Guanglong Xu

List of Publications by Year in descending order

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47 papers	632 citations	623734 14 h-index	677142 22 g-index
47 all docs	47 docs citations	47 times ranked	476 citing authors

#	Article	IF	Citations
1	Improved fracture toughness by microalloying of Fe in Ti-6Al-4V. Materials and Design, 2020, 185, 108251.	7.0	51
2	Diffusion Research in BCC Ti-Al-Mo Ternary Alloys. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2014, 45, 1647-1652.	2.2	44
3	Effect of Î± morphology on the diffusional Î² â†" Î± transformation in Tiâ€"55531 during continuous heating: Dissection by dilatometer test, microstructure observation and calculation. Journal of Alloys and Compounds, 2017, 702, 352-365.	5.5	44
4	Dissecting functional degradation in NiTi shape memory alloys containing amorphous regions via atomistic simulations. Acta Materialia, 2021, 202, 331-349.	7.9	39
5	Thermodynamic database of multi-component Mg alloys and its application to solidification and heat treatment. Journal of Magnesium and Alloys, 2016, 4, 249-264.	11.9	33
6	The formation mechanism of eutectic microstructures in NiAlâ€"Cr composites. Physical Chemistry Chemical Physics, 2016, 18, 19773-19786.	2.8	26
7	Isothermal kinetics of Î² â†" Î± transformation in Ti-55531 alloy influenced by phase composition and microstructure. Materials and Design, 2017, 130, 302-316.	7.0	25
8	Exploring the Phase Transformation in Î²-Quenched Ti-55531 Alloy During Continuous Heating via Dilatometric Measurement, Microstructure Characterization, and Diffusion Analysis. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2016, 47, 5383-5394.	2.2	23
9	Microstructural strengthening and toughening mechanisms in Fe-containing Ti-6Al-4V: A comparison between homogenization and aging treated states. Journal of Materials Science and Technology, 2022, 99, 114-126.	10.7	23
10	Diffusivities and Atomic Mobilities in bcc Ti-Mo-Zr Alloys. Materials, 2018, 11, 1909.	2.9	20
11	Experimental and phenomenological investigations of diffusion in Coâ€"Alâ€"W alloys. Scripta Materialia, 2015, 106, 13-16.	5.2	19
12	Experimental investigation of phase equilibria in the Ti-Fe-Zr system. Calphad: Computer Coupling of Phase Diagrams and Thermochemistry, 2018, 61, 20-32.	1.6	17
13	Diffusivities and atomic mobilities in bcc Ti-Zr-Nb alloys. Calphad: Computer Coupling of Phase Diagrams and Thermochemistry, 2019, 64, 160-174.	1.6	17
14	Diffusion and atomic mobility of BCC Ti-Al-Nb alloys: Experimental determination and computational modeling. Calphad: Computer Coupling of Phase Diagrams and Thermochemistry, 2018, 62, 83-91.	1.6	16
15	Phase equilibria in the Gdâ€"Ni binary and Mgâ€"Niâ€"Gd ternary systems. International Journal of Materials Research, 2012, 103, 1179-1187.	0.3	14
16	Landau modeling of dynamical nucleation of martensite at grain boundaries under local stress. Computational Materials Science, 2016, 118, 103-111.	3.0	12
17	Assessment of atomic mobility for BCC Ti-Mn and Ti-Al-Mn alloys. Calphad: Computer Coupling of Phase Diagrams and Thermochemistry, 2018, 62, 141-147.	1.6	12
18	CALPHAD assessment of bio-oriented Tiâ€"Zrâ€"Sn system and experimental validation in Ti/Zr-rich alloys. Calphad: Computer Coupling of Phase Diagrams and Thermochemistry, 2019, 67, 101686.	1.6	12

