

Yong Du

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733
papers

11,435
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45
h-index

71
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770
ext. papers

13,412
ext. citations

3.4
avg, IF

6.59
L-index

#	Paper	IF	Citations
733	Diffusion coefficients of some solutes in fcc and liquid Al: critical evaluation and correlation. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2003 , 363, 140-151	5.3	553
732	One-pot synthesized molybdenum dioxide/molybdenum carbide heterostructures coupled with 3D holey carbon nanosheets for highly efficient and ultrastable cycling lithium-ion storage. <i>Journal of Materials Chemistry A</i> , 2019 , 7, 13460-13472	13	185
731	Mesoporous metal-organic frameworks: design and applications. <i>Energy and Environmental Science</i> , 2012 , 5, 7508	35.4	181
730	A thermodynamic description of the Al-Fe-Si system over the whole composition and temperature ranges via a hybrid approach of CALPHAD and key experiments. <i>Intermetallics</i> , 2008 , 16, 554-570	3.5	149
729	Thermal stability and oxidation resistance of Ti-Al-N coatings. <i>Surface and Coatings Technology</i> , 2012 , 206-318, 2954-2960	4.4	148
728	Experimental Investigation and Thermodynamic Calculation of the Titanium-Silicon-Carbon System. <i>Journal of the American Ceramic Society</i> , 2000 , 83, 197-203	3.8	138
727	Phase Equilibria and Thermodynamic Properties in the Fe-Cr System. <i>Critical Reviews in Solid State and Materials Sciences</i> , 2010 , 35, 125-152	10.1	135
726	Improving the mechanical properties of carbon nanotubes reinforced pure aluminum matrix composites by achieving non-equilibrium interface. <i>Materials and Design</i> , 2017 , 120, 56-65	8.1	110
725	Facile Preparation of Dibenzoheterocycle-Functional Nanoporous Polymeric Networks with High Gas Uptake Capacities. <i>Macromolecules</i> , 2014 , 47, 2875-2882	5.5	99
724	Structural and elastic properties of cubic and hexagonal TiN and AlN from first-principles calculations. <i>Computational Materials Science</i> , 2010 , 48, 705-709	3.2	99
723	Liquid acid-catalysed fabrication of nanoporous 1,3,5-triazine frameworks with efficient and selective CO ₂ uptake. <i>Polymer Chemistry</i> , 2014 , 5, 3424	4.9	96
722	Effect of the second phases on corrosion behavior of the Mg-Al-Zn alloys. <i>Journal of Alloys and Compounds</i> , 2017 , 695, 2330-2338	5.7	95
721	Reassessment of the Al-Mn system and a thermodynamic description of the Al-Mg-Mn system. <i>International Journal of Materials Research</i> , 2007 , 98, 855-871	0.5	92
720	Influence of Zr on structure, mechanical and thermal properties of Ti-Al-N. <i>Thin Solid Films</i> , 2011 , 519, 5503-5510	2.2	90
719	Exploring the size effects of Al ₄ C ₃ on the mechanical properties and thermal behaviors of Al-based composites reinforced by SiC and carbon nanotubes. <i>Carbon</i> , 2018 , 135, 224-235	10.4	89
718	Experimental investigations and thermodynamic descriptions of the Ni-Si and C-Ni-Si systems. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 1999 , 30, 2409-2418	2.3	88
717	CSUTDCC1: a thermodynamic database for multicomponent cemented carbides. <i>International Journal of Refractory Metals and Hard Materials</i> , 2014 , 42, 57-70	4.1	85

