222-228.	13.6	571
6	Enabling Direct H2O2 Production in Acidic Media through Rational Design of Transition Metal Single Atom Catalyst. CheM, 2020, 6, 658-674.	11.7	418
7	Cooperative CO2-to-ethanol conversion via enriched intermediates at moleculeâ€“metal catalyst interfaces. Nature Catalysis, 2020, 3, 75-82.	34.4	390
8	Efficient electrically powered CO2-to-ethanol via suppression of deoxygenation. Nature Energy, 2020, 5, 478-486.	39.5	363
9	Layered Structure Causes Bulk NiFe Layered Double Hydroxide Unstable in Alkaline Oxygen Evolution Reaction. Advanced Materials, 2019, 31, e1903909.	21.0	345
10	Breaking Long-Range Order in Iridium Oxide by Alkali Ion for Efficient Water Oxidation. Journal of the American Chemical Society, 2019, 141, 3014-3023.	13.7	337
11	Elucidating the Electrocatalytic CO₂ Reduction Reaction over a Model Singleâ€Atom Nickel Catalyst. Angewandte Chemie - International Edition, 2020, 59, 798-803.	13.8	315
12	An Amorphous Nickelâ€“Ironâ€Based Electrocatalyst with Unusual Local Structures for Ultrafast Oxygen Evolution Reaction. Advanced Materials, 2019, 31, e1900883.	21.0	243
13	Metalâ€Clusterâ€Decorated TiO₂ Nanotube Arrays: A Composite Heterostructure toward Versatile Photocatalytic and Photoelectrochemical Applications. Small, 2015, 11, 554-567.	10.0	237
14	Identification of the Electronic and Structural Dynamics of Catalytic Centers in Single-Fe-Atom Material. CheM, 2020, 6, 3440-3454.	11.7	231
15	Dynamic Evolution of Atomically Dispersed Cu Species for CO₂ Photoreduction to Solar Fuels. ACS Catalysis, 2019, 9, 4824-4833.	11.2	230
16	Coordination engineering of iridium nanocluster bifunctional electrocatalyst for highly efficient and pH-universal overall water splitting. Nature Communications, 2020, 11, 4246.	12.8	221
17	In Situ Electrochemical Production of Ultrathin Nickel Nanosheets for Hydrogen Evolution Electrocatalysis. CheM, 2017, 3, 122-133.	11.7	214
18	Oneâ€Dimensional Hybrid Nanostructures for Heterogeneous Photocatalysis and Photoelectrocatalysis. Small, 2015, 11, 2115-2131.	10.0	213

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19	Facet engineering accelerates spillover hydrogenation on highly diluted metal nanocatalysts. Nature Nanotechnology, 2020, 15, 848-853.	31.5	210
20	Amorphous versus Crystalline in Water Oxidation Catalysis: A Case Study of NiFe Alloy. Nano Letters, 2020, 20, 4278-4285.	9.1	201
21	An Earthâ€Abundant Catalystâ€Based Seawater Photoelectrolysis System with 17.9% Solarâ€toâ€Hydrogen Efficiency. Advanced Materials, 2018, 30, e1707261.	21.0	189
22	Unraveling the Origin of Sulfurâ€Doped Feâ€Nâ€C Singleâ€Atom Catalyst for Enhanced Oxygen Reduction Activity: Effect of Iron Spinâ€State Tuning. Angewandte Chemie - International Edition, 2021, 60, 25404-25410.	13.8	177
23	Identifying the electrocatalytic sites of nickel disulfide in alkaline hydrogen evolution reaction. Nano Energy, 2017, 41, 148-153.	16.0	168
24	Stable Quantum Dot Photoelectrolysis Cell for Unassisted Visible Light Solar Water Splitting. ACS Nano, 2014, 8, 10403-10413.	14.6	162
25	Efficient Methane Electrosynthesis Enabled by Tuning Local CO₂ Availability. Journal of the American Chemical Society, 2020, 142, 3525-3531.	13.7	154
26	In Situ Spectroscopic Identification of Î¼-OO Bridging on Spinel Co₃O₄ Water Oxidation Electrocatalyst. Journal of Physical Chemistry Letters, 2016, 7, 4847-4853.	4.6	136
