

Lan Zhou

List of Publications by Year in descending order

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50
papers

2,545
citations

393982

19
h-index

189595

50
g-index

50
all docs

50
docs citations

50
times ranked

3528
citing authors

#	ARTICLE	IF	CITATIONS
1	High Throughput Discovery of Complex Metal Oxide Electrocatalysts for the Oxygen Reduction Reaction. <i>Electrocatalysis</i> , 2022, 13, 1-10.	1.5	7
2	Overcoming Hurdles in Oxygen Evolution Catalyst Discovery via Codesign. <i>Chemistry of Materials</i> , 2022, 34, 899-910.	3.2	17
3	Stability and Activity of Cobalt Antimonate for Oxygen Reduction in Strong Acid. <i>ACS Energy Letters</i> , 2022, 7, 993-1000.	8.8	21
4	Molecular Coatings Improve the Selectivity and Durability of CO ₂ Reduction Chalcogenide Photocathodes. <i>ACS Energy Letters</i> , 2022, 7, 1195-1201.	8.8	6
5	Materials structure–property factorization for identification of synergistic phase interactions in complex solar fuels photoanodes. <i>Npj Computational Materials</i> , 2022, 8, .	3.5	3
6	Addressing solar photochemistry durability with an amorphous nickel antimonate photoanode. <i>Cell Reports Physical Science</i> , 2022, 3, 100959.	2.8	6
7	Band Edge Energy Tuning through Electronic Character Hybridization in Ternary Metal Vanadates. <i>Chemistry of Materials</i> , 2021, 33, 7242-7253.	3.2	7
8	Discovery of complex oxides via automated experiments and data science. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	3.3	21
9	Automating crystal-structure phase mapping by combining deep learning with constraint reasoning. <i>Nature Machine Intelligence</i> , 2021, 3, 812-822.	8.3	29
10	Breaking Scaling Relationships in CO ₂ Reduction on Copper Alloys with Organic Additives. <i>ACS Central Science</i> , 2021, 7, 1756-1762.	5.3	26
11	Quaternary Oxide Photoanode Discovery Improves the Spectral Response and Photovoltage of Copper Vanadates. <i>Matter</i> , 2020, 3, 1614-1630.	5.0	16
12	Enhanced Bulk Transport in Copper Vanadate Photoanodes Identified by Combinatorial Alloying. <i>Matter</i> , 2020, 3, 1601-1613.	5.0	8
13	Bi Alloying into Rare Earth Double Perovskites Enhances Synthesizability and Visible Light Absorption. <i>ACS Combinatorial Science</i> , 2020, 22, 895-901.	3.8	5
14	Combinatorial Synthesis of Oxysulfides in the Lanthanum–Bismuth-Copper System. <i>ACS Combinatorial Science</i> , 2020, 22, 319-326.	3.8	1
15	Successes and Opportunities for Discovery of Metal Oxide Photoanodes for Solar Fuels Generators. <i>ACS Energy Letters</i> , 2020, 5, 1413-1421.	8.8	30
16	Combinatorial screening yields discovery of 29 metal oxide photoanodes for solar fuel generation. <i>Journal of Materials Chemistry A</i> , 2020, 8, 4239-4243.	5.2	13
17	Scanning Electrochemical Flow Cell with Online Mass Spectroscopy for Accelerated Screening of Carbon Dioxide Reduction Electrocatalysts. <i>ACS Combinatorial Science</i> , 2019, 21, 692-704.	3.8	15
18	Investigation of Microstructure and Dispersoids/Precipitates in Additively Manufactured Aluminum Alloys. <i>Microscopy and Microanalysis</i> , 2019, 25, 328-329.	0.2	1

