

# Hai-Feng Wang

## List of Publications by Year in descending order

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135  
papers

8,283  
citations

44069

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49909

87  
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140  
all docs

140  
docs citations

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times ranked

10170  
citing authors

#	ARTICLE	IF	CITATIONS
1	Highly Ethylene-Selective Electrocatalytic CO <sub>2</sub> Reduction Enabled by Isolated Cu <sup>+</sup> S Motifs in Metal-Organic Framework Based Precatalysts. <i>Angewandte Chemie</i> , 2022, 134, .	2.0	5
2	Highly Ethylene-Selective Electrocatalytic CO <sub>2</sub> Reduction Enabled by Isolated Cu <sup>+</sup> S Motifs in Metal-Organic Framework Based Precatalysts. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	13.8	81
3	Selective methane electrosynthesis enabled by a hydrophobic carbon coated copper core-shell architecture. <i>Energy and Environmental Science</i> , 2022, 15, 234-243.	30.8	51
4	Structural rule of N-coordinated single-atom catalysts for electrochemical CO <sub>2</sub> reduction. <i>Journal of Materials Chemistry A</i> , 2022, 10, 3585-3594.	10.3	13
5	Insight into the photoexcitation effect on the catalytic activation of H <sub>2</sub> and C-H bonds on TiO <sub>2</sub> (110) surface. <i>Chinese Chemical Letters</i> , 2022, 33, 4705-4709.	9.0	9
6	A Universal Single-Atom Coating Strategy Based on Tannic Acid Chemistry for Multifunctional Heterogeneous Catalysis. <i>Angewandte Chemie</i> , 2022, 134, .	2.0	9
7	A Universal Single-Atom Coating Strategy Based on Tannic Acid Chemistry for Multifunctional Heterogeneous Catalysis. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	13.8	34
8	Constructing Structurally Ordered High-Entropy Alloy Nanoparticles on Nitrogen-Rich Mesoporous Carbon Nanosheets for High-Performance Oxygen Reduction. <i>Advanced Materials</i> , 2022, 34, e2110128.	21.0	44
9	Nanoscale hematoporphrin-based frameworks for photo-sono synergistic cancer therapy via utilizing Al(III) as metal nodes rather than heavy metals. <i>Journal of Colloid and Interface Science</i> , 2022, 616, 23-33.	9.4	16
10	Breaking through the Peak Height Limit of the Volcano-Shaped Activity Curve for Metal Catalysts: Role of Distinct Surface Structures on Transition Metal Oxides. <i>Journal of Physical Chemistry C</i> , 2022, 126, 183-191.	3.1	4
11	Optimally Selecting Photo- and Electrocatalysis to Facilitate CH <sub>4</sub> Activation on TiO <sub>2</sub> (110) Surface: Localized Photoexcitation versus Global Electric-Field Polarization. <i>Jacs Au</i> , 2022, 2, 188-196.	7.9	20
12	Modulating the Electronic Structure of FeCo Nanoparticles in N-Doped Mesoporous Carbon for Efficient Oxygen Reduction Reaction. <i>Advanced Science</i> , 2022, 9, e2200394.	11.2	52
13	Hydrogen Spillover-Bridged Volmer/Tafel Processes Enabling Ampere-Level Current Density Alkaline Hydrogen Evolution Reaction under Low Overpotential. <i>Journal of the American Chemical Society</i> , 2022, 144, 6028-6039.	13.7	179
14	In Operando Identification of In Situ Formed Metalloid Zinc <sup>+</sup> Active Sites for Highly Efficient Electrocatalyzed Carbon Dioxide Reduction. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	13.8	25
15	A Robust Hierarchical MXene/Ni/Aluminosilicate Glass Composite for High-Performance Microwave Absorption. <i>Advanced Science</i> , 2022, 9, e2104163.	11.2	29
16	Universal Skeleton Feature of the Three-Dimensional Volcano Surface and the Thermodynamic Rule in Locating the Catalyst in Heterogeneous Catalysis. <i>ACS Catalysis</i> , 2022, 12, 247-258.	11.2	6
17	Achieving Theory-Experiment Parity for Activity and Selectivity in Heterogeneous Catalysis Using Microkinetic Modeling. <i>Accounts of Chemical Research</i> , 2022, 55, 1237-1248.	15.6	33
18	A Highly Efficient Nickel Phosphate Electrocatalyst for the Oxidation of 5-Hydroxymethylfurfural to 2,5-Furandicarboxylic Acid. <i>ACS Sustainable Chemistry and Engineering</i> , 2022, 10, 5538-5547.	6.7	12

