

Johannes Henrich Schleifenbaum

List of Publications by Year in descending order

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Version: 2024-02-01

54
papers

1,976
citations

279798

23
h-index

254184

43
g-index

55
all docs

55
docs citations

55
times ranked

1704
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|------|-----------|
| 1 | Additive manufacturing of biodegradable metals: Current research status and future perspectives. <i>Acta Biomaterialia</i> , 2019, 98, 3-22. | 8.3 | 176 |
| 2 | Mechanical properties and deformation behavior of additively manufactured lattice structures of stainless steel. <i>Materials and Design</i> , 2018, 145, 205-217. | 7.0 | 150 |
| 3 | Laser additive manufacturing of Zn metal parts for biodegradable applications: Processing, formation quality and mechanical properties. <i>Materials and Design</i> , 2018, 155, 36-45. | 7.0 | 114 |
| 4 | Densification behavior of pure Zn metal parts produced by selective laser melting for manufacturing biodegradable implants. <i>Journal of Materials Processing Technology</i> , 2018, 258, 128-137. | 6.3 | 98 |
| 5 | Effect of β phase on high temperature mechanical performances of Inconel 718 fabricated with SLM process. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2019, 767, 138327. | 5.6 | 90 |
| 6 | Development of a solvent-free polylactide/calcium carbonate composite for selective laser sintering of bone tissue engineering scaffolds. <i>Materials Science and Engineering C</i> , 2019, 101, 660-673. | 7.3 | 86 |
| 7 | Oxide dispersion-strengthened alloys generated by laser metal deposition of laser-generated nanoparticle-metal powder composites. <i>Materials and Design</i> , 2018, 154, 360-369. | 7.0 | 82 |
| 8 | Laser additive manufacturing of Zn porous scaffolds: Shielding gas flow, surface quality and densification. <i>Journal of Materials Science and Technology</i> , 2019, 35, 368-376. | 10.7 | 77 |
| 9 | Microstructure formation and mechanical properties of ODS steels built by laser additive manufacturing of nanoparticle coated iron-chromium powders. <i>Acta Materialia</i> , 2021, 206, 116566. | 7.9 | 67 |
| 10 | Influence of solution heat treatment on microstructure and tensile properties of Inconel 718 formed by high-deposition-rate laser metal deposition. <i>Journal of Alloys and Compounds</i> , 2018, 740, 389-399. | 5.5 | 62 |
| 11 | Influence of keyhole and conduction mode melting for top-hat shaped beam profiles in laser powder bed fusion. <i>Journal of Materials Processing Technology</i> , 2020, 278, 116514. | 6.3 | 61 |
| 12 | Study of nickel-based super-alloys Inconel 718 and Inconel 625 in high-deposition-rate laser metal deposition. <i>Optics and Laser Technology</i> , 2019, 109, 352-360. | 4.6 | 55 |
| 13 | Numerical simulation in the absorption behavior of Ti6Al4V powder materials to laser energy during SLM. <i>Journal of Materials Processing Technology</i> , 2019, 268, 25-36. | 6.3 | 55 |
| 14 | Depositing laser-generated nanoparticles on powders for additive manufacturing of oxide dispersed strengthened alloy parts via laser metal deposition. <i>Japanese Journal of Applied Physics</i> , 2018, 57, 040310. | 1.5 | 50 |
| 15 | Rapid Alloy Development of Extremely High-Alloyed Metals Using Powder Blends in Laser Powder Bed Fusion. <i>Materials</i> , 2019, 12, 1706. | 2.9 | 49 |
| 16 | Case Studies on Local Reinforcement of Sheet Metal Components by Laser Additive Manufacturing. <i>Metals</i> , 2017, 7, 113. | 2.3 | 47 |
| 17 | Efficient numerical modeling of 3D-printed lattice-cell structures using neural networks. <i>Manufacturing Letters</i> , 2018, 15, 147-150. | 2.2 | 45 |
| 18 | Additive manufacturing of biodegradable Zn-xWE43 porous scaffolds: Formation quality, microstructure and mechanical properties. <i>Materials and Design</i> , 2019, 181, 107937. | 7.0 | 45 |