716	Thermodynamic assessment of the Al ₂ Ni system. <i>Journal of Alloys and Compounds</i> , 1996 , 237, 20-32	5.7	85
715	Diffusivities of an Al ₃ Be ₂ Ni melt and their effects on the microstructure during solidification. <i>Acta Materialia</i> , 2010 , 58, 3664-3675	8.4	75
714	Thermodynamic properties of the Al ₃ Be ₂ Ni system acquired via a hybrid approach combining calorimetry, first-principles and CALPHAD. <i>Acta Materialia</i> , 2009 , 57, 5324-5341	8.4	74
713	An overview on phase equilibria and thermodynamic modeling in multicomponent Al alloys: Focusing on the Al ₂ Cu ₂ Be ₂ Mg ₂ Mn ₂ Ni ₂ Si ₂ Zn system. <i>Calphad: Computer Coupling of Phase Diagrams and Thermochemistry</i> , 2011 , 35, 427-445	1.9	71
712	Atomic mobilities and diffusivities in the fcc, L12 and B2 phases of the Ni-Al system. <i>International Journal of Materials Research</i> , 2010 , 101, 1461-1475	0.5	68
711	Incorporating the CALPHAD sublattice approach of ordering into the phase-field model with finite interface dissipation. <i>Acta Materialia</i> , 2015 , 88, 156-169	8.4	67
710	Thermodynamic Assessment of the ZrO ₂ -YO _{1.5} System. <i>Journal of the American Ceramic Society</i> , 1991 , 74, 1569-1577	3.8	66
709	The influence of age-hardening on turning and milling performance of TiAlN coated inserts. <i>Surface and Coatings Technology</i> , 2008 , 202, 5158-5161	4.4	65
708	Microstructures and mechanical properties of carbon nanotubes reinforced pure aluminum composites synthesized by spark plasma sintering and hot rolling. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2017 , 698, 282-288	5.3	63
707	A pragmatic method to determine the composition-dependent interdiffusivities in ternary systems by using a single diffusion couple. <i>Scripta Materialia</i> , 2014 , 90-91, 53-56	5.6	62
706	Enhanced mechanical properties of aluminum based composites reinforced by chemically oxidized carbon nanotubes. <i>Carbon</i> , 2018 , 139, 459-471	10.4	61
705	Atomic mobilities, diffusivities and simulation of diffusion growth in the CoSi system. <i>Acta Materialia</i> , 2008 , 56, 3940-3950	8.4	59
704	Effect of the modulation ratio on the interface structure of TiAlN/TiN and TiAlN/ZrN multilayers: First-principles and experimental investigations. <i>Acta Materialia</i> , 2017 , 130, 281-288	8.4	58
703	Machining performance of TiAlSiN coated inserts. <i>Surface and Coatings Technology</i> , 2010 , 205, 582-586	4.4	58
702	On the constitution of the ternary system Al ₂ Ni ₃ Ti. <i>Intermetallics</i> , 2007 , 15, 1257-1267	3.5	58
701	First-principles calculations of binary Al compounds: Enthalpies of formation and elastic properties. <i>Calphad: Computer Coupling of Phase Diagrams and Thermochemistry</i> , 2011 , 35, 562-573	1.9	57
700	Compositional and structural evolution of sputtered Ti-Al-N. <i>Thin Solid Films</i> , 2009 , 517, 6635-6641	2.2	57
699	Thermodynamic description of the AlMgSi system using a new formulation for the temperature dependence of the excess Gibbs energy. <i>Thermochimica Acta</i> , 2012 , 527, 131-142	2.9	54

