# Yong Du

## List of Publications by Year in Descending Order



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|---|---|---|---|
| 733 papers | 11,435 citations | 45 h-index | 71 g-index |
| 770 ext. papers | 13,412 ext. citations | 3.4 avg, IF | 6.59 L-index |

| # | Paper | IF | Citations |
|---|---|---|---|
| 733 | Discovery of a bulk C36-type MgZn2 structure step by step transformed from the C14 prototype laves phase structure. *Journal of Materials Science*, **2022**, 57, 2999-3009 | 4.3 | |
| 732 | Effect of C content on the surface gradient structure of (Ti, Mo)(C, N) and Ti(C, N)-based cermets. *Journal of Materials Research and Technology*, **2022**, 16, 544-554 | 5.5 | 0 |
| 731 | Impact of oxygen content on the thermal stability of Ti-Al-O-N coatings based on computational and experimental studies. *Acta Materialia*, **2022**, 227, 117706 | 8.4 | 1 |
| 730 | Experimental investigation, thermodynamic modeling and solidified microstructure of the Cu□Ti□Nb ternary system. *Calphad: Computer Coupling of Phase Diagrams and Thermochemistry*, **2022**, 76, 102395 | 1.9 | 1 |
| 729 | A thermodynamic description of the B□Co system: modeling and experiment. *International Journal of Materials Research*, **2022**, 93, 1157-1163 | 0.5 | |
| 728 | Experimental investigation and thermodynamic calculation in the Al□Be□Si ternary system. *International Journal of Materials Research*, **2022**, 96, 1301-1307 | 0.5 | |
| 727 | Temperature-dependent structural, thermal, and mechanical properties of Mo-10Nb joints prepared by SPS. *Journal of Materials Science*, **2022**, 57, 5315 | 4.3 | |
| 726 | Diffusivity and atomic mobility in fcc Cu□Mn□Si alloys: measurements and modeling by CALTPP program. *Journal of Materials Science*, **2022**, 57, 5241 | 4.3 | 0 |
| 725 | A multiple loops machine learning framework to predict the properties of WC□Co based cemented carbides. *International Journal of Refractory Metals and Hard Materials*, **2022**, 104, 105798 | 4.1 | 0 |
| 724 | Preparation of a novel dual structure graded cemented carbides induced by bidirectional diffusion. *Materials Letters*, **2022**, 131689 | 3.3 | 1 |
| 723 | Experimental investigation of the Ni-V-W ternary phase diagrams. *Calphad: Computer Coupling of Phase Diagrams and Thermochemistry*, **2022**, 76, 102384 | 1.9 | 1 |
| 722 | A new model for thermal conductivity of □ontinuous matrix / dispersed and separated 3D-particles□type composite materials and its application to WC-M (M = Co, Ag) systems. *Journal of Materials Science and Technology*, **2022**, 97, 123-133 | 9.1 | 3 |
| 721 | Thermodynamic Modeling of the Ge-X (X = As, Se, S, P) Systems. *Journal of Electronic Materials*, **2022**, 51, 2114-2130 | 1.9 | |
| 720 | Combined Thermal Runaway Investigation of Coin Cells with an Accelerating Rate Calorimeter and a Tian-Calvet Calorimeter. *Batteries*, **2022**, 8, 15 | 5.7 | 0 |
| 719 | Developing Al□Fe□Si alloys with high thermal stability through tuning Fe, Si contents and cooling rates. *Intermetallics*, **2022**, 144, 107505 | 3.5 | 0 |
| 718 | Interdiffusion behaviors and mechanical properties in BCC Zr-rich Zr□Nb□Ta system. *Calphad: Computer Coupling of Phase Diagrams and Thermochemistry*, **2022**, 77, 102410 | 1.9 | 0 |
| 717 | Remanufacturing of the waste refractory Mo□10Nb sputtering target by spark plasma sintering technology. *Vacuum*, **2022**, 200, 111050 | 3.7 | 0 |

