

# Joseph W Newkirk

## List of Publications by Year in descending order

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Version: 2024-02-01

61  
papers

1,398  
citations

471061

17  
h-index

344852

36  
g-index

62  
all docs

62  
docs citations

62  
times ranked

1509  
citing authors

#	ARTICLE	IF	CITATIONS
1	Powder characterisation techniques and effects of powder characteristics on part properties in powder-bed fusion processes. <i>Virtual and Physical Prototyping</i> , 2017, 12, 3-29.	5.3	242
2	Effect of Al/Ni ratio, heat treatment on phase transformations and microstructure of Al <sub>x</sub> FeCoCrNi <sub>2</sub> (x= 0.3, 1) high entropy alloys. <i>Materials &amp; Design</i> , 2015, 81, 113-121.	5.1	137
3	Properties of friction stir-processed Al <sub>1100</sub> /NiTi composite. <i>Scripta Materialia</i> , 2007, 56, 541-544.	2.6	107
4	An investigation of the effect of direct metal deposition parameters on the characteristics of the deposited layers. <i>Case Studies in Thermal Engineering</i> , 2014, 3, 21-34.	2.8	95
5	Applications of a hybrid manufacturing process for fabrication of metallic structures. <i>Rapid Prototyping Journal</i> , 2007, 13, 236-244.	1.6	85
6	Ti-Fe intermetallics analysis and control in joining titanium alloy and stainless steel by Laser Metal Deposition. <i>Journal of Materials Processing Technology</i> , 2017, 242, 39-48.	3.1	65
7	Investigation of effect of process parameters on multilayer builds by direct metal deposition. <i>Applied Thermal Engineering</i> , 2014, 73, 500-511.	3.0	62
8	Vision-based defect detection in laser metal deposition process. <i>Rapid Prototyping Journal</i> , 2014, 20, 77-85.	1.6	61
9	Characterization of AISI 304L stainless steel powder recycled in the laser powder-bed fusion process. <i>Additive Manufacturing</i> , 2020, 32, 100981.	1.7	35
10	Direct laser deposition of Ti-6Al-4V from elemental powder blends. <i>Rapid Prototyping Journal</i> , 2016, 22, 810-816.	1.6	31
11	An investigation of the effect of laser deposition parameters on characteristics of multilayered 316L deposits. <i>International Journal of Advanced Manufacturing Technology</i> , 2014, 73, 1739-1749.	1.5	30
12	Microstructure and properties of functionally graded materials Ti6Al4V/TiC fabricated by direct laser deposition. <i>Rapid Prototyping Journal</i> , 2018, 24, 677-687.	1.6	30
13	Weibull statistical analysis of Krouse type bending fatigue of nuclear materials. <i>Journal of Nuclear Materials</i> , 2016, 470, 244-250.	1.3	28
14	Characterization of laser spatter and condensate generated during the selective laser melting of 304L stainless steel powder. <i>Additive Manufacturing</i> , 2020, 31, 100904.	1.7	25
15	Failure in metal honeycombs manufactured by selective laser melting of 304L stainless steel under compression. <i>Virtual and Physical Prototyping</i> , 2019, 14, 114-122.	5.3	23
16	Investigation on Ti6Al4V-V-Cr-Fe-SS316 Multi-layers Metallic Structure Fabricated by Laser 3D Printing. <i>Scientific Reports</i> , 2017, 7, 7977.	1.6	22
17	Corrosion of Inconel 690 and Inconel 693 in an iron phosphate glass melt. <i>Corrosion Science</i> , 2013, 75, 148-157.	3.0	19
18	Investigation of Mechanical Properties of Parts Fabricated with Gas- and Water-Atomized 304L Stainless Steel Powder in the Laser Powder Bed Fusion Process. <i>Jom</i> , 2022, 74, 1088-1095.	0.9	19

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19	Methodology for Studying Effect of Cooling Rate During Laser Deposition on Microstructure. Journal of Materials Engineering and Performance, 2015, 24, 3129-3136.	1.2	17
20	Fabrication of Functionally Graded Ti and Ti-3TiAl by Laser Metal Deposition. Jom, 2017, 69, 2756-2761.	0.9	17
21	On the Feasibility of Tailoring Copper-Nickel Functionally Graded Materials Fabricated through Laser Metal Deposition. Metals, 2019, 9, 287.	1.0	16
22	Microstructural and hardness investigation of tool steel D2 processed by laser surface melting and alloying. International Journal of Advanced Manufacturing Technology, 2014, 73, 1427-1435.	1.5	14
23	Grain Size Effects in Selective Laser Melted Fe-Co-2V. Applied Sciences (Switzerland), 2019, 9, 3701.	1.3	13
24	Evolution of AISI 304L stainless steel part properties due to powder recycling in laser powder-bed fusion. Additive Manufacturing, 2020, 36, 101439.	1.7	13
25	Design strategy for reducing manufacturing and assembly complexity of air-breathing Proton Exchange Membrane Fuel Cells (PEMFC). Journal of Manufacturing Systems, 2016, 38, 165-171.	7.6	12
26	Effective elastic moduli of metal honeycombs manufactured using selective laser melting. Rapid Prototyping Journal, 2020, 26, 971-980.	1.6	11
27	Numerical simulation of the thermal history multiple laser deposited layers. International Journal of Advanced Manufacturing Technology, 2014, 73, 1625-1631.	1.5	10
28	The performance of Inconel 693 electrodes for processing an iron phosphate glass melt containing 26wt.% of a simulated low activity waste. Journal of Nuclear Materials, 2014, 444, 323-330.	1.3	10
29	Tensile behavior in selective laser melting. International Journal of Advanced Manufacturing Technology, 2018, 96, 1187-1194.	1.5	9
30	Effect of SLM Build Parameters on the Compressive Properties of 304L Stainless Steel. Journal of Manufacturing and Materials Processing, 2019, 3, 43.	1.0	9
31	Characterization of copper-nickel alloys fabricated using laser metal deposition and blended powder feedstocks. International Journal of Advanced Manufacturing Technology, 2019, 103, 239-250.	1.5	9
32	High Cycle Fatigue Performance of LPBF 304L Stainless Steel at Nominal and Optimized Parameters. Materials, 2020, 13, 1591.	1.3	9
33	Ti6Al4V/SS316 multi-metallic structure fabricated by laser 3D printing and thermodynamic modeling prediction. International Journal of Advanced Manufacturing Technology, 2017, 92, 4511-4523.	1.5	8
34	Long-Term Effects of Temperature Exposure on SLM 304L Stainless Steel. Jom, 2018, 70, 384-389.	0.9	8
35	Investigation of machining coolant residue cleaning methods for Ti6Al4V part fabrication through hybrid manufacturing process. Manufacturing Letters, 2018, 16, 10-13.	1.1	8
36	Properties of Hot-Pressed Cr-Cr3Si. Materials Research Society Symposia Proceedings, 1994, 364, 955.	0.1	7

