Wensheng Yan

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/620905/publications.pdf

Version: 2024-02-01

92 papers	13,857 citations	46918 47 h-index	45213 90 g-index
93 all docs	93 docs citations	93 times ranked	13268 citing authors

#	Article	IF	Citations
1	A comparison study on single metal atoms (Fe, Co, Ni) within nitrogen-doped graphene for oxygen electrocatalysis and rechargeable Zn-air batteries. Chinese Chemical Letters, 2023, 34, 107681.	4.8	4
2	Sulfur-vacancy-tunable interlayer magnetic coupling in centimeter-scale MoS2 bilayer. Nano Research, 2022, 15, 881-888.	5.8	5
3	Asymmetrical Ï€ back-donation of hetero-dicationic Mo4+-Mo6+ pairs for enhanced electrochemical nitrogen reduction. Nano Research, 2022, 15, 3010-3016.	5.8	22
4	Constructing artificial mimic-enzyme catalysts for carbon dioxide electroreduction. Science China Chemistry, 2022, 65, 106-113.	4.2	7
5	Involvement of 5f Orbitals in the Covalent Bonding between the Uranyl Ion and Trialkyl Phosphine Oxide: Unraveled by Oxygen K-Edge X-ray Absorption Spectroscopy and Density Functional Theory. Inorganic Chemistry, 2022, 61, 92-104.	1.9	9
6	Al³⁺ Dopants Induced Mg²⁺ Vacancies Stabilizing Single-Atom Cu Catalyst for Efficient Free-Radical Hydrophosphinylation of Alkenes. Journal of the American Chemical Society, 2022, 144, 4321-4326.	6.6	32
7	Stabilizing Cobalt Single Atoms via Flexible Carbon Membranes as Bifunctional Electrocatalysts for Binder-Free Zincâ€“Air Batteries. Nano Letters, 2022, 22, 2497-2505.	4.5	78
8	Short-range order in amorphous nickel oxide nanosheets enables selective and efficient electrochemical hydrogen peroxide production. Cell Reports Physical Science, 2022, 3, 100788.	2.8	12
9	Operando Identification of Active Species and Intermediates on Sulfide Interfaced by Fe₃O₄ for Ultrastable Alkaline Oxygen Evolution at Large Current Density. ACS Catalysis, 2022, 12, 4318-4326.	5.5	70
10	Surface Engineering on Commercial Cu Foil for Steering C₂H₄/CH₄ Ratio in CO₂ Electroreduction. Nano Letters, 2022, 22, 2988-2994.	4.5	16
11	Role of the Metal Atom in a Carbonâ€Based Singleâ€Atom Electrocatalyst for Liï£¿S Redox Reactions. Small, 2022, 18, e2200395.	5.2	33
12	Engineering a local acid-like environment in alkaline medium for efficient hydrogen evolution reaction. Nature Communications, 2022, 13, 2024.	5.8	106
13	Introducing Coâ€“O Moiety to Coâ€“Nâ€“C Single-Atom Catalyst for Ethylbenzene Dehydrogenation. ACS Catalysis, 2022, 12, 7760-7772.	5.5	23
14	Room-Temperature Photooxidation of CH₄ to CH₃OH with Nearly 100% Selectivity over Hetero-ZnO/Fe₂O₃ Porous Nanosheets. Journal of the American Chemical Society, 2022, 144, 12357-12366.	6.6	59
15	Cobalt single atom site catalysts with ultrahigh metal loading for enhanced aerobic oxidation of ethylbenzene. Nano Research, 2021, 14, 2418-2423.	5.8	248
16	Singleâ€Atomâ€Layer Catalysis in a MoS₂ Monolayer Activated by Longâ€Range Ferromagnetism for the Hydrogen Evolution Reaction: Beyond Singleâ€Atom Catalysis. Angewandte Chemie - International Edition, 2021, 60, 7251-7258.	7.2	84
17	Notched-Polyoxometalate Strategy to Fabricate Atomically Dispersed Ru Catalysts for Biomass Conversion. ACS Catalysis, 2021, 11, 2669-2675.	5.5	34
18	Singleâ€Atomâ€Layer Catalysis in a MoS₂ Monolayer Activated by Longâ€Range Ferromagnetism for the Hydrogen Evolution Reaction: Beyond Singleâ€Atom Catalysis. Angewandte Chemie, 2021, 133, 7327-7334.	1.6	16

