Xijun Wang

List of Publications by Year
in descending order

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57 papers	3,446 citations	172457 29 h-index	138484 58 g-index
61 all docs	61 docs citations	61 times ranked	5028 citing authors

#	Article	IF	Citations
1	Integration of an Inorganic Semiconductor with a Metalâ€“Organic Framework: A Platform for Enhanced Gaseous Photocatalytic Reactions. Advanced Materials, 2014, 26, 4783-4788.	21.0	380
2	An Adjacent Atomic Platinum Site Enables Singleâ€Atom Iron with High Oxygen Reduction Reaction Performance. Angewandte Chemie - International Edition, 2021, 60, 19262-19271.	13.8	275
3	Two-dimensional g-C₃N₄: an ideal platform for examining facet selectivity of metal co-catalysts in photocatalysis. Chemical Communications, 2014, 50, 6094-6097.	4.1	225
4	Trimetallic TriStar Nanostructures: Tuning Electronic and Surface Structures for Enhanced Electrocatalytic Hydrogen Evolution. Advanced Materials, 2016, 28, 2077-2084.	21.0	181
5	Designing pâ€Type Semiconductorâ€“Metal Hybrid Structures for Improved Photocatalysis. Angewandte Chemie - International Edition, 2014, 53, 5107-5111.	13.8	176
6	Graphitic carbon nitride supported single-atom catalysts for efficient oxygen evolution reaction. Chemical Communications, 2016, 52, 13233-13236.	4.1	176
7	Realizing a Not-Strong-Not-Weak Polarization Electric Field in Single-Atom Catalysts Sandwiched by Boron Nitride and Graphene Sheets for Efficient Nitrogen Fixation. Journal of the American Chemical Society, 2020, 142, 19308-19315.	13.7	170
8	Aggregation-induced intersystem crossing: a novel strategy for efficient molecular phosphorescence. Nanoscale, 2016, 8, 17422-17426.	5.6	151
9	Electronic Spin Moment As a Catalytic Descriptor for Fe Single-Atom Catalysts Supported on C₂N. Journal of the American Chemical Society, 2021, 143, 4405-4413.	13.7	138
10	One-step synthesis of single-site vanadium substitution in 1T-WS2 monolayers for enhanced hydrogen evolution catalysis. Nature Communications, 2021, 12, 709.	12.8	137
11	Integration of Multiple Plasmonic and Co-Catalyst Nanostructures on TiO₂ Nanosheets for Visible-Near-Infrared Photocatalytic Hydrogen Evolution. Small, 2016, 12, 1640-1648.	10.0	136
12	Controllably Interfacing with Metal: A Strategy for Enhancing CO Oxidation on Oxide Catalysts by Surface Polarization. Journal of the American Chemical Society, 2014, 136, 14650-14653.	13.7	89
13	Combining photocatalytic hydrogen generation and capsule storage in graphene based sandwich structures. Nature Communications, 2017, 8, 16049.	12.8	86
14	Electric Dipole Descriptor for Machine Learning Prediction of Catalyst Surfaceâ€“Molecular Adsorbate Interactions. Journal of the American Chemical Society, 2020, 142, 7737-7743.	13.7	65
15	Regulating Electronic Spin Moments of Single-Atom Catalyst Sites via Single-Atom Promoter Tuning on S-Vacancy MoS₂ for Efficient Nitrogen Fixation. Journal of Physical Chemistry Letters, 2021, 12, 8355-8362.	4.6	63
16	Multifunctional Fluorescent Probe for Sequential Detections of Glutathione and Caspase-3 in Vitro and in Cells. Analytical Chemistry, 2013, 85, 6203-6207.	6.5	62
17	A molten carbonate shell modified perovskite redox catalyst for anaerobic oxidative dehydrogenation of ethane. Science Advances, 2020, 6, eaaz9339.	10.3	61
18	Polymerization-Enhanced Intersystem Crossing: New Strategy to Achieve Long-Lived Excitons. Macromolecular Rapid Communications, 2015, 36, 298-303.	3.9	59