27	Tuning chemical bonding of MnO2 through transition-metal doping for enhanced CO oxidation. Journal of Catalysis, 2016, 341, 82-90.	6.2	132
28	Unraveling Geometrical Site Confinement in Highly Efficient Ironâ€Doped Electrocatalysts toward Oxygen Evolution Reaction. Advanced Energy Materials, 2018, 8, 1701686.	19.5	125
29	Iridium Oxideâ€Assisted Plasmonâ€Induced Hot Carriers: Improvement on Kinetics and Thermodynamics of Hot Carriers. Advanced Energy Materials, 2016, 6, 1501339.	19.5	111
30	High-Rate and Efficient Ethylene Electrosynthesis Using a Catalyst/Promoter/Transport Layer. ACS Energy Letters, 2020, 5, 2811-2818.	17.4	106
31	Spatially branched hierarchical ZnO nanorod-TiO₂nanotube array heterostructures for versatile photocatalytic and photoelectrocatalytic applications: towards intimate integration of 1Dâ€“1D hybrid nanostructures. Nanoscale, 2014, 6, 14950-14961.	5.6	101
32	Low coordination number copper catalysts for electrochemical CO2 methanation in a membrane electrode assembly. Nature Communications, 2021, 12, 2932.	12.8	97
33	Efficient electrosynthesis of n-propanol from carbon monoxide using a Agâ€“Ruâ€“Cu catalyst. Nature Energy, 2022, 7, 170-176.	39.5	96
34	Promoting CO2 methanation via ligand-stabilized metal oxide clusters as hydrogen-donating motifs. Nature Communications, 2020, 11, 6190.	12.8	93
35	Identification of Stabilizing High-Valent Active Sites by Operando High-Energy Resolution Fluorescence-Detected X-ray Absorption Spectroscopy for High-Efficiency Water Oxidation. Journal of the American Chemical Society, 2018, 140, 17263-17270.	13.7	92
36	A metal-supported single-atom catalytic site enables carbon dioxide hydrogenation. Nature Communications, 2022, 13, 819.	12.8	83

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37	In Situ Spatially Coherent Identification of Phosphide-Based Catalysts: Crystallographic Latching for Highly Efficient Overall Water Electrolysis. ACS Energy Letters, 2019, 4, 2813-2820.	17.4	75
38	Heterojunction of Zinc Blende/Wurtzite in Zn_{1â€“<i>x</i>}Cd_{<i>x</i>}S Solid Solution for Efficient Solar Hydrogen Generation: X-ray Absorption/Diffraction Approaches. ACS Applied Materials & Interfaces, 2015, 7, 22558-22569.	8.0	74
39	Quantitatively Unraveling the Redox Shuttle of Spontaneous Oxidation/Electroreduction of CuO_{<i>x</i>} on Silver Nanowires Using in Situ X-ray Absorption Spectroscopy. ACS Central Science, 2019, 5, 1998-2009.	11.3	74
40	Tuning the Electronic Spin State of Catalysts by Strain Control for Highly Efficient Water Electrolysis. Small Methods, 2018, 2, 1800001.	8.6	70
41	Light-Induced In Situ Transformation of Metal Clusters to Metal Nanocrystals for Photocatalysis. ACS Applied Materials & Interfaces, 2015, 7, 28105-28109.	8.0	59
42	The synergistic effect of a well-defined Au@Pt coreâ€“shell nanostructure toward photocatalytic hydrogen generation: interface engineering to improve the Schottky barrier and hydrogen-evolved kinetics. Chemical Communications, 2016, 52, 1567-1570.	4.1	52
43	Unveiling the In Situ Generation of a Monovalent Fe(I) Site in the Single-Fe-Atom Catalyst for Electrochemical CO₂ Reduction. ACS Catalysis, 2021, 11, 7292-7301.	11.2	51
44	Boride-derived oxygen-evolution catalysts. Nature Communications, 2021, 12, 6089.	12.8	51
