

Laiqi Zhang

List of Publications by Year in descending order

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#	ARTICLE	IF	CITATIONS
1	Molecular Dynamics Simulation of the Tensile Deformation Behavior of the $\hat{\text{T}}^3(\text{TiAl})/\hat{\text{T}}^{\pm 2}(\text{Ti}_3\text{Al})$ Interface at Different Temperatures. <i>Journal of Materials Engineering and Performance</i> , 2022, 31, 918-932.	2.5	4
2	Effect of martensite morphology and volume fraction on the low-temperature impact toughness of dual-phase steels. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2022, 832, 142424.	5.6	35
3	Ab initio investigation of phase stability, thermo-physical and mechanical properties of $(\text{Mo}_{0.2}\text{Cr}_{0.2}\text{Ta}_{0.2}\text{Nb}_{0.2}\text{X}_{0.2})\text{Si}_2$ ($\text{X}=\text{Al, V}$) high-entropy refractory metal silicides. <i>Computational Materials Science</i> , 2022, 203, 111116.	3.0	8
4	Interfacial microstructure and shear performance of TiAl to Nb-Si alloy diffusion bonded with pure Ti interlayer. <i>Intermetallics</i> , 2022, 146, 107569.	3.9	3
5	Oxidation behavior of Mo-Si-B alloys at medium-to-high temperatures. <i>Journal of Materials Science and Technology</i> , 2021, 60, 113-127.	10.7	45
6	Competitive mechanism of phosphorus capturing between MC-carbide ($\text{M}=\text{Ti, Mo}$) and ferrite/martensite interface in dual-phase steel. <i>Materials Letters</i> , 2021, 283, 128820.	2.6	3
7	Pore/skeleton structure and compressive strength of porous $\text{Mo}_3\text{Si}-\text{Mo}_5\text{Si}_3-\text{Mo}_5\text{Si}_2$ intermetallic compounds prepared by spark plasma sintering and homogenization treatment. <i>Journal of Alloys and Compounds</i> , 2021, 856, 158150.	5.5	9
8	Corrosion resistance of TiAl-Nb coating on 316L stainless steel in liquid zinc. <i>Journal of Materials Science</i> , 2021, 56, 4022-4033.	3.7	3
9	A method by calculation of wetting angle for designing of the corrosion-resistant materials in hot-dip galvanizing. <i>Solid State Communications</i> , 2021, 323, 114102.	1.9	5
10	Joining of $\hat{\text{T}}^2-\hat{\text{T}}^3$ TiAl alloys containing high content of niobium by pulse current diffusion bonding. <i>Intermetallics</i> , 2021, 133, 107184.	3.9	10
11	Hot deformation behavior and artificial neural network modeling of $\hat{\text{T}}^2-\hat{\text{T}}^3$ TiAl alloy containing high content of Nb. <i>Materials Today Communications</i> , 2021, 27, 102405.	1.9	5
12	Achievement of forging without canning for $\hat{\text{T}}^2$ -solidifying $\hat{\text{T}}^3$ -TiAl alloy containing high content of niobium. <i>Materials and Manufacturing Processes</i> , 2021, 36, 1667-1676.	4.7	5
13	Effect of Al_2O_3 content and swaging on microstructure and mechanical properties of $\text{Al}_2\text{O}_3/\text{W}$ alloys. <i>International Journal of Refractory Metals and Hard Materials</i> , 2020, 86, 105082.	3.8	6
14	A study of residual Ti_3Al in $\hat{\text{T}}^3(\text{TiAl})$ sheets using mismatch theory. <i>Materials Letters</i> , 2020, 278, 128423.	2.6	6
15	Complete elimination of pest oxidation by high entropy refractory metallic silicide $(\text{Mo}_{0.2}\text{W}_{0.2}\text{Cr}_{0.2}\text{Ta}_{0.2}\text{Nb}_{0.2})\text{Si}_2$. <i>Scripta Materialia</i> , 2020, 189, 25-29.	5.2	31
16	A novel of MSi_2 high-entropy silicide: Be expected to improve mechanical properties of MoSi_2 . <i>Materials Letters</i> , 2020, 268, 127629.	2.6	22
17	Characteristics and Thermal Shock Resistance of HVOF-Sprayed TiAlNb Coatings. <i>Journal of Thermal Spray Technology</i> , 2020, 29, 1752-1762.	3.1	7
18	Double-pore structure porous Mo-Si-B intermetallics fabricated by elemental powder metallurgy method using NH_4HCO_3 as pore-forming agent. <i>Materials Research Express</i> , 2020, 7, 096518.	1.6	1

