Hua Hou

List of Publications by Year
in descending order

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Version: 2024-02-01

60 papers	1,541 citations	394421 19 h-index	315739 38 g-index
62 all docs	62 docs citations	62 times ranked	1815 citing authors

#	Article	IF	Citations
1	Novel Method to Improve the Microstructure and Mechanical Properties of 45 Steel. Metals and Materials International, 2022, 28, 833-840.	3.4	2
2	Solidification Structure Evolution and Grain Refinement Mechanism of a Deeply Undercooled Ni65Cu35 Alloy. Metals and Materials International, 2022, 28, 456-465.	3.4	4
3	Alternating Current Field Effects in Atomically Ferroelectric Ultrathin Films. Materials, 2022, 15, 2506.	2.9	3
4	Role of interfacial energy anisotropy in dendrite orientation in Al-Zn alloys: A phase field study. Materials and Design, 2022, 216, 110555.	7.0	92
5	Phase Stability, Elastic Modulus and Elastic Anisotropy of X Doped (X = Zn, Zr and Ag) Al3Li: Insight from First-Principles Calculations. Crystals, 2022, 12, 7.	2.2	1
6	Effect of pressure on anisotropy in elasticity, sound velocity, and thermal conductivity of vanadium borides. Advanced Composites and Hybrid Materials, 2022, 5, 2297-2305.	21.1	23
7	High-throughput computing for hydrogen transport properties in Îµ-ZrH2. Advanced Composites and Hybrid Materials, 2022, 5, 1350-1361.	21.1	17
8	Core-shell structure nanoprecipitates in Fe-xCu-3.0Mn-1.5Ni-1.5Al alloys: A phase field study. Progress in Natural Science: Materials International, 2022, 32, 358-368.	4.4	41
9	Î² to Ï‰ transformation strain associated with the precipitation of Î± phase in a metastable Î² titanium alloy. Journal of Materials Science, 2021, 56, 1685-1693.	3.7	15
10	Physical Properties and Electronic Structure of Cr 2 B Under Pressure. Physica Status Solidi (B): Basic Research, 2021, 258, 2000212.	1.5	1
11	Phase Stability and Thermo-Physical Properties of Nickel-Aluminum Binary Chemically Disordered Systems via First-Principles Study. Metals and Materials International, 2021, 27, 1469-1477.	3.4	1
12	A Study on the Damping Capacities of Mgâ€“Znâ€“Y-Based Alloys with Lamellar Long Period Stacking Ordered Phases by Preparation Process. Metals, 2021, 11, 79.	2.3	6
13	Numerical Analysis of the Activated Combustion High-Velocity Air-Fuel Spraying Process: A Three-Dimensional Simulation with Improved Gas Mixing and Combustion Mode. Materials, 2021, 14, 657.	2.9	8
14	Three-dimensional phase-field simulations of the influence of diffusion interface width on dendritic growth of Fe-0.5 wt.%C alloy. Advanced Composites and Hybrid Materials, 2021, 4, 371-378.	21.1	39
15	Halide and Nitrate Electrolytes of Thermal Batteries. Journal of Energy Engineering - ASCE, 2021, 147, .	1.9	2
16	Synthesis of silicon-based nanosheets decorated with Pd/Li particles with enhanced hydrogen storage properties. Advanced Composites and Hybrid Materials, 2021, 4, 1343-1353.	21.1	22
17	The Morphology and Solute Segregation of Dendrite Growth in Ti-4.5% Al Alloy: A Phase-Field Study. Materials, 2021, 14, 7257.	2.9	2
18	Structure Evolution, Elastic and Electronic Properties of Ptâ€Doped Ti Alloy under Pressure. Physica Status Solidi (B): Basic Research, 2020, 257, 1900360.	1.5	2