#	Article	IF	Citations
19	Embedding atomic cobalt into graphene lattices to activate room-temperature ferromagnetism. Nature Communications, 2021, 12, 1854.	5.8	73
20	Ultrahigh-temperature ferromagnetism in MoS2 MoirÃ© superlattice/graphene hybrid heterostructures. Nano Research, 2021, 14, 4182.	5.8	7
21	Selective CO₂ Photoreduction into C₂ Product Enabled by Charge-Polarized Metal Pair Sites. Nano Letters, 2021, 21, 2324-2331.	4.5	71
22	Amorphization-induced surface electronic states modulation of cobaltous oxide nanosheets for lithium-sulfur batteries. Nature Communications, 2021, 12, 3102.	5.8	103
23	Intrinsic Room-Temperature Ferromagnetism in V₂C MXene Nanosheets. ACS Applied Materials & Interfaces, 2021, 13, 33363-33370.	4.0	20
24	Decreasing the coordinated N atoms in a single-atom Cu catalyst to achieve selective transfer hydrogenation of alkynes. Chemical Science, 2021, 12, 14599-14605.	3.7	20
25	Tuning the pâ€Orbital Electron Structure of sâ€Block Metal Ca Enables a Highâ€Performance Electrocatalyst for Oxygen Reduction. Advanced Materials, 2021, 33, e2107103.	11.1	71
26	Identification of the Active-Layer Structures for Acidic Oxygen Evolution from 9R-BaIrO₃ Electrocatalyst with Enhanced Iridium Mass Activity. Journal of the American Chemical Society, 2021, 143, 18001-18009.	6.6	73
27	Selective CH₄ Partial Photooxidation by Positively Charged Metal Clusters Anchored on Carbon Aerogel under Mild Conditions. Nano Letters, 2021, 21, 10368-10376.	4.5	21
28	Phase-mediated robust interfacial electron-coupling over core-shell Co@carbon towards superior overall water splitting. Applied Catalysis B: Environmental, 2020, 266, 118621.	10.8	39
29	Oxygen vacancy engineering in spinel-structured nanosheet wrapped hollow polyhedra for electrochemical nitrogen fixation under ambient conditions. Journal of Materials Chemistry A, 2020, 8, 1652-1659.	5.2	59
30	High-purity pyrrole-type FeN₄ sites as a superior oxygen reduction electrocatalyst. Energy and Environmental Science, 2020, 13, 111-118.	15.6	327
31	Two-Dimensional Hierarchical Feâ€“Nâ€“C Electrocatalyst for Zn-Air Batteries with Ultrahigh Specific Capacity. , 2020, 2, 35-41.		34
32	Coordinate activation in heterogeneous carbon dioxide reduction on Co-based molecular catalysts. Applied Catalysis B: Environmental, 2020, 268, 118452.	10.8	35
33	Nanopore Confinement of Electrocatalysts Optimizing Triple Transport for an Ultrahighâ€Powerâ€Density Zincâ€“Air Fuel Cell with Robust Stability. Advanced Materials, 2020, 32, e2003251.	11.1	104
34	Perovskiteâ€Type Solid Solution Nanoâ€Electrocatalysts Enable Simultaneously Enhanced Activity and Stability for Oxygen Evolution. Advanced Materials, 2020, 32, e2001430.	11.1	107
35	Parasitic Ferromagnetism in Few-Layered Transition-Metal Chalcogenophosphate. Journal of the American Chemical Society, 2020, 142, 10849-10855.	6.6	16
36	Engineering unsymmetrically coordinated Cu-S1N3 single atom sites with enhanced oxygen reduction activity. Nature Communications, 2020, 11, 3049.	5.8	537

