Zhi Wen Chen

List of Publications by Year
in descending order

49 papers	2,350 citations	186265 28 h-index	214800 47 g-index
51 all docs	51 docs citations	51 times ranked	2974 citing authors

#	Article	IF	Citations
1	Structurally ordered highâ€entropy intermetallic nanoparticles with enhanced Câ€"C bond cleavage for ethanol oxidation. SmartMat, 2023, 4, .	10.7	23
2	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
3	Machine learning-enabled band gap prediction of monolayer transition metal chalcogenide alloys. Physical Chemistry Chemical Physics, 2022, 24, 4653-4665.	2.8	7
4	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
5	Interface Engineering of Co/CoMoN/NF Heterostructures for Highâ€Performance Electrochemical Overall Water Splitting. Advanced Science, 2022, 9, e2105313.	11.2	90
6	High-throughput and machine-learning accelerated design of high entropy alloy catalysts. Trends in Chemistry, 2022, 4, 577-579.	8.5	8
7	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
8	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
9	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
10	Mechanochemistry for ammonia synthesis under mild conditions. Nature Nanotechnology, 2021, 16, 325-330.	31.5	141
11	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
12	Insights into oxygen activation on metal clusters for catalyst design. Journal of Materials Chemistry A, 2021, 9, 11726-11733.	10.3	4
13	Electroreduction of nitrogen to ammonia on nanoporous gold. Nanoscale, 2021, 13, 1717-1722.	5.6	17
14	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
15	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
16	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
17	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
18	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

#	ARTICLE	IF	CITATIONS
19	Machine-learning-accelerated discovery of single-atom catalysts based on bidirectional activation mechanism. Chem Catalysis, 2021, 1, 183-195.	6.1	50
20	Two-Dimensional Graphdiyne-Confined Platinum Catalyst for Hydrogen Evolution and Oxygen Reduction Reactions. ACS Applied Materials & Interfaces, 2021, 13, 47541-47548.	8.0	15
21	Highly Nitrogenâ€Doped Porous Carbon Nanosheets as Highâ€Performance Anode for Potassiumâ€Ion Batteries. Batteries and Supercaps, 2020, 3, 185-193.	4.7	30
22	Neural Network-Assisted Development of High-Entropy Alloy Catalysts: Decoupling Ligand and Coordination Effects. Matter, 2020, 3, 1318-1333.	10.0	83
23	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
24	Transition metalâ€“N₄ embedded black phosphorus carbide as a high-performance bifunctional electrocatalyst for ORR/OER. Nanoscale, 2020, 12, 18721-18732.	5.6	39
25	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
26	Materials perspective on new lithium chlorides and bromides: insights into thermo-physical properties. Physical Chemistry Chemical Physics, 2020, 22, 22758-22767.	2.8	15
27	A triple atom catalyst with ultrahigh loading potential for nitrogen electrochemical reduction. Journal of Materials Chemistry A, 2020, 8, 15086-15093.	10.3	48
28	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
29	Insight into the excellent catalytic activity of (CoMo)S2/graphene for hydrogen evolution reaction. Applied Catalysis B: Environmental, 2019, 258, 118012.	20.2	44
30	Atomic (single, double, and triple atoms) catalysis: frontiers, opportunities, and challenges. Journal of Materials Chemistry A, 2019, 7, 3492-3515.	10.3	252
31	Generating Defectâ€Rich Bismuth for Enhancing the Rate of Nitrogen Electroreduction to Ammonia. Angewandte Chemie - International Edition, 2019, 58, 9464-9469.	13.8	226
32	Generating Defectâ€Rich Bismuth for Enhancing the Rate of Nitrogen Electroreduction to Ammonia. Angewandte Chemie, 2019, 131, 9564-9569.	2.0	47
33	Ethanol Assisted Transfer for Clean Assembly of 2D Building Blocks and Suspended Structures. Advanced Functional Materials, 2019, 29, 1902427.	14.9	14
34	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
35	Understanding electro-catalysis by using density functional theory. Physical Chemistry Chemical Physics, 2019, 21, 23782-23802.	2.8	53
36	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

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37	Single or Double: Which Is the Altar of Atomic Catalysts for Nitrogen Reduction Reaction?. Small Methods, 2019, 3, 1800291.	8.6	210
38	Discovery of cobweb-like MoC₆ and its application for nitrogen fixation. Journal of Materials Chemistry A, 2018, 6, 9623-9628.	10.3	83
39	Steric Hindrance in Sulfur Vacancy of Monolayer MoS₂ Boosts Electrochemical Reduction of Carbon Monoxide to Methane. ChemSusChem, 2018, 11, 1455-1459.	6.8	29
40	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
41	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
42	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
43	Rational Design of Ag₃₈ Cluster Supported by Graphdiyne for Catalytic CO Oxidation. Journal of Physical Chemistry C, 2017, 121, 3463-3468.	3.1	57
44	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
45	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
46	Cu4 Cluster Doped Monolayer MoS2 for CO Oxidation. Scientific Reports, 2015, 5, 11230.	3.3	30
47	Recent Developments In Monochromatic Microprobe X-Ray Fluorescence (MMXRF). Microscopy and Microanalysis, 1998, 4, 378-379.	0.4	0
48	Microprobe x-ray fluorescence with the use of point-focusing diffractors. Applied Physics Letters, 1997, 71, 1884-1886.	3.3	15
49	119Sn MÃ¶ssbauer and magnetization studies of Co2ScSn. Journal of Applied Physics, 1993, 73, 6974-6976.	2.5	5