Samuel J Clark

List of Publications by Year
in descending order

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25	494	759233 12	677142 22
papers	citations	h-index	g-index

26	26	26	343
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Keyhole fluctuation and pore formation mechanisms during laser powder bed fusion additive manufacturing. Nature Communications, 2022, 13, 1170.	12.8	98
2	Investigating nano-precipitation in a V-containing HSLA steel using small angle neutron scattering. Acta Materialia, 2018, 145, 84-96.	7.9	47
3	Correlative Synchrotron X-ray Imaging and Diffraction of Directed Energy Deposition Additive Manufacturing. Acta Materialia, 2021, 209, 116777.	7.9	47
4	In-situ Synchrotron imaging of keyhole mode multi-layer laser powder bed fusion additive manufacturing. Applied Materials Today, 2020, 20, 100650.	4.3	46
5	A novel approach for interpreting the solidification behaviour of peritectic steels by combining CSLM and DSC. Materials Characterization, 2017, 133, 25-32.	4.4	28
6	In situ X-ray quantification of melt pool behaviour during directed energy deposition additive manufacturing of stainless steel. Materials Letters, 2021, 286, 129205.	2.6	28
7	Nano-mechanical properties of Fe-Mn-Al-C lightweight steels. Scientific Reports, 2018, 8, 9065.	3.3	22
8	Analysis of the extent of interphase precipitation in V-HSLA steels through in-situ characterization of the Î³/Îı transformation. Materials Characterization, 2016, 115, 83-89.	4.4	20
9	Machine learning for predicting occurrence of interphase precipitation in HSLA steels. Computational Materials Science, 2018, 154, 169-177.	3.0	20
10	In situ radiographic and ex situ tomographic analysis of pore interactions during multilayer builds in laser powder bed fusion. Additive Manufacturing, 2020, 36, 101512.	3.0	20
11	Synchrotron X-ray imaging of directed energy deposition additive manufacturing of titanium alloy Ti-6242. Additive Manufacturing, 2021, 41, 101969.	3.0	17
12	Achieving homogeneity in a high-Fe Î²-Ti alloy laser-printed from blended elemental powders. Materials and Design, 2021, 210, 110072.	7.0	15
13	Sinter formation during directed energy deposition of titanium alloy powders. International Journal of Machine Tools and Manufacture, 2022, 176, 103887.	13.4	12
14	Quantification of evolution of multiple simultaneous phase transformations using dilation curve analysis (DCA). Acta Materialia, 2016, 102, 231-240.	7.9	11
15	Interphase Precipitation â€“ An Interfacial Segregation Model. ISIJ International, 2017, 57, 524-532.	1.4	10
16	Growth mechanism of primary needles during the solidification of chromium carbide overlays. Acta Materialia, 2018, 151, 356-365.	7.9	10
17	Mitigating keyhole pore formation by nanoparticles during laser powder bed fusion additive manufacturing. Additive Manufacturing Letters, 2022, 3, 100068.	2.1	8
18	Dynamic Multicontrast X-Ray Imaging Method Applied to Additive Manufacturing. Physical Review Letters, 2021, 127, 215503.	7.8	7

#	Article	IF	Citations
19	Unraveling compacted graphite evolution during solidification of cast iron using in-situ synchrotron X-ray tomography. Carbon, 2021, 184, 799-810.	10.3	6
20	In situ synchrotron investigation of degenerate graphite nodule evolution in ductile cast iron. Acta Materialia, 2021, 221, 117367.	7.9	6
21	A phase-field model for interphase precipitation in V-micro-alloyed structural steels. Computational Materials Science, 2017, 137, 257-265.	3.0	5
22	A phase-field model investigating the role of elastic strain energy during the growth of closely spaced neighbouring interphase precipitates. Computational Materials Science, 2018, 142, 437-443.	3.0	5
23	Modelling the complex evaporated gas flow and its impact on particle spattering during laser powder bed fusion. Additive Manufacturing, 2021, 47, 102332.	3.0	4
24	In Situ Characterisation of Austenite/Ferrite Transformation Kinetics and Modelling of Interphase Precipitation Inter-Sheet Spacing in V Microalloyed HSLA Steels. Materials Science Forum, 2016, 879, 356-362.	0.3	1
25	Time resolved in-situ multi-contrast X-ray imaging of melting in metals. Scientific Reports, 2022, 12, .	3.3	0