Xue Wang

List of Publications by Year in Descending Order

70 papers	4,897 citations	33 h-index	69 g-index
77 ext. papers	6,480 ext. citations	14.3 avg, IF	5.58 L-index

#	Paper	IF	Citations
70	Concentrated Ethanol Electrosynthesis from CO via a Porous Hydrophobic Adlayer.. *ACS Applied Materials & Interfaces*, **2022**, 14, 4155-4162	9.5	3
69	A metal-supported single-atom catalytic site enables carbon dioxide hydrogenation.. *Nature Communications*, **2022**, 13, 819	17.4	15
68	High-efficiency two-dimensional separation of natural products based on Ecyclodextrin stationary phase working in both hydrophilic and reversed hydrophobic modes.. *Journal of Chromatography A*, **2022**, 1673, 463069	4.5	
67	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	16.4	7
66	Highly Strong and Solvent-Resistant Cellulose Nanocrystal Photonic Films for Optical Coatings. *ACS Applied Materials & Interfaces*, **2021**, 13, 17118-17128	9.5	11
65	Silica-copper catalyst interfaces enable carbon-carbon coupling towards ethylene electrosynthesis. *Nature Communications*, **2021**, 12, 2808	17.4	19
64	Low coordination number copper catalysts for electrochemical CO methanation in a membrane electrode assembly. *Nature Communications*, **2021**, 12, 2932	17.4	27
63	Gold-in-copper at low *CO coverage enables efficient electromethanation of CO. *Nature Communications*, **2021**, 12, 3387	17.4	20
62	CO electrolysis to multicarbon products in strong acid. *Science*, **2021**, 372, 1074-1078	33.3	115
61	Atomistic insights into the nucleation and growth of platinum on palladium nanocrystals. *Nature Communications*, **2021**, 12, 3215	17.4	4
60	CO2 Electroreduction to Formate at a Partial Current Density of 930 mA cm2 with InP Colloidal Quantum Dot Derived Catalysts. *ACS Energy Letters*, **2021**, 6, 79-84	20.1	39
59	Sensing Mechanism of Excited-State Intermolecular Hydrogen Bond for Phthalimide: Indispensable Role of Dimethyl Sulfoxide. *Chinese Journal of Chemistry*, **2021**, 39, 1113-1120	4.9	2
58	Self-assembly gel-based dynamic response system for specific recognition of -acetylneuraminic acid. *Journal of Materials Chemistry B*, **2021**, 9, 4690-4699	7.3	1
57	Electroosmotic flow steers neutral products and enables concentrated ethanol electroproduction from CO2. *Joule*, **2021**,	27.8	5
56	One-Step Synthesis of Supported High-Index Faceted PlatinumCobalt Nanocatalysts for an Enhanced Oxygen Reduction Reaction. *ACS Applied Energy Materials*, **2020**, 3, 5077-5082	6.1	5
55	Efficient electrically powered CO2-to-ethanol via suppression of deoxygenation. *Nature Energy*, **2020**, 5, 478-486	62.3	163
54	What Is Hidden Behind Schiff Base Hydrolysis? Dynamic Covalent Chemistry for the Precise Capture of Sialylated Glycans. *Journal of the American Chemical Society*, **2020**, 142, 7627-7637	16.4	12

