

Hua Hou

List of Publications by Year in descending order

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papers

1,541
citations

394421

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315739

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62
all docs

62
docs citations

62
times ranked

1815
citing authors

#	ARTICLE	IF	CITATIONS
1	Ultrathin NiCo-MOF Nanosheets for High-Performance Supercapacitor Electrodes. ACS Applied Energy Materials, 2019, 2, 2063-2071.	5.1	319
2	One-pot synthesized molybdenum dioxide@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
3	Iridium-Based Catalysts for Solid Polymer Electrolyte Electrocatalytic Water Splitting. ChemSusChem, 2019, 12, 1576-1590.	6.8	111
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	Development of AZ91D magnesium alloy-graphene nanoplatelets composites using thixomolding process. Journal of Alloys and Compounds, 2019, 778, 359-374.	5.5	71
6	High-performance coaxial wire-shaped supercapacitors using ionogel electrolyte toward sustainable energy system. Journal of Materials Research, 2019, 34, 3030-3039.	2.6	68
7	Corn stover-derived biochar for efficient adsorption of oxytetracycline from wastewater. Journal of Materials Research, 2019, 34, 3050-3060.	2.6	57
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	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
10	Computation of stability, elasticity and thermodynamics in equiatomic AlCrFeNi medium-entropy alloys. Journal of Materials Science, 2019, 54, 2566-2576.	3.7	28
11	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
12	Direct Observation of Stable Negative Capacitance in SrTiO ₃ @BaTiO ₃ Heterostructure. Advanced Electronic Materials, 2020, 6, 1901005.	5.1	26
13	Highly microporous graphite-like BC _x O ₃ ~x/C nanospheres for anode materials of lithium-ion batteries. Journal of Materials Chemistry A, 2017, 5, 2835-2843.	10.3	25
14	The Effect of Alloying Elements on the Structural Stability, Mechanical Properties, and Debye Temperature of Al ₃ Li: A First-Principles Study. Materials, 2018, 11, 1471.	2.9	24
15	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
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	Structural, thermodynamics and elastic properties of Mg ₁₇ Al ₁₂ , Al ₂ Y and Al ₄ Ba phases by first-principles calculations. Journal of Central South University, 2012, 19, 1475-1481.	3.0	21
18	Phase-field modeling of microstructure evolution of Cu-rich phase in Fe-Cu-Mn-Ni-Al quinary system coupled with thermodynamic databases. Journal of Materials Science, 2019, 54, 11263-11278.	3.7	21

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19	Achieving excellent anti-corrosion and tribological performance by tailoring the surface morphology and chemical composition of aluminum alloys. <i>RSC Advances</i> , 2014, 4, 60307-60315.	3.6	19
20	The Magnetic, Electronic, and Thermodynamic Properties of High Entropy Alloy CrMnFeCoNi: A First-Principles Study. <i>Physica Status Solidi (B): Basic Research</i> , 2018, 255, 1800306.	1.5	19
21	A first-principles study on interfacial properties of Ni(001)/Ni ₃ Nb(001). <i>Transactions of Nonferrous Metals Society of China</i> , 2014, 24, 1500-1505.	4.2	18
22	First-principles study on structural, elastic and thermal properties of β -TiAl and β -Ti ₃ Al phases in TiAl-based alloy under high pressure. <i>International Journal of Modern Physics B</i> , 2017, 31, 1750079.	2.0	17
23	High-throughput computing for hydrogen transport properties in μ -ZrH ₂ . <i>Advanced Composites and Hybrid Materials</i> , 2022, 5, 1350-1361.	21.1	17
24	Non-equilibrium effects on solid transition of solidification microstructure of deeply undercooled alloys. <i>Materials Science and Technology</i> , 2018, 34, 402-407.	1.6	16
25	Preparation of bulk crystallite alloys by rapid quenching of bulk undercooled melts. <i>Materials Science and Technology</i> , 2018, 34, 79-85.	1.6	15
26	Multi-component phase-field simulation of microstructural evolution and elemental distribution in Fe-Cu-Mn-Ni-Al alloy. <i>Calphad: Computer Coupling of Phase Diagrams and Thermochemistry</i> , 2020, 69, 101759.	1.6	15
27	β to β' transformation strain associated with the precipitation of β' phase in a metastable β titanium alloy. <i>Journal of Materials Science</i> , 2021, 56, 1685-1693.	3.7	15
28	Grain size gradient naturally prepared through recrystallization in rapidly solidified undercooled alloy melts. <i>International Journal of Materials Research</i> , 2018, 109, 593-598.	0.3	13
29	First Principles Study on the Thermodynamic and Elastic Mechanical Stability of Mg ₂ X (X = Si, Ge) Intermetallics with (anti) Vacancy Point Defects. <i>Crystals</i> , 2020, 10, 234.	2.2	12
30	Microstructure evolution and mechanical properties of Mg-10Gd-3Y-Zn-0.6Zr alloys. <i>Journal of Materials Research</i> , 2018, 33, 1797-1805.	2.6	11
31	Effect of Zr, Hf, and Sn additives on elastic properties of β -Ti ₃ Al phase by first-principles calculations. <i>Journal Wuhan University of Technology, Materials Science Edition</i> , 2017, 32, 944-950.	1.0	9
32	First-Principles Investigation of Mechanical and Thermodynamic Properties of Nickel Silicides at Finite Temperature. <i>Physics of the Solid State</i> , 2018, 60, 967-974.	0.6	9
33	Influence of Long-Period-Stacking Ordered Structure on the Damping Capacities and Mechanical Properties of Mg-Zn-Y-Mn As-Cast Alloys. <i>Materials</i> , 2020, 13, 4654.	2.9	9
34	Mechanical and Thermal Conductivity Properties of Enhanced Phases in Mg-Zn-Zr System from First Principles. <i>Materials</i> , 2018, 11, 2010.	2.9	8
35	Expansive Behavior in Circular Steel Tube Stub Columns of SCC Blended with CFB Bottom Ashes. <i>Journal of Materials in Civil Engineering</i> , 2019, 31, .	2.9	8
36	Numerical Analysis of the Activated Combustion High-Velocity Air-Fuel Spraying Process: A Three-Dimensional Simulation with Improved Gas Mixing and Combustion Mode. <i>Materials</i> , 2021, 14, 657.	2.9	8