698	Thermal and thermo-mechanical properties of TiAlN and CrAlN coatings. <i>International Journal of Refractory Metals and Hard Materials</i> , 2012 , 35, 235-240	4.1	54
697	Thermal stability and oxidation resistance of sputtered Ti Al Cr N hard coatings. <i>Surface and Coatings Technology</i> , 2017 , 324, 48-56	4.4	52
696	Ca-decorated novel boron sheet: A potential hydrogen storage medium. <i>International Journal of Hydrogen Energy</i> , 2016 , 41, 5276-5283	6.7	52
695	Thermodynamic Calculation of the Zirconia-Calcia System. <i>Journal of the American Ceramic Society</i> , 1992 , 75, 3040-3048	3.8	52
694	Structure and thermal properties of TiAlN/CrN multilayered coatings with various modulation ratios. <i>Surface and Coatings Technology</i> , 2016 , 304, 512-518	4.4	50
693	Phase stability of magnesium-rare earth binary systems from first-principles calculations. <i>Journal of Alloys and Compounds</i> , 2011 , 509, 6899-6907	5.7	47
692	Phase-field simulation of diffusion couples in the NiAl system. <i>International Journal of Materials Research</i> , 2011 , 102, 371-380	0.5	47
691	Atomic mobilities, uphill diffusion and proeutectic ferrite growth in FeMnC alloys. <i>Calphad: Computer Coupling of Phase Diagrams and Thermochemistry</i> , 2009 , 33, 614-623	1.9	46
690	Formation enthalpies of FeAlRE ternary alloys calculated with a geometric model and Miedema's theory. <i>Journal of Alloys and Compounds</i> , 2006 , 416, 148-154	5.7	46
689	Nitrogen-doped porous carbons with high performance for hydrogen storage. <i>International Journal of Hydrogen Energy</i> , 2016 , 41, 8489-8497	6.7	46
688	Atomistic structure of Cu-containing η precipitates in an AlMgSiCu alloy. <i>Scripta Materialia</i> , 2014 , 75, 86-89	5.6	45
687	Mechanical properties and microstructural evolution of TiN coatings alloyed with Al and Si. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2009 , 502, 139-143	5.3	45
686	Evolution of the microstructure and hardness of the TiSi alloys during high temperature heat-treatment. <i>Journal of Alloys and Compounds</i> , 2009 , 479, 246-251	5.7	45
685	Effect of Si addition on microstructure and mechanical properties of TiAlN coating. <i>International Journal of Refractory Metals and Hard Materials</i> , 2010 , 28, 593-596	4.1	45
684	Mechanical properties of (Ti, Al)N monolayer and TiN/(Ti, Al)N multilayer coatings. <i>International Journal of Refractory Metals and Hard Materials</i> , 2007 , 25, 72-76	4.1	45
683	Microstructure, mechanical and thermal properties of TiAlN/CrAlN multilayer coatings. <i>International Journal of Refractory Metals and Hard Materials</i> , 2013 , 40, 51-57	4.1	44
682	Experimental investigation and thermodynamic description of the CoSi system. <i>Calphad: Computer Coupling of Phase Diagrams and Thermochemistry</i> , 2006 , 30, 470-481	1.9	44
681	Effect of CrN addition on the structure, mechanical and thermal properties of Ti-Al-N coating. <i>Surface and Coatings Technology</i> , 2013 , 235, 506-512	4.4	42

680	Elastic constants of B2-MgRE (RE= Sc, Y, La) calculated with first-principles. <i>Solid State Communications</i> , 2008 , 148, 314-318	1.6	42
679	Effects of Cu and Al on the crystal structure and composition of γ (MgZn ₂) phase in over-aged Al ₇₀ Mg ₂₀ Cu alloys. <i>Journal of Materials Science</i> , 2012 , 47, 5419-5427	4.3	41
678	A comparative research on physical and mechanical properties of (Ti, Al)N and (Cr, Al)N PVD coatings with high Al content. <i>International Journal of Refractory Metals and Hard Materials</i> , 2007 , 25, 400-404	4.1	41
677	Thermodynamic modeling of the MgSi system with the Kaptay equation for the excess Gibbs energy of the liquid phase. <i>Calphad: Computer Coupling of Phase Diagrams and Thermochemistry</i> , 2009 , 33, 673-678	1.9	40
676	Thermodynamic assessment of the MoNbTa system. <i>Calphad: Computer Coupling of Phase Diagrams and Thermochemistry</i> , 2004 , 28, 133-140	1.9	40
675	Effect of bilayer period on structure, mechanical and thermal properties of TiAlN/AlTiN multilayer coatings. <i>Thin Solid Films</i> , 2015 , 592, 207-214	2.2	39
674	Experimental investigation and thermodynamic modeling of the ternary AlCuFe system. <i>Journal of Materials Research</i> , 2009 , 24, 3154-3164	2.5	38
673	Viscosity and diffusivity in melts: from unary to multicomponent systems. <i>Philosophical Magazine</i> , 2014 , 94, 1552-1577	1.6	37
672	Phase equilibria of the AlBeNi system at 850°C and 627°C. <i>Journal of Alloys and Compounds</i> , 2008 , 454, 129-135	5.7	37
671	Ab initio calculation of the total energy and elastic properties of Laves phase C ₁₅ Al ₂ RE (RE=Sc, Y, La, Ce). <i>Computational Materials Science</i> , 2008 , 44, 392-399	3.2	37
670	Experimental reinvestigation of the CrSi-Si partial system and update of the thermodynamic description of the entire Cr-Si system. <i>Journal of Phase Equilibria and Diffusion</i> , 2000 , 21, 281-286		37
669	Ab initio calculations and thermodynamic modeling for the FeMnNb system. <i>Calphad: Computer Coupling of Phase Diagrams and Thermochemistry</i> , 2012 , 38, 43-58	1.9	36
668	Experimental investigation and thermodynamic modeling of the AlCuSi system. <i>Calphad: Computer Coupling of Phase Diagrams and Thermochemistry</i> , 2009 , 33, 200-210	1.9	36
667	Assessment of atomic mobilities of Al and Cu in fcc AlCu alloys. <i>Calphad: Computer Coupling of Phase Diagrams and Thermochemistry</i> , 2009 , 33, 761-768	1.9	36
666	Experimental investigation of the Al ₃ phase diagram. <i>Journal of Alloys and Compounds</i> , 2006 , 414, 60-65	5.7	36
665	Ameliorated mechanical and thermal properties of SiC reinforced Al matrix composites through hybridizing carbon nanotubes. <i>Materials Characterization</i> , 2018 , 136, 272-280	3.9	35
664	Hydrogen storage properties of destabilized MgH ₂ -Ni ₃ AlH ₆ system. <i>International Journal of Hydrogen Energy</i> , 2010 , 35, 8122-8129	6.7	35
663	A thermodynamic description of the Al-Mn-Si system over the entire composition and temperature ranges. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2004 , 35, 1613-1628	2.3	35