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19	Fabrication of a multi-phase porous high-temperature MoSiB alloy by <i>in situ</i> reaction synthesis. Powder Metallurgy, 2019, 62, 258-266.	1.7	4
20	Microstructure and properties of Al alloy ER5183 deposited by variable polarity cold metal transfer. Journal of Materials Processing Technology, 2019, 267, 167-176.	6.3	45
21	Effect of ZrO ₂ content on microstructure and mechanical properties of W alloys fabricated by spark plasma sintering. International Journal of Refractory Metals and Hard Materials, 2019, 79, 79-89.	3.8	17
22	Preparation, microstructure, and constitutive equation of W-0.25 wt% Al ₂ O ₃ alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 744, 79-85.	5.6	29
23	Constitutive modeling of high temperature flow behavior in a Ti-45Al-8Nb-2Cr-2Mn-0.2Y alloy. Scientific Reports, 2018, 8, 5453.	3.3	28
24	Kinetic and thermodynamic properties of liquid zinc: An ab initio molecular dynamics study. Computational Materials Science, 2018, 141, 180-184.	3.0	9
25	Fe-Al intermetallic foam with porosity above 60 % prepared by thermal explosion. Journal of Alloys and Compounds, 2018, 732, 443-447.	5.5	39
26	Effect of transition metal alloying elements on the deformation of Ti-44Al-8Nb-0.2B-0.2Y alloys. Scientific Reports, 2018, 8, 14242.	3.3	3
27	Microstructural instability in surface layer of a high Nb-TiAl alloy processed by shot peening following high temperature exposure. Intermetallics, 2016, 78, 8-16.	3.9	14
28	Dislocation climb in Mo ₅ SiB ₂ during high-temperature deformation. International Journal of Refractory Metals and Hard Materials, 2016, 61, 115-120.	3.8	5
29	Hierarchical porous TiAl ₃ intermetallics synthesized by thermal explosion with a leachable space-holder material. Materials Letters, 2016, 181, 261-264.	2.6	26
30	Characterization of microstructure evolution in β -TiAl alloy containing high content of Niobium using constitutive equation and power dissipation map. Materials and Design, 2016, 107, 406-415.	7.0	36
31	Deformation behavior of Mo ₅ SiB ₂ at elevated temperatures. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 623, 124-132.	5.6	12
32	Reaction behavior and pore formation mechanism of TiAl-Nb porous alloys prepared by elemental powder metallurgy. Intermetallics, 2014, 44, 1-7.	3.9	47
33	Intrinsic brittleness of Mo ₅ SiB ₂ and alloying effect on ductility studied by first-principles calculations. Intermetallics, 2014, 50, 79-85.	3.9	10
34	Fracture toughness and fracture mechanisms in Mo ₅ SiB ₂ at ambient to elevated temperatures. Intermetallics, 2013, 38, 49-54.	3.9	28
35	Spark plasma sintering synthesis of intermetallic T ₂ in the MoSiB system. Advanced Powder Technology, 2013, 24, 913-920.	4.1	22
36	Pore structure and gas permeability of high Nb-containing TiAl porous alloys by elemental powder metallurgy for microfiltration application. Intermetallics, 2013, 33, 2-7.	3.9	42

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37	Oxygen removal from raw silicon powder by the HF+ethanol solution etching. <i>Surface and Interface Analysis</i> , 2013, 45, 955-961.	1.8	4
38	Improvement in the liquid zinc corrosion resistance of high Nb-TiAl alloys by pre-oxidation in a SiO ₂ -powder pack. <i>Science China Technological Sciences</i> , 2012, 55, 505-509.	4.0	7
39	Intrinsic embrittlement of MoSi ₂ and alloying effect on ductility: Studied by first-principles. <i>Physica B: Condensed Matter</i> , 2010, 405, 1695-1700.	2.7	19
40	Characterization of the Trace Phosphorus Segregation and Mechanical Properties of Dual-Phase Steels. <i>Acta Metallurgica Sinica (English Letters)</i> , 0, , 1.	2.9	3