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19	Partial Sulfidation Strategy to NiFe-LDH@FeNi <sub>2</sub> S <sub>4</sub> Heterostructure Enable High-Performance Water/Seawater Oxidation. <i>Advanced Functional Materials</i> , 2022, 32, .	14.9	100
20	Oxygen vacancies and alkaline metal boost CeO <sub>2</sub> catalyst for enhanced soot combustion activity: A first-principles evidence. <i>Applied Catalysis B: Environmental</i> , 2021, 281, 119468.	20.2	28
21	Towards the Circular Economy: Converting Aromatic Plastic Waste Back to Arenes over a Ru/Nb <sub>2</sub> O <sub>5</sub> Catalyst. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 5527-5535.	13.8	169
22	CATKINAS: A large-scale catalytic microkinetic analysis software for mechanism auto-analysis and catalyst screening. <i>Journal of Computational Chemistry</i> , 2021, 42, 379-391.	3.3	48
23	When Silicon Materials Meet Natural Sources: Opportunities and Challenges for Low-Cost Lithium Storage. <i>Small</i> , 2021, 17, e1904508.	10.0	56
24	Mechanisms of Aromatic-C bonds cleavage in lignin over NbO <sub>x</sub> -supported Ru catalyst. <i>Journal of Catalysis</i> , 2021, 394, 94-103.	6.2	25
25	Pd single-atom monolithic catalyst: Functional 3D structure and unique chemical selectivity in hydrogenation reaction. <i>Science China Materials</i> , 2021, 64, 1919-1929.	6.3	75
26	Molecular Adsorption Kinetics: Nonlinear Entropy-Enthalpy Loss Quantified by Constrained AIMD and Insights into the Adsorption-Site Determination on Metal Oxides. <i>Journal of Physical Chemistry C</i> , 2021, 125, 10974-10982.	3.1	6
27	Origin of Water-Induced Deactivation of MnO <sub>2</sub> -Based Catalyst for Room-Temperature NO Oxidation: A First-Principles Microkinetic Study. <i>ACS Catalysis</i> , 2021, 11, 6835-6845.	11.2	8
28	Revealing the boosting role of NO for soot combustion over CeO <sub>2</sub> (111): A first-principles microkinetic modeling. <i>Molecular Catalysis</i> , 2021, 509, 111582.	2.0	3
29	Cooperative Motion in Water-Methanol Clusters Controls the Reaction Rates of Heterogeneous Photocatalytic Reactions. <i>Journal of the American Chemical Society</i> , 2021, 143, 10940-10947.	13.7	12
30	InnenrÄ¼cktitelbild: Boosting Photocatalytic Water Oxidation Over Bifunctional Rh <sup>0</sup> -Rh <sup>3+</sup> Sites ( <i>Angew. Chem.</i> 42/2021). <i>Angewandte Chemie</i> , 2021, 133, 23211-23211.	2.0	0
31	Boosting Photocatalytic Water Oxidation Over Bifunctional Rh <sup>0</sup> -Rh <sup>3+</sup> Sites. <i>Angewandte Chemie</i> , 2021, 133, 22943.	2.0	2
32	Boosting Photocatalytic Water Oxidation Over Bifunctional Rh <sup>0</sup> -Rh <sup>3+</sup> Sites. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 22761-22768.	13.8	19
33	A Cationic Ru(II) Complex Intercalated into Zirconium Phosphate Layers Catalyzes Selective Hydrogenation via Heterolytic Hydrogen Activation. <i>ChemCatChem</i> , 2021, 13, 3801-3814.	3.7	7
34	Insight into the Surface-Tuned Activity and Cl <sub>2</sub> /HCl Selectivity in the Catalytic Oxidation of Vinyl Chloride over Co <sub>3</sub> O <sub>4</sub> (110) versus (001): A DFT Study. <i>Journal of Physical Chemistry C</i> , 2021, 125, 16975-16983.	3.1	4
35	Understanding the Dynamic Potential Distribution at the Electrode Interface by Stochastic Collision Electrochemistry. <i>Journal of the American Chemical Society</i> , 2021, 143, 12428-12432.	13.7	24
36	Preparation and Characterization of High-Strength Glass-Ceramics via Ion-Exchange Method. <i>Materials</i> , 2021, 14, 5477.	2.9	4