662	Quantified contribution of η and ζ precipitates to the strengthening of an aged AlMgSi alloy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2020 , 774, 138776	5.3	35
661	Thermodynamic investigation of the galvanizing systems, I: Refinement of the thermodynamic description for the FeZn system. <i>Calphad: Computer Coupling of Phase Diagrams and Thermochemistry</i> , 2009 , 33, 433-440	1.9	34
660	A thermodynamic reassessment of the AlZr system. <i>Calphad: Computer Coupling of Phase Diagrams and Thermochemistry</i> , 2006 , 30, 334-340	1.9	34
659	Thermodynamic modeling of the VSi system supported by key experiments. <i>Calphad: Computer Coupling of Phase Diagrams and Thermochemistry</i> , 2008 , 32, 320-325	1.9	33
658	Enhancement of strength and ductility by interfacial nano-decoration in carbon nanotube/aluminum matrix composites. <i>Carbon</i> , 2020 , 159, 201-212	10.4	33
657	First-principles study of the critical thickness in asymmetric ferroelectric tunnel junctions. <i>Applied Physics Letters</i> , 2011 , 98, 102907	3.4	32
656	Microstructure and mechanical properties of gradient Ti(C, N) and TiN/Ti(C, N) multilayer PVD coatings. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2008 , 478, 336-339	5.3	32
655	Thermodynamic description of the AlBeNi system over the whole composition and temperature ranges: Modeling coupled with key experiment. <i>Calphad: Computer Coupling of Phase Diagrams and Thermochemistry</i> , 2007 , 31, 529-540	1.9	32
654	Refinement of the thermodynamic modeling of the NbNi system. <i>Calphad: Computer Coupling of Phase Diagrams and Thermochemistry</i> , 2006 , 30, 308-315	1.9	32
653	Enthalpies of formation for the AlCuNiZr quaternary alloys calculated via a combined approach of geometric model and Miedema theory. <i>Journal of Alloys and Compounds</i> , 2006 , 420, 175-181	5.7	31
652	Atomic scale investigation of the crystal structure and interfaces of the B δ precipitate in Al-Mg-Si alloys. <i>Acta Materialia</i> , 2020 , 185, 193-203	8.4	31
651	Influence of Hf on the structure, thermal stability and oxidation resistance of Ti-Al-N coatings. <i>Thin Solid Films</i> , 2014 , 565, 25-31	2.2	30
650	Improved thermal stability and oxidation resistance of AlTiN coating by Si addition. <i>Thin Solid Films</i> , 2014 , 556, 369-375	2.2	30
649	A new type of WC-Co-Ni-Al cemented carbide: Grain size and morphology of η -strengthened composite binder phase. <i>Scripta Materialia</i> , 2017 , 126, 33-36	5.6	30
648	Density-functional theory study of Aln and AlnMg (n = 2-7) clusters. <i>Computational and Theoretical Chemistry</i> , 2012 , 984, 68-75	2	30
647	Effect of Al content on microstructure and mechanical properties of TiAlSiN nanocomposite coatings. <i>International Journal of Refractory Metals and Hard Materials</i> , 2009 , 27, 718-721	4.1	30
646	Thermodynamic evaluation of the ZrO $_2$ -CeO $_2$ system. <i>Scripta Metallurgica Et Materialia</i> , 1994 , 31, 327-332		30
645	Machine learning reveals the importance of the formation enthalpy and atom-size difference in forming phases of high entropy alloys. <i>Materials and Design</i> , 2020 , 193, 108835	8.1	29