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| 716 | Interdiffusion behaviors and mechanical properties of Zr-X (X Nb, Ta, Hf) binary systems. *Journal of Alloys and Compounds*, **2022**, 910, 164910 | 5.7 | 0 |
| 715 | Effect of Al content on the structural stability of Σ3 (111) twin boundary in Ti1-xAlxN hard coatings: A first-principles study. *Surface and Coatings Technology*, **2022**, 128454 | 4.4 | 0 |
| 714 | Diffusivities and atomic mobilities in the Ni-rich fcc Ni–Al–Cu alloys: experiment and modeling. *International Journal of Materials Research*, **2022**, 113, 351-371 | 0.5 | |
| 713 | First-principles studies on cation point defects in LiTi2O4. *Physica B: Condensed Matter*, **2022**, 639, 413959 | 2.8 | |
| 712 | Phase diagram of the Co–Cu–Ti system at 850 °C. *International Journal of Materials Research*, **2022**, 97, 140-144 | 0.5 | |
| 711 | Investigation of mechanical and diffusion properties in bcc Ti–Nb–Zr–Sn alloys via a high-throughput method. *Transactions of Nonferrous Metals Society of China*, **2021**, 31, 3405-3415 | 3.3 | 0 |
| 710 | First-principles investigation on stability and electronic structure of Sc-doped Θ/Al interface in Al–Cu alloys. *Transactions of Nonferrous Metals Society of China*, **2021**, 31, 3342-3355 | 3.3 | 0 |
| 709 | Solidification paths and phase equilibria at 873 and 673 K in the Al-Er-Zr system. *Journal of Alloys and Compounds*, **2021**, 897, 162730 | 5.7 | |
| 708 | High-throughput exploration of the composition-dependent elasto-plastic properties in Co–Ni–V system. *Journal of Alloys and Compounds*, **2021**, 896, 163061 | 5.7 | 1 |
| 707 | Thermodynamics Controlled Sharp Transformation from InP to GaP Nanowires via Introducing Trace Amount of Gallium. *Nanoscale Research Letters*, **2021**, 16, 49 | 5 | 3 |
| 706 | Influence of CrC and VC Content on WC Grain Size, WC Shape and Mechanical Properties of WC-6.0 wt. % Co Cemented Carbides. *Materials*, **2021**, 14, | 3.5 | 2 |
| 705 | Experimental investigation and thermodynamic assessment of the Mn–Zr system. *Calphad: Computer Coupling of Phase Diagrams and Thermochemistry*, **2021**, 72, 102243 | 1.9 | |
| 704 | Development of multilayer graded cemented carbides with Ti–Zr carbonitride miscibility gaps. *Ceramics International*, **2021**, 47, 7521-7527 | 5.1 | 2 |
| 703 | Effect of annealing on the microstructure and mechanical properties of Ti0.17Al0.83N coating prepared by low pressure chemical vapor deposition. *Surface and Coatings Technology*, **2021**, 412, 127014 | 4.4 | 0 |
| 702 | Interface enhanced mechanical and thermal properties of TiSiN/TiAlN multilayers. *Journal of Alloys and Compounds*, **2021**, 861, 158571 | 5.7 | 10 |
| 701 | Stability, Elastic and Electronic Properties of Ta2N by First-Principles Calculations. *Crystals*, **2021**, 11, 445 | 2.3 | 1 |
| 700 | Microstructure, mechanical and thermal properties of TiAlTaN/TiAlSiN multilayer. *Vacuum*, **2021**, 187, 110138 | 3.7 | 2 |
| 699 | Effect of bimodal WC particle size and binder composition on the morphology of WC grains in WC–Co–Ni3Al cemented carbides. *Journal of Materials Research and Technology*, **2021**, 12, 1747-1754 | 5.5 | 4 |

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| 698 | Phase equilibria thermodynamics and solidified microstructure in the Ag-Cr-Zr system. *Journal of Alloys and Compounds*, **2021**, 863, 158618 | 5.7 | 2 |
