

Xunyu Lu

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/9480489/publications.pdf>

Version: 2024-02-01

74
papers

8,002
citations

61984

43
h-index

76900

74
g-index

76
all docs

76
docs citations

76
times ranked

9661
citing authors

#	ARTICLE	IF	CITATIONS
1	Electrodeposition of hierarchically structured three-dimensional nickel-iron electrodes for efficient oxygen evolution at high current densities. <i>Nature Communications</i> , 2015, 6, 6616.	12.8	1,671
2	Bifunctional Porous NiFe/NiCo ₂ O ₄ /Ni Foam Electrodes with Triple Hierarchy and Double Synergies for Efficient Whole Cell Water Splitting. <i>Advanced Functional Materials</i> , 2016, 26, 3515-3523.	14.9	545
3	Electrocatalytic Oxygen Evolution at Surface-Oxidized Multiwall Carbon Nanotubes. <i>Journal of the American Chemical Society</i> , 2015, 137, 2901-2907.	13.7	495
4	Two-birds-one-stone: multifunctional supercapacitors beyond traditional energy storage. <i>Energy and Environmental Science</i> , 2021, 14, 1854-1896.	30.8	252
5	Carbon-Based Metal-Free Catalysts for Electrocatalytic Reduction of Nitrogen for Synthesis of Ammonia at Ambient Conditions. <i>Advanced Materials</i> , 2019, 31, e1805367.	21.0	247
6	Harnessing the interplay of Fe-Ni atom pairs embedded in nitrogen-doped carbon for bifunctional oxygen electrocatalysis. <i>Nano Energy</i> , 2020, 71, 104597.	16.0	231
7	Heteroatom-doped carbon catalysts for zinc-air batteries: progress, mechanism, and opportunities. <i>Energy and Environmental Science</i> , 2020, 13, 4536-4563.	30.8	209
8	Direct insights into the role of epoxy groups on cobalt sites for acidic H ₂ O ₂ production. <i>Nature Communications</i> , 2020, 11, 4181.	12.8	204
9	Electronic Structure Engineering of Single-Atom Ru Sites via Co-N ₄ Sites for Bifunctional pH-Universal Water Splitting. <i>Advanced Materials</i> , 2022, 34, e2110103.	21.0	199
10	A sea-change: manganese doped nickel/nickel oxide electrocatalysts for hydrogen generation from seawater. <i>Energy and Environmental Science</i> , 2018, 11, 1898-1910.	30.8	192
11	A magnetic, reversible pH-responsive nanogated ensemble based on Fe ₃ O ₄ nanoparticles-capped mesoporous silica. <i>Biomaterials</i> , 2011, 32, 1932-1942.	11.4	186
12	Highly efficient and robust oxygen evolution catalysts achieved by anchoring nanocrystalline cobalt oxides onto mildly oxidized multiwalled carbon nanotubes. <i>Journal of Materials Chemistry A</i> , 2013, 1, 12053.	10.3	166
13	A hybrid plasma electrocatalytic process for sustainable ammonia production. <i>Energy and Environmental Science</i> , 2021, 14, 865-872.	30.8	164
14	Nitrate reduction to ammonium: from CuO defect engineering to waste NO _x -to-NH ₃ economic feasibility. <i>Energy and Environmental Science</i> , 2021, 14, 3588-3598.	30.8	161
15	Unusual synergistic effects upon incorporation of Fe and/or Ni into mesoporous Co ₃ O ₄ for enhanced oxygen evolution. <i>Chemical Communications</i> , 2014, 50, 10122.	4.1	150
16	Highly Selective and Stable Reduction of CO ₂ to CO by a Graphitic Carbon Nitride/Carbon Nanotube Composite Electrocatalyst. <i>Chemistry - A European Journal</i> , 2016, 22, 11991-11996.	3.3	132
17	Intrinsic ORR Activity Enhancement of Pt Atomic Sites by Engineering the <i>d</i> -Band Center via Local Coordination Tuning. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 21911-21917.	13.8	132
18	Electroreduction of CO ₂ to CO on a Mesoporous Carbon Catalyst with Progressively Removed Nitrogen Moieties. <i>ACS Energy Letters</i> , 2018, 3, 2292-2298.	17.4	129