644	Interdiffusion in fcc Ni _X (X = Rh, Ta, W, Re and Ir) alloys. <i>Journal of Alloys and Compounds</i> , 2016 , 657, 457-463	5.7	29
643	Improved properties of Ti-Al-N coating by multilayer structure. <i>International Journal of Refractory Metals and Hard Materials</i> , 2011 , 29, 681-685	4.1	29
642	Thermodynamic description of the AlCuMgMnSi quinary system and its application to solidification simulation. <i>Thermochimica Acta</i> , 2011 , 512, 258-267	2.9	29
641	Recent progress in criterions for glass forming ability. <i>Transactions of Nonferrous Metals Society of China</i> , 2009 , 19, 78-84	3.3	29
640	First-principles calculations of the thermodynamic and elastic properties of the L12-based Al3RE (RE = Sc, Y, LaU). <i>International Journal of Materials Research</i> , 2008 , 99, 582-588	0.5	29
639	Thermodynamic description of the AlBeMgMnSi system and investigation of microstructure and microsegregation during directional solidification of an AlBeMgMnSi alloy. <i>International Journal of Materials Research</i> , 2005 , 96, 1351-1362		29
638	Thermal stability and oxidation resistance of V-alloyed TiAlN coatings. <i>Ceramics International</i> , 2018 , 44, 1705-1710	5.1	28
637	On the reaction scheme and liquidus surface in the ternary system AlSiTi. <i>International Journal of Materials Research</i> , 2008 , 99, 705-711	0.5	28
636	Thermodynamic properties of the AlNbNi system. <i>Intermetallics</i> , 2003 , 11, 995-1013	3.5	28
635	Effect of TaC and NbC addition on the microstructure and hardness in graded cemented carbides: Simulations and experiments. <i>Ceramics International</i> , 2016 , 42, 428-435	5.1	27
634	Improving thermal stability of TiSiN nanocomposite coatings by multilayered epitaxial growth. <i>Surface and Coatings Technology</i> , 2017 , 321, 180-185	4.4	27
633	Microstructure evolution of WC grains in WC-Co-Ni-Al alloys: Effect of binder phase composition. <i>Journal of Alloys and Compounds</i> , 2017 , 710, 338-348	5.7	27
632	Phase equilibria, thermodynamics and microstructure simulation of metastable spinodal decomposition in Ti _{1-x} Al _x N coatings. <i>Calphad: Computer Coupling of Phase Diagrams and Thermochemistry</i> , 2017 , 56, 92-101	1.9	27
631	On the scaling factor in Debye-Grüneisen model: A case study of the MgZn binary system. <i>Computational Materials Science</i> , 2015 , 98, 34-41	3.2	27
630	Texture, Microstructure and Mechanical Properties of 6111 Aluminum Alloy Subject to Rolling Deformation. <i>Materials Research</i> , 2017 , 20, 1360-1368	1.5	27
629	A coupled EBSD/TEM study of the microstructural evolution of multi-axial compressed pure Al and AlMg alloy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2016 , 658, 16-27	5.3	27
628	Thermal stability and oxidation resistance of Cr _{1-x} Al _x N coatings with single phase cubic structure. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2015 , 33, 061513	2.9	27
627	A new approach to control the segregation of (Ta,W)C cubic phase in ultrafine WC-Co-0.5Ta cemented carbides. <i>Scripta Materialia</i> , 2015 , 100, 48-50	5.6	27