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|----|--|------|-----------|
| 19 | The effect of homogenization temperature on the microstructure and high temperature mechanical performance of SLM-fabricated IN718 alloy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2021, 801, 140427. | 5.6 | 43 |
| 20 | Laser additive manufacturing of oxide dispersion strengthened steels using laser-generated nanoparticle-metal composite powders. <i>Procedia CIRP</i> , 2018, 74, 196-200. | 1.9 | 33 |
| 21 | Strongly Out-of-Equilibrium Columnar Solidification During Laser Powder-Bed Fusion in Additive Manufacturing. <i>Physical Review Applied</i> , 2019, 11, . | 3.8 | 33 |
| 22 | Additively manufactured pure zinc porous scaffolds for critical-sized bone defects of rabbit femur. <i>Bioactive Materials</i> , 2023, 19, 12-23. | 15.6 | 31 |
| 23 | Extreme High-Speed Laser Material Deposition (EHLA) of AISI 4340 Steel. <i>Coatings</i> , 2019, 9, 778. | 2.6 | 29 |
| 24 | Influence of the material properties of a poly(D,L-lactide)/ β -tricalcium phosphate composite on the processability by selective laser sintering. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2018, 87, 267-278. | 3.1 | 28 |
| 25 | Porous structure design and fabrication of metal-bonded diamond grinding wheel based on selective laser melting (SLM). <i>International Journal of Advanced Manufacturing Technology</i> , 2019, 100, 1451-1462. | 3.0 | 26 |
| 26 | Equipment and process windows for laser metal deposition with coaxial wire feeding. <i>Journal of Laser Applications</i> , 2019, 31, . | 1.7 | 25 |
| 27 | Laser polishing and 2PP structuring of inside microfluidic channels in fused silica. <i>Microfluidics and Nanofluidics</i> , 2017, 21, 1. | 2.2 | 23 |
| 28 | Visualization of the shielding gas flow in SLM machines by space-resolved thermal anemometry. <i>Rapid Prototyping Journal</i> , 2018, 24, 1296-1304. | 3.2 | 21 |
| 29 | Development of a high-speed laser material deposition process for additive manufacturing. <i>Journal of Laser Applications</i> , 2021, 33, . | 1.7 | 20 |
| 30 | Numerical and Experimental Study of Ti6Al4V Components Manufactured Using Powder Bed Fusion Additive Manufacturing. <i>Jom</i> , 2017, 69, 2711-2718. | 1.9 | 19 |
| 31 | Surface roughness in laser powder bed fusion – Interdependency of surface orientation and laser incidence. <i>Additive Manufacturing</i> , 2020, 36, 101437. | 3.0 | 19 |
| 32 | Ageing response of an Al-Mg-Mn-Sc-Zr alloy processed by laser metal deposition in thin-wall structures. <i>Vacuum</i> , 2018, 158, 121-125. | 3.5 | 18 |
| 33 | Statistical/Numerical Model of the Powder-Gas Jet for Extreme High-Speed Laser Material Deposition. <i>Coatings</i> , 2020, 10, 416. | 2.6 | 17 |
| 34 | Controlling microstructure and mechanical properties of additively manufactured high-strength steels by tailored solidification. <i>Additive Manufacturing</i> , 2020, 35, 101389. | 3.0 | 16 |
| 35 | Inner strut morphology is the key parameter in producing highly porous and mechanically stable poly(ϵ -caprolactone) scaffolds via selective laser sintering. <i>Materials Science and Engineering C</i> , 2021, 123, 111986. | 7.3 | 15 |
| 36 | Laser additive manufacturing of Zn metal parts for biodegradable implants: Effect of gas flow on evaporation and formation quality. <i>Journal of Laser Applications</i> , 2019, 31, . | 1.7 | 14 |