#	ARTICLE	IF	CITATIONS
19	A Disquisition on the Active Sites of Heterogeneous Catalysts for Electrochemical Reduction of CO ₂ to Value-Added Chemicals and Fuel. <i>Advanced Energy Materials</i> , 2020, 10, 1902106.	19.5	113
20	A Fully Reversible Water Electrolyzer Cell Made Up from FeCoNi (Oxy)hydroxide Atomic Layers. <i>Advanced Energy Materials</i> , 2019, 9, 1901312.	19.5	106
21	Gold Nanoparticles Embedded within Mesoporous Cobalt Oxide Enhance Electrochemical Oxygen Evolution. <i>ChemSusChem</i> , 2014, 7, 82-86.	6.8	99
22	Layer-by-layer assembly of transparent amorphous Co ₃ O ₄ nanoparticles/graphene composite electrodes for sustained oxygen evolution reaction. <i>Journal of Materials Chemistry A</i> , 2013, 1, 12726.	10.3	98
23	Modulating Pt-O-Pt atomic clusters with isolated cobalt atoms for enhanced hydrogen evolution catalysis. <i>Nature Communications</i> , 2022, 13, 2430.	12.8	98
24	Highly Selective Reduction of CO ₂ to Formate at Low Overpotentials Achieved by a Mesoporous Tin Oxide Electrocatalyst. <i>ACS Sustainable Chemistry and Engineering</i> , 2018, 6, 1670-1679.	6.7	96
25	Electrochemistry of Room Temperature Protic Ionic Liquids: A Critical Assessment for Use as Electrolytes in Electrochemical Applications. <i>Journal of Physical Chemistry B</i> , 2012, 116, 9160-9170.	2.6	94
26	Modulating Activity through Defect Engineering of Tin Oxides for Electrochemical CO ₂ Reduction. <i>Advanced Science</i> , 2019, 6, 1900678.	11.2	92
27	Constructing Atomic Heterometallic Sites in Ultrathin Nickel-Incorporated Cobalt Phosphide Nanosheets via a Boron-Assisted Strategy for Highly Efficient Water Splitting. <i>Nano Letters</i> , 2021, 21, 823-832.	9.1	91
28	N,P co-coordinated Fe species embedded in carbon hollow spheres for oxygen electrocatalysis. <i>Journal of Materials Chemistry A</i> , 2019, 7, 14732-14742.	10.3	80
29	Tunable Syngas Production through CO ₂ Electroreduction on Cobalt-Carbon Composite Electrocatalyst. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 9307-9315.	8.0	79
30	N,P Co-ordinated Manganese Atoms in Mesoporous Carbon for Electrochemical Oxygen Reduction. <i>Small</i> , 2019, 15, e1804524.	10.0	76
31	Determination of Water in Room Temperature Ionic Liquids by Cathodic Stripping Voltammetry at a Gold Electrode. <i>Analytical Chemistry</i> , 2012, 84, 2784-2791.	6.5	74
32	Transforming active sites in nickel-nitrogen-carbon catalysts for efficient electrochemical CO ₂ reduction to CO. <i>Nano Energy</i> , 2020, 78, 105213.	16.0	69
33	Designing Undercoordinated Ni _x and Fe _x on Holey Graphene for Electrochemical CO ₂ Conversion to Syngas. <i>ACS Nano</i> , 2021, 15, 12006-12018.	14.6	68
34	Anchoring Sites Engineering in Single-Atom Catalysts for Highly Efficient Electrochemical Energy Conversion Reactions. <i>Advanced Materials</i> , 2021, 33, e2102801.	21.0	64
35	Oxygen Reduction Reaction in Room Temperature Protic Ionic Liquids. <i>Journal of Physical Chemistry C</i> , 2013, 117, 18334-18342.	3.1	62
36	Electronically Modified Atomic Sites Within a Multicomponent Co/Cu Composite for Efficient Oxygen Electroreduction. <i>Advanced Energy Materials</i> , 2021, 11, 2100303.	19.5	61