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37	SSIA: A sensitivity-supervised interlock algorithm for high-performance microkinetic solving. Journal of Chemical Physics, 2021, 154, 024108.	3.0	17
38	Towards the object-oriented design of active hydrogen evolution catalysts on single-atom alloys. Chemical Science, 2021, 12, 10634-10642.	7.4	9
39	Resolving the Intricate Mechanism and Selectivity of Syngas Conversion on Reduced ZnCr <sub>2</sub> O <sub>x</sub> : A Quantitative Study from DFT and Microkinetic Simulations. ACS Catalysis, 2021, 11, 12977-12988.	11.2	24
40	Resolving the Two-Track Scaling Trend for Adsorbates on Rutile-Type Metal Oxides: New Descriptors for Adsorption Energies. Journal of Physical Chemistry C, 2021, 125, 23162-23168.	3.1	4
41	An effective structural descriptor to quantify the reactivity of lattice oxygen in CeO <sub>2</sub> subnano-clusters. Physical Chemistry Chemical Physics, 2020, 22, 1721-1726.	2.8	12
42	Identifying the composition and atomic distribution of Pt-Au bimetallic nanoparticle with machine learning and genetic algorithm. Chinese Chemical Letters, 2020, 31, 890-896.	9.0	13
43	In situ NMR Investigation of the Photoresponse of Perovskite Crystal. Matter, 2020, 3, 2042-2054.	10.0	12
44	Direct Transformation of Glycerol to Propanal using Zirconium Phosphate-Supported Bimetallic Catalysts. ChemSusChem, 2020, 13, 4954-4966.	6.8	15
45	A novel heterogeneous Co(II)-Fenton-like catalyst for efficient photodegradation by visible light over extended pH. Science China Chemistry, 2020, 63, 1825-1836.	8.2	17
46	A general doping rule: rational design of Ir-doped catalysts for the oxygen evolution reaction. Chemical Communications, 2020, 56, 15201-15204.	4.1	9
47	Improved Performance of Nickel Boride by Phosphorus Doping as an Efficient Electrocatalyst for the Oxidation of 5-Hydroxymethylfurfural to 2,5-Furandicarboxylic Acid. Industrial & Engineering Chemistry Research, 2020, 59, 17348-17356.	3.7	42
48	The critical role of electrochemically activated adsorbates in neutral OER. Science China Materials, 2020, 63, 2509-2516.	6.3	16
49	Exploring dynamic interactions of single nanoparticles at interfaces for surface-confined electrochemical behavior and size measurement. Nature Communications, 2020, 11, 2307.	12.8	67
50	Heterogeneous Single-Atom Catalysts for Electrochemical CO <sub>2</sub> Reduction Reaction. Advanced Materials, 2020, 32, e2001848.	21.0	366
51	Synthesis of Cu <sub>2</sub> (OH)PO <sub>4</sub> superstructures with NIR-laser enhanced photocatalytic activity. Functional Materials Letters, 2020, 13, 2050015.	1.2	1
52	Synthesis and Characterization of the CaTiO <sub>3</sub> :Eu <sup>3+</sup> Red Phosphor by an Optimized Microwave-Assisted Sintering Process. Materials, 2020, 13, 874.	2.9	5
53	Flexible and Reusable Non-woven Fabric Photodetector Based on Polypyrrole/Crystal Violet Lactone for NIR Light Detection and Writing. Advanced Fiber Materials, 2020, 2, 150-160.	16.1	22
54	Amorphous Catalysis: Machine Learning Driven High-Throughput Screening of Superior Active Site for Hydrogen Evolution Reaction. Journal of Physical Chemistry C, 2020, 124, 10483-10494.	3.1	38