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19	Multi-modal optimization of bismuth vanadate photoanodes <i>via</i> combinatorial alloying and hydrogen processing. <i>Chemical Communications</i> , 2019, 55, 489-492.	2.2	15
20	Unveiling new stable manganese based photoanode materials <i>via</i> theoretical high-throughput screening and experiments. <i>Chemical Communications</i> , 2019, 55, 13418-13421.	2.2	18
21	The sensitivity of Cu for electrochemical carbon dioxide reduction to hydrocarbons as revealed by high throughput experiments. <i>Journal of Materials Chemistry A</i> , 2019, 7, 26785-26790.	5.2	10
22	Mechanisms of oxide growth during the combustion of Al:Zr nanolaminate foils. <i>Combustion and Flame</i> , 2018, 191, 442-452.	2.8	9
23	Alkaline-stable nickel manganese oxides with ideal band gap for solar fuel photoanodes. <i>Chemical Communications</i> , 2018, 54, 4625-4628.	2.2	2
24	MoS ₂ /TiO ₂ heterostructures as nonmetal plasmonic photocatalysts for highly efficient hydrogen evolution. <i>Energy and Environmental Science</i> , 2018, 11, 106-114.	15.6	326
25	Combinatorial Discovery of Lanthanum-Tantalum Oxynitride Solar Light Absorbers with Dilute Nitrogen for Solar Fuel Applications. <i>ACS Combinatorial Science</i> , 2018, 20, 26-34.	3.8	15
26	Balancing Surface Passivation and Catalysis with Integrated BiVO ₄ /(Fe-Ce)Ox Photoanodes in pH 9 Borate Electrolyte. <i>ACS Applied Energy Materials</i> , 2018, , .	2.5	2
27	Bi-Containing n-FeWO ₄ Thin Films Provide the Largest Photovoltage and Highest Stability for a Sub-2 eV Band Gap Photoanode. <i>ACS Energy Letters</i> , 2018, 3, 2769-2774.	8.8	20
28	Rutile Alloys in the Mn-Sb-O System Stabilize Mn ³⁺ To Enable Oxygen Evolution in Strong Acid. <i>ACS Catalysis</i> , 2018, 8, 10938-10948.	5.5	97
29	Combinatorial alloying improves bismuth vanadate photoanodes <i>via</i> reduced monoclinic distortion. <i>Energy and Environmental Science</i> , 2018, 11, 2444-2457.	15.6	21
30	Solar fuels photoanode materials discovery by integrating high-throughput theory and experiment. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 3040-3043.	3.3	157
31	Automated Phase Mapping with AgileFD and its Application to Light Absorber Discovery in the V-Mn-Nb Oxide System. <i>ACS Combinatorial Science</i> , 2017, 19, 37-46.	3.8	61
32	Electrochemical Stability of Metastable Materials. <i>Chemistry of Materials</i> , 2017, 29, 10159-10167.	3.2	168
33	Discovery of Manganese-Based Solar Fuel Photoanodes via Integration of Electronic Structure Calculations, Pourbaix Stability Modeling, and High-Throughput Experiments. <i>ACS Energy Letters</i> , 2017, 2, 2307-2312.	8.8	36
34	Discovery and Characterization of a Pourbaix-Stable, 1.8 eV Direct Gap Bismuth Manganate Photoanode. <i>Chemistry of Materials</i> , 2017, 29, 10027-10036.	3.2	17
35	X-ray reflectivity measurement of interdiffusion in metallic multilayers during rapid heating. <i>Journal of Synchrotron Radiation</i> , 2017, 24, 796-801.	1.0	15
36	Stability and self-passivation of copper vanadate photoanodes under chemical, electrochemical, and photoelectrochemical operation. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 9349-9352.	1.3	56

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37	Solar fuel photoanodes prepared by inkjet printing of copper vanadates. Journal of Materials Chemistry A, 2016, 4, 7483-7494.	5.2	56
38	The role of the CeO ₂ /BiVO ₄ interface in optimized Fe-Ce oxide coatings for solar fuels photoanodes. Journal of Materials Chemistry A, 2016, 4, 14356-14363.	5.2	19
39	High Throughput Light Absorber Discovery, Part 2: Establishing Structure-Band Gap Energy Relationships. ACS Combinatorial Science, 2016, 18, 682-688.	3.8	19
40	Combining reactive sputtering and rapid thermal processing for synthesis and discovery of metal oxynitrides. Journal of Materials Research, 2015, 30, 2928-2933.	1.2	12
41	High Throughput Discovery of Solar Fuels Photoanodes in the CuO-V ₂ O ₅ System. Advanced Energy Materials, 2015, 5, 1500968.	10.2	82
42	Combinatorial thin film composition mapping using three dimensional deposition profiles. Review of Scientific Instruments, 2015, 86, 033904.	0.6	30
43	Room-temperature saturated ferroelectric polarization in BiFeO ₃ ceramics synthesized by rapid liquid phase sintering. Applied Physics Letters, 2004, 84, 1731-1733.	1.5	992
44	C-V characteristics of Pt/PbZr _{0.53} Ti _{0.47} O ₃ /LaAlO ₃ /Si and Pt/PbZr _{0.53} Ti _{0.47} O ₃ /La _{0.85} Sr _{0.15} CoO ₃ /LaAlO ₃ /Si structures for ferroelectric gate FET memory. Applied Surface Science, 2003, 205, 176-181.	3.1	7
45	Enhanced magnetoresistance of multilayered thin films prepared by pulsed laser deposition. Materials Letters, 2003, 57, 2693-2697.	1.3	1
46	Enhanced dielectric properties of ZrO ₂ thin films prepared in nitrogen ambient by pulsed laser deposition. Journal Physics D: Applied Physics, 2003, 36, 389-393.	1.3	30
47	Photoluminescence of pyrochlore phase in SrBi ₂ Ta ₂ O ₉ thin films. Applied Physics Letters, 2003, 83, 743-745.	1.5	1
48	Film heterostructure with soft ferromagnetics to enhance low-field magnetoresistance. Applied Physics Letters, 2002, 81, 4073-4075.	1.5	3
49	Properties of SBT films crystallized by pulsed excimer (KrF) laser annealing. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2002, 89, 390-393.	1.7	15
50	Defects In 4H Silicon Carbide CVD Epilayers. Materials Research Society Symposia Proceedings, 1996, 442, 631.	0.1	1