Zhenbin Wang

List of Publications by Year
in descending order

35 papers	2,142 citations	257450 24 h-index	377865 34 g-index
39 all docs	39 docs citations	39 times ranked	2369 citing authors

#	Article	IF	Citations
1	Deep neural networks for accurate predictions of crystal stability. Nature Communications, 2018, 9, 3800.	12.8	178
2	Insights into the Performance Limits of the Li₇P₃S₁₁ Superionic Conductor: A Combined First-Principles and Experimental Study. ACS Applied Materials & Interfaces, 2016, 8, 7843-7853.	8.0	169
3	Analysis of the limitations in the oxygen reduction activity of transition metal oxide surfaces. Nature Catalysis, 2021, 4, 463-468.	34.4	156
4	Probing Solidâ€“Solid Interfacial Reactions in All-Solid-State Sodium-Ion Batteries with First-Principles Calculations. Chemistry of Materials, 2018, 30, 163-173.	6.7	150
5	Monitoring oxygen production on mass-selected iridiumâ€“tantalum oxide electrocatalysts. Nature Energy, 2022, 7, 55-64.	39.5	108
6	Mining Unexplored Chemistries for Phosphors for High-Color-Quality White-Light-Emitting Diodes. Joule, 2018, 2, 914-926.	24.0	97
7	Data-Driven Discovery of Full-Visible-Spectrum Phosphor. Chemistry of Materials, 2019, 31, 6286-6294.	6.7	92
8	Acid-Stable Oxides for Oxygen Electrocatalysis. ACS Energy Letters, 2020, 5, 2905-2908.	17.4	90
9	Efficient and stable noble-metal-free catalyst for acidic water oxidation. Nature Communications, 2022, 13, 2294.	12.8	89
10	Relations between Surface Oxygen Vacancies and Activity of Methanol Formation from CO₂ Hydrogenation over In₂O₃ Surfaces. ACS Catalysis, 2021, 11, 1780-1786.	11.2	88
11	Oxygen vacancies-rich Ce0.9Gd0.1O2-Î´ decorated Pr0.5Ba0.5CoO3-Î´ bifunctional catalyst for efficient and long-lasting rechargeable Zn-air batteries. Applied Catalysis B: Environmental, 2020, 266, 118656.	20.2	87
12	Electronic Structure Descriptor for the Discovery of Narrow-Band Red-Emitting Phosphors. Chemistry of Materials, 2016, 28, 4024-4031.	6.7	78
13	Predicting aqueous stability of solid with computed Pourbaix diagram using SCAN functional. Npj Computational Materials, 2020, 6, .	8.7	69
14	Water Contributes to Higher Energy Density and Cycling Stability of Prussian Blue Analogue Cathodes for Aqueous Sodium-Ion Batteries. Chemistry of Materials, 2019, 31, 5933-5942.	6.7	66
15	Predicting Thermal Quenching in Inorganic Phosphors. Chemistry of Materials, 2020, 32, 6256-6265.	6.7	64
16	Stable Two-Dimensional Materials for Oxygen Reduction and Oxygen Evolution Reactions. ACS Energy Letters, 2019, 4, 1410-1411.	17.4	59
17	Electronic tuning of SrIrO3 perovskite nanosheets by sulfur incorporation to induce highly efficient and long-lasting oxygen evolution in acidic media. Applied Catalysis B: Environmental, 2021, 298, 120562.	20.2	55
18	Elucidating Structureâ€“Compositionâ€“Property Relationships of the Î²-SiAlON:Eu²⁺ Phosphor. Chemistry of Materials, 2016, 28, 8622-8630.	6.7	50

#	Article	IF	Citations
19	Origins of the Instability of Nonprecious Hydrogen Evolution Reaction Catalysts at Open-Circuit Potential. ACS Energy Letters, 2021, 6, 2268-2274.	17.4	44
20	Cation-Size Mismatch as a Design Principle for Enhancing the Efficiency of Garnet Phosphors. Chemistry of Materials, 2020, 32, 3097-3108.	6.7	40
21	Surface oxygen vacancies promoted Pt redispersion to single-atoms for enhanced photocatalytic hydrogen evolution. Journal of Materials Chemistry A, 2021, 9, 13890-13897.	10.3	38
22	A spin promotion effect in catalytic ammonia synthesis. Nature Communications, 2022, 13, 2382.	12.8	38
23	New insights on CO and CO2 hydrogenation for methanol synthesis: The key role of adsorbate-adsorbate interactions on Cu and the highly active MgO-Cu interface. Journal of Catalysis, 2021, 400, 325-331.	6.2	32
24	Insights into the Hydrogen Evolution Reaction on 2D Transition-Metal Dichalcogenides. Journal of Physical Chemistry C, 2022, 126, 5151-5158.	3.1	32
25	Efficient near-infrared phosphors discovered by parametrizing the Eu(II) 5d-to-4f energy gap. Matter, 2022, 5, 1924-1936.	10.0	31
26	Design Principles for Aqueous Na-Ion Battery Cathodes. Chemistry of Materials, 2020, 32, 6875-6885.	6.7	28
27	An integrated first principles and experimental investigation of the relationship between structural rigidity and quantum efficiency in phosphors for solid state lighting. Journal of Luminescence, 2016, 179, 297-305.	3.1	24
28	First-Row Transition Metal Antimonates for the Oxygen Reduction Reaction. ACS Nano, 2022, 16, 6334-6348.	14.6	23
29	Stability and Activity of Cobalt Antimonate for Oxygen Reduction in Strong Acid. ACS Energy Letters, 2022, 7, 993-1000.	17.4	21
30	Identifying and Tuning the In Situ Oxygen-Rich Surface of Molybdenum Nitride Electrocatalysts for Oxygen Reduction. ACS Applied Energy Materials, 2020, 3, 12433-12446.	5.1	17
31	<i>M</i>_{<i>x</i>}La_{1â€“<i>x</i>}SiO_{2â€“<i>y</i>}N_{<i>z</i>} (<i>M</i> = Ca/Sr/Ba): Elucidating and Tuning the Structure and Eu²⁺ Local Environments to Develop Full-Visible Spectrum Phosphors. Chemistry of Materials, 2022, 34, 4039-4049.	6.7	14
32	Computation-Aided Discovery and Synthesis of 2D PrOBr Photocatalyst. ACS Energy Letters, 2022, 7, 1980-1986.	17.4	7
33	Correction to Insights into the Performance Limits of the Li7P3S11 Superionic Conductor: A Combined First-Principles and Experimental Study. ACS Applied Materials & Interfaces, 2018, 10, 10598-10598.	8.0	3
34	Analysing oxygen reduction electrocatalysis on transition metal doped niobium oxide(110). Physical Chemistry Chemical Physics, 0, , .	2.8	2
35	Computational investigation of Zn-doped and undoped SrEu₂Fe₂O₇ as potential mixed electron and proton conductors. RSC Advances, 2020, 10, 39988-39994.	3.6	1