45	CdS sensitized vertically aligned single crystal TiO2 nanorods on transparent conducting glass with improved solar cell efficiency and stability using ZnS passivation layer. Journal of Power Sources, 2013, 233, 236-243.	7.8	46
46	Ternary Alloys Enable Efficient Production of Methoxylated Chemicals via Selective Electrocatalytic Hydrogenation of Lignin Monomers. Journal of the American Chemical Society, 2021, 143, 17226-17235.	13.7	43
47	Unraveling the Origin of Sulfurâ€Doped Feâ€Nâ€C Singleâ€Atom Catalyst for Enhanced Oxygen Reduction Activity: Effect of Iron Spinâ€State Tuning. Angewandte Chemie, 2021, 133, 25608-25614.	2.0	38
48	Elucidating the Electrocatalytic CO₂ Reduction Reaction over a Model Singleâ€Atom Nickel Catalyst. Angewandte Chemie, 2020, 132, 808-813.	2.0	33
49	High Spin State Promotes Water Oxidation Catalysis at Neutral pH in Spinel Cobalt Oxide. Industrial & Engineering Chemistry Research, 2018, 57, 1441-1445.	3.7	28
50	<i>In Situ</i> Precise Tuning of Bimetallic Electronic Effect for Boosting Oxygen Reduction Catalysis. Nano Letters, 2021, 21, 7753-7760.	9.1	24
51	Ga doping disrupts C-C coupling and promotes methane electroproduction on CuAl catalysts. Chem Catalysis, 2022, 2, 908-916.	6.1	24
52	In situ morphological transformation and investigation of electrocatalytic properties of cobalt oxide nanostructures toward oxygen evolution. CrystEngComm, 2016, 18, 6008-6012.	2.6	21
53	In-situ X-ray techniques for non-noble electrocatalysts. Pure and Applied Chemistry, 2020, 92, 733-749.	1.9	19
54	Unveiling the Bonding Nature of C3 Intermediates in the CO₂ Reduction Reaction through the Oxygen-Deficient Cu₂O(110) Surfaceâ€”A DFT Study. Journal of Physical Chemistry C, 2022, 126, 5502-5512.	3.1	11

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55	Electrochemical flow systems enable renewable energy industrial chain of CO₂ reduction. Pure and Applied Chemistry, 2020, 92, 1937-1951.	1.9	8
56	Turn the Trash into Treasure: Egg-White-Derived Single-Atom Electrocatalysts Boost Oxygen Reduction Reaction. ACS Sustainable Chemistry and Engineering, 0, , .	6.7	6
57	TiO2 Nanotubes: Metal-Cluster-Decorated TiO2 Nanotube Arrays: A Composite Heterostructure toward Versatile Photocatalytic and Photoelectrochemical Applications (Small 5/2015). Small, 2015, 11, 553-553.	10.0	5
58	Electrocatalysts: Unraveling Geometrical Site Confinement in Highly Efficient Ironâ€Doped Electrocatalysts toward Oxygen Evolution Reaction (Adv. Energy Mater. 7/2018). Advanced Energy Materials, 2018, 8, 1870032.	19.5	5
59	Operando X-ray absorption spectroscopic studies of the carbon dioxide reduction reaction in a modified flow cell. Catalysis Science and Technology, 0, , .	4.1	5
60	Innentitelbild: Elucidating the Electrocatalytic CO₂ Reduction Reaction over a Model Singleâ€Atom Nickel Catalyst (Angew. Chem. 2/2020). Angewandte Chemie, 2020, 132, 518-518.	2.0	1
61	Nanostructures: Iridium Oxideâ€Assisted Plasmonâ€Induced Hot Carriers: Improvement on Kinetics and Thermodynamics of Hot Carriers (Adv. Energy Mater. 8/2016). Advanced Energy Materials, 2016, 6, .	19.5	0
62	Dualâ€Hole Excitons Activated Photoelectrolysis in Neutral Solution. Small, 2018, 14, e1704047.	10.0	0
63	Nanomaterials: Dual-Hole Excitons Activated Photoelectrolysis in Neutral Solution (Small 14/2018). Small, 2018, 14, 1870061.	10.0	0
64	Identification of the Electronic and Structural Dynamics of Catalytic Centers in Single-Fe-Atom Material. SSRN Electronic Journal, 0, , .	0.4	0