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19	Direct Observation of Stable Negative Capacitance in SrTiO₃@BaTiO₃ Heterostructure. Advanced Electronic Materials, 2020, 6, 1901005.	5.1	26
20	Influence of Long-Period-Stacking Ordered Structure on the Damping Capacities and Mechanical Properties of Mg-Zn-Y-Mn As-Cast Alloys. Materials, 2020, 13, 4654.	2.9	9
21	Multi-component phase-field simulation of microstructural evolution and elemental distribution in Feâ€“Cuâ€“Mnâ€“Niâ€“Al alloy. Calphad: Computer Coupling of Phase Diagrams and Thermochemistry, 2020, 69, 101759.	1.6	15
22	Improved Corrosion Resistance and Increased Hardness of Copper Substrates from Cu-Ni/Ni-P Composite Coatings. MRS Advances, 2020, 5, 2129-2137.	0.9	4
23	First Principles Study on the Thermodynamic and Elastic Mechanical Stability of Mg2X (X = Si,Ge) Intermetallics with (anti) Vacancy Point Defects. Crystals, 2020, 10, 234.	2.2	12
24	Expansive Behavior in Circular Steel Tube Stub Columns of SCC Blended with CFB Bottom Ashes. Journal of Materials in Civil Engineering, 2019, 31, .	2.9	8
25	High-performance coaxial wire-shaped supercapacitors using ionogel electrolyte toward sustainable energy system. Journal of Materials Research, 2019, 34, 3030-3039.	2.6	68
26	Corn stoverâ€“derived biochar for efficient adsorption of oxytetracycline from wastewater. Journal of Materials Research, 2019, 34, 3050-3060.	2.6	57
27	Phase-field modeling of microstructure evolution of Cu-rich phase in Feâ€“Cuâ€“Mnâ€“Niâ€“Al quinary system coupled with thermodynamic databases. Journal of Materials Science, 2019, 54, 11263-11278.	3.7	21
28	Synthesis and Investigation of Quaternary Quasi-Crystalline Phase in Al â€“ Cu â€“ Fe â€“ Cr Alloys. Metal Science and Heat Treatment, 2019, 60, 770-776.	0.6	0
29	One-pot synthesized molybdenum dioxideâ€“molybdenum carbide heterostructures coupled with 3D holey carbon nanosheets for highly efficient and ultrastable cycling lithium-ion storage. Journal of Materials Chemistry A, 2019, 7, 13460-13472.	10.3	220
30	Ultrathin NiCo-MOF Nanosheets for High-Performance Supercapacitor Electrodes. ACS Applied Energy Materials, 2019, 2, 2063-2071.	5.1	319
31	Effect of Heat Treatment on Microstructure and Mechanical Properties of Alloy Mg â€“ 10% Gd â€“ 3% Y â€“ 0.6% Zr. Metal Science and Heat Treatment, 2019, 61, 434-439.	0.6	1
32	Development of AZ91D magnesium alloy-graphene nanoplatelets composites using thixomolding process. Journal of Alloys and Compounds, 2019, 778, 359-374.	5.5	71
33	Iridiumâ€Based Catalysts for Solid Polymer Electrolyte Electrocatalytic Water Splitting. ChemSusChem, 2019, 12, 1576-1590.	6.8	111
34	Microalloying Effect of Sn on Phase Transformation During Heat Treatment in Mgâ€“Yâ€“Znâ€“Zr Alloys. Acta Metallurgica Sinica (English Letters), 2019, 32, 550-558.	2.9	5
35	Computation of stability, elasticity and thermodynamics in equiatomic AlCrFeNi medium-entropy alloys. Journal of Materials Science, 2019, 54, 2566-2576.	3.7	28
36	Dendritic solidification of highly undercooled dilute alloys. International Journal of Materials Research, 2019, 110, 695-702.	0.3	8