#	ARTICLE	IF	CITATIONS
37	Endosomal pH-activatable magnetic nanoparticle-capped mesoporous silica for intracellular controlled release. <i>Journal of Materials Chemistry</i> , 2012, 22, 15960.	6.7	57
38	Liquid Hydrocarbon Production from CO ₂ : Recent Development in Metal-Based Electrocatalysis. <i>ChemSusChem</i> , 2017, 10, 4342-4358.	6.8	54
39	Interconnected core-shell carbon nanotube-graphene nanoribbon scaffolds for anchoring cobalt oxides as bifunctional electrocatalysts for oxygen evolution and reduction. <i>Journal of Materials Chemistry A</i> , 2015, 3, 13371-13376.	10.3	51
40	Highly Selective Conversion of CO ₂ to CO Achieved by a Three-Dimensional Porous Silver Electrocatalyst. <i>ChemistrySelect</i> , 2017, 2, 879-884.	1.5	51
41	Uncovering Atomic-Scale Stability and Reactivity in Engineered Zinc Oxide Electrocatalysts for Controllable Syngas Production. <i>Advanced Energy Materials</i> , 2020, 10, 2001381.	19.5	51
42	Tuning the electrodeposition parameters of silver to yield micro/nano structures from room temperature protic ionic liquids. <i>Electrochimica Acta</i> , 2012, 81, 98-105.	5.2	50
43	Controlled electrochemical intercalation, exfoliation and in situ nitrogen doping of graphite in nitrate-based protic ionic liquids. <i>Physical Chemistry Chemical Physics</i> , 2013, 15, 20005.	2.8	48
44	Antipoisoning Nickel-Carbon Electrocatalyst for Practical Electrochemical CO ₂ Reduction to CO. <i>ACS Applied Energy Materials</i> , 2019, 2, 8002-8009.	5.1	45
45	Valence Alignment of Mixed Ni-Fe Hydroxide Electrocatalysts through Preferential Templating on Graphene Edges for Enhanced Oxygen Evolution. <i>ACS Nano</i> , 2020, 14, 11327-11340.	14.6	42
46	Surface engineered tin foil for electrocatalytic reduction of carbon dioxide to formate. <i>Catalysis Science and Technology</i> , 2017, 7, 2542-2550.	4.1	39
47	3D Heterostructured Copper Electrode for Conversion of Carbon Dioxide to Alcohols at Low Overpotentials. <i>Advanced Sustainable Systems</i> , 2019, 3, 1800064.	5.3	37
48	Atomic Co decorated free-standing graphene electrode assembly for efficient hydrogen peroxide production in acid. <i>Energy and Environmental Science</i> , 2022, 15, 1172-1182.	30.8	37
49	Water sorption in protic ionic liquids: correlation between hygroscopicity and polarity. <i>New Journal of Chemistry</i> , 2013, 37, 1959.	2.8	35
50	From passivation to activation - tunable nickel/nickel oxide for hydrogen evolution electrocatalysis. <i>Chemical Communications</i> , 2020, 56, 1709-1712.	4.1	35
51	Versatile electrocatalytic processes realized by Ni, Co and Fe alloyed core coordinated carbon shells. <i>Journal of Materials Chemistry A</i> , 2019, 7, 12154-12165.	10.3	34
52	Controlled electrodeposition of cobalt oxides from protic ionic liquids for electrocatalytic water oxidation. <i>RSC Advances</i> , 2013, 3, 20936.	3.6	28
53	Reconstructing Cu Nanoparticle Supported on Vertical Graphene Surfaces via Electrochemical Treatment to Tune the Selectivity of CO ₂ Reduction toward Valuable Products. <i>ACS Catalysis</i> , 2022, 12, 4792-4805.	11.2	24
54	Unifying double flame spray pyrolysis with lanthanum doping to restrict cobalt-aluminate formation in Co/Al ₂ O ₃ catalysts for the dry reforming of methane. <i>Catalysis Science and Technology</i> , 2019, 9, 4970-4980.	4.1	23

