

Zhong-Heng Fu

List of Publications by Year in descending order

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Version: 2024-02-01

39
papers

2,945
citations

304368

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301761

39
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docs citations

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times ranked

4113
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|------|-----------|
| 1 | Understanding the Anchoring Effect of Two-Dimensional Layered Materials for Lithium–Sulfur Batteries. <i>Nano Letters</i> , 2015, 15, 3780-3786. | 4.5 | 779 |
| 2 | Rational Design of Flexible Two-Dimensional MXenes with Multiple Functionalities. <i>Chemical Reviews</i> , 2019, 119, 11980-12031. | 23.0 | 242 |
| 3 | Highly Air-Stable Carbon-Based $\text{A}_{1-x}\text{B}_x\text{Pb}_{1-x}\text{Sn}_x$ Perovskite Solar Cells with a Broadened Optical Spectrum. <i>ACS Energy Letters</i> , 2018, 3, 1824-1831. | 8.8 | 235 |
| 4 | High-throughput theoretical optimization of the hydrogen evolution reaction on MXenes by transition metal modification. <i>Journal of Materials Chemistry A</i> , 2018, 6, 4271-4278. | 5.2 | 198 |
| 5 | Theoretical Investigation of 2D Layered Materials as Protective Films for Lithium and Sodium Metal Anodes. <i>Advanced Energy Materials</i> , 2017, 7, 1602528. | 10.2 | 196 |
| 6 | A review on theoretical models for lithium–sulfur battery cathodes. <i>Information Materials</i> , 2022, 4, . | 8.5 | 143 |
| 7 | Applying Classical, <i>Ab Initio</i> , and Machine-Learning Molecular Dynamics Simulations to the Liquid Electrolyte for Rechargeable Batteries. <i>Chemical Reviews</i> , 2022, 122, 10970-11021. | 23.0 | 138 |
| 8 | Rational Design of Highly Stable and Active MXene-Based Bifunctional ORR/OER Double-Atom Catalysts. <i>Advanced Materials</i> , 2021, 33, e2102595. | 11.1 | 137 |
| 9 | The carrier transition from Li atoms to Li vacancies in solid-state lithium alloy anodes. <i>Science Advances</i> , 2021, 7, eabi5520. | 4.7 | 110 |
| 10 | Anode-Free Solid-State Lithium Batteries: A Review. <i>Advanced Energy Materials</i> , 2022, 12, . | 10.2 | 81 |
| 11 | An Atomic Insight into the Chemical Origin and Variation of the Dielectric Constant in Liquid Electrolytes. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 21473-21478. | 7.2 | 74 |
| 12 | Stacking stability and sliding mechanism in weakly bonded 2D transition metal carbides by van der Waals force. <i>RSC Advances</i> , 2017, 7, 55912-55919. | 1.7 | 53 |
| 13 | Designing flexible 2D transition metal carbides with strain-controllable lithium storage. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, E11082-E11091. | 3.3 | 51 |
| 14 | Single Atom-Modified Hybrid Transition Metal Carbides as Efficient Hydrogen Evolution Reaction Catalysts. <i>Advanced Functional Materials</i> , 2021, 31, 2104285. | 7.8 | 42 |
| 15 | The Origin of Fast Lithium-Ion Transport in the Inorganic Solid Electrolyte Interphase on Lithium Metal Anodes. <i>Small Structures</i> , 2022, 3, . | 6.9 | 42 |
| 16 | Stabilization of β_2 -phase in carbon-doped MnAl magnetic alloys. <i>Journal of Alloys and Compounds</i> , 2018, 755, 257-264. | 2.8 | 36 |
| 17 | Surface Electrochemical Stability and Strain-Tunable Lithium Storage of Highly Flexible 2D Transition Metal Carbides. <i>Advanced Functional Materials</i> , 2018, 28, 1804867. | 7.8 | 33 |
| 18 | First-principles design of strong solids: Approaches and applications. <i>Physics Reports</i> , 2019, 826, 1-49. | 10.3 | 31 |

