Yu Wang

List of Publications by Year
in descending order

91 papers	14,968 citations	36271 51 h-index	45285 90 g-index
91 all docs	91 docs citations	91 times ranked	14907 citing authors

#	Article	IF	Citations
1	Coreâ€“Shell ZIF-8@ZIF-67-Derived CoP Nanoparticle-Embedded N-Doped Carbon Nanotube Hollow Polyhedron for Efficient Overall Water Splitting. Journal of the American Chemical Society, 2018, 140, 2610-2618.	6.6	1,556
2	Filling the oxygen vacancies in Co₃O₄with phosphorus: an ultra-efficient electrocatalyst for overall water splitting. Energy and Environmental Science, 2017, 10, 2563-2569.	15.6	859
3	Coupled molybdenum carbide and reduced graphene oxide electrocatalysts for efficient hydrogen evolution. Nature Communications, 2016, 7, 11204.	5.8	803
4	Defect Effects on TiO₂ Nanosheets: Stabilizing Single Atomic Site Au and Promoting Catalytic Properties. Advanced Materials, 2018, 30, 1705369.	11.1	751
5	Ultrathin bismuth nanosheets from in situ topotactic transformation for selective electrocatalytic CO2 reduction to formate. Nature Communications, 2018, 9, 1320.	5.8	658
6	Single Pt Atoms Confined into a Metalâ€“Organic Framework for Efficient Photocatalysis. Advanced Materials, 2018, 30, 1705112.	11.1	599
7	Bismuth Single Atoms Resulting from Transformation of Metalâ€“Organic Frameworks and Their Use as Electrocatalysts for CO₂ Reduction. Journal of the American Chemical Society, 2019, 141, 16569-16573.	6.6	501
8	Molybdenum Disulfide/Nitrogenâ€Doped Reduced Graphene Oxide Nanocomposite with Enlarged Interlayer Spacing for Electrocatalytic Hydrogen Evolution. Advanced Energy Materials, 2016, 6, 1600116.	10.2	433
9	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
10	Single Tungsten Atoms Supported on MOFâ€Derived Nâ€Doped Carbon for Robust Electrochemical Hydrogen Evolution. Advanced Materials, 2018, 30, e1800396.	11.1	427
11	Efficient alkaline hydrogen evolution on atomically dispersed Niâ€“N_x Species anchored porous carbon with embedded Ni nanoparticles by accelerating water dissociation kinetics. Energy and Environmental Science, 2019, 12, 149-156.	15.6	416
12	Supported Cobalt Polyphthalocyanine for High-Performance Electrocatalytic CO2 Reduction. CheM, 2017, 3, 652-664.	5.8	406
13	Ultrasmall and phase-pure W2C nanoparticles for efficient electrocatalytic and photoelectrochemical hydrogen evolution. Nature Communications, 2016, 7, 13216.	5.8	334
14	Ru Modulation Effects in the Synthesis of Unique Rod-like Ni@Ni₂Pâ€“Ru Heterostructures and Their Remarkable Electrocatalytic Hydrogen Evolution Performance. Journal of the American Chemical Society, 2018, 140, 2731-2734.	6.6	326
15	Boosting Oxygen Reduction Catalysis with Feâ€“N₄ Sites Decorated Porous Carbons toward Fuel Cells. ACS Catalysis, 2019, 9, 2158-2163.	5.5	297
16	Solid-Diffusion Synthesis of Single-Atom Catalysts Directly from Bulk Metal for Efficient CO2 Reduction. Joule, 2019, 3, 584-594.	11.7	277
17	Selective CO₂ Reduction on 2D Mesoporous Bi Nanosheets. Advanced Energy Materials, 2018, 8, 1801536.	10.2	274
18	Self-Adjusting Activity Induced by Intrinsic Reaction Intermediate in Feâ€“Nâ€“C Single-Atom Catalysts. Journal of the American Chemical Society, 2019, 141, 14115-14119.	6.6	261

