Lang Yuan

List of Publications by Year
in descending order

38 papers	1,323 citations	394421 19 h-index	377865 34 g-index
40 all docs	40 docs citations	40 times ranked	948 citing authors

#	Article	IF	Citations
1	In-process failure analysis of thin-wall structures made by laser powder bed fusion additive manufacturing. Journal of Materials Science and Technology, 2022, 98, 233-243.	10.7	27
2	Machine learning algorithms for defect detection in metal laser-based additive manufacturing: A review. Journal of Manufacturing Processes, 2022, 75, 693-710.	5.9	86
3	Effect of Build Height on Micro-cracking of Additively Manufactured Superalloy RENÃ‰ 108 Thin-Wall Components. Minerals, Metals and Materials Series, 2022, , 985-993.	0.4	2
4	A Numerical Approach to Model Microstructure Evolution for NiTi Shape Memory Alloy in Laser Powder Bed Fusion Additive Manufacturing. Integrating Materials and Manufacturing Innovation, 2022, 11, 121-138.	2.6	7
5	In situ monitoring for fused filament fabrication process: A review. Additive Manufacturing, 2021, 38, 101749.	3.0	39
6	An Efficient Track-Scale Model for Laser Powder Bed Fusion Additive Manufacturing: Part 1- Thermal Model. Frontiers in Materials, 2021, 8, .	2.4	7
7	An Efficient Track-Scale Model for Laser Powder Bed Fusion Additive Manufacturing: Part 2â€"Mechanical Model. Frontiers in Materials, 2021, 8, .	2.4	6
8	Towards prediction of microstructure during laser based additive manufacturing process of Co-Cr-Mo powder beds. Materials and Design, 2020, 196, 109117.	7.0	15
9	Solidification Behavior in the Presence of External Fields: Part I. Jom, 2020, 72, 3608-3609.	1.9	0
10	Towards understanding grain nucleation under Additive Manufacturing solidification conditions. Acta Materialia, 2020, 195, 392-403.	7.9	127
11	Columnar-to-equiaxed transition in a laser scan for metal additive manufacturing. IOP Conference Series: Materials Science and Engineering, 2020, 861, 012007.	0.6	6
12	Fluid Dynamics Effects on Microstructure Prediction in Single-Laser Tracks for Additive Manufacturing of IN625. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2020, 51, 1263-1281.	2.1	14
13	Grain Structure Prediction for Directionally Solidified Superalloy Castings. Jom, 2020, 72, 1785-1793.	1.9	7
14	Revealing the Mechanisms of Grain Nucleation and Formation During Additive Manufacturing. Jom, 2020, 72, 1065-1073.	1.9	66
15	Solidification Behavior in the Presence of External Fields: Part II. Jom, 2020, 72, 4069-4070.	1.9	0
16	Solidification Defects in Additive Manufactured Materials. Jom, 2019, 71, 3221-3222.	1.9	20
17	Numerical simulation of wave-like nucleation events. IOP Conference Series: Materials Science and Engineering, 2019, 529, 012043.	0.6	2
18	Neutron residual stress measurement and numerical modeling in a curved thin-walled structure by laser powder bed fusion additive manufacturing. Materials and Design, 2017, 135, 122-132.	7.0	106

#	ARTICLE	IF	CITATIONS
19	Calculation of Physical Properties for Use in Models of Continuous Casting Process-Part 1: Mould Slags. ISIJ International, 2016, 56, 264-273.	1.4	54
20	Calculation of Physical Properties for Use in Models of Continuous Casting Process-Part 2: Steels. ISIJ International, 2016, 56, 274-281.	1.4	13
21	The effect of the melt thermal gradient on the size of the constitutionally supercooled zone. IOP Conference Series: Materials Science and Engineering, 2016, 117, 012001.	0.6	5
22	Modeling of time dependent localized flow shear stress and its impact on cellular growth within additive manufactured titanium implants. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2014, 102, 1689-1699.	3.4	19
23	3-D microstructural model of freckle formation validated using in situ experiments. Acta Materialia, 2014, 79, 168-180.	7.9	95
24	Synchrotron Radiography Studies of Shear-Induced Dilation in Semisolid Al Alloys and Steels. Jom, 2014, 66, 1415-1424.	1.9	13
25	In situ synchrotron tomographic quantification of granular and intragranular deformation during semi-solid compression of an equiaxed dendritic Alâ€“Cu alloy. Acta Materialia, 2014, 76, 371-380.	7.9	84
26	Simulation of diffusion-limited lateral growth of dendrites during solidification via liquid metal cooling. Acta Materialia, 2014, 69, 47-59.	7.9	28
27	The Interdependence model of grain nucleation: A numerical analysis of the Nucleation-Free Zone. Acta Materialia, 2013, 61, 5914-5927.	7.9	60
28	A Multiscale 3D Model of the Vacuum Arc Remelting Process. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2013, 44, 5365-5376.	2.2	34
29	A Review of the Factors Affecting the Thermophysical Properties of Silicate Slags. High Temperature Materials and Processes, 2012, 31, 301-321.	1.4	46
30	A new mechanism for freckle initiation based on microstructural level simulation. Acta Materialia, 2012, 60, 4917-4926.	7.9	119
31	Numerical study of dendrite coherency during equiaxed solidification by the Discrete Element Method. IOP Conference Series: Materials Science and Engineering, 2012, 33, 012071.	0.6	1
32	Exploring dendrite coherency with the discrete element method. Acta Materialia, 2012, 60, 1334-1345.	7.9	43
33	Dendritic solidification under natural and forced convection in binary alloys: 2D versus 3D simulation. Modelling and Simulation in Materials Science and Engineering, 2010, 18, 055008.	2.0	113
34	Microstructural Simulations of the Influence of Solidification Velocity on Freckle Initiation during Directional Solidification. ISIJ International, 2010, 50, 1814-1818.	1.4	16
35	Numerical simulation of the effect of fluid flow on solute distribution and dendritic morphology. International Journal of Cast Metals Research, 2009, 22, 204-207.	1.0	20
36	MULTISCALE MODELING OF THE VACUUM ARC REMELTING PROCESS FOR THE PREDICTION ON MICROSTRUCTURE FORMATION. International Journal of Modern Physics B, 2009, 23, 1584-1590.	2.0	20

#	Article	IF	Citations
37	Improvement of the Interdependence Analytical Model through Selection of Interfacial Growth Rates during the Initial Transient. Materials Science Forum, 0, 765, 77-81.	0.3	2
38	On the Solute Diffusion Length in the Interdependence Model: Dendritic versus Non-Dendritic Interface. Materials Science Forum, 0, 828-829, 461-467.	0.3	0