Xie Zhang

List of Publications by Year
in descending order

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32 papers	970 citations	535685 17 h-index	488211 31 g-index
35 all docs	35 docs citations	35 times ranked	1265 citing authors

#	Article	IF	Citations
1	Defect tolerance in halide perovskites: A first-principles perspective. Journal of Applied Physics, 2022, 131, .	1.1	35
2	Origin of Efficiency Enhancement by Lattice Expansion in Hybrid-Perovskite Solar Cells. Physical Review Letters, 2022, 128, 136401.	2.9	28
3	Comment on â€œWideâ€Rangeâ€Tunable pâ€Type Conductivity of Transparent CuI_{1â€x}Br_x Alloyâ€. Advanced Functional Materials, 2022, 32, .	7.8	4
4	Switchable and Strainâ€Releasable Mgâ€Ion Diffusion Nanohighway Enables Highâ€Capacity and Longâ€Life Pyrovanadate Cathode. Small, 2022, 18, .	5.2	4
5	Minimizing hydrogen vacancies to enable highly efficient hybrid perovskites. Nature Materials, 2021, 20, 971-976.	13.3	92
6	All-inorganic halide perovskites as candidates for efficient solar cells. Cell Reports Physical Science, 2021, 2, 100604.	2.8	28
7	Firstâ€Principles Simulation of Carrier Recombination Mechanisms in Halide Perovskites. Advanced Energy Materials, 2020, 10, 1902830.	10.2	52
8	Anomalous Auger Recombination in PbSe. Physical Review Letters, 2020, 125, 037401.	2.9	16
9	Atomic relaxation around defects in magnetically disordered materials computed by atomic spin constraints within an efficient Lagrange formalism. Physical Review B, 2020, 102, .	1.1	15
10	Mechanism of collective interstitial ordering in Feâ€“C alloys. Nature Materials, 2020, 19, 849-854.	13.3	32
11	Hidden role of Bi incorporation in nonradiative recombination in methylammonium lead iodide. Journal of Materials Chemistry A, 2020, 8, 12964-12967.	5.2	18
12	Bright magnetic dipole radiation from two-dimensional lead-halide perovskites. Science Advances, 2020, 6, eaay4900.	4.7	24
13	Correctly Assessing Defect Tolerance in Halide Perovskites. Journal of Physical Chemistry C, 2020, 124, 6022-6027.	1.5	70
14	Re-examination of complexation behaviors of V(<scp>v</scp>) and V(<scp>iv</scp>): experimental investigation and theoretical simulation. Journal of Analytical Atomic Spectrometry, 2020, 35, 878-885.	1.6	5
15	Iodine interstitials as a cause of nonradiative recombination in hybrid perovskites. Physical Review B, 2020, 101, .	1.1	76
16	First-Principles Understanding of Strong Auger Recombination in Hybrid Perovskites. ECS Meeting Abstracts, 2019, , .	0.0	0
17	Extremely hard amorphous-crystalline hybrid steel surface produced by deformation induced cementite amorphization. Acta Materialia, 2018, 152, 107-118.	3.8	13
18	Interface dominated cooperative nanoprecipitation in interstitial alloys. Nature Communications, 2018, 9, 4017.	5.8	12

#	Article	IF	Citations
19	First-Principles Analysis of Radiative Recombination in Lead-Halide Perovskites. ACS Energy Letters, 2018, 3, 2329-2334.	8.8	81
20	Unexpectedly Strong Auger Recombination in Halide Perovskites. Advanced Energy Materials, 2018, 8, 1801027.	10.2	64
21	Three-Dimensional Spin Texture in Hybrid Perovskites and Its Impact on Optical Transitions. Journal of Physical Chemistry Letters, 2018, 9, 2903-2908.	2.1	50
22	Tunable twin stability and an accurate magnesium interatomic potential for dislocation-twin interactions. Materials and Design, 2018, 153, 232-241.	3.3	16
23	Atomic structures of twin boundaries in hexagonal close-packed metallic crystals with particular focus on Mg. Npj Computational Materials, 2017, 3, .	3.5	28
24	Origin of Structural Modulations in Ultrathin Fe Films on Cu(001). Physical Review Letters, 2017, 118, 236101.	2.9	5
25	Effects of Aluminum on Hydrogen Solubility and Diffusion in Deformed Fe-Mn Alloys. Advances in Materials Science and Engineering, 2016, 2016, 1-9.	1.0	3
26	Non-isothermal Crystallization Kinetics of Spinels in Vanadium Slag with High CaO Content. Jom, 2016, 68, 2520-2524.	0.9	13
27	Interplay between interstitial displacement and displacive lattice transformations. Physical Review B, 2016, 94, .	1.1	10
28	Slag formation path during dephosphorization process in a converter. International Journal of Minerals, Metallurgy and Materials, 2015, 22, 1260-1265.	2.4	7
29	Growth mechanisms of spinel crystals in vanadium slag under different heat treatment conditions. CrystEngComm, 2015, 17, 7300-7305.	1.3	27
30	Structural transformations among austenite, ferrite and cementite in Feâ€“C alloys: A unified theory based on ab initio simulations. Acta Materialia, 2015, 99, 281-289.	3.8	59
31	Coupled reaction kinetics of duplex steelmaking process for high phosphorus hot metal. Ironmaking and Steelmaking, 2013, 40, 282-289.	1.1	16
32	Nucleation and growth kinetics of spinel crystals in vanadium slag. Ironmaking and Steelmaking, 2012, 39, 147-154.	1.1	66