#	Article	IF	Citations
37	Tuning Polarity of Cu-O Bond in Heterogeneous Cu Catalyst to Promote Additive-free Hydroboration of Alkynes. CheM, 2020, 6, 725-737.	5.8	87
38	Identifying Key Structural Subunits and Their Synergism in Low-Iridium Triple Perovskites for Oxygen Evolution in Acidic Media. Chemistry of Materials, 2020, 32, 3904-3910.	3.2	29
39	Lattice Strain Induced by Linker Scission in Metalâ€“Organic Framework Nanosheets for Oxygen Evolution Reaction. ACS Catalysis, 2020, 10, 5691-5697.	5.5	120
40	Visibleâ€Lightâ€Driven Overall Water Splitting Boosted by Tetrahedrally Coordinated Blende Cobalt(II) Oxide Atomic Layers. Angewandte Chemie - International Edition, 2019, 58, 3032-3036.	7.2	41
41	Visibleâ€Lightâ€Driven Overall Water Splitting Boosted by Tetrahedrally Coordinated Blende Cobalt(II) Oxide Atomic Layers. Angewandte Chemie, 2019, 131, 3064-3068.	1.6	17
42	Synergetic Effect of Substitutional Dopants and Sulfur Vacancy in Modulating the Ferromagnetism of MoS₂ Nanosheets. ACS Applied Materials & Interfaces, 2019, 11, 31155-31161.	4.0	12
43	Dual Graphiticâ€N Doping in a Sixâ€Membered Câ€Ring of Grapheneâ€Analogous Particles Enables an Efficient Electrocatalyst for the Hydrogen Evolution Reaction. Angewandte Chemie - International Edition, 2019, 58, 16973-16980.	7.2	54
44	Dual Graphiticâ€N Doping in a Sixâ€Membered Câ€Ring of Grapheneâ€Analogous Particles Enables an Efficient Electrocatalyst for the Hydrogen Evolution Reaction. Angewandte Chemie, 2019, 131, 17129-17136.	1.6	7
45	Breaking the Local Symmetry of LiCoO₂ via Atomic Doping for Efficient Oxygen Evolution. Nano Letters, 2019, 19, 8774-8779.	4.5	35
46	Interlayer Photoelectron Transfer Boosted by Bridged Ru^{IV} Atoms in GaS Nanosheets for Efficient Water Splitting. ACS Applied Materials & Interfaces, 2019, 11, 45561-45567.	4.0	8
47	Enhanced Electrocatalytic Reduction of CO₂ via Chemical Coupling between Indium Oxide and Reduced Graphene Oxide. Nano Letters, 2019, 19, 4029-4034.	4.5	142
48	Tailoring Electronic Structure of Atomically Dispersed Metalâ€“N₃S₁ Active Sites for Highly Efficient Oxygen Reduction Catalysis. , 2019, 1, 139-146.		34
49	Optimizing reaction paths for methanol synthesis from CO2 hydrogenation via metal-ligand cooperativity. Nature Communications, 2019, 10, 1885.	5.8	116
50	Regulating the Catalytic Performance of Single-Atomic-Site Ir Catalyst for Biomass Conversion by Metalâ€“Support Interactions. ACS Catalysis, 2019, 9, 5223-5230.	5.5	87
51	Feâ€“Nâ€“C electrocatalyst with dense active sites and efficient mass transport for high-performance proton exchange membrane fuel cells. Nature Catalysis, 2019, 2, 259-268.	16.1	958
52	Interfacial engineering of cobalt sulfide/graphene hybrids for highly efficient ammonia electrosynthesis. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 6635-6640.	3.3	242
53	Beating the exclusion rule against the coexistence of robust luminescence and ferromagnetism in chalcogenide monolayers. Nature Communications, 2019, 10, 1584.	5.8	58
54	Activating Inert, Nonprecious Perovskites with Iridium Dopants for Efficient Oxygen Evolution Reaction under Acidic Conditions. Angewandte Chemie, 2019, 131, 7713-7717.	1.6	123