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19	The Dynamic Phase Transition Modulation of Ionâ€Liquid Gating VO₂ Thin Film: Formation, Diffusion, and Recovery of Oxygen Vacancies. Advanced Functional Materials, 2016, 26, 3532-3541.	14.9	52
20	Aâ€•and Bâ€site Codoped SrFeO₃ Oxygen Sorbents for Enhanced Chemical Looping Air Separation. ChemSusChem, 2020, 13, 385-393.	6.8	49
21	Protecting the Nanoscale Properties of Ag Nanowires with a Solution-Grown SnO₂ Monolayer as Corrosion Inhibitor. Journal of the American Chemical Society, 2019, 141, 13977-13986.	13.7	45
22	Modified Ceria for â€œLowâ€Temperatureâ€•CO₂ Utilization: A Chemical Looping Route to Exploit Industrial Waste Heat. Advanced Energy Materials, 2019, 9, 1901963.	19.5	43
23	Substituted SrFeO₃ as robust oxygen sorbents for thermochemical air separation: correlating redox performance with compositional and structural properties. Physical Chemistry Chemical Physics, 2020, 22, 8924-8932.	2.8	43
24	A tailored multi-functional catalyst for ultra-efficient styrene production under a cyclic redox scheme. Nature Communications, 2021, 12, 1329.	12.8	35
25	High-throughput oxygen chemical potential engineering of perovskite oxides for chemical looping applications. Energy and Environmental Science, 2022, 15, 1512-1528.	30.8	35
26	Material descriptors for photocatalyst/catalyst design. Wiley Interdisciplinary Reviews: Computational Molecular Science, 2018, 8, e1369.	14.6	34
27	Protecting Single Atom Catalysts with Graphene/Carbon-Nitride â€œChainmailâ€• Journal of Physical Chemistry Letters, 2019, 10, 3129-3133.	4.6	33
28	Isolating hydrogen from oxygen in photocatalytic water splitting with a carbon-quantum-dot/carbon-nitride hybrid. Journal of Materials Chemistry A, 2019, 7, 6143-6148.	10.3	32
29	An Adjacent Atomic Platinum Site Enables Singleâ€Atom Iron with High Oxygen Reduction Reaction Performance. Angewandte Chemie, 2021, 133, 19411-19420.	2.0	32
30	Catalytic Chemistry Predicted by a Charge Polarization Descriptor: Synergistic O₂ Activation and CO Oxidation by Auâ€“Cu Bimetallic Clusters on TiO₂(101). ACS Applied Materials & Interfaces, 2019, 11, 9629-9640.	8.0	28
31	Labeling Thiols on Proteins, Living Cells and Tissues with Enhanced Emission Induced by FRET. Scientific Reports, 2013, 3, 3523.	3.3	26
32	Insight into Electronic and Structural Reorganizations for Defect-Induced VO₂ Metalâ€“Insulator Transition. Journal of Physical Chemistry Letters, 2017, 8, 3129-3132.	4.6	24
33	Net Electronic Charge as an Effective Electronic Descriptor for Oxygen Release and Transport Properties of SrFeO₃-Based Oxygen Sorbents. Chemistry of Materials, 2021, 33, 2446-2456.	6.7	22
34	Bandgap tuning of C3N monolayer: A first-principles study. Chemical Physics, 2019, 520, 40-46.	1.9	19
35	Sr_{1-x}Ca_xFe_{1-y}Co_yO_{3-Î´} as facile and tunable oxygen sorbents for chemical looping air separation. JPhys Energy, 2020, 2, 025007.	5.3	18
36	Using Machine Learning to Predict the Dissociation Energy of Organic Carbonyls. Journal of Physical Chemistry A, 2020, 124, 3844-3850.	2.5	18