| 697 | Phase equilibria, crystal structure of τ1-MnZn9 and thermodynamic re-assessment of the Zn-Mn system. *Journal of Alloys and Compounds*, **2021**, 863, 158484 | 5.7 | 1 |
| 696 | Structure and Mechanical Properties of PVD and CVD TiAlSiN Coatings Deposited on Cemented Carbide. *Crystals*, **2021**, 11, 598 | 2.3 | 4 |
| 695 | Thermodynamic re-assessment and liquidus projection of the CuNiTi system. *Calphad: Computer Coupling of Phase Diagrams and Thermochemistry*, **2021**, 73, 102256 | 1.9 | 1 |
| 694 | Phase equilibria and crystal structure of ternary compounds in Al-rich corner of Al-Er-Y system at 673 and 873K. *Journal of Materials Science and Technology*, **2021**, 60, 128-138 | 9.1 | 2 |
| 693 | On the temperature-dependent diffusion growth of ?-Mg5Al2Zn2 ternary intermetallic compound in the MgAlZn system. *Journal of Materials Science*, **2021**, 56, 3488-3497 | 4.3 | 0 |
| 692 | Diffusion growth of ? ternary intermetallic compound in the Mg-Al-Zn alloy system: In-situ observation and modeling. *Journal of Materials Science and Technology*, **2021**, 60, 222-229 | 9.1 | 4 |
| 691 | Assessment of atomic mobilities and simulation of precipitation evolution in Mg-X (X=Al, Zn, Sn) alloys. *Journal of Materials Science and Technology*, **2021**, 62, 70-82 | 9.1 | 6 |
| 690 | Self-accommodated defect structures modifying the growth of Laves phase. *Journal of Materials Science and Technology*, **2021**, 62, 203-213 | 9.1 | 6 |
| 689 | A general thermodynamic model for the long-period stacking ordered phases in magnesium alloys. *Journal of Magnesium and Alloys*, **2021**, 9, 144-155 | 8.8 | 3 |
| 688 | The interdiffusivity matrices in fcc_A1 NiCrV alloys: A high-throughput evaluation by CALTPP program. *Calphad: Computer Coupling of Phase Diagrams and Thermochemistry*, **2021**, 72, 102229 | 1.9 | 4 |
| 687 | Quantified effect of sample size and gas environment on precipitation of an aged Al-Mg-Si alloy. *Materials Characterization*, **2021**, 172, 110829 | 3.9 | 0 |
| 686 | Experimental Investigation and Thermodynamic Modeling of the Phase Equilibria in the Cu-Nb-Ni Ternary System. *Journal of Phase Equilibria and Diffusion*, **2021**, 42, 150-163 | 1 | 2 |
| 685 | Thermal Conductivity of As-Cast and Annealed Mg-RE Binary Alloys. *Metals*, **2021**, 11, 554 | 2.3 | 1 |
| 684 | Thermodynamic description and simulation of solidification microstructures in the CuMgZn system. *Journal of Materials Science*, **2021**, 56, 10614-10639 | 4.3 | 4 |
| 683 | Effect of alloying on stability of grain boundary in δphase of the UMo and UNb systems. *Calphad: Computer Coupling of Phase Diagrams and Thermochemistry*, **2021**, 72, 102241 | 1.9 | 2 |
| 682 | Understanding the surface adsorption and oxidation of cubic Cr0.5Al0.5N by first-principles calculations. *Computational Materials Science*, **2021**, 196, 110518 | 3.2 | 1 |
| 681 | Investigation on the corrosion resistance of the Mg-10Al-xMn alloys based on thermodynamic calculations. *Corrosion Science*, **2021**, 189, 109631 | 6.8 | 5 |

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| 680 | Effect of (Ti, Nb)(C, N) solid-solution powder on microstructure and mechanical properties of Ti(C, N)-based cermets: key experiment aided by thermodynamic calculations. *Materials Research Express* , **2021**, 8, 086518 | 1.7 | |
| 679 | Intrinsic Defects in LiMnO: First-Principles Calculations. *ACS Omega*, **2021**, 6, 21255-21264 | 3.9 | 1 |