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37	First-principles calculations of electronic, elastic and thermal properties of magnesium doped with alloying elements. Journal Wuhan University of Technology, Materials Science Edition, 2018, 33, 198-203.	1.0	5
38	Non-equilibrium effects on solid transition of solidification microstructure of deeply undercooled alloys. Materials Science and Technology, 2018, 34, 402-407.	1.6	16
39	Preparation of bulk crystallite alloys by rapid quenching of bulk undercooled melts. Materials Science and Technology, 2018, 34, 79-85.	1.6	15
40	Microscopic Phase-field Simulation for the Influence of Aging Process on the Precipitation Process of Ni75Al15Ti10 Alloy. Rare Metal Materials and Engineering, 2018, 47, 3000-3007.	0.8	3
41	Mechanical and Thermal Conductivity Properties of Enhanced Phases in Mg-Zn-Zr System from First Principles. Materials, 2018, 11, 2010.	2.9	8
42	The Magnetic, Electronic, and Thermodynamic Properties of High Entropy Alloy CrMnFeCoNi: A Firstâ€Principles Study. Physica Status Solidi (B): Basic Research, 2018, 255, 1800306.	1.5	19
43	The Effect of Alloying Elements on the Structural Stability, Mechanical Properties, and Debye Temperature of Al3Li: A First-Principles Study. Materials, 2018, 11, 1471.	2.9	24
44	Microstructure evolution and mechanical properties of Mgâ€“10Gdâ€“3Yâ€“xZnâ€“0.6Zr alloys. Journal of Materials Research, 2018, 33, 1797-1805.	2.6	11
45	Research on the Expansion Characteristics and Compressive Strength of Mortars Containing Circulating Fluidized Bed Combustion Desulfurization Slag. Advances in Materials Science and Engineering, 2018, 2018, 1-11.	1.8	7
46	Grain size gradient naturally prepared through recrystallization in rapidly solidified undercooled alloy melts. International Journal of Materials Research, 2018, 109, 593-598.	0.3	13
47	Microstructure evolution mechanisms of undercooled Ni80Cu20 alloys. International Journal of Materials Research, 2018, 109, 716-722.	0.3	0
48	First-Principles Investigation of Mechanical and Thermodynamic Properties of Nickel Silicides at Finite Temperature. Physics of the Solid State, 2018, 60, 967-974.	0.6	9
49	Highly microporous graphite-like BC_xO_{3â^'x}/C nanospheres for anode materials of lithium-ion batteries. Journal of Materials Chemistry A, 2017, 5, 2835-2843.	10.3	25
50	First-principles study on structural, elastic and thermal properties of Î³-TiAl and Î±2-Ti3Al phases in TiAl-based alloy under high pressure. International Journal of Modern Physics B, 2017, 31, 1750079.	2.0	17
51	Effect of Zr, Hf, and Sn additives on elastic properties of Î±2-Ti3Al phase by first-principles calculations. Journal Wuhan University of Technology, Materials Science Edition, 2017, 32, 944-950.	1.0	9
52	Nonequilibrium Solidification, Grain Refinements, and Recrystallization of Deeply Undercooled Ni-20 At. Pct Cu Alloys: Effects of Remelting and Stress. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2017, 48, 4777-4785.	2.2	26
53	Effects of initial undercooling on microstructure formation and recrystallisation of undercooled melts. Materials Science and Technology, 2017, 33, 1934-1941.	1.6	2
54	First-principles investigation of the structural, electronic and elastic properties of Al2Ca and Al4Sr phases in Mg-Al-Ca(Sr) alloy. Journal Wuhan University of Technology, Materials Science Edition, 2014, 29, 1049-1056.	1.0	7

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55	Achieving excellent anti-corrosion and tribological performance by tailoring the surface morphology and chemical composition of aluminum alloys. RSC Advances, 2014, 4, 60307-60315.	3.6	19
56	A first-principles study on interfacial properties of Ni(001)/Ni3Nb(001). Transactions of Nonferrous Metals Society of China, 2014, 24, 1500-1505.	4.2	18
57	Application of Fuzzy Set Theory to Quantitative Analysis of Correctness of the Mathematical Model Based on the ADI Method during Solidification. Mathematical Problems in Engineering, 2013, 2013, 1-7.	1.1	1
58	Structural, thermodynamics and elastic properties of Mg17Al12, Al2Y and Al4Ba phases by first-principles calculations. Journal of Central South University, 2012, 19, 1475-1481.	3.0	21
59	Numerical Simulation of Squeeze Casting of AZ91D Magnesium Alloy. , 2010, , .		0
60	Development of CAD software package of intellectualized casting technology. Central South University, 2005, 12, 280-283.	0.5	2