Zhi Wen Chen

List of Publications by Year
in descending order

49	2,350	186265 28	214800 47
papers	citations	h-index	g-index

51	51	51	2974
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Atomic (single, double, and triple atoms) catalysis: frontiers, opportunities, and challenges. Journal of Materials Chemistry A, 2019, 7, 3492-3515.	10.3	252
2	Generating Defectâ€Rich Bismuth for Enhancing the Rate of Nitrogen Electroreduction to Ammonia. Angewandte Chemie - International Edition, 2019, 58, 9464-9469.	13.8	226
3	Single or Double: Which Is the Altar of Atomic Catalysts for Nitrogen Reduction Reaction?. Small Methods, 2019, 3, 1800291.	8.6	210
4	Mechanochemistry for ammonia synthesis under mild conditions. Nature Nanotechnology, 2021, 16, 325-330.	31.5	141
5	Design of Dual-Modified MoS₂ with Nanoporous Ni and Graphene as Efficient Catalysts for the Hydrogen Evolution Reaction. ACS Catalysis, 2018, 8, 8107-8114.	11.2	140
6	Interface Engineering of Co/CoMoN/NF Heterostructures for Highâ€Performance Electrochemical Overall Water Splitting. Advanced Science, 2022, 9, e2105313.	11.2	90
7	Discovery of cobweb-like MoC₆ and its application for nitrogen fixation. Journal of Materials Chemistry A, 2018, 6, 9623-9628.	10.3	83
8	Neural Network-Assisted Development of High-Entropy Alloy Catalysts: Decoupling Ligand and Coordination Effects. Matter, 2020, 3, 1318-1333.	10.0	83
9	Nonprecious Intermetallic Al₇Cu₄Ni Nanocrystals Seamlessly Integrated in Freestanding Bimodal Nanoporous Copper for Efficient Hydrogen Evolution Catalysis. Advanced Functional Materials, 2018, 28, 1706127.	14.9	64
10	Rational Design of Ag₃₈ Cluster Supported by Graphdiyne for Catalytic CO Oxidation. Journal of Physical Chemistry C, 2017, 121, 3463-3468.	3.1	57
11	Exploring single atom catalysts of transition-metal doped phosphorus carbide monolayer for HER: A first-principles study. Journal of Energy Chemistry, 2021, 52, 155-162.	12.9	54
12	Understanding electro-catalysis by using density functional theory. Physical Chemistry Chemical Physics, 2019, 21, 23782-23802.	2.8	53
13	Computational screening of homo and hetero transition metal dimer catalysts for reduction of CO₂ to C₂ products with high activity and low limiting potential. Journal of Materials Chemistry A, 2020, 8, 21241-21254.	10.3	51
14	Machine-learning-accelerated discovery of single-atom catalysts based on bidirectional activation mechanism. Chem Catalysis, 2021, 1, 183-195.	6.1	50
15	Potential application of 2D monolayer Î²-GeSe as an anode material in Na/K ion batteries. Physical Chemistry Chemical Physics, 2018, 20, 30290-30296.	2.8	48
16	A triple atom catalyst with ultrahigh loading potential for nitrogen electrochemical reduction. Journal of Materials Chemistry A, 2020, 8, 15086-15093.	10.3	48
17	Generating Defectâ€Rich Bismuth for Enhancing the Rate of Nitrogen Electroreduction to Ammonia. Angewandte Chemie, 2019, 131, 9564-9569.	2.0	47
18	Activated basal planes of WS₂ by intrinsic defects as catalysts for the electrocatalytic nitrogen reduction reaction. Journal of Materials Chemistry A, 2019, 7, 25961-25968.	10.3	47

