

Ryan R Dehoff

List of Publications by Year in descending order

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57
papers

6,310
citations

145106

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169272

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docs citations

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times ranked

5787
citing authors

#	ARTICLE	IF	CITATIONS
1	Towards high-temperature applications of aluminium alloys enabled by additive manufacturing. <i>International Materials Reviews</i> , 2022, 67, 298-345.	9.4	95
2	Data Mining and Visualization of High-Dimensional ICME Data for Additive Manufacturing. <i>Integrating Materials and Manufacturing Innovation</i> , 2022, 11, 57-70.	1.2	4
3	A creep-resistant additively manufactured Al-Ce-Ni-Mn alloy. <i>Acta Materialia</i> , 2022, 227, 117699.	3.8	51
4	Scan strategies in EBM-printed IN718 and the physics of bulk 3D microstructure development. <i>Materials Characterization</i> , 2022, 190, 112043.	1.9	6
5	The Influence of Powder Reuse on the Properties of Nickel Super Alloy ATI 718 in Laser Powder Bed Fusion Additive Manufacturing. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2021, 52, 676-688.	1.0	15
6	Non-destructive characterization of additively manufactured components with x-ray computed tomography for part qualification: A study with laboratory and synchrotron x-rays. <i>Materials Characterization</i> , 2021, 173, 110894.	1.9	11
7	Elevated temperature ductility dip in an additively manufactured Al-Cu-Ce alloy. <i>Acta Materialia</i> , 2021, 220, 117285.	3.8	38
8	Processing of tungsten through electron beam melting. <i>Journal of Nuclear Materials</i> , 2021, 555, 153041.	1.3	27
9	Al-Cu-Ce(-Zr) alloys with an exceptional combination of additive processability and mechanical properties. <i>Additive Manufacturing</i> , 2021, 48, 102404.	1.7	9
10	Investigating the effect of metal powder recycling in Electron beam Powder Bed Fusion using process log data. <i>Additive Manufacturing</i> , 2020, 32, 100994.	1.7	17
11	A defect-resistant Co-Ni superalloy for 3D printing. <i>Nature Communications</i> , 2020, 11, 4975.	5.8	107
12	Geometry-independent microstructure optimization for electron beam powder bed fusion additive manufacturing. <i>Additive Manufacturing</i> , 2020, 35, 101354.	1.7	10
13	Predicting geometric influences in metal additive manufacturing. <i>Materials Today Communications</i> , 2020, 25, 101174.	0.9	8
14	3D Characterization of the Columnar-to-Equiaxed Transition in Additively Manufactured Inconel 718. <i>Minerals, Metals and Materials Series</i> , 2020, , 990-1002.	0.3	10
15	Processing-Microstructure Relationships From 3D Characterization of Additively Manufactured Metals. <i>Microscopy and Microanalysis</i> , 2019, 25, 2582-2583.	0.2	1
16	A review on the fatigue behavior of Ti-6Al-4V fabricated by electron beam melting additive manufacturing. <i>International Journal of Fatigue</i> , 2019, 119, 173-184.	2.8	149
17	Defects and 3D structural inhomogeneity in electron beam additively manufactured Inconel 718. <i>Materials Characterization</i> , 2018, 143, 171-181.	1.9	71
18	Feedstock powder processing research needs for additive manufacturing development. <i>Current Opinion in Solid State and Materials Science</i> , 2018, 22, 8-15.	5.6	163

