

Thomas F Flint

List of Publications by Year in descending order

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16
papers

275
citations

932766

10
h-index

1058022

14
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all docs

16
docs citations

16
times ranked

177
citing authors

#	ARTICLE	IF	CITATIONS
1	beamWeldFoam: Numerical simulation of high energy density fusion and vapourisation-inducing processes. <i>SoftwareX</i> , 2022, 18, 101065.	1.2	5
2	A fundamental analysis of factors affecting chemical homogeneity in the laser powder bed fusion process. <i>International Journal of Heat and Mass Transfer</i> , 2022, 194, 122985.	2.5	14
3	Magneto-hydrodynamics of multi-phase flows in heterogeneous systems with large property gradients. <i>Scientific Reports</i> , 2021, 11, 18998.	1.6	8
4	Effects of dilution on the hardness and residual stresses in multipass steel weldments. <i>International Journal of Pressure Vessels and Piping</i> , 2020, 187, 104154.	1.2	14
5	A thermal fluid dynamics framework applied to multi-component substrates experiencing fusion and vaporisation state transitions. <i>Communications Physics</i> , 2020, 3, .	2.0	22
6	Electron beam weld modelling of ferritic steel: effect of prior-austenite grain size on transformation kinetics. <i>Procedia Manufacturing</i> , 2020, 51, 842-847.	1.9	0
7	HEDSATS: High energy density semi-analytical thermal solutions. <i>SoftwareX</i> , 2019, 10, 100243.	1.2	4
8	A semi-analytical solution for the transient temperature field generated by a volumetric heat source developed for the simulation of friction stir welding. <i>International Journal of Thermal Sciences</i> , 2019, 138, 586-595.	2.6	12
9	Characterisation and modelling of tempering during multi-pass welding. <i>Journal of Materials Processing Technology</i> , 2019, 270, 118-131.	3.1	26
10	Phase-Field Simulation of Grain Boundary Evolution In Microstructures Containing Second-Phase Particles with Heterogeneous Thermal Properties. <i>Scientific Reports</i> , 2019, 9, 18426.	1.6	15
11	Effects of dilution on alloy content and microstructure in multi-pass steel welds. <i>Journal of Materials Processing Technology</i> , 2019, 265, 71-86.	3.1	42
12	Prediction of Dilution and Its Impact on the Metallurgical and Mechanical Behavior of a Multipass Steel Weldment. <i>Journal of Pressure Vessel Technology, Transactions of the ASME</i> , 2019, 141, .	0.4	10
13	Prediction of grain structure evolution during rapid solidification of high energy density beam induced re-melting. <i>Materials and Design</i> , 2018, 147, 200-210.	3.3	14
14	Semi-analytical solutions for the transient temperature fields induced by a moving heat source in an orthogonal domain. <i>International Journal of Thermal Sciences</i> , 2018, 123, 140-150.	2.6	31
15	Modelling of Dilution Effects on Microstructure and Residual Stress in a Multi-Pass Weldment. , 2018, , .		3
16	Extension of the double-ellipsoidal heat source model to narrow-groove and keyhole weld configurations. <i>Journal of Materials Processing Technology</i> , 2017, 246, 123-135.	3.1	55