

Abhishek Mehta

List of Publications by Year in descending order

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papers

955
citations

567144

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all docs

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32
times ranked

647
citing authors

#	ARTICLE	IF	CITATIONS
1	Microstructure, precipitates and hardness of selectively laser melted AlSi10Mg alloy before and after heat treatment. <i>Materials Characterization</i> , 2018, 143, 5-17.	1.9	201
2	Composition-dependent solidification cracking of aluminum-silicon alloys during laser powder bed fusion. <i>Acta Materialia</i> , 2021, 208, 116698.	3.8	97
3	Microstructure, precipitates and mechanical properties of powder bed fused inconel 718 before and after heat treatment. <i>Journal of Materials Science and Technology</i> , 2019, 35, 1153-1164.	5.6	94
4	Stabilization of Sn Anode through Structural Reconstruction of a Cu-Sn Intermetallic Coating Layer. <i>Advanced Materials</i> , 2020, 32, e2003684.	11.1	53
5	Laser powder bed fusion of Al-10 wt% Ce alloys: microstructure and tensile property. <i>Journal of Materials Science</i> , 2020, 55, 14611-14625.	1.7	51
6	Investigation of sluggish diffusion in FCC Al _{0.25} CoCrFeNi high-entropy alloy. <i>Materials Research Letters</i> , 2021, 9, 239-246.	4.1	42
7	Microstructure, mechanical performance, and corrosion behavior of additively manufactured aluminum alloy 5083 with 0.7 and 1.0 wt% Zr addition. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2021, 823, 141679.	2.6	36
8	High Entropy and Sluggish Diffusion Core-Effects in Senary FCC Al-Co-Cr-Fe-Ni-Mn Alloys. <i>ACS Combinatorial Science</i> , 2020, 22, 757-767.	3.8	30
9	Mechanical properties examined by nanoindentation for selected phases relevant to the development of monolithic uranium-molybdenum metallic fuels. <i>Journal of Nuclear Materials</i> , 2017, 487, 443-452.	1.3	28
10	Additive manufacturing and mechanical properties of the dense and crack free Zr-modified aluminum alloy 6061 fabricated by the laser-powder bed fusion. <i>Additive Manufacturing</i> , 2021, 41, 101966.	1.7	28
11	Composition-dependent interdiffusion coefficient, reduced elastic modulus and hardness in β^3 - and β^2 -phases in the Ni-Al system. <i>Journal of Alloys and Compounds</i> , 2017, 727, 153-162.	2.8	25
12	Elimination of extraordinarily high cracking susceptibility of aluminum alloy fabricated by laser powder bed fusion. <i>Journal of Materials Science and Technology</i> , 2022, 103, 50-58.	5.6	21
13	Anode Materials: Stabilization of Sn Anode through Structural Reconstruction of a Cu-Sn Intermetallic Coating Layer (<i>Adv. Mater.</i> 42/2020). <i>Advanced Materials</i> , 2020, 32, 2070319.	11.1	20
14	Interdiffusion, Solubility Limit, and Role of Entropy in FCC Al-Co-Cr-Fe-Ni Alloys. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2020, 51, 3142-3153.	1.1	19
15	Microstructural Characterization of AA6061 Versus AA6061 HIP Bonded Cladding-Cladding Interface. <i>Journal of Phase Equilibria and Diffusion</i> , 2018, 39, 246-254.	0.5	17
16	Effects of Alloy Composition and Solid-State Diffusion Kinetics on Powder Bed Fusion Cracking Susceptibility. <i>Journal of Phase Equilibria and Diffusion</i> , 2021, 42, 5-13.	0.5	17
17	Microstructural Development in Inconel 718 Nickel-Based Superalloy Additively Manufactured by Laser Powder Bed Fusion. <i>Metallography, Microstructure, and Analysis</i> , 2022, 11, 88-107.	0.5	16
18	Interdiffusion and Reaction Between Al and Zr in the Temperature Range of 425 to 475°C. <i>Journal of Phase Equilibria and Diffusion</i> , 2019, 40, 482-494.	0.5	15

#	ARTICLE	IF	CITATIONS
19	Fundamental Core Effects in Transition Metal High-Entropy Alloys: “High-Entropy” and “Sluggish Diffusion” Effects. , 0, 29, 75-93.		15
20	Mechanical Behavior Assessment of Ti-6Al-4V ELI Alloy Produced by Laser Powder Bed Fusion. Metals, 2021, 11, 1671.	1.0	15
21	Martensitic transformation and mechanical properties of Ni _{49+x} Mn ₃₆ In ₁₅ (x=0, 0.5, 1.0, 1.5 and 2.0) alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 646, 57-65.	2.6	14
22	Simultaneous Measurement of Isotope-Free Tracer Diffusion Coefficients and Interdiffusion Coefficients in the Cu-Ni System. Journal of Phase Equilibria and Diffusion, 2018, 39, 862-869.	0.5	14
23	Microstructural characteristics and mechanical properties of additively manufactured Cu-10Sn alloys by laser powder bed fusion. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2022, 838, 142775.	2.6	12
24	Relating Diffusion Couple Experiment Results to Observed As-Fabricated Microstructures in Low-Enriched U-10wt.% Mo Monolithic Fuel Plates. Defect and Diffusion Forum, 0, 375, 18-28.	0.4	10
25	Direct-Contact Cytotoxicity Evaluation of CoCrFeNi-Based Multi-Principal Element Alloys. Journal of Functional Biomaterials, 2018, 9, 59.	1.8	10
26	Effects of Marker Size and Distribution on the Development of Kirkendall Voids, and Coefficients of Interdiffusion and Intrinsic Diffusion. Journal of Phase Equilibria and Diffusion, 2019, 40, 156-169.	0.5	10
27	Phase Transformations and Microstructural Development in the U-10 Wt% Mo Alloy with Varying Zr Contents After Heat Treatments Relevant to the Monolithic Fuel Plate Fabrication Process. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2019, 50, 72-96.	1.1	9
28	Anomalous growth of Al ₈ Mo ₃ phase during interdiffusion and reaction between Al and Mo. Journal of Nuclear Materials, 2020, 539, 152337.	1.3	9
29	Interdiffusion, Reactions, and Phase Transformations Observed during Fabrication of Low Enriched Uranium Monolithic Fuel System for Research and Test Reactors. Defect and Diffusion Forum, 0, 383, 10-16.	0.4	8
30	Measurement of Interdiffusion and Tracer Diffusion Coefficients in FCC Co-Cr-Fe-Ni Multi-Principal Element Alloy. Journal of Phase Equilibria and Diffusion, 2021, 42, 696-707.	0.5	8
31	Phase reversion kinetics of thermally decomposed ($\hat{1}\hat{2} + \hat{1}^3$) phases to $\hat{1}^3$ -phase in U - 10Åwt% Mo alloy. Journal of Nuclear Materials, 2020, 530, 151983.	1.3	7
32	High strength aluminum-cerium alloy processed by laser powder bed fusion. Additive Manufacturing, 2022, 52, 102657.	1.7	4