#	Article	IF	Citations
55	Activating Inert, Nonprecious Perovskites with Iridium Dopants for Efficient Oxygen Evolution Reaction under Acidic Conditions. Angewandte Chemie - International Edition, 2019, 58, 7631-7635.	7.2	176
56	Ultrathin Cobalt Oxide Layers as Electrocatalysts for Highâ€Performance Flexible Znâ€“Air Batteries. Advanced Materials, 2019, 31, e1807468.	11.1	227
57	Efficient and Robust Carbon Dioxide Electroreduction Enabled by Atomically Dispersed Sn^{Î´}⁺ Sites. Advanced Materials, 2019, 31, e1808135.	11.1	321
58	Cobalt in Nitrogen-Doped Graphene as Single-Atom Catalyst for High-Sulfur Content Lithiumâ€“Sulfur Batteries. Journal of the American Chemical Society, 2019, 141, 3977-3985.	6.6	1,071
59	Understanding the Behavior and Mechanism of Oxygen-Deficient Anatase TiO₂ toward Sodium Storage. ACS Applied Materials & Interfaces, 2019, 11, 3061-3069.	4.0	26
60	Molecular-Level Insight into How Hydroxyl Groups Boost Catalytic Activity in CO2 Hydrogenation into Methanol. CheM, 2018, 4, 613-625.	5.8	110
61	Oxygen-Vacancy-Mediated Exciton Dissociation in BiOBr for Boosting Charge-Carrier-Involved Molecular Oxygen Activation. Journal of the American Chemical Society, 2018, 140, 1760-1766.	6.6	651
62	Efficient oxygen evolution electrocatalysis in acid by a perovskite with face-sharing IrO6 octahedral dimers. Nature Communications, 2018, 9, 5236.	5.8	325
63	Toward Bifunctional Overall Water Splitting Electrocatalyst: General Preparation of Transition Metal Phosphide Nanoparticles Decorated N-Doped Porous Carbon Spheres. ACS Applied Materials & Interfaces, 2018, 10, 44201-44208.	4.0	71
64	Stabilizing black phosphorus nanosheets via edge-selective bonding of sacrificial C60 molecules. Nature Communications, 2018, 9, 4177.	5.8	171
65	Reversible Tuning of the Ferromagnetic Behavior in Mn-Doped MoS2Nanosheets via Interface Charge Transfer. ACS Applied Materials & Interfaces, 2018, 10, 31648-31654.	4.0	10
66	Efficient Visibleâ€Lightâ€Driven CO₂ Reduction Mediated by Defectâ€Engineered BiOBr Atomic Layers. Angewandte Chemie, 2018, 130, 8855-8859.	1.6	124
67	Efficient Visibleâ€Lightâ€Driven CO₂ Reduction Mediated by Defectâ€Engineered BiOBr Atomic Layers. Angewandte Chemie - International Edition, 2018, 57, 8719-8723.	7.2	439
68	Atomic-level insight into super-efficient electrocatalytic oxygen evolution on iron and vanadium co-doped nickel (oxy)hydroxide. Nature Communications, 2018, 9, 2885.	5.8	669
69	Microwaveâ€Assisted Rapid Synthesis of Grapheneâ€Supported Single Atomic Metals. Advanced Materials, 2018, 30, e1802146.	11.1	244
70	Atomically Dispersed Ironâ€“Nitrogen Species as Electrocatalysts for Bifunctional Oxygen Evolution and Reduction Reactions. Angewandte Chemie - International Edition, 2017, 56, 610-614.	7.2	950
71	Defect-Mediated Electronâ€“Hole Separation in One-Unit-Cell ZnIn₂S₄ Layers for Boosted Solar-Driven CO₂ Reduction. Journal of the American Chemical Society, 2017, 139, 7586-7594.	6.6	764
72	Rational Design of Single Molybdenum Atoms Anchored on Nâ€Doped Carbon for Effective Hydrogen Evolution Reaction. Angewandte Chemie - International Edition, 2017, 56, 16086-16090.	7.2	431