#	ARTICLE	IF	CITATIONS
19	Electron beam melting of Inconel 718: Effects of processing and post-processing. <i>Materials Science and Technology</i> , 2018, 34, 612-619.	0.8	37
20	Progress in the Processing and Understanding of Alloy 718 Fabricated Through Powder Bed Additive Manufacturing Processes. <i>Minerals, Metals and Materials Series</i> , 2018, , 69-88.	0.3	6
21	Correlations Between Powder Feedstock Quality, In Situ Porosity Detection, and Fatigue Behavior of Ti-6Al-4V Fabricated by Powder Bed Electron Beam Melting: A Step Towards Qualification. <i>Jom</i> , 2018, 70, 1686-1691.	0.9	29
22	Correlation of Microstructure to Creep Response of Hot Isostatically Pressed and Aged Electron Beam Melted Inconel 718. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2018, 49, 5107-5117.	1.1	36
23	Effects of heat treatments on microstructure and properties of Ti-6Al-4V ELI alloy fabricated by electron beam melting (EBM). <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2017, 685, 417-428.	2.6	272
24	Effect of Hypoeutectic Boron Additions on the Grain Size and Mechanical Properties of Ti-6Al-4V Manufactured with Powder Bed Electron Beam Additive Manufacturing. <i>Jom</i> , 2017, 69, 472-478.	0.9	27
25	Thermographic Microstructure Monitoring in Electron Beam Additive Manufacturing. <i>Scientific Reports</i> , 2017, 7, 43554.	1.6	105
26	Solidification and solid-state transformation sciences in metals additive manufacturing. <i>Scripta Materialia</i> , 2017, 135, 130-134.	2.6	90
27	Nucleation and growth of chimney pores during electron-beam additive manufacturing. <i>Journal of Materials Science</i> , 2017, 52, 3429-3435.	1.7	15
28	Powder bed charging during electron-beam additive manufacturing. <i>Acta Materialia</i> , 2017, 124, 437-445.	3.8	69
29	Localized melt-scan strategy for site specific control of grain size and primary dendrite arm spacing in electron beam additive manufacturing. <i>Acta Materialia</i> , 2017, 140, 375-387.	3.8	160
30	Porosity detection in electron beam-melted Ti-6Al-4V using high-resolution neutron imaging and grating-based interferometry. <i>Progress in Additive Manufacturing</i> , 2017, 2, 125-132.	2.5	36
31	Mechanical behavior of post-processed Inconel 718 manufactured through the electron beam melting process. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2017, 680, 338-346.	2.6	111
32	Characterization of Crystallographic Structures Using Bragg-Edge Neutron Imaging at the Spallation Neutron Source. <i>Journal of Imaging</i> , 2017, 3, 65.	1.7	31
33	Numerical modeling of heat-transfer and the influence of process parameters on tailoring the grain morphology of IN718 in electron beam additive manufacturing. <i>Acta Materialia</i> , 2016, 112, 303-314.	3.8	385
34	Microstructure Development in Electron Beam-Melted Inconel 718 and Associated Tensile Properties. <i>Jom</i> , 2016, 68, 1012-1020.	0.9	98
35	Calibrating IR cameras for in-situ temperature measurement during the electron beam melt processing of Inconel 718 and Ti-Al6-V4. <i>Proceedings of SPIE</i> , 2016, , .	0.8	9
36	Mechanical Characterization of an Additively Manufactured Inconel 718 Theta-Shaped Specimen. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2016, 47, 971-980.	1.1	20

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37	Recyclability Study on Inconel 718 and Ti-6Al-4V Powders for Use in Electron Beam Melting. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2016, 47, 754-762.	1.0	108
38	Effects of the microstructure and porosity on properties of Ti-6Al-4V ELI alloy fabricated by electron beam melting (EBM). Additive Manufacturing, 2016, 10, 47-57.	1.7	224
39	Additive manufacturing of liquid/gas diffusion layers for low-cost and high-efficiency hydrogen production. International Journal of Hydrogen Energy, 2016, 41, 3128-3135.	3.8	79
40	Microstructural and micromechanical characterization of IN718 theta shaped specimens built with electron beam melting. Acta Materialia, 2016, 108, 161-175.	3.8	54
41	The metallurgy and processing science of metal additive manufacturing. International Materials Reviews, 2016, 61, 315-360.	9.4	1,706
42	Additive manufacturing of materials: Opportunities and challenges. MRS Bulletin, 2015, 40, 1154-1161.	1.7	91
43	Comparison of Residual Stresses in Inconel 718 Simple Parts Made by Electron Beam Melting and Direct Laser Metal Sintering. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2015, 46, 1419-1432.	1.1	220
44	Site specific control of crystallographic grain orientation through electron beam additive manufacturing. Materials Science and Technology, 2015, 31, 931-938.	0.8	424
45	Crystallographic texture engineering through novel melt strategies via electron beam melting: Inconel 718. Materials Science and Technology, 2015, 31, 939-944.	0.8	114
46	Use of stereology to derive a new kinetic equation for mean curvature driven grain growth. Acta Materialia, 2015, 100, 240-246.	3.8	9
47	Thermal effects on microstructural heterogeneity of Inconel 718 materials fabricated by electron beam melting. Journal of Materials Research, 2014, 29, 1920-1930.	1.2	170
48	Properties of Inconel 625 mesh structures grown by electron beam additive manufacturing. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 615, 191-197.	2.6	42
49	Development of a two-body wet abrasion test method with attention to the effects of reused abrasant. Wear, 2013, 302, 1035-1039.	1.5	9
50	Thermographic in-situ process monitoring of the electron-beam melting technology used in additive manufacturing. Proceedings of SPIE, 2013, , .	0.8	50
51	Self-organized amorphous TiO ₂ nanotube arrays on porous Ti foam for rechargeable lithium and sodium ion batteries. Journal of Power Sources, 2013, 222, 461-466.	4.0	235
52	Free Form Fluidics. Mechanical Engineering, 2013, 135, S17-S20.	0.0	2
53	Direct digital additive manufacturing technologies: Path towards hybrid integration. , 2012, , .		16
54	Current Status of Ti PM: Progress, Opportunities and Challenges. Key Engineering Materials, 2012, 520, 1-7.	0.4	12

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55	Characterization of Metamorphic GaAsP/Si Materials and Devices for Photovoltaic Applications. IEEE Transactions on Electron Devices, 2010, 57, 3361-3369.	1.6	99
56	Characterization of interfacial microstructures in 3003 aluminum alloy blocks fabricated by ultrasonic additive manufacturing. Acta Materialia, 2010, 58, 4305-4315.	3.8	147
57	Control and elimination of nucleation-related defects in GaP/Si(001) heteroepitaxy. Applied Physics Letters, 2009, 94, .	1.5	142