Bing Yang

List of Publications by Year
in descending order

78 papers	3,476 citations	147801 31 h-index	149698 56 g-index
87 all docs	87 docs citations	87 times ranked	3791 citing authors

#	Article	IF	Citations
1	Carbon Dioxide Conversion to Methanol over Size-Selected Cu₄ Clusters at Low Pressures. Journal of the American Chemical Society, 2015, 137, 8676-8679.	13.7	299
2	The Atomic Structure of a Metalâ€Supported Vitreous Thin Silica Film. Angewandte Chemie - International Edition, 2012, 51, 404-407.	13.8	207
3	Reversible loss of coreâ€“shell structure for Niâ€“Au bimetallic nanoparticles during CO2 hydrogenation. Nature Catalysis, 2020, 3, 411-417.	34.4	186
4	Reaction-Induced Strong Metalâ€“Support Interactions between Metals and Inert Boron Nitride Nanosheets. Journal of the American Chemical Society, 2020, 142, 17167-17174.	13.7	164
5	Copper Cluster Size Effect in Methanol Synthesis from CO₂. Journal of Physical Chemistry C, 2017, 121, 10406-10412.	3.1	144
6	General and Efficient Intermolecular [2+2] Photodimerization of Chalcones and Cinnamic Acid Derivatives in Solution through Visibleâ€Light Catalysis. Angewandte Chemie - International Edition, 2017, 56, 15407-15410.	13.8	128
7	Charge-Mediated Adsorption Behavior of CO on MgO-Supported Au Clusters. Journal of the American Chemical Society, 2010, 132, 7745-7749.	13.7	112
8	Thin silica films on Ru(0001): monolayer, bilayer and three-dimensional networks of [SiO4] tetrahedra. Physical Chemistry Chemical Physics, 2012, 14, 11344.	2.8	106
9	Modeling Zeolites with Metalâ€Supported Twoâ€Dimensional Aluminosilicate Films. Angewandte Chemie - International Edition, 2012, 51, 6005-6008.	13.8	96
10	A Bioâ€inspired Cu₄O₄ Cubane: Effective Molecular Catalysts for Electrocatalytic Water Oxidation in Aqueous Solution. Angewandte Chemie - International Edition, 2018, 57, 7850-7854.	13.8	91
11	CeO2 supported Pd dimers boosting CO2 hydrogenation to ethanol. Applied Catalysis B: Environmental, 2021, 291, 120122.	20.2	88
12	Support effects on the atomic structure of ultrathin silica films on metals. Applied Physics Letters, 2012, 100, 151608.	3.3	80
13	Direct oxidation of methane to oxygenates on supported single Cu atom catalyst. Applied Catalysis B: Environmental, 2021, 285, 119827.	20.2	72
14	Subnanometer Substructures in Nanoassemblies Formed from Clusters under a Reactive Atmosphere Revealed Using Machine Learning. Journal of Physical Chemistry C, 2018, 122, 21686-21693.	3.1	69
15	Achieving stable Na metal cycling via polydopamine/multilayer graphene coating of a polypropylene separator. Nature Communications, 2021, 12, 5786.	12.8	69
16	Visible Light Initiated Hantzsch Synthesis of 2,5-Diaryl-Substituted Pyrroles at Ambient Conditions. Organic Letters, 2016, 18, 2479-2482.	4.6	68
17	Interaction of Probe Molecules with Bridging Hydroxyls of Two-Dimensional Zeolites: A Surface Science Approach. Journal of Physical Chemistry C, 2013, 117, 13547-13556.	3.1	67
18	Mapping XANES spectra on structural descriptors of copper oxide clusters using supervised machine learning. Journal of Chemical Physics, 2019, 151, 164201.	3.0	60