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|----|---|-----|-----------|
| 37 | Increasing resource efficiency with an engineering decision support system for comparison of product design variants. <i>Journal of Cleaner Production</i> , 2019, 210, 1051-1062. | 9.3 | 13 |
| 38 | Effect of grain structure on the mechanical properties and in vitro corrosion behavior of additively manufactured pure Zn. <i>Additive Manufacturing</i> , 2020, 33, 101134. | 3.0 | 13 |
| 39 | Additive manufacturing of high-strength eutectic aluminium-nickel alloys – Processing and mechanical properties. <i>Journal of Materials Processing Technology</i> , 2021, 298, 117315. | 6.3 | 13 |
| 40 | Digital photonic production along the lines of industry 4.0. , 2018, , . | | 12 |
| 41 | Tailoring the nanostructure of laser powder bed fusion additively manufactured maraging steel. <i>Additive Manufacturing</i> , 2020, 36, 101561. | 3.0 | 11 |
| 42 | Comparison of the EHLA and LPBF Process in Context of New Alloy Design Methods for LPBF. <i>Advanced Materials Research</i> , 0, 1161, 13-25. | 0.3 | 10 |
| 43 | Influence of Laser Energy Input and Shielding Gas Flow on Evaporation Fume during Laser Powder Bed Fusion of Zn Metal. <i>Materials</i> , 2021, 14, 2677. | 2.9 | 9 |
| 44 | Effect of wire feeder force control on laser metal deposition process using coaxial laser head. <i>Journal of Laser Applications</i> , 2021, 33, . | 1.7 | 8 |
| 45 | Influence of focal length on the laser metal deposition process with coaxial wire feeding. , 2019, , . | | 7 |
| 46 | Formation Quality, Mechanical Properties, and Processing Behavior of Pure Zinc Parts Produced by Laser-Based Manufacturing for Biodegradable Implants. <i>BHM-Zeitschrift Fuer Rohstoffe Geotechnik Metallurgie Werkstoffe Maschinen-Und Anlagentechnik</i> , 2019, 164, 133-140. | 1.0 | 6 |
| 47 | Precise control of microstructure and mechanical properties of additively manufactured steels using elemental carbon powder. <i>Materials Letters</i> , 2021, 295, 129788. | 2.6 | 6 |
| 48 | Additive manufacturing of biodegradable Zn-xMg alloys: Effect of Mg content on manufacturability, microstructure and mechanical properties. <i>Materials Today Communications</i> , 2022, 32, 103805. | 1.9 | 6 |
| 49 | Microstructures, tensile properties, and fracture mechanisms of Inconel 718 formed by HDR-LMD with PREP and GA powders. <i>International Journal of Advanced Manufacturing Technology</i> , 2018, 96, 2031-2041. | 3.0 | 5 |
| 50 | Multi-physical analysis of thermo-optical effects for different Selective Laser Melting (SLM) scanning strategies. <i>Procedia CIRP</i> , 2018, 74, 97-101. | 1.9 | 5 |
| 51 | Particle velocity measurement in powder gas jets of coaxial powder nozzles for laser material deposition. <i>Journal of Laser Applications</i> , 2021, 33, . | 1.7 | 5 |
| 52 | Laser Powder Bed Fusion of Advanced High-Strength Steels – Modification of Deformation Mechanisms by Increasing Stacking Fault Energy. <i>BHM-Zeitschrift Fuer Rohstoffe Geotechnik Metallurgie Werkstoffe Maschinen-Und Anlagentechnik</i> , 2019, 164, 127-132. | 1.0 | 3 |
| 53 | Laser Metal Deposition of a Near-Eutectic Al-Ni Alloy. <i>Advanced Engineering Materials</i> , 2022, 24, . | 3.5 | 3 |
| 54 | Influence of Degradation Product Thickness on the Elastic Stiffness of Porous Absorbable Scaffolds Made from an Bioabsorbable Zn-Mg Alloy. <i>Materials</i> , 2021, 14, 6027. | 2.9 | 2 |