#	Article	IF	Citations
19	Insight into the excellent catalytic activity of (CoMo)S2/graphene for hydrogen evolution reaction. Applied Catalysis B: Environmental, 2019, 258, 118012.	20.2	44
20	Tailoring lattice strain in ultra-fine high-entropy alloys for active and stable methanol oxidation. Science China Materials, 2021, 64, 2454-2466.	6.3	43
21	Transition metalâ€“N₄ embedded black phosphorus carbide as a high-performance bifunctional electrocatalyst for ORR/OER. Nanoscale, 2020, 12, 18721-18732.	5.6	39
22	Insights on the dual role of two-dimensional materials as catalysts and supports for energy and environmental catalysis. Journal of Materials Chemistry A, 2021, 9, 2018-2042.	10.3	34
23	A new strategy to improve the high-rate performance of hydrogen storage alloys with MoS2 nanosheets. Journal of Power Sources, 2016, 333, 17-23.	7.8	33
24	A transferable machine-learning scheme from pure metals to alloys for predicting adsorption energies. Journal of Materials Chemistry A, 2022, 10, 872-880.	10.3	33
25	Cu4 Cluster Doped Monolayer MoS2 for CO Oxidation. Scientific Reports, 2015, 5, 11230.	3.3	30
26	Adjustable electronic performances and redox ability of a g-C₃N₄ monolayer by adsorbing nonmetal solute ions: a first principles study. Journal of Materials Chemistry A, 2016, 4, 14827-14838.	10.3	30
27	Highly Nitrogenâ€Doped Porous Carbon Nanosheets as Highâ€Performance Anode for Potassiumâ€Ion Batteries. Batteries and Supercaps, 2020, 3, 185-193.	4.7	30
28	Steric Hindrance in Sulfur Vacancy of Monolayer MoS₂ Boosts Electrochemical Reduction of Carbon Monoxide to Methane. ChemSusChem, 2018, 11, 1455-1459.	6.8	29
29	Graphene-MoS₂ vertically anchored on an MXene-derived accordion-like TiO₂/C skeleton: an ultrastable HER catalyst. Journal of Materials Chemistry A, 2020, 8, 14223-14233.	10.3	28
30	Carbon-supported catalysts with atomically dispersed metal sites for oxygen electroreduction: present and future perspectives. Journal of Materials Chemistry A, 2021, 9, 15919-15936.	10.3	24
31	Structurally ordered highâ€entropy intermetallic nanoparticles with enhanced Câ€“C bond cleavage for ethanol oxidation. SmartMat, 2023, 4, .	10.7	23
32	Lowâ€Temperature Conversion of Alcohols into Bulky Nanoporous Graphene and Pure Hydrogen with Robust Selectivity on CaO. Advanced Materials, 2019, 31, e1807267.	21.0	22
33	How does mass transfer influence electrochemical carbon dioxide reduction reaction? A case study of Ni molecular catalyst supported on carbon. Chemical Communications, 2021, 57, 1384-1387.	4.1	18
34	Electroreduction of nitrogen to ammonia on nanoporous gold. Nanoscale, 2021, 13, 1717-1722.	5.6	17
35	High-loading intrinsic active sites for ammonia synthesis using efficient single-atom catalyst: 2D tungsten-porphyrin sheet. Applied Surface Science, 2020, 529, 147183.	6.1	16
36	Microprobe x-ray fluorescence with the use of point-focusing diffractors. Applied Physics Letters, 1997, 71, 1884-1886.	3.3	15

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37	Materials perspective on new lithium chlorides and bromides: insights into thermo-physical properties. Physical Chemistry Chemical Physics, 2020, 22, 22758-22767.	2.8	15
38	Two-Dimensional Graphdiyne-Confined Platinum Catalyst for Hydrogen Evolution and Oxygen Reduction Reactions. ACS Applied Materials & Interfaces, 2021, 13, 47541-47548.	8.0	15
39	Ethanol Assisted Transfer for Clean Assembly of 2D Building Blocks and Suspended Structures. Advanced Functional Materials, 2019, 29, 1902427.	14.9	14
40	Transition-metal-free boron doped SbN monolayer for N2 adsorption and reduction to NH3: A first-principles study. Journal of Colloid and Interface Science, 2022, 607, 1551-1561.	9.4	8
41	High-throughput and machine-learning accelerated design of high entropy alloy catalysts. Trends in Chemistry, 2022, 4, 577-579.	8.5	8
42	Machine learning-enabled band gap prediction of monolayer transition metal chalcogenide alloys. Physical Chemistry Chemical Physics, 2022, 24, 4653-4665.	2.8	7
43	Defect evolution behaviors from single sulfur point vacancies to line vacancies in monolayer molybdenum disulfide. Physical Chemistry Chemical Physics, 2021, 23, 19525-19536.	2.8	6
44	Steric Hindranceâ€•and Work Functionâ€Promoted High Performance for Electrochemical CO Methanation on Antisite Defects of MoS 2 and WS 2. ChemSusChem, 2021, 14, 2255-2261.	6.8	6
45	119Sn MÃ¶ssbauer and magnetization studies of Co2ScSn. Journal of Applied Physics, 1993, 73, 6974-6976.	2.5	5
46	Synergistic vacancy defects and mechanical strain for the modulation of the mechanical, electronic and optical properties of monolayer tungsten disulfide. Physical Chemistry Chemical Physics, 2021, 23, 6298-6308.	2.8	5
47	Insights into oxygen activation on metal clusters for catalyst design. Journal of Materials Chemistry A, 2021, 9, 11726-11733.	10.3	4
48	Automatically Capturing Key Features for Predicting Superionic Conductivity of Solid-State Electrolytes Using a Neural Network. ACS Applied Energy Materials, 2022, 5, 8042-8048.	5.1	2
49	Recent Developments In Monochromatic Microprobe X-Ray Fluorescence (MMXRF). Microscopy and Microanalysis, 1998, 4, 378-379.	0.4	0