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37	Dendritic solidification of highly undercooled dilute alloys. <i>International Journal of Materials Research</i> , 2019, 110, 695-702.	0.3	8
38	First-principles investigation of the structural, electronic and elastic properties of Al ₂ Ca and Al ₄ Sr phases in Mg-Al-Ca(Sr) alloy. <i>Journal Wuhan University of Technology, Materials Science Edition</i> , 2014, 29, 1049-1056.	1.0	7
39	Research on the Expansion Characteristics and Compressive Strength of Mortars Containing Circulating Fluidized Bed Combustion Desulfurization Slag. <i>Advances in Materials Science and Engineering</i> , 2018, 2018, 1-11.	1.8	7
40	A Study on the Damping Capacities of Mg-Y-Zn-Based Alloys with Lamellar Long Period Stacking Ordered Phases by Preparation Process. <i>Metals</i> , 2021, 11, 79.	2.3	6
41	First-principles calculations of electronic, elastic and thermal properties of magnesium doped with alloying elements. <i>Journal Wuhan University of Technology, Materials Science Edition</i> , 2018, 33, 198-203.	1.0	5
42	Microalloying Effect of Sn on Phase Transformation During Heat Treatment in Mg-Y-Zn-Zr Alloys. <i>Acta Metallurgica Sinica (English Letters)</i> , 2019, 32, 550-558.	2.9	5
43	Improved Corrosion Resistance and Increased Hardness of Copper Substrates from Cu-Ni/Ni-P Composite Coatings. <i>MRS Advances</i> , 2020, 5, 2129-2137.	0.9	4
44	Solidification Structure Evolution and Grain Refinement Mechanism of a Deeply Undercooled Ni ₆₅ Cu ₃₅ Alloy. <i>Metals and Materials International</i> , 2022, 28, 456-465.	3.4	4
45	Microscopic Phase-field Simulation for the Influence of Aging Process on the Precipitation Process of Ni ₇₅ Al ₁₅ Ti ₁₀ Alloy. <i>Rare Metal Materials and Engineering</i> , 2018, 47, 3000-3007.	0.8	3
46	Alternating Current Field Effects in Atomically Ferroelectric Ultrathin Films. <i>Materials</i> , 2022, 15, 2506.	2.9	3
47	Development of CAD software package of intellectualized casting technology. <i>Central South University</i> , 2005, 12, 280-283.	0.5	2
48	Effects of initial undercooling on microstructure formation and recrystallisation of undercooled melts. <i>Materials Science and Technology</i> , 2017, 33, 1934-1941.	1.6	2
49	Structure Evolution, Elastic and Electronic Properties of Pt-Doped Ti Alloy under Pressure. <i>Physica Status Solidi (B): Basic Research</i> , 2020, 257, 1900360.	1.5	2
50	Novel Method to Improve the Microstructure and Mechanical Properties of 45 Steel. <i>Metals and Materials International</i> , 2022, 28, 833-840.	3.4	2
51	Halide and Nitrate Electrolytes of Thermal Batteries. <i>Journal of Energy Engineering - ASCE</i> , 2021, 147, .	1.9	2
52	The Morphology and Solute Segregation of Dendrite Growth in Ti-4.5% Al Alloy: A Phase-Field Study. <i>Materials</i> , 2021, 14, 7257.	2.9	2
53	Application of Fuzzy Set Theory to Quantitative Analysis of Correctness of the Mathematical Model Based on the ADI Method during Solidification. <i>Mathematical Problems in Engineering</i> , 2013, 2013, 1-7.	1.1	1
54	Effect of Heat Treatment on Microstructure and Mechanical Properties of Alloy Mg-10% Gd-3% Y-0.6% Zr. <i>Metal Science and Heat Treatment</i> , 2019, 61, 434-439.	0.6	1

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55	Physical Properties and Electronic Structure of Cr ₂ B Under Pressure. <i>Physica Status Solidi (B): Basic Research</i> , 2021, 258, 2000212.	1.5	1
56	Phase Stability and Thermo-Physical Properties of Nickel-Aluminum Binary Chemically Disordered Systems via First-Principles Study. <i>Metals and Materials International</i> , 2021, 27, 1469-1477.	3.4	1
57	Phase Stability, Elastic Modulus and Elastic Anisotropy of X Doped (X = Zn, Zr and Ag) Al ₃ Li: Insight from First-Principles Calculations. <i>Crystals</i> , 2022, 12, 7.	2.2	1
58	Numerical Simulation of Squeeze Casting of AZ91D Magnesium Alloy. , 2010, , .		0
59	Microstructure evolution mechanisms of undercooled Ni ₈₀ Cu ₂₀ alloys. <i>International Journal of Materials Research</i> , 2018, 109, 716-722.	0.3	0
60	Synthesis and Investigation of Quaternary Quasi-Crystalline Phase in Al-Cu-Fe-Cr Alloys. <i>Metal Science and Heat Treatment</i> , 2019, 60, 770-776.	0.6	0