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55	Solvent Water Controls Photocatalytic Methanol Reforming. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 3738-3744.	4.6	11
56	A Simple Method To Locate the Optimal Adsorption Energy for the Best Catalysts Directly. <i>ACS Catalysis</i> , 2019, 9, 2633-2638.	11.2	24
57	Computational Simulation of Trapped Charge Carriers in TiO <sub>2</sub> and Their Impacts on Photocatalytic Water Splitting. <i>ACS Symposium Series</i> , 2019, , 67-100.	0.5	1
58	Insight into room-temperature catalytic oxidation of NO by CrO <sub>2</sub> (110): A DFT study. <i>Chinese Chemical Letters</i> , 2019, 30, 618-623.	9.0	20
59	First principles study of Fenton reaction catalyzed by FeOCl: reaction mechanism and location of active site. <i>Rare Metals</i> , 2019, 38, 783-792.	7.1	14
60	Porphyrin sensitizers with modified indoline donors for dye-sensitized solar cells. <i>Journal of Materials Chemistry C</i> , 2018, 6, 3927-3936.	5.5	48
61	Theoretical insight into methanol steam reforming on indium oxide with different coordination environments. <i>Science China Chemistry</i> , 2018, 61, 336-343.	8.2	20
62	Identifying the key obstacle in photocatalytic oxygen evolution on rutile TiO <sub>2</sub> . <i>Nature Catalysis</i> , 2018, 1, 291-299.	34.4	212
63	Identifying Catalytically Active Mononuclear Peroxonioate Anion of Ionic Liquids in the Epoxidation of Olefins. <i>ACS Catalysis</i> , 2018, 8, 4645-4659.	11.2	36
64	An efficient Ni <sub>x</sub> Zr <sub>y</sub> O catalyst for hydrogenation of bio-derived methyl levulinate to Î³-valerolactone in water under low hydrogen pressure. <i>Applied Catalysis B: Environmental</i> , 2018, 227, 488-498.	20.2	40
65	Insight into Room-Temperature Catalytic Oxidation of Nitric oxide by Cr <sub>2</sub> O <sub>3</sub> : A DFT Study. <i>ACS Catalysis</i> , 2018, 8, 5415-5424.	11.2	32
66	Ce <sub>0.3</sub> Zr <sub>0.7</sub> O <sub>1.88</sub> N <sub>0.12</sub> solid solution as a stable photocatalyst for visible light driven water splitting. <i>Applied Catalysis B: Environmental</i> , 2018, 224, 733-739.	20.2	4
67	First-Principles Insight into the Degradation Mechanism of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Perovskite: Light-Induced Defect Formation and Water Dissociation. <i>Journal of Physical Chemistry C</i> , 2018, 122, 27340-27349.	3.1	28
68	Tuning Metal Catalyst with Metal-C <sub>3</sub> N <sub>4</sub> Interaction for Efficient CO <sub>2</sub> Electroreduction. <i>ACS Catalysis</i> , 2018, 8, 11035-11041.	11.2	161
69	Activity Trend for Low-Concentration NO Oxidation at Room Temperature on Rutile-Type Metal Oxides. <i>ACS Catalysis</i> , 2018, 8, 10864-10870.	11.2	26
70	Insight into the Superior Catalytic Activity of MnO <sub>2</sub> for Low-Content NO Oxidation at Room Temperature. <i>Journal of Physical Chemistry C</i> , 2018, 122, 25365-25373.	3.1	22
71	First-Principles Determination of CO Adsorption and Desorption on Pt(111) in the Free Energy Landscape. <i>Journal of Physical Chemistry C</i> , 2018, 122, 21478-21483.	3.1	29
72	Insights into the selective catalytic reduction of NO by NH <sub>3</sub> over Mn <sub>3</sub> O <sub>4</sub> (110): a DFT study coupled with microkinetic analysis. <i>Science China Chemistry</i> , 2018, 61, 457-467.	8.2	26