#	Article	IF	Citations
19	Semi-metallic Be5C2 monolayer global minimum with quasi-planar pentacoordinate carbons and negative Poissonâ€™s ratio. Nature Communications, 2016, 7, 11488.	5.8	247
20	Discovery of main group single Sbâ€“N₄ active sites for CO₂ electroreduction to formate with high efficiency. Energy and Environmental Science, 2020, 13, 2856-2863.	15.6	245
21	Design of a Singleâ€Atom Indium^{Î´+}â€“N₄Interface for Efficient Electroreduction of CO₂to Formate. Angewandte Chemie - International Edition, 2020, 59, 22465-22469.	7.2	232
22	PdSeO₃ Monolayer: Promising Inorganic 2D Photocatalyst for Direct Overall Water Splitting Without Using Sacrificial Reagents and Cocatalysts. Journal of the American Chemical Society, 2018, 140, 12256-12262.	6.6	216
23	Germanium monosulfide monolayer: a novel two-dimensional semiconductor with a high carrier mobility. Journal of Materials Chemistry C, 2016, 4, 2155-2159.	2.7	212
24	Superior Oxygen Electrocatalysis on Nickel Indium Thiospinels for Rechargeable Znâ€“Air Batteries. , 2019, 1, 123-131.		199
25	Tuning Unique Peapodâ€Like Co(S_xSe_{1â€“}_x)₂ Nanoparticles for Efficient Overall Water Splitting. Advanced Functional Materials, 2017, 27, 1701008.	7.8	192
26	Realizing small-flake graphene oxide membranes for ultrafast size-dependent organic solvent nanofiltration. Science Advances, 2020, 6, eaaz9184.	4.7	177
27	Two-dimensional iron-phthalocyanine (Fe-Pc) monolayer as a promising single-atom-catalyst for oxygen reduction reaction: a computational study. Nanoscale, 2015, 7, 11633-11641.	2.8	164
28	Bï£¿N Pairs Enriched Defective Carbon Nanosheets for Ammonia Synthesis with High Efficiency. Small, 2019, 15, e1805029.	5.2	164
29	Recent advancements in heterostructured interface engineering for hydrogen evolution reaction electrocatalysis. Journal of Materials Chemistry A, 2020, 8, 6926-6956.	5.2	158
30	Operando X-ray spectroscopic tracking of self-reconstruction for anchored nanoparticles as high-performance electrocatalysts towards oxygen evolution. Energy and Environmental Science, 2018, 11, 2945-2953.	15.6	157
31	Not your familiar two dimensional transition metal disulfide: structural and electronic properties of the PdS₂monolayer. Journal of Materials Chemistry C, 2015, 3, 9603-9608.	2.7	135
32	Efficient Nitrate Synthesis via Ambient Nitrogen Oxidation with Ruâ€Doped TiO₂/RuO₂ Electrocatalysts. Advanced Materials, 2020, 32, e2002189.	11.1	125
33	Gadoliniumâ€Induced Valence Structure Engineering for Enhanced Oxygen Electrocatalysis. Advanced Energy Materials, 2020, 10, 1903833.	10.2	114
34	Atomically dispersed Niâ€“Ruâ€“P interface sites for high-efficiency pH-universal electrocatalysis of hydrogen evolution. Nano Energy, 2021, 80, 105467.	8.2	114
35	Cesium Lead Halide Perovskite Quantum Dots as a Photoluminescence Probe for Metal Ions. Advanced Materials, 2017, 29, 1700150.	11.1	112
36	Polyoxometalateâ€Based Metalâ€“Organic Framework as Molecular Sieve for Highly Selective Semiâ€Hydrogenation of Acetylene on Isolated Single Pd Atom Sites. Angewandte Chemie - International Edition, 2021, 60, 22522-22528.	7.2	112

#	Article	IF	Citations
37	Embedding Ultrafine Metal Oxide Nanoparticles in Monolayered Metalâ€“Organic Framework Nanosheets Enables Efficient Electrocatalytic Oxygen Evolution. ACS Nano, 2020, 14, 1971-1981.	7.3	109