626	Thermodynamic and physical properties of FeAl and Fe ₃ Al: an atomistic study by EAM simulation. <i>Physica B: Condensed Matter</i> , 2012 , 407, 4530-4536	2.8	27
625	Phase equilibria of the CuNiSi system at 700°C. <i>Journal of Alloys and Compounds</i> , 2011 , 509, 9776-9781	5.7	27
624	A comparative research on magnetron sputtering and arc evaporation deposition of TiAlN coatings. <i>Thin Solid Films</i> , 2011 , 519, 3762-3767	2.2	27
623	Thermodynamic reassessment of the Al-Ni system. <i>International Journal of Materials Research</i> , 2004 , 95, 978-986		27
622	Experimental investigation and thermodynamic modeling of the Cr-Ni-Si system. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2000 , 31, 1795-1803	2.3	27
621	Thermal conductivity of AlCuMgSi alloys: Experimental measurement and CALPHAD modeling. <i>Thermochimica Acta</i> , 2016 , 635, 8-16	2.9	27
620	Mechanical properties, thermal stability and oxidation resistance of Ta-doped CrAlN coatings. <i>Surface and Coatings Technology</i> , 2019 , 368, 25-32	4.4	26
619	Effect of temperature gradient on microstructure evolution in NiAlCr bond coat/substrate systems: A phase-field study. <i>Surface and Coatings Technology</i> , 2015 , 261, 364-374	4.4	26
618	CSUDDCC1A diffusion database for multicomponent cemented carbides. <i>International Journal of Refractory Metals and Hard Materials</i> , 2014 , 43, 164-180	4.1	26
617	Effects of F and Cl on the stability of MgH ₂ . <i>International Journal of Hydrogen Energy</i> , 2014 , 39, 877-883	6.7	26
616	Phase equilibria of the system. <i>Calphad: Computer Coupling of Phase Diagrams and Thermochemistry</i> , 2009 , 33, 624-627	1.9	26
615	A predictive equation for solute diffusivity in liquid metals. <i>Scripta Materialia</i> , 2006 , 55, 367-370	5.6	26
614	A thermodynamic description of the B-Co system: modeling and experiment. <i>International Journal of Materials Research</i> , 2002 , 93, 1157-1163		26
613	High-throughput measurement of the composition-dependent interdiffusivity matrices in Ni-rich fcc Ni-Al-Ta alloys at elevated temperatures. <i>Journal of Alloys and Compounds</i> , 2016 , 688, 320-328	5.7	26
612	Improved properties of TiAlN coating by combined Si-addition and multilayer architecture. <i>Journal of Alloys and Compounds</i> , 2019 , 790, 909-916	5.7	25
611	High-throughput determination of the composition-dependent interdiffusivities in Cu-rich fcc CuAgSn alloys at 1073 K. <i>Journal of Alloys and Compounds</i> , 2015 , 644, 687-693	5.7	25
610	Influence of Zr on structure, mechanical and thermal properties of CrAlN coatings. <i>Surface and Coatings Technology</i> , 2015 , 275, 289-295	4.4	25
609	Atomic mobilities and diffusivities in Al alloys. <i>Science China Technological Sciences</i> , 2012 , 55, 306-328	3.5	25