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37	Build Strategy Investigation of Ti-6Al-4V Produced Via a Hybrid Manufacturing Process. <i>Jom</i> , 2018, 70, 1706-1713.	0.9	7
38	Build accuracy and compression properties of additively manufactured 304L honeycombs. <i>Rapid Prototyping Journal</i> , 2020, 26, 1049-1057.	1.6	7
39	A Displacement Controlled Fatigue Test Method for Additively Manufactured Materials. <i>Applied Sciences (Switzerland)</i> , 2019, 9, 3226.	1.3	6
40	Absorption of Nitrogen during Pulsed Wave L-PBF of 17-4 PH Steel. <i>Materials</i> , 2021, 14, 560.	1.3	6
41	The Corrosion Behavior of Ni <sub>3</sub> (Si,Nb) Alloys in Boiling 70Åwt.% Sulfuric Acid. <i>Journal of Materials Engineering and Performance</i> , 2016, 25, 510-517.	1.2	5
42	Anisotropy in impact toughness of powder bed fused AISI 304L stainless steel. <i>Material Design and Processing Communications</i> , 2019, , e59.	0.5	5
43	Micro-slotting Residual Stress Measurement Technique for Understanding Fatigue Performance of Open-Hole Ti-6Al-4V Samples. <i>Journal of Materials Engineering and Performance</i> , 2019, 28, 5716-5724.	1.2	5
44	Effective elastic properties of additively manufactured metallic cellular structures using numerical unit-cell homogenization. <i>Progress in Additive Manufacturing</i> , 2020, 5, 355-366.	2.5	5
45	TiNi-Based Bi-Metallic Shape-Memory Alloy by Laser-Directed Energy Deposition. <i>Materials</i> , 2022, 15, 3945.	1.3	5
46	Effect of mechanical surface treatments on Ti-6Al-4V direct metal deposition parts. <i>Journal of Manufacturing Processes</i> , 2008, 10, 56-60.	2.8	4
47	Chromium-free nickel alloys for hot sulfuric and sulfur environments. <i>International Journal of Hydrogen Energy</i> , 2011, 36, 4588-4594.	3.8	4
48	Investigation of forged-like microstructure produced by a hybrid manufacturing process. <i>Rapid Prototyping Journal</i> , 2016, 22, 717-726.	1.6	4
49	Interaction of tantalum with reinforcements in $\hat{3}$ TiAl. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 1992, 153, 662-667.	2.6	3
50	Optimization and characterization of novel injection molding process for metal matrix syntactic foams. <i>SN Applied Sciences</i> , 2020, 2, 1.	1.5	3
51	Fabricating TiNiCu Ternary Shape Memory Alloy by Directed Energy Deposition via Elemental Metal Powders. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 4863.	1.3	3
52	Micro-slotting technique for reliable measurement of sub-surface residual stress in Ti-6Al-4V. <i>Journal of Strain Analysis for Engineering Design</i> , 2018, 53, 389-399.	1.0	2
53	Plasma Spheroidization of Vitreloy 106A Bulk Metallic Glass Powder. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2019, 50, 4791-4797.	1.1	2
54	The Effect of Microalloying B on the High Temperature Mechanical Properties of Ti3Al. <i>Materials Research Society Symposia Proceedings</i> , 1988, 133, 681.	0.1	1

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55	Gamma-Titanium Aluminide Reinforced with Al <sub>2</sub> O <sub>3</sub> and TiB <sub>2</sub> Fibers*. Materials Research Society Symposia Proceedings, 1992, 288, 1063.	0.1	1
56	On the Current State of Powder Characterization. Microscopy and Microanalysis, 2016, 22, 1956-1957.	0.2	1
57	Evaluating Material Property Variations in Components With Difficult Geometries. , 2017, , .		1
58	Influence of defects on the effective properties of selectively laser melted cellular structures. International Journal of Advanced Manufacturing Technology, 2021, 116, 1259-1270.	1.5	1
59	PM manufacturing research boosted by continuous sintering furnace. Powder Metallurgy, 2004, 47, 221-222.	0.9	0
60	Nonprismatic Air-Breathing Fuel Cellsâ€™ Concept, Theory, Design, and Manufacturing. Journal of Electrochemical Energy Conversion and Storage, 2016, 13, .	1.1	0
61	Effect of the Melt Pool Boundary Network on the Anisotropic Mechanical Properties of Selective Laser Melted 304L. Journal of Manufacturing and Materials Processing, 2021, 5, 110.	1.0	0