

# 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  | 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        |
| 2  | TiNi-Based Bi-Metallic Shape-Memory Alloy by Laser-Directed Energy Deposition. <i>Materials</i> , 2022, 15, 3945.   | 1.3 | 5         |
| 3  | 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         |
| 4  | Influence of defects on the effective properties of selectively laser melted cellular structures. <i>International Journal of Advanced Manufacturing Technology</i> , 2021, 116, 1259-1270.               | 1.5 | 1         |
| 5  | Absorption of Nitrogen during Pulsed Wave L-PBF of 17-4 PH Steel. <i>Materials</i> , 2021, 14, 560.   | 1.3 | 6         |
| 6  | Effect of the Melt Pool Boundary Network on the Anisotropic Mechanical Properties of Selective Laser Melted 304L. <i>Journal of Manufacturing and Materials Processing</i> , 2021, 5, 110.                | 1.0 | 0         |
| 7  | 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        |
| 8  | 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        |
| 9  | Build accuracy and compression properties of additively manufactured 304L honeycombs. <i>Rapid Prototyping Journal</i> , 2020, 26, 1049-1057.   | 1.6 | 7         |
| 10 | Effective elastic moduli of metal honeycombs manufactured using selective laser melting. <i>Rapid Prototyping Journal</i> , 2020, 26, 971-980.  | 1.6 | 11        |
| 11 | Evolution of AISI 304L stainless steel part properties due to powder recycling in laser powder-bed fusion. <i>Additive Manufacturing</i> , 2020, 36, 101439.  | 1.7 | 13        |
| 12 | Optimization and characterization of novel injection molding process for metal matrix syntactic foams. <i>SN Applied Sciences</i> , 2020, 2, 1.   | 1.5 | 3         |
| 13 | 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         |
| 14 | High Cycle Fatigue Performance of LPBF 304L Stainless Steel at Nominal and Optimized Parameters. <i>Materials</i> , 2020, 13, 1591.   | 1.3 | 9         |
| 15 | 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         |
| 16 | Anisotropy in impact toughness of powder bed fused AISI 304L stainless steel. <i>Material Design and Processing Communications</i> , 2019, , e59.   | 0.5 | 5         |
| 17 | A Displacement Controlled Fatigue Test Method for Additively Manufactured Materials. <i>Applied Sciences (Switzerland)</i> , 2019, 9, 3226.   | 1.3 | 6         |
| 18 | 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         |

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|----|---|-----|-----------|
| 19 | 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         |
| 20 | On the Feasibility of Tailoring Copper–Nickel Functionally Graded Materials Fabricated through Laser Metal Deposition. Metals, 2019, 9, 287.  | 1.0 | 16        |
| 21 | 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         |
| 22 | Grain Size Effects in Selective Laser Melted Fe-Co-2V. Applied Sciences (Switzerland), 2019, 9, 3701.   | 1.3 | 13        |
| 23 | Failure In metal honeycombs manufactured by selective laser melting of 304L stainless steel under compression. Virtual and Physical Prototyping, 2019, 14, 114-122.                             | 5.3 | 23        |
| 24 | Microstructure and properties of functionally graded materials Ti6Al4V/TiC fabricated by direct laser deposition. Rapid Prototyping Journal, 2018, 24, 677-687.                                 | 1.6 | 30        |
| 25 | Long-Term Effects of Temperature Exposure on SLM 304L Stainless Steel. Jom, 2018, 70, 384-389.  | 0.9 | 8         |
| 26 | Tensile behavior in selective laser melting. International Journal of Advanced Manufacturing Technology, 2018, 96, 1187-1194.   | 1.5 | 9         |
| 27 | Investigation of machining coolant residue cleaning methods for Ti6Al4V part fabrication through hybrid manufacturing process. Manufacturing Letters, 2018, 16, 10-13.                          | 1.1 | 8         |
| 28 | Build Strategy Investigation of Ti-6Al-4V Produced Via a Hybrid Manufacturing Process. Jom, 2018, 70, 1706-1713.  | 0.9 | 7         |
| 29 | Micro-slotting technique for reliable measurement of sub-surface residual stress in Ti-6Al-4V. Journal of Strain Analysis for Engineering Design, 2018, 53, 389-399.                            | 1.0 | 2         |
| 30 | Ti-Fe intermetallics analysis and control in joining titanium alloy and stainless steel by Laser Metal Deposition. Journal of Materials Processing Technology, 2017, 242, 39-48.                | 3.1 | 65        |
| 31 | 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         |
| 32 | Powder characterisation techniques and effects of powder characteristics on part properties in powder-bed fusion processes. Virtual and Physical Prototyping, 2017, 12, 3-29.                   | 5.3 | 242       |
| 33 | Investigation on Ti6Al4V-V-Cr-Fe-SS316 Multi-layers Metallic Structure Fabricated by Laser 3D Printing. Scientific Reports, 2017, 7, 7977.  | 1.6 | 22        |
| 34 | Evaluating Material Property Variations in Components With Difficult Geometries. , 2017, , .  |     | 1         |
| 35 | Fabrication of Functionally Graded Ti and $\beta$ -TiAl by Laser Metal Deposition. Jom, 2017, 69, 2756-2761.  | 0.9 | 17        |
| 36 | On the Current State of Powder Characterization. Microscopy and Microanalysis, 2016, 22, 1956-1957.   | 0.2 | 1         |