| 678 | Experimental Investigation and Thermodynamic Calculation of the Be-C-Si System. *Journal of Phase Equilibria and Diffusion*, **2021**, 42, 515-523 | 1 | |
| 677 | Interdiffusion and atomic mobility in hcp Mg□Al□Sn alloys. *Journal of Alloys and Compounds*, **2021**, 871, 159517 | 5.7 | 0 |
| 676 | 3D phase field modeling of the morphology of WC grains in WC□Co alloys: The role of interface anisotropy. *Computational Materials Science*, **2021**, 196, 110526 | 3.2 | 3 |
| 675 | Experimental investigation and thermodynamic modeling of the U□Nb system. *Journal of Materials Science and Technology*, **2021**, 81, 229-235 | 9.1 | 3 |
| 674 | Thermodynamic modeling of the Te-X (X = Zr, Ce, Eu) systems. *Calphad: Computer Coupling of Phase Diagrams and Thermochemistry*, **2021**, 74, 102281 | 1.9 | 3 |
| 673 | Experimental investigation and CALPHAD modeling of the Cu□Cr□Si ternary system. *Calphad: Computer Coupling of Phase Diagrams and Thermochemistry*, **2021**, 74, 102324 | 1.9 | 2 |
| 672 | Thermodynamic assessment of the Ni-Co-M1 (M1 = Re, Ru) and Ni-Re-M2 (M2 = W, Ta) superalloy systems over the whole composition. *Calphad: Computer Coupling of Phase Diagrams and Thermochemistry*, **2021**, 74, 102302 | 1.9 | 1 |
| 671 | Influence of Si doping on the microstructure and hardness of an AlTiSiN coating deposited by low pressure chemical vapor deposition. *Ceramics International*, **2021**, 47, 25593-25601 | 5.1 | 0 |
| 670 | High-throughput determination of the composition-dependent mechanical and diffusion properties in □TiNbZrHf refractory alloys. *Journal of Alloys and Compounds*, **2021**, 876, 160150 | 5.7 | 4 |
| 669 | Interdiffusion behaviors and mechanical properties of Zn□Cr system. *Calphad: Computer Coupling of Phase Diagrams and Thermochemistry*, **2021**, 74, 102308 | 1.9 | 1 |
| 668 | Interdiffusion and atomic mobilities in bcc V□X (X = Mn, Sn and Ni) alloys: Measurement and modeling. *Calphad: Computer Coupling of Phase Diagrams and Thermochemistry*, **2021**, 74, 102316 | 1.9 | 1 |
| 667 | Densification, grain growth mechanism and mechanical properties of Mo 10Nb refractory targets fabricated by SPS. *International Journal of Refractory Metals and Hard Materials*, **2021**, 99, 105575 | 4.1 | 4 |
| 666 | Design of novel NiSiAlY alloys in marine salt-spray environment: Part I. Al-Si-Y and Ni-Si-Y subsystems. *Journal of Materials Science and Technology*, **2021**, 88, 66-78 | 9.1 | 4 |
| 665 | Design of novel NiSiAlY alloys in marine salt-spray environment: Part II. Al-Ni-Si-Y thermodynamic dataset. *Journal of Materials Science and Technology*, **2021**, 89, 186-198 | 9.1 | 7 |
| 664 | Shearing and rotation of □ and □ precipitates in an Al-Mg-Si alloy under tensile deformation: In-situ and ex-situ studies. *Acta Materialia*, **2021**, 220, 117310 | 8.4 | 5 |
| 663 | Diffusional behaviors and mechanical properties of Ni-Zn system. *Journal of Alloys and Compounds*, **2021**, 881, 160581 | 5.7 | 3 |

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| 662 | Atomistic Observation of Temperature-Dependent Defect Evolution within Sub-stoichiometric WO Catalysts.. *ACS Applied Materials & Interfaces*, **2021**, | 9.5 | 3 |
| 661 | Diffusion coefficients and atomic mobilities in fcc Ni□Cu□Mo alloys: Experiment and modeling. *Calphad: Computer Coupling of Phase Diagrams and Thermochemistry*, **2020**, 71, 102209 | 1.9 | 3 |
| 660 | Thermodynamic Modeling of the Ag-X (X = B, Fe, Sm, Pu) Binary Systems. *Journal of Phase Equilibria and Diffusion*, **2020**, 41, 257-268 | 1 | 1 |