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73	Insight into the NH <sub>3</sub> -Assisted Selective Catalytic Reduction of NO on $\gamma$ -Fe <sub>2</sub> O <sub>3</sub> (110): Reaction Mechanism, Activity Descriptor, and Evolution from a Pristine State to a Steady State. ACS Catalysis, 2018, 8, 9269-9279.	11.2	76
74	Alkali-assisted mild aqueous exfoliation for single-layered and structure-preserved graphitic carbon nitride nanosheets. Journal of Colloid and Interface Science, 2017, 495, 19-26.	9.4	37
75	Identifying the Role of Photogenerated Holes in Photocatalytic Methanol Dissociation on Rutile TiO <sub>2</sub> (110). ACS Catalysis, 2017, 7, 2374-2380.	11.2	76
76	Cosensitized Porphyrin System for High-Performance Solar Cells with TOF-SIMS Analysis. ACS Applied Materials & Interfaces, 2017, 9, 16081-16090.	8.0	11
77	Understanding the Dual Active Sites of the FeO/Pt(111) Interface and Reaction Kinetics: Density Functional Theory Study on Methanol Oxidation to Formaldehyde. ACS Catalysis, 2017, 7, 4281-4290.	11.2	50
78	Crystal Structural Effect of AuCu Alloy Nanoparticles on Catalytic CO Oxidation. Journal of the American Chemical Society, 2017, 139, 8846-8854.	13.7	181
79	Tracking motion trajectories of individual nanoparticles using time-resolved current traces. Chemical Science, 2017, 8, 1854-1861.	7.4	127
80	Perspective: Photocatalytic reduction of CO <sub>2</sub> to solar fuels over semiconductors. Journal of Chemical Physics, 2017, 147, 030901.	3.0	76
81	Significant enhancement of the selectivity of propylene epoxidation for propylene oxide: a molecular oxygen mechanism. Physical Chemistry Chemical Physics, 2017, 19, 25129-25139.	2.8	31
82	Unique Trapped Dimer State of the Photogenerated Hole in Hybrid Orthorhombic CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Perovskite: Identification, Origin, and Implications. Nano Letters, 2017, 17, 7724-7730.	9.1	19
83	Theory and applications of surface microkinetics in the rational design of catalysts using density functional theory calculations. Wiley Interdisciplinary Reviews: Computational Molecular Science, 2017, 7, e1321.	14.6	35
84	Unexpected C-C Bond Cleavage Mechanism in Ethylene Combustion at Low Temperature: Origin and Implications. ACS Catalysis, 2016, 6, 5393-5398.	11.2	27
85	Theoretical insights into how the first C-C bond forms in the methanol-to-olefin process catalysed by HSAPO-34. Physical Chemistry Chemical Physics, 2016, 18, 14495-14502.	2.8	21
86	Highly Efficient Epoxidation of Allylic Alcohols with Hydrogen Peroxide Catalyzed by Peroxonobate-Based Ionic Liquids. ACS Catalysis, 2016, 6, 3354-3364.	11.2	35
87	Theoretical Study of Heteroatom Doping in Tuning the Catalytic Activity of Graphene for Triiodide Reduction. ACS Catalysis, 2016, 6, 6804-6813.	11.2	35
88	Reversibility Iteration Method for Understanding Reaction Networks and for Solving Microkinetics in Heterogeneous Catalysis. ACS Catalysis, 2016, 6, 7078-7087.	11.2	64
89	Direct hydrodeoxygenation of raw woody biomass into liquid alkanes. Nature Communications, 2016, 7, 11162.	12.8	359
90	Understanding Catalytic Reactions over Zeolites: A Density Functional Theory Study of Selective Catalytic Reduction of NO <sub>x</sub> by NH <sub>3</sub> over Cu-SAPO-34. ACS Catalysis, 2016, 6, 7882-7891.	11.2	99