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19	Thermodynamic assessment of the Tiâ€“Alâ€“Zr system and atomic mobility of its bcc phase. Calphad: Computer Coupling of Phase Diagrams and Thermochemistry, 2020, 70, 101801.	1.6	12
20	Exploring phase stability, electronic and mechanical properties of Ceâ€“Pb intermetallic compounds using first-principles calculations. Journal of Solid State Chemistry, 2016, 237, 385-393.	2.9	11
21	Experimental Diffusion Research on BCC Ti-Mn Binary and Ti-Alâ€Mn Ternary Alloys. Journal of Phase Equilibria and Diffusion, 2018, 39, 702-713.	1.4	11
22	Diffusivities and atomic mobilities in bcc Ti Nb Ta alloys. Calphad: Computer Coupling of Phase Diagrams and Thermochemistry, 2019, 65, 299-315.	1.6	11
23	Experimental Diffusion Research on BCC Ti-Al-Sn Ternary Alloys. Journal of Phase Equilibria and Diffusion, 2018, 39, 724-730.	1.4	10
24	Effects of Trace Erbium Addition on Microstructure and Mechanical Properties of Ti6Al4V-xEr Alloys. Metals, 2019, 9, 628.	2.3	10
25	Assessment of diffusion mobility for bcc phase of Tiâ€“Alâ€“Ni ternary system. Calphad: Computer Coupling of Phase Diagrams and Thermochemistry, 2020, 71, 102203.	1.6	10
26	Investigation on Ti-6Al-4V Microstructure Evolution in Selective Laser Melting. Metals, 2019, 9, 1270.	2.3	9
27	Diffusion research in HCP Mgâ€“Alâ€“Sn ternary alloys. Calphad: Computer Coupling of Phase Diagrams and Thermochemistry, 2020, 68, 101710.	1.6	9
28	Diffusion Research in BCC Ti-Al-Zr Ternary Alloys. Journal of Phase Equilibria and Diffusion, 2019, 40, 686-696.	1.4	8
29	Correlation between Microstructure and Mechanical Properties of Heat-Treated Tiâ€“6Alâ€“4V with Fe Alloying. Metals, 2020, 10, 854.	2.3	8
30	Investigation of thermophysical, electronic and lattice dynamic properties for CaX2Si2 (X=Ni,Zn,Cu,Ag,Au) via first-principles calculations. Computational Materials Science, 2015, 102, 167-173.	3.0	7
31	Diffusion behaviors and atomic mobilities in Mgâ€“Sc hcp and bcc alloys: Investigation via single-phase and multi-phase diffusion couples. Calphad: Computer Coupling of Phase Diagrams and Thermochemistry, 2021, 72, 102228.	1.6	7
32	Interdiffusion behaviors and mechanical properties in BCC Zr-rich Zrâ€“Nbâ€“Ta system. Calphad: Computer Coupling of Phase Diagrams and Thermochemistry, 2022, 77, 102410.	1.6	7
33	Experimental Investigation and Thermodynamic Modeling for the Mg-Nd-Sr System. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2013, 44, 5634-5641.	2.2	6
34	Invited paper: Kinetic diffusion multiple: A high-throughput approach to screening the composition-microstructure-micromechanical properties relationships. Calphad: Computer Coupling of Phase Diagrams and Thermochemistry, 2018, 61, 219-226.	1.6	6
35	Exploring the correlation between solvent diffusion and creep resistance of Mg-Ga HCP alloys from high throughput liquid-solid diffusion couple. Materials and Design, 2021, 197, 109243.	7.0	6
36	Mapping of Diffusion and Nanohardness Properties of Fcc Co-Al-V Alloys Using Ternary Diffusion Couples. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2017, 48, 4286-4296.	2.2	5

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37	High-throughput extraction of the anisotropic interdiffusion coefficients in hcp Mgâ€“Al alloys. Journal of Alloys and Compounds, 2019, 805, 237-246.	5.5	5
38	Optimization of Low-Cost Ti-35421 Titanium Alloy: Phase Transformation, Bimodal Microstructure, and Combinatorial Mechanical Properties. Materials, 2019, 12, 2791.	2.9	5
39	Isochronal and isothermal phase transformation in Î²â€‰+â€‰Îacicular Tiâ€“55531. Journal of Materials Science, 2020, 55, 3073-3091.	3.7	5
40	Interdiffusion behaviors and mechanical properties of Zr-X (X Nb, Ta, Hf) binary systems. Journal of Alloys and Compounds, 2022, 910, 164910.	5.5	5
41	Experimental investigation and thermodynamic description of Mgâ€“Scâ€“Zn ternary system. Calphad: Computer Coupling of Phase Diagrams and Thermochemistry, 2022, 77, 102406.	1.6	4
42	Experimental investigation of phase equilibria in the Mg-rich corner of Mg-Nd-Sc system. Materials Research Express, 2021, 8, 016502.	1.6	3
43	Mapping of microstructure features and micromechanical properties of Tiâ€“xAlâ€“yFe (x=0â€“6,) Tj ETQq1 1 0.784314 rgBT /Overlo 18, 3526-3540.	5.8	2
44	Experimental diffusion research and assessment of diffusional mobility in HCP Mgâ€“Al-Ga ternary alloys. Calphad: Computer Coupling of Phase Diagrams and Thermochemistry, 2022, 78, 102437.	1.6	2
45	Isochronal Phase Transformation in Bimodal Ti-55531. Metals, 2019, 9, 790.	2.3	1
46	Assessment of Atomic Mobility for Diffusion in Ti-Al-Sn bcc Phase. Journal of Phase Equilibria and Diffusion, 2021, 42, 535-546.	1.4	0
47	Measurement of the diffusion coefficient in Mgâ€“Sn and Mgâ€“Sc binary alloys. International Journal of Materials Research, 2022, 113, 391-399.	0.3	0