| 659 | Optimization of the mechanical properties of ultra-fine WC-Co-Cr3C2 cemented carbides via an approach based on thermodynamic calculations and characterization of the experimental results by the Weibull distribution. *Calphad: Computer Coupling of Phase Diagrams and Thermochemistry*, **2020**, 70, 101778 | 1.9 | 6 |
| 658 | Diffusivity and atomic mobility for fcc Ni□Cu□Ti alloy: Measurements and an intelligent modeling. *Calphad: Computer Coupling of Phase Diagrams and Thermochemistry*, **2020**, 70, 101780 | 1.9 | 6 |
| 657 | □ needle-shape precipitate formation in Al-Mg-Si alloy: Phase field simulation and experimental verification. *Computational Materials Science*, **2020**, 184, 109878 | 3.2 | 9 |
| 656 | Machine learning reveals the importance of the formation enthalpy and atom-size difference in forming phases of high entropy alloys. *Materials and Design*, **2020**, 193, 108835 | 8.1 | 29 |
| 655 | A thermodynamic description of the C□Nb□Ti system over the whole composition and temperature ranges and its application in solidification microstructure analysis. *Calphad: Computer Coupling of Phase Diagrams and Thermochemistry*, **2020**, 70, 101769 | 1.9 | 1 |
| 654 | Phase equilibria and thermodynamic investigation of the In□Ti system. *Calphad: Computer Coupling of Phase Diagrams and Thermochemistry*, **2020**, 70, 101779 | 1.9 | 1 |
| 653 | Relation between the nitrogen gas pressure and structure characteristics of WC□Ti(C, N)□Co graded cemented carbides. *Journal of Alloys and Compounds*, **2020**, 831, 154764 | 5.7 | 6 |
| 652 | Experimental phase diagram, thermodynamic modeling and solidified microstructure in the Mo□Ni□W ternary system. *Calphad: Computer Coupling of Phase Diagrams and Thermochemistry*, **2020**, 68, 101748 | 1.9 | 6 |
| 651 | A new model to describe composition and temperature dependence of thermal conductivity for solution phases in binary alloys. *Journal of Materials Science and Technology*, **2020**, 59, 72-82 | 9.1 | 3 |
| 650 | Thermodynamic Calculation of the Liquidus Projections of the Al-Cu-Fe-Mg, Al-Cu-Mg-Si, and Al-Fe-Mg-Si Quaternary Systems on Al-Rich Corner. *Materials Science Forum*, **2020**, 993, 1031-1042 | 0.4 | |
| 649 | Diffusivity and Atomic Mobility in fcc Ni-Fe-V System: Experiment and Modeling. *Journal of Phase Equilibria and Diffusion*, **2020**, 41, 550-566 | 1 | 1 |
| 648 | Thermodynamic description, hardness and electrical conductivity of the Bi□Ni□Zn system: Experiment and modeling. *Journal of Alloys and Compounds*, **2020**, 825, 154156 | 5.7 | |
| 647 | Phase equilibria of the Cu□Zr□Si system at 750 and 900 °C. *Calphad: Computer Coupling of Phase Diagrams and Thermochemistry*, **2020**, 68, 101727 | 1.9 | 1 |
| 646 | Effect of melt holding on morphological evolution and sedimentation behavior of iron-rich intermetallic phases in Al□Si□Fe□Mn□Mg alloy. *Transactions of Nonferrous Metals Society of China*, **2020**, 30, 1-13 | 3.3 | 10 |
| 645 | Measurement of the phase equilibria in the Al□Zr□Y system at 673 and 823 K. *Calphad: Computer Coupling of Phase Diagrams and Thermochemistry*, **2020**, 68, 101726 | 1.9 | 1 |

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| 644 | The phase equilibria of the CuCrNi and CuCrAg systems: Experimental investigation and thermodynamic modeling. *Calphad: Computer Coupling of Phase Diagrams and Thermochemistry*, **2020**, 68, 101734 | 1.9 | 14 |