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91	Revealing the Volcano-Shaped Activity Trend of Triiodide Reduction Reaction: A DFT Study Coupled with Microkinetic Analysis. ACS Catalysis, 2016, 6, 733-741.	11.2	41
92	Batteries: 2D Monolayer MoS <sub>2</sub> â€“Carbon Interoverlapped Superstructure: Engineering Ideal Atomic Interface for Lithium Ion Storage (Adv. Mater. 24/2015). Advanced Materials, 2015, 27, 3582-3582.	21.0	6
93	Orange Zinc Germanate with Metallic Ge <sup>2+</sup> Ge Bonds as a Chromophoreâ€“Like Center for Visibleâ€“Lightâ€“Driven Water Splitting. Angewandte Chemie - International Edition, 2015, 54, 11467-11471.	13.8	18
94	2D Monolayer MoS <sub>2</sub> â€“Carbon Interoverlapped Superstructure: Engineering Ideal Atomic Interface for Lithium Ion Storage. Advanced Materials, 2015, 27, 3687-3695.	21.0	504
95	The search for efficient electrocatalysts as counter electrode materials for dye-sensitized solar cells: mechanistic study, material screening and experimental validation. NPG Asia Materials, 2015, 7, e226-e226.	7.9	52
96	The effects of the presence of metal Fe in the CO oxidation over Ir/FeOx catalyst. Catalysis Communications, 2015, 61, 83-87.	3.3	10
97	Theoretical investigation of NH <sub>3</sub> â€“SCR processes over zeolites: A review. International Journal of Quantum Chemistry, 2015, 115, 618-630.	2.0	26
98	Critical roles of co-catalysts for molecular hydrogen formation in photocatalysis. Journal of Catalysis, 2015, 330, 120-128.	6.2	59
99	Possibility of designing catalysts beyond the traditional volcano curve: a theoretical framework for multi-phase surfaces. Chemical Science, 2015, 6, 5703-5711.	7.4	40
100	Thermal behavior of cellulose diacetate melt using ionic liquids as plasticizers. RSC Advances, 2015, 5, 901-907.	3.6	21
101	Local atomic structure modulations activate metal oxide as electrocatalyst for hydrogen evolution in acidic water. Nature Communications, 2015, 6, 8064.	12.8	270
102	Catalyst screening: Refinement of the origin of the volcano curve and its implication in heterogeneous catalysis. Chinese Journal of Catalysis, 2015, 36, 1596-1605.	14.0	61
103	Identifying the distinct features of geometric structures for hole trapping to generate radicals on rutile TiO <sub>2</sub> (110) in photooxidation using density functional theory calculations with hybrid functional. Physical Chemistry Chemical Physics, 2015, 17, 1549-1555.	2.8	61
104	Stable Isolated Metal Atoms as Active Sites for Photocatalytic Hydrogen Evolution. Chemistry - A European Journal, 2014, 20, 2088-2088.	3.3	3
105	Solar Cells: Highly Electrocatalytic Activity of RuO <sub>2</sub> Nanocrystals for Triiodide Reduction in Dye-Sensitized Solar Cells (Small 3/2014). Small, 2014, 10, 483-483.	10.0	3
106	Stable Isolated Metal Atoms as Active Sites for Photocatalytic Hydrogen Evolution. Chemistry - A European Journal, 2014, 20, 2138-2144.	3.3	173
107	A {0001} faceted single crystal NiS nanosheet electrocatalyst for dye-sensitised solar cells: sulfur-vacancy induced electrocatalytic activity. Chemical Communications, 2014, 50, 5569.	4.1	60
108	The effects of the Pd chemical state on the activity of Pd/Al <sub>2</sub> O <sub>3</sub> catalysts in CO oxidation. Catalysis Science and Technology, 2014, 4, 3973-3980.	4.1	73