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|----|--|-----|-----------|
| 19 | Single-atom-Ni-decorated, nitrogen-doped carbon layers for efficient electrocatalytic CO ₂ reduction reaction. <i>Electrochemistry Communications</i> , 2020, 116, 106758. | 2.3 | 31 |
| 20 | Indirect-Direct Band Transformation of Few-Layer BiOCl under Biaxial Strain. <i>Journal of Physical Chemistry C</i> , 2016, 120, 8589-8594. | 1.5 | 29 |
| 21 | Mechanistic Quantification of Thermodynamic Stability and Mechanical Strength for Two-Dimensional Transition-Metal Carbides. <i>Journal of Physical Chemistry C</i> , 2018, 122, 4710-4722. | 1.5 | 28 |
| 22 | ADAIS: Automatic Derivation of Anisotropic Ideal Strength via high-throughput first-principles computations. <i>Computer Physics Communications</i> , 2019, 238, 244-253. | 3.0 | 24 |
| 23 | High-throughput screening for superhard carbon and boron nitride allotropes with superior stiffness and strength. <i>Carbon</i> , 2018, 137, 156-164. | 5.4 | 22 |
| 24 | Stress Regulation on Atomic Bonding and Ionic Diffusivity: Mechanochemical Effects in Sulfide Solid Electrolytes. <i>Energy & Fuels</i> , 2021, 35, 10210-10218. | 2.5 | 22 |
| 25 | The chemical origin of temperature-dependent lithium-ion concerted diffusion in sulfide solid electrolyte Li ₁₀ GeP ₂ S ₁₂ . <i>Journal of Energy Chemistry</i> , 2022, 70, 59-66. | 7.1 | 22 |
| 26 | Giant heterogeneous magnetostriction induced by charge accumulation-mediated nanoinclusion formation in dual-phase nanostructured systems. <i>Acta Materialia</i> , 2021, 213, 116975. | 3.8 | 20 |
| 27 | Pinning effect of reactive elements on adhesion energy and adhesive strength of incoherent Al ₂ O ₃ /NiAl interface. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 22864-22873. | 1.3 | 19 |
| 28 | High-performance microwave absorption of hierarchical graphene-based and MWCNT-based full-carbon nanostructures. <i>Applied Surface Science</i> , 2019, 493, 541-550. | 3.1 | 18 |
| 29 | Two-Dimensional Carbonitride MXenes as an Efficient Electrocatalyst for Hydrogen Evolution. <i>Journal of Physical Chemistry C</i> , 2021, 125, 4477-4488. | 1.5 | 13 |
| 30 | Review on the lithium transport mechanism in solid-state battery materials. <i>Wiley Interdisciplinary Reviews: Computational Molecular Science</i> , 2023, 13, . | 6.2 | 11 |
| 31 | Domain-dependent electronic structure and optical absorption property in hybrid organic-inorganic perovskite. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 27358-27365. | 1.3 | 10 |
| 32 | A synergetic stabilization and strengthening strategy for two-dimensional ordered hybrid transition metal carbides. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 29684-29692. | 1.3 | 9 |
| 33 | An Atomic Insight into the Chemical Origin and Variation of the Dielectric Constant in Liquid Electrolytes. <i>Angewandte Chemie</i> , 2021, 133, 21643-21648. | 1.6 | 9 |
| 34 | Anomalous mechanical strengths and shear deformation paths of Al ₂ O ₃ polymorphs with high ionicity. <i>RSC Advances</i> , 2016, 6, 12885-12892. | 1.7 | 8 |
| 35 | Phonon-mediated stabilization and softening of 2D transition metal carbides: case studies of Ti ₂ CO ₂ and Mo ₂ CO ₂ . <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 14608-14618. | 1.3 | 8 |
| 36 | Uniaxial magnetocrystalline anisotropy of tetragonal Mn _{1-x} Ga _x (50%âˆˆ75%) alloys. <i>Journal of Magnetism and Magnetic Materials</i> , 2019, 489, 165308. | 1.0 | 8 |

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 37 | Designing ultrastrong 5d transition metal diborides with excellent stability for harsh service environments. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 16095-16107. | 1.3 | 7 |
| 38 | Designing Flexible Quantum Spin Hall Insulators through 2D Ordered Hybrid Transition-Metal Carbides. <i>Journal of Physical Chemistry C</i> , 2019, 123, 20664-20674. | 1.5 | 4 |
| 39 | Magnetocrystalline anisotropy regulations in bulk L10-MnGa alloys by tailoring the tetragonal lattice parameter c: Selectively alloying Al and C atoms. <i>Journal of Alloys and Compounds</i> , 2021, 881, 160646. | 2.8 | 2 |