38	Boosting hydrogen evolution via optimized hydrogen adsorption at the interface of CoP₃ and Ni₂P. Journal of Materials Chemistry A, 2018, 6, 5560-5565.	5.2	107
39	Effective Interlayer Engineering of Two-Dimensional VOPO₄ Nanosheets via Controlled Organic Intercalation for Improving Alkali Ion Storage. Nano Letters, 2017, 17, 6273-6279.	4.5	102
40	PtTe Monolayer: Two-Dimensional Electrocatalyst with High Basal Plane Activity toward Oxygen Reduction Reaction. Journal of the American Chemical Society, 2018, 140, 12732-12735.	6.6	95
41	Highly Boosted Reaction Kinetics in Carbon Dioxide Electroreduction by Surfaceâ€Introduced Electronegative Dopants. Advanced Functional Materials, 2021, 31, 2008146.	7.8	88
42	The germanium telluride monolayer: a two dimensional semiconductor with high carrier mobility for photocatalytic water splitting. Journal of Materials Chemistry A, 2018, 6, 4119-4125.	5.2	87
43	Quaternary bimetallic phosphosulphide nanosheets derived from prussian blue analogues: Origin of the ultra-high activity for oxygen evolution. Journal of Power Sources, 2018, 403, 90-96.	4.0	87
44	CoV₂O₆â€“V₂O₅ Coupled with Porous N-Doped Reduced Graphene Oxide Composite as a Highly Efficient Electrocatalyst for Oxygen Evolution. ACS Energy Letters, 2017, 2, 1327-1333.	8.8	84
45	Rational Design of Single Molybdenum Atoms Anchored on Nâ€Doped Carbon for Effective Hydrogen Evolution Reaction. Angewandte Chemie, 2017, 129, 16302-16306.	1.6	82
46	High-index faceted CuFeS₂ nanosheets with enhanced behavior for boosting hydrogen evolution reaction. Nanoscale, 2017, 9, 9230-9237.	2.8	70
47	Two-dimensional nanostructures of non-layered ternary thiospinels and their bifunctional electrocatalytic properties for oxygen reduction and evolution: the case of CuCo₂S₄nanosheets. Inorganic Chemistry Frontiers, 2016, 3, 1501-1509.	3.0	69
48	Ultrathin Layers of PdPX (X=S, Se): Two Dimensional Semiconductors for Photocatalytic Water Splitting. Chemistry - A European Journal, 2017, 23, 13612-13616.	1.7	66
49	Tetra-silicene: A Semiconducting Allotrope of Silicene with Negative Poissonâ€™s Ratios. Journal of Physical Chemistry C, 2017, 121, 9627-9633.	1.5	57
50	Two-dimensional iron-porphyrin sheet as a promising catalyst for oxygen reduction reaction: a computational study. Science Bulletin, 2017, 62, 1337-1343.	4.3	56
51	Tuning the Electronic Structures of Multimetal Oxide Nanoplates to Realize Favorable Adsorption Energies of Oxygenated Intermediates. ACS Nano, 2020, 14, 17640-17651.	7.3	56
52	Highly Efficient Hydrogenation of Nitroarenes by N-Doped Carbon-Supported Cobalt Single-Atom Catalyst in Ethanol/Water Mixed Solvent. ACS Applied Materials & Interfaces, 2020, 12, 34021-34031.	4.0	56
53	Stabilizing and Activating Metastable Nickel Nanocrystals for Highly Efficient Hydrogen Evolution Electrocatalysis. ACS Nano, 2018, 12, 11625-11631.	7.3	55
54	Planar Hypercoordinate Motifs in Two-Dimensional Materials. Accounts of Chemical Research, 2020, 53, 887-895.	7.6	54

#	Article	IF	Citations
55	A two-dimensional CaSi monolayer with quasi-planar pentacoordinate silicon. Nanoscale Horizons, 2018, 3, 327-334.	4.1	51