53	CO electrolysis to multicarbon products at activities greater than 1 A cm. *Science*, **2020**, 367, 661-666	33.3	403
52	Molecular tuning of CO-to-ethylene conversion. *Nature*, **2020**, 577, 509-513	50.4	321
51	Efficient Methane Electrosynthesis Enabled by Tuning Local CO Availability. *Journal of the American Chemical Society*, **2020**, 142, 3525-3531	16.4	65
50	Cooperative CO2-to-ethanol conversion via enriched intermediates at molecule–metal catalyst interfaces. *Nature Catalysis*, **2020**, 3, 75-82	36.5	164
49	Visible and Reversible Restrict of Molecular Configuration by Copper Ion and Pyrophosphate. *ACS Sensors*, **2020**, 5, 2438-2447	9.2	11
48	Promoting CO methanation via ligand-stabilized metal oxide clusters as hydrogen-donating motifs. *Nature Communications*, **2020**, 11, 6190	17.4	30
47	Highly Efficient Separation of Methylated Peptides Utilizing Selective Complexation between Lysine and 18-Crown-6. *Analytical Chemistry*, **2020**, 92, 15663-15670	7.8	3
46	High-Rate and Efficient Ethylene Electrosynthesis Using a Catalyst/Promoter/Transport Layer. *ACS Energy Letters*, **2020**, 5, 2811-2818	20.1	39
45	CO2 Electroreduction to Methane at Production Rates Exceeding 100 mA/cm2. *ACS Sustainable Chemistry and Engineering*, **2020**, 8, 14668-14673	8.3	14
44	Functional Nanochannels for Sensing Tyrosine Phosphorylation. *Journal of the American Chemical Society*, **2020**, 142, 16324-16333	16.4	23
43	Efficient electrocatalytic conversion of carbon monoxide to propanol using fragmented copper. *Nature Catalysis*, **2019**, 2, 251-258	36.5	111
42	Dopant-tuned stabilization of intermediates promotes electrosynthesis of valuable C3 products. *Nature Communications*, **2019**, 10, 4807	17.4	13
41	Hydroxide promotes carbon dioxide electroreduction to ethanol on copper via tuning of adsorbed hydrogen. *Nature Communications*, **2019**, 10, 5814	17.4	95
40	Efficient upgrading of CO to C fuel using asymmetric C-C coupling active sites. *Nature Communications*, **2019**, 10, 5186	17.4	55
39	Truncated concave octahedral Cu2O nanocrystals with {hkk} high-index facets for enhanced activity and stability in heterogeneous catalytic azide–alkyne cycloaddition. *Green Chemistry*, **2018**, 20, 832-837	10	21
38	Hollow Metal Nanocrystals with Ultrathin, Porous Walls and Well-Controlled Surface Structures. *Advanced Materials*, **2018**, 30, e1801956	24	53
37	Understanding the Stability of Pt-Based Nanocages under Thermal Stress Using In Situ Electron Microscopy. *ChemNanoMat*, **2018**, 4, 112-117	3.5	10
36	Toward affordable and sustainable use of precious metals in catalysis and nanomedicine. *MRS Bulletin*, **2018**, 43, 860-869	3.2	7

35	Direct in Situ Observation and Analysis of the Formation of Palladium Nanocrystals with High-Index Facets. *Nano Letters*, **2018**, 18, 7004-7013	11.5	30
34	Understanding the Thermal Stability of Palladium-Platinum Core-Shell Nanocrystals by In Situ Transmission Electron Microscopy and Density Functional Theory. *ACS Nano*, **2017**, 11, 4571-4581	16.7	42
33	The synergy between atomically dispersed Pd and cerium oxide for enhanced catalytic properties. *Nanoscale*, **2017**, 9, 6643-6648	7.7	43
32	Study on Thermoelectric Properties of Polycrystalline SnSe by Ge Doping. *Journal of Electronic Materials*, **2017**, 46, 3182-3186	1.9	24
31	Rational design and synthesis of noble-metal nanoframes for catalytic and photonic applications. *National Science Review*, **2016**, 3, 520-533	10.8	45
30	Scalable Synthesis of Palladium Icosahedra in Plug Reactors for the Production of Oxygen Reduction Reaction Catalysts. *ChemCatChem*, **2016**, 8, 1658-1664	5.2	17
29	Response Characteristics of Bisphenols on a Metal-Organic Framework-Based Tyrosinase Nanosensor. *ACS Applied Materials & Interfaces*, **2016**, 8, 16533-9	9.5	55
28	Pt-Based Icosahedral Nanocages: Using a Combination of {111} Facets, Twin Defects, and Ultrathin Walls to Greatly Enhance Their Activity toward Oxygen Reduction. *Nano Letters*, **2016**, 16, 1467-71	11.5	197
27	Nucleation-mediated synthesis and enhanced catalytic properties of Au-Pd bimetallic tripods and bipyramids with twinned structures and high-energy facets. *Nanoscale*, **2016**, 8, 2819-25	7.7	11
26	Scalable Synthesis of Palladium Icosahedra in Plug Reactors for the Production of Oxygen Reduction Reaction Catalysts. *ChemCatChem*, **2016**, 8, 1602-1602	5.2	
25	Facile Synthesis of PtPd Alloy Nanocages and Pt Nanorings by Templating with Pd Nanoplates. *ChemNanoMat*, **2016**, 2, 1086-1091	3.5	13
24	Shape-controlled synthesis of CO-free Pd nanocrystals with the use of formic acid as a reducing agent. *Chemical Communications*, **2016**, 52, 12594-12597	5.8	14
23	NANOCATALYSTS. Platinum-based nanocages with subnanometer-thick walls and well-defined, controllable facets. *Science*, **2015**, 349, 412-6	33.3	724
22	A surfactant free synthesis and formation mechanism of hollow Cu2O nanocubes using Cl ions as the morphology regulator. *RSC Advances*, **2015**, 5, 61421-61425	3.7	10
21	Palladium-platinum core-shell icosahedra with substantially enhanced activity and durability towards oxygen reduction. *Nature Communications*, **2015**, 6, 7594	17.4	365
20	3D metal-organic framework as highly efficient biosensing platform for ultrasensitive and rapid detection of bisphenol A. *Biosensors and Bioelectronics*, **2015**, 65, 295-301	11.8	149
19	An electrochemical deoxyribonucleic acid biosensor for rapid genotoxicity screening of chemicals. *Analytical Methods*, **2015**, 7, 3347-3352	3.2	4
18	Pd@Pt Core-Shell Concave Decahedra: A Class of Catalysts for the Oxygen Reduction Reaction with Enhanced Activity and Durability. *Journal of the American Chemical Society*, **2015**, 137, 15036-42	16.4	246