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19	Permeation of a Single-Layer SiO₂ Membrane and Chemistry in Confined Space. Journal of Physical Chemistry C, 2014, 118, 29034-29042.	3.1	56
20	Ultrathin Silica Films: The Atomic Structure of Twoâ€Ðimensional Crystals and Glasses. Chemistry - A European Journal, 2014, 20, 9176-9183.	3.3	51
21	Integration of Bimetallic Electronic Synergy with Oxide Site Isolation Improves the Selective Hydrogenation of Acetylene. Angewandte Chemie - International Edition, 2021, 60, 19324-19330.	13.8	50
22	Identifying key mononuclear Fe species for low-temperature methane oxidation. Chemical Science, 2021, 12, 3152-3160.	7.4	49
23	Crystal-Phase-Mediated Restructuring of Pt on TiO₂ with Tunable Reactivity: Redispersion versus Reshaping. ACS Catalysis, 2022, 12, 3634-3643.	11.2	44
24	Zeoliteâ€Tailored Active Site Proximity for the Efficient Production of Pentanoic Biofuels. Angewandte Chemie - International Edition, 2021, 60, 23713-23721.	13.8	43
25	Patterned Defect Structures Predicted for Graphene Are Observed on Single-Layer Silica Films. Nano Letters, 2013, 13, 4422-4427.	9.1	42
26	Building blocks of zeolites on an aluminosilicate ultra-thin film. Microporous and Mesoporous Materials, 2013, 165, 158-162.	4.4	42
27	In situ identification of the metallic state of Ag nanoclusters in oxidative dispersion. Nature Communications, 2021, 12, 1406.	12.8	42
28	Direct Observation of Enantiospecific Substitution in a Two-Dimensional Chiral Phase Transition. Journal of the American Chemical Society, 2010, 132, 10440-10444.	13.7	40
29	Scalable Production of Freestanding Few-Layer Î²₁₂-Borophene Single Crystalline Sheets as Efficient Electrocatalysts for Lithiumâ€“Sulfur Batteries. ACS Nano, 2021, 15, 17327-17336.	14.6	40
30	Atomic Structure of an Ultrathin Fe-Silicate Film Grown on a Metal: AÂMonolayer of Clay?. Journal of the American Chemical Society, 2013, 135, 19222-19228.	13.7	35
31	Oxidative Strong Metalâ€“Support Interactions between Metals and Inert Boron Nitride. Journal of Physical Chemistry Letters, 2021, 12, 4187-4194.	4.6	35
32	Dialing in Catalytic Sites on Metal Organic Framework Nodes: MIL-53(Al) and MIL-68(Al) Probed with Methanol Dehydration Catalysis. ACS Applied Materials & Interfaces, 2020, 12, 53537-53546.	8.0	34
33	Electron stimulated hydroxylation of a metal supported silicate film. Physical Chemistry Chemical Physics, 2016, 18, 3755-3764.	2.8	33
34	Support-Induced unusual size dependence of Pd catalysts in chemoselective hydrogenation of para-chloronitrobenzene. Journal of Catalysis, 2021, 400, 173-183.	6.2	32
35	Electrochemical behaviour of naked sub-nanometre sized copper clusters and effect of CO₂. Catalysis Science and Technology, 2016, 6, 6977-6985.	4.1	31
36	General and Efficient Intermolecular [2+2] Photodimerization of Chalcones and Cinnamic Acid Derivatives in Solution through Visibleâ€Light Catalysis. Angewandte Chemie, 2017, 129, 15609-15612.	2.0	30