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 37 | Nonprismatic Air-Breathing Fuel Cells—Concept, Theory, Design, and Manufacturing. Journal of Electrochemical Energy Conversion and Storage, 2016, 13, .   | 1.1 | 0         |
| 38 | Investigation of forged-like microstructure produced by a hybrid manufacturing process. Rapid Prototyping Journal, 2016, 22, 717-726.   | 1.6 | 4         |
| 39 | Direct laser deposition of Ti-6Al-4V from elemental powder blends. Rapid Prototyping Journal, 2016, 22, 810-816.  | 1.6 | 31        |
| 40 | The Corrosion Behavior of Ni <sub>3</sub> (Si,Nb) Alloys in Boiling 70Åwt.% Sulfuric Acid. Journal of Materials Engineering and Performance, 2016, 25, 510-517.                                   | 1.2 | 5         |
| 41 | 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        |
| 42 | Weibull statistical analysis of Krouse type bending fatigue of nuclear materials. Journal of Nuclear Materials, 2016, 470, 244-250.   | 1.3 | 28        |
| 43 | 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        |
| 44 | Effect of Al/Ni ratio, heat treatment on phase transformations and microstructure of Al FeCoCrNi <sub>2</sub> (x= 0.3, 1) high entropy alloys. Materials & Design, 2015, 81, 113-121.             | 5.1 | 137       |
| 45 | Vision-based defect detection in laser metal deposition process. Rapid Prototyping Journal, 2014, 20, 77-85.  | 1.6 | 61        |
| 46 | Investigation of effect of process parameters on multilayer builds by direct metal deposition. Applied Thermal Engineering, 2014, 73, 500-511.  | 3.0 | 62        |
| 47 | 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        |
| 48 | An investigation of the effect of laser deposition parameters on characteristics of multilayered 316ÅL deposits. International Journal of Advanced Manufacturing Technology, 2014, 73, 1739-1749. | 1.5 | 30        |
| 49 | Numerical simulation of the thermal history multiple laser deposited layers. International Journal of Advanced Manufacturing Technology, 2014, 73, 1625-1631.                                     | 1.5 | 10        |
| 50 | 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        |
| 51 | An investigation of the effect of direct metal deposition parameters on the characteristics of the deposited layers. Case Studies in Thermal Engineering, 2014, 3, 21-34.                         | 2.8 | 95        |
| 52 | Corrosion of Inconel 690 and Inconel 693 in an iron phosphate glass melt. Corrosion Science, 2013, 75, 148-157.   | 3.0 | 19        |
| 53 | Chromium-free nickel alloys for hot sulfuric and sulfur environments. International Journal of Hydrogen Energy, 2011, 36, 4588-4594.  | 3.8 | 4         |
| 54 | Effect of mechanical surface treatments on Ti-6Al-4V direct metal deposition parts. Journal of Manufacturing Processes, 2008, 10, 56-60.  | 2.8 | 4         |

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|----|--|-----|-----------|
| 55 | Applications of a hybrid manufacturing process for fabrication of metallic structures. Rapid Prototyping Journal, 2007, 13, 236-244.   | 1.6 | 85        |
| 56 | Properties of friction stir-processed Al 1100â€“NiTi composite. Scripta Materialia, 2007, 56, 541-544.   | 2.6 | 107       |
| 57 | PM manufacturing research boosted by continuous sintering furnace. Powder Metallurgy, 2004, 47, 221-222.   | 0.9 | 0         |
| 58 | Properties of Hot-Pressed Cr-Cr3Si. Materials Research Society Symposia Proceedings, 1994, 364, 955.   | 0.1 | 7         |
| 59 | Gamma-Titanium Aluminide Reinforced with Al2O3 and TiB2 Fibers*. Materials Research Society Symposia Proceedings, 1992, 288, 1063.   | 0.1 | 1         |
| 60 | Interaction of tantalum with reinforcements in $\hat{1}^3$ TiAl. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1992, 153, 662-667. | 2.6 | 3         |
| 61 | The Effect of Microalloying B on the High Temperature Mechanical Properties of Ti3Al. Materials Research Society Symposia Proceedings, 1988, 133, 681.                                   | 0.1 | 1         |