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37	Selective catalytic oxidation of ammonia to nitric oxide via chemical looping. Nature Communications, 2022, 13, 718.	12.8	18
38	Metal-enhanced hydrogenation of graphene with atomic pattern. Carbon, 2019, 143, 700-705.	10.3	14
39	Liquid Metal Shell as an Effective Iron Oxide Modifier for Redox-Based Hydrogen Production at Intermediate Temperatures. ACS Catalysis, 2021, 11, 10228-10238.	11.2	13
40	Atomic Scale Analysis of the Enhanced Electro- and Photo-Catalytic Activity in High-Index Faceted Porous NiO Nanowires. Scientific Reports, 2015, 5, 8557.	3.3	12
41	Tuning Phase Transitions in Metal Oxides by Hydrogen Doping: A First-Principles Study. Journal of Physical Chemistry Letters, 2020, 11, 1075-1080.	4.6	12
42	Energy Materials Design for Steering Charge Kinetics. Advanced Materials, 2018, 30, e1801988.	21.0	10
43	Bimetallic Pd/Co Embedded in Two-Dimensional Carbon-Nitride for Z-Scheme Photocatalytic Water Splitting. Journal of Physical Chemistry C, 2019, 123, 1846-1851.	3.1	10
44	Physically Close yet Chemically Separate Reduction and Oxidation Sites in Double-Walled Nanotubes for Photocatalytic Hydrogen Generation. Journal of Physical Chemistry Letters, 2019, 10, 3739-3743.	4.6	9
45	Azopyrazole-Based Photoswitchable Anion Receptor for Dihydrogen Phosphate Transport. Journal of Physical Chemistry A, 2020, 124, 9692-9697.	2.5	9
46	Sharp-tip enhanced catalytic CO oxidation by atomically dispersed Pt₁/Pt₂on a raised graphene oxide platform. Journal of Materials Chemistry A, 2020, 8, 12485-12494.	10.3	9
47	Enabling Efficient Charge Separation for Optoelectronic Conversion via an Energy-Dependent Z-Scheme n-Semiconductorâ€“Metalâ€“p-Semiconductor Schottky Heterojunction. Journal of Physical Chemistry Letters, 2020, 11, 3313-3319.	4.6	9
48	â€œHealingâ€•Effect of Graphene Oxide in Achieving Robust Dilute Ferromagnetism in Oxygen-Deficient Titanium Dioxide. Journal of Physical Chemistry C, 2017, 121, 22806-22814.	3.1	8
49	Efficient and tunable fluorescence energy transfer via long-lived polymer excitons. Polymer Chemistry, 2015, 6, 1698-1702.	3.9	7
50	Regulation of Electronic Structure of Graphene Nanoribbon by Tuning Long-Range Dopantâ€“Dopant Coupling at Distance of Tens of Nanometers. Journal of Physical Chemistry Letters, 2020, 11, 6907-6913.	4.6	5
51	Edge-effect enhanced catalytic CO oxidation by atomically dispersed Pt on nitride-graphene. Journal of Materials Chemistry A, 2021, 9, 2093-2098.	10.3	5
52	Spatial Confinement of a Carbon Nanocone for an Efficient Oxygen Evolution Reaction. Journal of Physical Chemistry Letters, 2021, 12, 2252-2258.	4.6	4
53	Metalâ€“Organic Frameworks: Integration of an Inorganic Semiconductor with a Metalâ€“Organic Framework: A Platform for Enhanced Gaseous Photocatalytic Reactions (Adv. Mater. 28/2014). Advanced Materials, 2014, 26, 4907-4907.	21.0	3
54	Ohmic contact formation mechanisms of TiN film on 4Hâ€“SiC. Ceramics International, 2020, 46, 7142-7148.	4.8	3

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55	Carbon Monoxide Oxidation Promoted by Surface Polarization Charges in a CuO/Ag Hybrid Catalyst. Scientific Reports, 2020, 10, 2552.	3.3	3
56	Tunable Electric and Magnetic Properties of Transition Metal@N_xC_yâ€Graphene Materials by Different Metal and Defect Types. Chemistry - an Asian Journal, 2021, 16, 3230-3235.	3.3	3
57	Immobilizing copper-supported graphene with surface hydrogenation or hydroxylation: A first-principle study. Chemical Physics, 2019, 523, 183-190.	1.9	2