#	ARTICLE	IF	CITATIONS
55	Tailoring the Pore Size, Basicity, and Binding Energy of Mesoporous C ₃ N ₅ for CO ₂ Capture and Conversion. <i>Chemistry - an Asian Journal</i> , 2021, 16, 3999-4005.	3.3	23
56	A Facile Route to Prepare Organic/Inorganic Hybrid Nanomaterials by "Click Chemistry". <i>Macromolecular Rapid Communications</i> , 2009, 30, 2116-2120.	3.9	21
57	Ultrathin Fe-Nanoparticles Coordinated Fe-Doped CoNi Alloy Nanoparticles for Electrochemical Water Splitting. <i>Particle and Particle Systems Characterization</i> , 2019, 36, 1800252.	2.3	21
58	Impact of Micropores and Dopants to Mitigate Lithium Polysulfides Shuttle over High Surface Area of ZIF-8 Derived Nanoporous Carbons. <i>ACS Applied Energy Materials</i> , 2020, 3, 5523-5532.	5.1	21
59	A facile approach to tailor electrocatalytic properties of MnO ₂ through tuning phase transition, surface morphology and band structure. <i>Chemical Engineering Journal</i> , 2022, 438, 135561.	12.7	21
60	Highly Selective Metal-Free Electrochemical Production of Hydrogen Peroxide on Functionalized Vertical Graphene Edges. <i>Small</i> , 2022, 18, e2105082.	10.0	20
61	Preparation of Metal-Free Nitrogen-Doped Graphene Via Direct Electrochemical Exfoliation of Graphite in Ammonium Nitrate. <i>Australian Journal of Chemistry</i> , 2015, 68, 830.	0.9	19
62	Oxidant or Catalyst for Oxidation? A Study of How Structure and Disorder Change the Selectivity for Direct versus Catalytic Oxidation Mediated by Manganese(III,IV) Oxides. <i>Chemistry of Materials</i> , 2018, 30, 8244-8256.	6.7	19
63	Altering the influence of ceria oxygen vacancies in Ni/Ce _x Si _y O ₂ for photothermal CO ₂ methanation. <i>Catalysis Science and Technology</i> , 2021, 11, 5297-5309.	4.1	17
64	Pulsed Electrodeposition of Co ₃ O ₄ Nanocrystals on One-Dimensional ZnO Scaffolds for Enhanced Electrochemical Water Oxidation. <i>ChemPlusChem</i> , 2018, 83, 934-940.	2.8	16
65	Reversible ternary nickel-cobalt-iron catalysts for intermittent water electrolysis. <i>EcoMat</i> , 2020, 2, e12012.	11.9	14
66	Surface Reconstruction Enabled Efficient Hydrogen Generation on a Cobalt-Iron Phosphate Electrocatalyst in Neutral Water. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 53798-53809.	8.0	14
67	Nitrogen Doped Carbon Nanosheets Coupled Nickel-Carbon Pyramid Arrays Toward Efficient Evolution of Hydrogen. <i>Advanced Sustainable Systems</i> , 2017, 1, 1700032.	5.3	12
68	Spatially confined electrochemical activity at a non-patterned semiconductor electrode. <i>Electrochimica Acta</i> , 2017, 242, 240-246.	5.2	12
69	Modelling an electrochemically roughened porous platinum electrode for water oxidation. <i>Chemical Communications</i> , 2016, 52, 4068-4071.	4.1	9
70	Cadmium sulfide Co-catalyst reveals the crystallinity impact of nickel oxide photocathode in photoelectrochemical water splitting. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 20851-20856.	7.1	7
71	Intrinsic ORR Activity Enhancement of Pt Atomic Sites by Engineering the d-Band Center via Local Coordination Tuning. <i>Angewandte Chemie</i> , 2021, 133, 22082-22088.	2.0	4
72	Oxygen Reduction Reaction: Electronically Modified Atomic Sites Within a Multicomponent Co/Cu Composite for Efficient Oxygen Electroreduction (<i>Adv. Energy Mater.</i> 17/2021). <i>Advanced Energy Materials</i> , 2021, 11, 2170067.	19.5	2

#	ARTICLE	IF	CITATIONS
73	Decorating Semiconductor Silver-Tetracyanoquinodimethane Nanowires with Silver Nanoparticles from Ionic Liquids. Australian Journal of Chemistry, 2014, 67, 213.	0.9	1
74	Pulsed Electrodeposition of Co ₃ O ₄ Nanocrystals on One-Dimensional ZnO Scaffolds for Enhanced Electrochemical Water Oxidation. ChemPlusChem, 2018, 83, 889-889.	2.8	0