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109	Highly Electrocatalytic Activity of RuO <sub>2</sub> Nanocrystals for Triiodide Reduction in Dye-Sensitized Solar Cells. <i>Small</i> , 2014, 10, 484-492.	10.0	68
110	Selective Deposition of Ag <sub>3</sub> PO <sub>4</sub> on Monoclinic BiVO <sub>4</sub> (040) for Highly Efficient Photocatalysis. <i>Small</i> , 2013, 9, 3951-3956.	10.0	215
111	Surface hydrogen bonding can enhance photocatalytic H <sub>2</sub> evolution efficiency. <i>Journal of Materials Chemistry A</i> , 2013, 1, 14089.	10.3	113
112	Unidirectional suppression of hydrogen oxidation on oxidized platinum clusters. <i>Nature Communications</i> , 2013, 4, 2500.	12.8	197
113	Evidence To Challenge the Universality of the Horiuti-Polanyi Mechanism for Hydrogenation in Heterogeneous Catalysis: Origin and Trend of the Preference of a Non-Horiuti-Polanyi Mechanism. <i>Journal of the American Chemical Society</i> , 2013, 135, 15244-15250.	13.7	101
114	Active sites on hydrogen evolution photocatalyst. <i>Journal of Materials Chemistry A</i> , 2013, 1, 15258.	10.3	96
115	Rational screening low-cost counter electrodes for dye-sensitized solar cells. <i>Nature Communications</i> , 2013, 4, 1583.	12.8	365
116	Facet-Dependent Catalytic Activity of Platinum Nanocrystals for Triiodide Reduction in Dye-Sensitized Solar Cells. <i>Scientific Reports</i> , 2013, 3, 1836.	3.3	146
117	Turning Indium Oxide into a Superior Electrocatalyst: Deterministic Heteroatoms. <i>Scientific Reports</i> , 2013, 3, 3109.	3.3	28
118	Oxygen vacancy formation in CeO <sub>2</sub> and Ce <sub>1-x</sub> Zr <sub>x</sub> O <sub>2</sub> solid solutions: electron localization, electrostatic potential and structural relaxation. <i>Physical Chemistry Chemical Physics</i> , 2012, 14, 16521.	2.8	80
119	Origin of extraordinarily high catalytic activity of Co <sub>3</sub> O <sub>4</sub> and its morphological chemistry for CO oxidation at low temperature. <i>Journal of Catalysis</i> , 2012, 296, 110-119.	6.2	179
120	Ceria Foam with Atomically Thin Single-Crystal Walls. <i>Angewandte Chemie - International Edition</i> , 2012, 51, 3611-3615.	13.8	18
121	Structural Origin: Water Deactivates Metal Oxides to CO Oxidation and Promotes Low-Temperature CO Oxidation with Metals. <i>Angewandte Chemie - International Edition</i> , 2012, 51, 6657-6661.	13.8	119
122	Exchange between sub-surface and surface oxygen vacancies on CeO <sub>2</sub> (111): a new surface diffusion mechanism. <i>Chemical Communications</i> , 2011, 47, 6105.	4.1	58
123	Direct catalytic conversion of furfural to 1,5-pentanediol by hydrogenolysis of the furan ring under mild conditions over Pt/Co <sub>2</sub> AlO <sub>4</sub> catalyst. <i>Chemical Communications</i> , 2011, 47, 3924.	4.1	187
124	New insight into mechanisms in water-gas-shift reaction on Au/CeO <sub>2</sub> (111): A density functional theory and kinetic study. <i>Faraday Discussions</i> , 2011, 152, 121.	3.2	85
125	An understanding and implications of the coverage of surface free sites in heterogeneous catalysis. <i>Journal of Chemical Physics</i> , 2009, 130, 224701.	3.0	21
126	Maximizing the Localized Relaxation: The Origin of the Outstanding Oxygen Storage Capacity of $\text{Ce}_2\text{Zr}_2\text{O}_8$ . <i>Angewandte Chemie - International Edition</i> , 2009, 48, 8289-8292.	13.8	85



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127	Structure and Catalytic Activity of Gold in Low-Temperature CO Oxidation. Journal of Physical Chemistry C, 2009, 113, 6124-6131.	3.1	32
128	NO Oxidation on Platinum Group Metals Oxides: First Principles Calculations Combined with Microkinetic Analysis. Journal of Physical Chemistry C, 2009, 113, 18746-18752.	3.1	56
129	Multiple configurations of the two excess electrons on defective $\text{CeO}_2$ . Origin and impl. Physical Review B, 2009, 79.	3.2	233
130	A Model to Understand the Oxygen Vacancy Formation in Zr-Doped $\text{CeO}_2$ : Electrostatic Interaction and Structural Relaxation. Journal of Physical Chemistry C, 2009, 113, 10229-10232.	3.1	113
131	Au on (111) and (110) surfaces of $\text{CeO}_2$ : A density-functional theory study. Surface Science, 2008, 602, 1736-1741.	1.9	95
132	Examining the redox and formate mechanisms for water-gas shift reaction on Au/ $\text{CeO}_2$ using density functional theory. Surface Science, 2008, 602, 2828-2834.	1.9	76
133	Gold Segregation Improves Electrocatalytic Activity of Icosahedron Au@Pt Nanocluster: Insights from Machine Learning. Chinese Journal of Chemistry, 0, , .	4.9	10
134	Operando Metalloid $\text{Zn}^{2+}$ Active Sites for Highly Efficient Carbon Dioxide Reduction Electrocatalysis. Angewandte Chemie, 0, , .	2.0	0
135	Oriented design of triple atom catalysts for electrocatalytic nitrogen reduction with the genetic-algorithm-based global optimization method driven by first principles calculations. Journal of Materials Chemistry A, 0, , .	10.3	5