List of Publications

17	Mesoporous Mn3O4□CoO core□shell spheres wrapped by carbon nanotubes: a high performance catalyst for the oxygen reduction reaction and CO oxidation. *Journal of Materials Chemistry A*, **2014**, 2, 3794	13	73
16	Electrochemical biosensing platform based on amino acid ionic liquid functionalized graphene for ultrasensitive biosensing applications. *Biosensors and Bioelectronics*, **2014**, 62, 134-9	11.8	46
15	High-energy-surface engineered metal oxide micro- and nanocrystallites and their applications. *Accounts of Chemical Research*, **2014**, 47, 308-18	24.3	174
14	Direct Electrochemical Tyrosinase Biosensor based on Mesoporous Carbon and Co3O4 Nanorods for the Rapid Detection of Phenolic Pollutants. *ChemElectroChem*, **2014**, 1, 808-816	4.3	20
13	High-efficiently visible light-responsive photocatalysts: Ag3PO4 tetrahedral microcrystals with exposed {111} facets of high surface energy. *Journal of Materials Chemistry A*, **2013**, 1, 12635	13	89
12	Formaldehyde-assisted synthesis of ultrathin Rh nanosheets for applications in CO oxidation. *CrystEngComm*, **2013**, 15, 6127	3.3	48
11	Enhancing the photocatalytic activity of anatase TiO2 by improving the specific facet-induced spontaneous separation of photogenerated electrons and holes. *Chemistry - an Asian Journal*, **2013**, 8, 282-9	4.5	113
10	Controlled synthesis of concave Cu2O microcrystals enclosed by {hhl} high-index facets and enhanced catalytic activity. *Journal of Materials Chemistry A*, **2013**, 1, 282-287	13	84
9	Controlled synthesis and enhanced catalytic and gas-sensing properties of tin dioxide nanoparticles with exposed high-energy facets. *Chemistry - A European Journal*, **2012**, 18, 2283-9	4.8	91
8	Carbonate ions-assisted syntheses of anatase TiO2 nanoparticles exposed with high energy (001) facets. *RSC Advances*, **2012**, 2, 3251	3.7	74
7	Synthesis and shape-dependent catalytic properties of CeO2 nanocubes and truncated octahedra. *CrystEngComm*, **2012**, 14, 7579	3.3	75
6	Control of anatase TiO2 nanocrystals with a series of high-energy crystal facets via a fuorine-free strategy. *Chemistry - an Asian Journal*, **2012**, 7, 2538-42	4.5	38
5	Synthesis of layered protonated titanate hierarchical microspheres with extremely large surface area for selective adsorption of organic dyes. *CrystEngComm*, **2012**, 14, 7715	3.3	39
4	Synthesis of spatially uniform metal alloys nanocrystals via a diffusion controlled growth strategy: The case of Au-Pd alloy trisoctahedral nanocrystals with tunable composition. *Nano Research*, **2012**, 5, 618-629	10	31
3	Efficient electrosynthesis of n-propanol from carbon monoxide using a Ag□Ru□Cu catalyst. *Nature Energy*,	62.3	9
2	Bioinspired Sialic Acid Regulated Ion Nanochannel. *Advanced Materials Interfaces*,2200186	4.6	0
1	Carbon-efficient carbon dioxide electrolysers. *Nature Sustainability*,	22.1	7