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37	Near 100% ethene selectivity achieved by tailoring dual active sites to isolate dehydrogenation and oxidation. Nature Communications, 2021, 12, 5447.	12.8	30
38	Selfâ€Assembled Amphiphilic Water Oxidation Catalysts: Control of Oâ€'O Bond Formation Pathways by Different Aggregation Patterns. Angewandte Chemie - International Edition, 2016, 55, 6229-6234.	13.8	29
39	CO₂ Methanation on Cu-Cluster Decorated Zirconia Supports with Different Morphology: A Combined Experimental In Situ GIXANES/GISAXS, Ex Situ XPS and Theoretical DFT Study. ACS Catalysis, 2021, 11, 6210-6224.	11.2	28
40	Tuning Structural and Mechanical Properties of Two-Dimensional Molecular Crystals: The Roles of Carbon Side Chains. Nano Letters, 2012, 12, 1229-1234.	9.1	27
41	Lotus-Leaf-Inspired Flexible and Tunable Random Laser. ACS Applied Materials & Interfaces, 2020, 12, 10050-10057.	8.0	25
42	Highly efficient Cu-decorated iron oxide nanocatalyst for low pressure CO2 conversion. Applied Catalysis B: Environmental, 2018, 225, 128-138.	20.2	24
43	CO Adsorption on Thin MgO Films and Single Au Adatoms: A Scanning Tunneling Microscopy Study. Journal of Physical Chemistry C, 2010, 114, 8997-9001.	3.1	22
44	Homochiral Recognition among Organic Molecules on Copper(110). Langmuir, 2010, 26, 3402-3406.	3.5	21
45	Oxidative Dehydrogenation of Cyclohexane by Cu vs Pd Clusters: Selectivity Control by Specific Cluster Dynamics. ChemCatChem, 2020, 12, 1307-1315.	3.7	21
46	Tunable strain drives the activity enhancement for oxygen reduction reaction on Pd@Pt core-shell electrocatalysts. Journal of Power Sources, 2021, 485, 229340.	7.8	21
47	Reversing Sizeâ€Dependent Trends in the Oxidation of Copper Clusters through Support Effects. European Journal of Inorganic Chemistry, 2018, 2018, 16-22.	2.0	20
48	Tracking the Fe^{IV}(O) intermediate and Oâ€“O bond formation of a nonheme iron catalyst for water oxidation. Chemical Communications, 2017, 53, 9063-9066.	4.1	19
49	A Bioâ€inspired Cu₄O₄ Cubane: Effective Molecular Catalysts for Electrocatalytic Water Oxidation in Aqueous Solution. Angewandte Chemie, 2018, 130, 7976-7980.	2.0	19
50	Dynamic Interplay between Copper Tetramers and Iron Oxide Boosting CO₂ Conversion to Methanol and Hydrocarbons under Mild Conditions. ACS Sustainable Chemistry and Engineering, 2019, 7, 14435-14442.	6.7	19
51	Edgeâ€Confined Pt₁/MoS₂ Singleâ€Atom Catalyst Promoting the Selective Activation of Carbonâ€Oxygen Bond. ChemCatChem, 2021, 13, 2783-2793.	3.7	18
52	Noble Metal-Free 2D 1T-MoS₂ Edge Sites Boosting Selective Hydrogenation of Maleic Anhydride. ACS Catalysis, 2022, 12, 8986-8994.	11.2	18
53	Stabilizing Gold Adatoms by Thiophenyl Derivatives: A Possible Route toward Metal Redispersion. Journal of the American Chemical Society, 2012, 134, 11161-11167.	13.7	16
54	Effects of red mud on rheological, crystalline, and mechanical properties of red mud/<scp>PBAT</scp> composites. Polymer Composites, 2016, 37, 2001-2007.	4.6	16