| 643 | The phase equilibria of the TiVM (M = Si, Nb, Ta) ternary systems. *Intermetallics*, **2020**, 118, 106701 | 3.5 | 5 |
| 642 | Diffusivities and Atomic Mobilities for the Cu-Rich fcc Cu-Al-Sn Alloys at 1073 K. *Journal of Phase Equilibria and Diffusion*, **2020**, 41, 378-389 | 1 | 3 |
| 641 | Thermodynamic reassessment of the MoHf and MoZr systems supported by first-principles calculations. *Calphad: Computer Coupling of Phase Diagrams and Thermochemistry*, **2020**, 69, 101766 | 1.9 | 8 |
| 640 | Effect of the combined addition of TaC and NbC on the dispersity of cubic phase in ultra-fine WC10Co0.5Cr cemented carbides. *Materials Research Express*, **2020**, 7, 106505 | 1.7 | |
| 639 | Experimental investigation and thermodynamic modeling of the CuAgSi ternary system. *Journal of Chemical Thermodynamics*, **2020**, 150, 106172 | 2.9 | 4 |
| 638 | Mechanical properties, thermal stability and oxidation resistance of TiN/CrN multilayer coatings. *Vacuum*, **2020**, 179, 109468 | 3.7 | 22 |
| 637 | Diffusional behaviors and mechanical properties of CuZn system. *Journal of Alloys and Compounds*, **2020**, 812, 152141 | 5.7 | 7 |
| 636 | Thermodynamic description and simulation of solidification microstructure in the Co-Ti system. *Journal of Chemical Thermodynamics*, **2020**, 142, 105995 | 2.9 | 3 |
| 635 | Impact of V, Hf and Si on oxidation processes in TiAlN: Insights from ab initio molecular dynamics. *Surface and Coatings Technology*, **2020**, 381, 125125 | 4.4 | 10 |
| 634 | A MGI-oriented investigation of the Young's modulus and its application to the development of a novel Ti-Nb-Zr-Cr bio-alloy. *Materials Science and Engineering C*, **2020**, 106, 110265 | 8.3 | 13 |
| 633 | Phase-field simulation of solidification microstructure in Ni and CuNi alloy using the Wheeler, Boettinger and McFadden model coupled with the CALPHAD data. *Calphad: Computer Coupling of Phase Diagrams and Thermochemistry*, **2020**, 68, 101691 | 1.9 | 2 |
| 632 | Modeling on the molar volume of the AlCuMgSi system. *Calphad: Computer Coupling of Phase Diagrams and Thermochemistry*, **2020**, 68, 101693 | 1.9 | 4 |
| 631 | Enhancement of strength and ductility by interfacial nano-decoration in carbon nanotube/aluminum matrix composites. *Carbon*, **2020**, 159, 201-212 | 10.4 | 33 |
| 630 | Simultaneously enhanced strength and ductility of 6xxx Al alloys via manipulating meso-scale and nano-scale structures guided with phase equilibrium. *Journal of Materials Science and Technology*, **2020**, 41, 139-148 | 9.1 | 13 |
| 629 | Critical evaluation of ternary phase diagram data: Important considerations in the scrutiny of the correctness, coherence, and interpretation. *Calphad: Computer Coupling of Phase Diagrams and Thermochemistry*, **2020**, 68, 101719 | 1.9 | 3 |
| 628 | Quantified contribution of  and  precipitates to the strengthening of an aged AlMgSi alloy. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing* , **2020**, 774, 138776 | 5.3 | 35 |
| 627 | A novel approach to calculate diffusion matrix in ternary systems: Application to AgMgMn and CuNiSn systems. *Calphad: Computer Coupling of Phase Diagrams and Thermochemistry*, **2020**, 68, 101708 | 1.9 | 12 |

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| 626 | Precipitation of ? in the ? binder phase of WC-Al-Co-Ni cemented carbide: A phase-field study. *Calphad: Computer Coupling of Phase Diagrams and Thermochemistry*, **2020**, 68, 101717 | 1.9 | 3 |