#	Article	IF	Citations
73	Exclusive Niâ€“N₄ Sites Realize Near-Unity CO Selectivity for Electrochemical CO₂ Reduction. Journal of the American Chemical Society, 2017, 139, 14889-14892.	6.6	725
74	Intrinsic Ferromagnetism in Mnâ€Substituted MoS₂ Nanosheets Achieved by Supercritical Hydrothermal Reaction. Small, 2017, 13, 1701389.	5.2	44
75	Metal-free Ternary BCN Nanosheets with Synergetic Effect of Band Gap Engineering and Magnetic Properties. Scientific Reports, 2017, 7, 6617.	1.6	41
76	Partially Oxidized SnS₂ Atomic Layers Achieving Efficient Visible-Light-Driven CO₂ Reduction. Journal of the American Chemical Society, 2017, 139, 18044-18051.	6.6	368
77	Maneuvering charge polarization and transport in 2H-MoS2 for enhanced electrocatalytic hydrogen evolution reaction. Nano Research, 2016, 9, 2662-2671.	5.8	26
78	Vacancy-Induced Ferromagnetism of MoS₂ Nanosheets. Journal of the American Chemical Society, 2015, 137, 2622-2627.	6.6	659
79	X-ray absorption fine structure spectroscopy in nanomaterials. Science China Materials, 2015, 58, 313-341.	3.5	112
80	Realizing high visible-light-induced carriers mobility in TiO2-based photoanodes. Journal of Power Sources, 2014, 251, 195-201.	4.0	3
81	Realizing Ferromagnetic Coupling in Diluted Magnetic Semiconductor Quantum Dots. Journal of the American Chemical Society, 2014, 136, 1150-1155.	6.6	27
82	Graphene Activating Room-Temperature Ferromagnetic Exchange in Cobalt-Doped ZnO Dilute Magnetic Semiconductor Quantum Dots. ACS Nano, 2014, 8, 10589-10596.	7.3	44
83	Structures and magnetic properties of Mn-doped NiO thin films. Journal Physics D: Applied Physics, 2014, 47, 295001.	1.3	11
84	ZnO@S-doped ZnO core/shell nanocomposites for highly efficient solar water splitting. Journal of Power Sources, 2014, 269, 24-30.	4.0	22
85	XAFS in dilute magnetic semiconductors. Dalton Transactions, 2013, 42, 13779.	1.6	42
86	Regulation of Magnetic Behavior and Electronic Configuration in Mn-Doped ZnO Nanorods through Surface Modifications. Chemistry of Materials, 2012, 24, 1676-1681.	3.2	26
87	Valence Stateâ€Dependent Ferromagnetism in Mnâ€Doped NiO Thin Films. Advanced Materials, 2012, 24, 353-357.	11.1	40
88	Impurity Concentration Dependence of Optical Absorption for Phosphorus-Doped Anatase TiO₂. Journal of Physical Chemistry C, 2011, 115, 8184-8188.	1.5	56
89	Mediating distribution of magnetic Co ions by Cr-codoping in (Co,Cr): ZnO thin films. Applied Physics Letters, 2010, 97, 042504.	1.5	15
90	Determination of the role of O vacancy in Co:ZnO magnetic film. Journal of Applied Physics, 2010, 108, .	1.1	20

#	Article	IF	Citations
91	High Photocatalytic Activity of Rutile TiO₂ Induced by Iodine Doping. Journal of Physical Chemistry C, 2010, 114, 6035-6038.	1.5	34
92	High-Temperature Ferromagnetism of Hybrid Nanostructure Agâ^'Zn0.92Co0.08O Dilute Magnetic Semiconductor. Journal of Physical Chemistry C, 2009, 113, 3581-3585.	1.5	17