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55	Structural reversibility of Cu doped NU-1000 MOFs under hydrogenation conditions. Journal of Chemical Physics, 2020, 152, 084703.	3.0	16
56	Amphiphilic Oxo-Bridged Ruthenium â€œGreen Dimerâ€•for Water Oxidation. IScience, 2020, 23, 100969.	4.1	15
57	Ultrathin silicatene/silicon-carbide hybrid film on a metal substrate. Surface Science, 2015, 632, 9-13.	1.9	14
58	Ni²⁺â€Directed Anisotropic Growth of PtCu Nested Skeleton Cubes Boosting Electroreduction of Oxygen. Advanced Science, 2022, 9, e2104927.	11.2	14
59	Construction of Cyclobutanes by Multicomponent Cascade Reactions in Homogeneous Solution through Visibleâ€Light Catalysis. Chemistry - A European Journal, 2019, 25, 879-884.	3.3	13
60	Tuning Spatial Distribution of Surface Hydroxyls on a Metal-Supported Single-Layer Silica. Journal of Physical Chemistry Letters, 2014, 5, 1701-1704.	4.6	11
61	Direct observation of the geometric isomer selectivity of a reaction controlled via adsorbed bromine. Nanoscale, 2020, 12, 2726-2731.	5.6	11
62	In-situ generation and global property profiling of metal nanoclusters by ultraviolet laser dissociation-mass spectrometry. Science China Chemistry, 2022, 65, 1196-1203.	8.2	11
63	Influence of Deoxyribose Group on Self-Assembly of Thymidine on Au(111). Journal of Physical Chemistry C, 2009, 113, 17590-17594.	3.1	10
64	Selfâ€Assembled Amphiphilic Water Oxidation Catalysts: Control of Oâ€'O Bond Formation Pathways by Different Aggregation Patterns. Angewandte Chemie, 2016, 128, 6337-6342.	2.0	10
65	Zeoliteâ€Tailored Active Site Proximity for the Efficient Production of Pentanoic Biofuels. Angewandte Chemie, 2021, 133, 23906-23914.	2.0	10
66	Alternating the Crystalline Structural Transition of Coronene Molecular Overlayers on Ag(110) through Temperature Increase. Journal of Physical Chemistry C, 2009, 113, 17643-17647.	3.1	9
67	On-surface formation of metalâ€“organic coordination networks with Câ‹¯Agâ‹¯C and C=Oâ‹¯Ag interactions assisted by precursor self-assembly. Journal of Chemical Physics, 2021, 154, 044703.	3.0	9
68	Effect of lattice-gas atoms on the adsorption behaviour of thioether molecules. Physical Chemistry Chemical Physics, 2012, 14, 10987.	2.8	8
69	Nanoassemblies of ultrasmall clusters with remarkable activity in carbon dioxide conversion into C1 fuels. Nanoscale, 2019, 11, 4683-4687.	5.6	8
70	Methanol Reactivity on Silica-Supported Ceria Nanoparticles. Topics in Catalysis, 2014, 57, 1229-1235.	2.8	7
71	Surface interaction induced transcrystallization in biodegradable poly(butylene succinate)-fibre composites. Colloid and Polymer Science, 2015, 293, 2701-2707.	2.1	6
72	Using first principles calculations to interpret XANES experiments: extracting the size-dependence of the (pâ€Š, T) phase diagram of sub-nanometer Cu clusters in an O₂ environment. Journal of Physics Condensed Matter, 2019, 31, 144002.	1.8	6

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73	CO_xâ€Resistant Oxidative Dehydrogenation of Cyclohexane Catalyzed by sp³@sp²Nanodiamonds towards Highly Selective Cyclohexene Production. ChemCatChem, 2021, 13, 610-616.	3.7	5
74	Structural phase evolved Ni²⁺â€doped fluoride nanocrystals in KFâ^'ZnF₂â^'SiO₂ glassâ€ceramics. Journal of the American Ceramic Society, 2021, 104, 824-832.	3.8	4
75	Optimized oxygen reduction activity by tuning shell component in Pd@Pt-based core-shell electrocatalysts. Journal of Colloid and Interface Science, 2021, 604, 301-309.	9.4	4
76	Integration of Bimetallic Electronic Synergy with Oxide Site Isolation Improves the Selective Hydrogenation of Acetylene. Angewandte Chemie, 2021, 133, 19473-19479.	2.0	3
77	Role of the V2O3(0001) Defect Structure in the Adsorption of Au Adatoms. Journal of Physical Chemistry C, 2011, 115, 3404-3409.	3.1	2
78	Cover Feature: Reversing Size-Dependent Trends in the Oxidation of Copper Clusters through Support Effects (Eur. J. Inorg. Chem. 1/2018). European Journal of Inorganic Chemistry, 2018, 2018, 3-3.	2.0	0