| 625 | Measurement of interdiffusivity for fcc_A1 Co-V-W alloys. *International Journal of Refractory Metals and Hard Materials*, **2020**, 87, 105134 | 4.1 | 2 |
| 624 | Atomic scale investigation of the crystal structure and interfaces of the B? precipitate in Al-Mg-Si alloys. *Acta Materialia*, **2020**, 185, 193-203 | 8.4 | 31 |
| 623 | Effects of Cr3C2, VC, and TaC on Microstructure, WC Morphology and Mechanical Properties of Ultrafine WC?10 wt. % Co Cemented Carbides. *Metals*, **2020**, 10, 1211 | 2.3 | 4 |
| 622 | CALPHAD-type modeling of the C?Hf?Mo system over the whole composition and temperature ranges. *Thermochimica Acta*, **2020**, 692, 178716 | 2.9 | 2 |
| 621 | Thermodynamic assessment of the C?Nb?V ternary system over the whole composition and temperature ranges. *Calphad: Computer Coupling of Phase Diagrams and Thermochemistry*, **2020**, 71, 102199 | 1.9 | |
| 620 | Atomic mobilities and diffusivities in fcc_A1 Ni?Cr?V system: Modeling and application. *Calphad: Computer Coupling of Phase Diagrams and Thermochemistry*, **2020**, 70, 101808 | 1.9 | 2 |
| 619 | Thermodynamic Description of the C-Cr-Zr System Over the Whole Composition and Temperature Ranges. *Journal of Phase Equilibria and Diffusion*, **2020**, 41, 870-882 | 1 | 1 |
| 618 | Effect of NbC on the microstructure, mechanical properties, and oxidation resistance of Ti(C,N)-based cermets. *International Journal of Materials Research*, **2020**, 111, 479-490 | 0.5 | 0 |
| 617 | Measurements of the melting points, liquidus, and solidus of the Mo, Ta, and Mo Ta binary alloys using a novel high-speed pyrometric technique. *International Journal of Refractory Metals and Hard Materials*, **2020**, 93, 105335 | 4.1 | 2 |
| 616 | Influence of Ru-addition on thermal decomposition and oxidation resistance of TiAlN coatings. *Surface and Coatings Technology*, **2020**, 401, 126234 | 4.4 | 8 |
| 615 | Solid-solubilities of grain-growth inhibitors in WC-Ni-based cemented carbides: experimental investigations and thermodynamic calculations. *Journal of Materials Research and Technology*, **2020**, 9, 10346-10354 | 5.5 | 1 |
| 614 | Thermodynamic description and phase selection for the Mo?Ti?Zr biomedical alloys. *Calphad: Computer Coupling of Phase Diagrams and Thermochemistry*, **2020**, 70, 101799 | 1.9 | 5 |
| 613 | Thermodynamic re-assessment and experimental confirmation for the Zn?Mn system. *Calphad: Computer Coupling of Phase Diagrams and Thermochemistry*, **2020**, 69, 101770 | 1.9 | 1 |
| 612 | Microstructure, mechanical properties and cutting performances of TiSiCN super-hard nanocomposite coatings deposited using CVD method under the guidance of thermodynamic calculations. *Surface and Coatings Technology*, **2019**, 378, 124956 | 4.4 | 9 |
| 611 | Investigation of WC?Co alloy properties based on thermodynamic calculation and Weibull distribution. *Materials Science and Technology*, **2019**, 35, 2269-2274 | 1.5 | 1 |
| 610 | Thermodynamic modeling of YO1.5-TaO2.5 system and the effects of elastic strain energy and diffusion on phase transformation of YTaO4. *Journal of the European Ceramic Society*, **2019**, 39, 5036-5047 | 6 | 13 |
| 609 | An in-situ study on the diffusion growth of intermetallic compounds in the Al?Mg diffusion couple. *Journal of Alloys and Compounds*, **2019**, 810, 151878 | 5.7 | 10 |