56	Tracking structural evolution: operando regenerative CeOx/Bi interface structure for high-performance CO2 electroreduction. National Science Review, 2021, 8, nwaa187.	4.6	50
57	Low Overpotential for Electrochemically Reducing CO₂ to CO on Nitrogen-Doped Graphene Quantum Dots-Wrapped Single-Crystalline Gold Nanoparticles. ACS Energy Letters, 2018, 3, 946-951.	8.8	48
58	Laserâ€Induced Annealing of Metalâ€“Organic Frameworks on Conductive Substrates for Electrochemical Water Splitting. Advanced Functional Materials, 2021, 31, 2102648.	7.8	47
59	Spinâ€“Orbit Coupling-Dominated Catalytic Activity of Two-Dimensional Bismuth toward CO₂ Electroreduction: Not the Thinner the Better. Journal of Physical Chemistry Letters, 2019, 10, 4663-4667.	2.1	41
60	Transitionâ€Metal Carbides as Hydrogen Evolution Reduction Electrocatalysts: Synthetic Methods and Optimization Strategies. Chemistry - A European Journal, 2021, 27, 5074-5090.	1.7	41
61	Selective electrochemical production of hydrogen peroxide at zigzag edges of exfoliated molybdenum telluride nanoflakes. National Science Review, 2020, 7, 1360-1366.	4.6	40
62	In situ oxidation transformation of trimetallic selenide to amorphous FeCo-oxyhydroxide by self-sacrificing MoSe₂ for efficient water oxidation. Journal of Materials Chemistry A, 2020, 8, 7925-7934.	5.2	40
63	In situ growth of a POMOF-derived nitride based composite on Cu foam to produce hydrogen with enhanced water dissociation kinetics. Journal of Materials Chemistry A, 2019, 7, 13559-13566.	5.2	39
64	Two Birds with One Stone: Surface Functionalization and Delamination of Multilayered Ti₃C₂T_x MXene by Grafting a Ruthenium(II) Complex to Achieve Conductivity-Enhanced Electrochemiluminescence. Analytical Chemistry, 2021, 93, 1834-1841.	3.2	39
65	Pd₂Se₃monolayer: a novel two-dimensional material with excellent electronic, transport, and optical properties. Journal of Materials Chemistry C, 2018, 6, 4494-4500.	2.7	36
66	A â€œSignal Onâ€•Photoelectrochemical Biosensor Based on Bismuth@N,Oâ€Codopedâ€Carbon Coreâ€Shell Nanohybrids for Ultrasensitive Detection of Telomerase in HeLa Cells. Chemistry - A European Journal, 2018, 24, 3677-3682.	1.7	35
67	Origin of the N-coordinated single-atom Ni sites in heterogeneous electrocatalysts for CO₂ reduction reaction. Chemical Science, 2021, 12, 14065-14073.	3.7	35
68	Why heterogeneous single-atom catalysts preferentially produce CO in the electrochemical CO₂ reduction reaction. Chemical Science, 2022, 13, 6366-6372.	3.7	35
69	Two-dimensional stanane: strain-tunable electronic structure, high carrier mobility, and pronounced light absorption. Physical Chemistry Chemical Physics, 2016, 18, 14638-14643.	1.3	33
70	Porous hexagonal boron oxide monolayer with robust wide band gap: A computational study. FlatChem, 2018, 9, 27-32.	2.8	29
71	Design of a Singleâ€Atom Indium Î´+ â€“N 4 Interface for Efficient Electroreduction of CO 2 to Formate. Angewandte Chemie, 2020, 132, 22651-22655.	1.6	29
72	Atomic-Scale Mechanism on Nucleation and Growth of Mo₂C Nanoparticles Revealed by in Situ Transmission Electron Microscopy. Nano Letters, 2016, 16, 7875-7881.	4.5	28

#	Article	IF	Citations
73	Reducing Band Gap and Enhancing Carrier Mobility of Boron Nitride Nanoribbons by Conjugated Ï€ Edge States. Journal of Physical Chemistry C, 2014, 118, 25051-25056.	1.5	25