608	Atomic mobility, diffusivity and diffusion growth simulation for fcc CuMnNi alloys. <i>Calphad: Computer Coupling of Phase Diagrams and Thermochemistry</i> , 2011 , 35, 367-375	1.9	25
607	On the melting of Cr ₅ Si ₃ and update of the thermodynamic description of Cr ₃ Si. <i>Calphad: Computer Coupling of Phase Diagrams and Thermochemistry</i> , 2009 , 33, 211-214	1.9	25
606	Thermodynamic Assessment of the Zirconia-Urania System. <i>Journal of the American Ceramic Society</i> , 1996 , 79, 521-524	3.8	25
605	Structural, mechanical and thermal properties of CrAlNbN coatings. <i>Surface and Coatings Technology</i> , 2018 , 349, 894-900	4.4	25
604	Modeling of the viscosity in the AlCuMgSi system: Database construction. <i>Calphad: Computer Coupling of Phase Diagrams and Thermochemistry</i> , 2015 , 49, 79-86	1.9	24
603	A first-principles study of structure, elasticity and thermal decomposition of Ti _{1-x} TM _x N alloys (TM = Y, Zr, Nb, Hf, and Ta). <i>Surface and Coatings Technology</i> , 2015 , 264, 41-48	4.4	24
602	Effects of Cu content on the precipitation process of AlZnMg alloys. <i>Journal of Materials Science</i> , 2012 , 47, 8174-8187	4.3	24
601	Thermodynamic modeling of the CuMn system supported by key experiments. <i>Journal of Alloys and Compounds</i> , 2008 , 457, 233-238	5.7	24
600	Thermodynamic database of multi-component Mg alloys and its application to solidification and heat treatment. <i>Journal of Magnesium and Alloys</i> , 2016 , 4, 249-264	8.8	24
599	Thermal conductivity of the MgAlZn alloys: Experimental measurement and CALPHAD modeling. <i>Calphad: Computer Coupling of Phase Diagrams and Thermochemistry</i> , 2018 , 62, 99-108	1.9	23
598	Entropy favored ordering: Phase stability of Ni ₃ Pt revisited by first-principles. <i>Intermetallics</i> , 2010 , 18, 961-964	3.5	23
597	Experimental investigation and thermodynamic modeling of the CuMnNi system. <i>Calphad: Computer Coupling of Phase Diagrams and Thermochemistry</i> , 2009 , 33, 642-649	1.9	23
596	Quantitative measurement for the microstructural parameters of nano-precipitates in Al-Mg-Si-Cu alloys. <i>Materials Characterization</i> , 2016 , 118, 352-362	3.9	22
595	A Review of Calphad Modeling of Ordered Phases. <i>Journal of Phase Equilibria and Diffusion</i> , 2018 , 39, 678-693	1	22
594	Effect of Zr on structure and properties of TiAl ₃ coatings with varied bias. <i>International Journal of Refractory Metals and Hard Materials</i> , 2013 , 38, 81-86	4.1	22
593	Interdiffusion and atomic mobility studies in Ni-rich fcc NiAlMn alloys. <i>Journal of Alloys and Compounds</i> , 2013 , 579, 124-131	5.7	22
592	Correlation between thermodynamics and glass forming ability in the AlCeNi system. <i>Intermetallics</i> , 2010 , 18, 900-906	3.5	22
591	Thermodynamic calculation of the ZrO ₂ -YO _{1.5} -CaO phase diagram. <i>Calphad: Computer Coupling of Phase Diagrams and Thermochemistry</i> , 1992 , 16, 355-362	1.9	22

- 590 Mechanical properties, thermal stability and oxidation resistance of TiN/CrN multilayer coatings. *Vacuum*, **2020**, 179, 109468 3.7 22
- 589 Solubilities of grain-growth inhibitors in WC-Co-based cemented carbides: Thermodynamic calculations compared to experimental data. *International Journal of Refractory Metals and Hard Materials*, **2016**, 61, 121-127 4.1 21
- 588 Ternary CoNiB amorphous alloy with a superior electrochemical performance in a wide temperature range. *International Journal of Hydrogen Energy*, **2016**, 41, 3955-3960 6.7 21
- 587 Thermodynamic reassessment of the AlCrSi system with the refined description of the AlCr system. *Thermochimica Acta*, **2013**, 561, 77-90 2.9 21
- 586 Insight into Ni/Ni₃Al interfacial energy affected by alloying elements. *Materials and Design*, **2017**, 133, 39-46 8.1 21
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