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| 608 | Through-process modeling and experimental verification of titanium carbonitride coating prepared by moderate temperature chemical vapor deposition. *Surface and Coatings Technology*, **2019**, 359, 278-288 | 4.4 | 3 |
| 607 | Mechanical properties and oxidation resistance of chemically vapor deposited TiSiN nanocomposite coating with thermodynamically designed compositions. *International Journal of Refractory Metals and Hard Materials*, **2019**, 80, 30-39 | 4.1 | 12 |
| 606 | Thermodynamic modeling of the U-Nb-Zr ternary system. *Journal of Nuclear Materials*, **2019**, 523, 157-171 | 3.3 | 3 |
| 605 | Thermodynamic Description of the Al-X (X = S, Se, Te) Systems. *Journal of Phase Equilibria and Diffusion*, **2019**, 40, 392-402 | 1 | 3 |
| 604 | Numerical Simulation of the SrZrO3 Formation in Solid Oxide Fuel Cells. *Journal of Electronic Materials*, **2019**, 48, 5510-5515 | 1.9 | 1 |
| 603 | Atomic mobilities and diffusivities in fcc Co-X (X = Mn, Pt and Re) alloys. *Calphad: Computer Coupling of Phase Diagrams and Thermochemistry*, **2019**, 64, 306-312 | 1.9 | 7 |
| 602 | Mechanical properties and microstructures of Al-10Mg-4.5Si matrix composites reinforced by carbon nanotubes. *Journal of Alloys and Compounds*, **2019**, 792, 860-868 | 5.7 | 10 |
| 601 | Effect of Manganese on Microstructure and Corrosion Behavior of the Mg-3Al Alloys. *Metals*, **2019**, 9, 460 | 2.3 | 10 |
| 600 | Thermodynamic Modeling of the B-Ti-Zr System Over the Whole Composition and Temperature Ranges. *Journal of Phase Equilibria and Diffusion*, **2019**, 40, 364-374 | 1 | 1 |
| 599 | Thermodynamic description and solidified microstructure of the Co-Ge system. *Journal of Alloys and Compounds*, **2019**, 793, 480-491 | 5.7 | |
| 598 | 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 | 13 | 185 |
| 597 | A general model to calculate coherent solid/solid and immiscible liquid/liquid interfacial energies. *Calphad: Computer Coupling of Phase Diagrams and Thermochemistry*, **2019**, 65, 225-231 | 1.9 | 7 |
| 596 | Investigation of diffusion behavior and mechanical properties of Mg-Zn system. *Calphad: Computer Coupling of Phase Diagrams and Thermochemistry*, **2019**, 65, 204-211 | 1.9 | 9 |
| 595 | Experimental Chemistry and Structural Stability of AlNb Enabled by Antisite Defects Formation. *Materials*, **2019**, 12, | 3.5 | 6 |
| 594 | Mechanical properties, thermal stability and oxidation resistance of Ta-doped CrAlN coatings. *Surface and Coatings Technology*, **2019**, 368, 25-32 | 4.4 | 26 |
| 593 | Improved properties of TiAlN coating by combined Si-addition and multilayer architecture. *Journal of Alloys and Compounds*, **2019**, 790, 909-916 | 5.7 | 25 |
| 592 | Thermodynamic modeling of the chromium-yttrium-oxygen system. *Calphad: Computer Coupling of Phase Diagrams and Thermochemistry*, **2019**, 64, 1-10 | 1.9 | 1 |
| 591 | Measurement of the Interdiffusion Coefficients in Mo-Ti and Mo-Ti-Zr Beta Phase Alloys from 1273 to 1473 K. *Journal of Phase Equilibria and Diffusion*, **2019**, 40, 206-218 | 1 | 2 |

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| 590 | Experimental Investigation of the Mg–Zn–Zr Isothermal Section at 400 °C. *Acta Metallurgica Sinica (English Letters)*, **2019**, 32, 426-432 | 2.5 | 4 |
| 589 | Experimental isothermal section of the Nb-Ni-Ru ternary system at 1100 °C. *Journal of Alloys and Compounds*, **2019**, 810, 151801 | 5.7 | 1 |
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