74	The tripartite role of 2D covalent organic frameworks in graphene-based organic solvent nanofiltration membranes. Matter, 2021, 4, 2953-2969.	5.0	24
75	Efficient and Selective CO₂ Reduction to Formate on Pdâ€Doped Pb₃(CO₃)₂(OH)₂: Dynamic Catalyst Reconstruction and Accelerated CO₂ Protonation. Small, 2022, 18, e2107885.	5.2	18
76	2D Pentagonal Pdâ€Based Janus Transition Metal Dichalcogenides for Photocatalytic Water Splitting. Physica Status Solidi - Rapid Research Letters, 2022, 16, 2100344.	1.2	17
77	Benzene-like N₆rings in a Be₂N₆monolayer: a stable 2D semiconductor with high carrier mobility. Journal of Materials Chemistry C, 2017, 5, 11515-11521.	2.7	15
78	Porous silaphosphorene, silaarsenene and silaantimonene: a sweet marriage of Si and P/As/Sb. Journal of Materials Chemistry A, 2018, 6, 3738-3746.	5.2	14
79	Î²-PdBi2 monolayer: two-dimensional topological metal with superior catalytic activity for carbon dioxide electroreduction to formic acid. Materials Today Advances, 2020, 8, 100091.	2.5	14
80	Two-Dimensional GeTe: Air Stability and Photocatalytic Performance for Hydrogen Evolution. ACS Applied Materials & Interfaces, 2020, 12, 37108-37115.	4.0	12
81	NiTe Monolayer: Two-Dimensional Metal with Superior Basal-Plane Activity for the Oxygen Reduction Reaction. Journal of Physical Chemistry C, 2021, 125, 19164-19170.	1.5	12
82	Temperature-sensitive spatial distribution of defects in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>Pd</mml:mi><mml:msub><mml:mi>S</mml:mi><mml:mi>x</mml:mi></mml:msub><mml:m flakes. Physical Review Materials, 2021, 5, .	3.1	11
83	Polyoxometalateâ€Based Metalâ€“Organic Framework as Molecular Sieve for Highly Selective Semiâ€Hydrogenation of Acetylene on Isolated Single Pd Atom Sites. Angewandte Chemie, 2021, 133, 22696-22702.	1.6	10
84	NP monolayer supported transition-metal single atoms for electrochemical water splitting: a theoretical study. Physical Chemistry Chemical Physics, 2022, 24, 10325-10333.	1.3	7
85	Activity Origin of Antimony Nanosheets toward Selective Electroreduction of CO₂ to Formic Acid. Journal of Physical Chemistry C, 2022, 126, 4015-4023.	1.5	7
86	Two-dimensional metallic tantalum ditelluride with an intrinsic basal-plane activity for oxygen reduction: A microkinetic modeling study. Green Energy and Environment, 2022, 7, 525-532.	4.7	5
87	Au(111)@Ti₆O₁₁ heterostructure composites with enhanced synergistic effects as efficient electrocatalysts for the hydrogen evolution reaction. Nanoscale, 2022, 14, 3878-3887.	2.8	5
88	Spin Selection Rule in Single-Site Catalysis of Molecular Oxygen Adsorption on Transition-Metal Phthalocyanines. Journal of Physical Chemistry C, 2019, 123, 28158-28167.	1.5	4
89	1Tâ€²-MoTe2 monolayer: A promising two-dimensional catalyst for the electrochemical production of hydrogen peroxide. Chinese Journal of Catalysis, 2022, 43, 1520-1526.	6.9	4
90	Preserving the edge magnetism of graphene nanoribbons by iodine termination: a computational study. Theoretical Chemistry Accounts, 2014, 133, 1.	0.5	2

#	Article	IF	Citations
91	Pentagonal PdX2 (X = S, Se) nanosheets with X vacancies as high-performance electrocatalysts for the hydrogen evolution reaction. Physical Chemistry Chemical Physics, 2022, , .	1.3	2