Peeyush Nandwana

List of Publications by Year
in descending order

48 papers	2,423 citations	279778 23 h-index	214788 47 g-index
56 all docs	56 docs citations	56 times ranked	2196 citing authors

#	Article	IF	Citations
1	Binder jet 3D printingâ€"Process parameters, materials, properties, modeling, and challenges. Progress in Materials Science, 2021, 119, 100707.	32.8	412
2	Effects of heat treatments on microstructure and properties of Ti-6Al-4V ELI alloy fabricated by electron beam melting (EBM). Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 685, 417-428.	5.6	272
3	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.	3.0	224
4	Powder bed binder jet 3D printing of Inconel 718: Densification, microstructural evolution and challengesâ†. Current Opinion in Solid State and Materials Science, 2017, 21, 207-218.	11.5	153
5	A review on the fatigue behavior of Ti-6Al-4V fabricated by electron beam melting additive manufacturing. International Journal of Fatigue, 2019, 119, 173-184.	5.7	149
6	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.	2.1	108
7	A defect-resistant Coâ€"Ni superalloy for 3D printing. Nature Communications, 2020, 11, 4975.	12.8	107
8	Solidification and solid-state transformation sciences in metals additive manufacturing. Scripta Materialia, 2017, 135, 130-134.	5.2	90
9	Powder bed charging during electron-beam additive manufacturing. Acta Materialia, 2017, 124, 437-445.	7.9	69
10	In situ nitrided titanium alloys: Microstructural evolution during solidification and wear. Acta Materialia, 2015, 83, 61-74.	7.9	67
11	Influence of oxygen on omega phase stability in the Ti-29Nb-13Ta-4.6Zr alloy. Scripta Materialia, 2016, 123, 144-148.	5.2	57
12	Texture Evolution During Laser Direct Metal Deposition of Ti-6Al-4V. Jom, 2016, 68, 772-777.	1.9	55
13	Infiltration studies of additive manufacture of WC with Co using binder jetting and pressureless melt method. Additive Manufacturing, 2019, 28, 333-343.	3.0	48
14	Build orientation, surface roughness, and scan path influence on the microstructure, mechanical properties, and flexural fatigue behavior of Tiâ€"6Alâ€"4V fabricated by electron beam melting. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 772, 138740.	5.6	42
15	Formation of equiaxed alpha and titanium nitride precipitates in spark plasma sintered TiB/Tiâ€"6Alâ€"4V composites. Materials Letters, 2012, 83, 202-205.	2.6	40
16	Electron beam melting of Inconel 718: Effects of processing and post-processing. Materials Science and Technology, 2018, 34, 612-619.	1.6	37
17	Correlation of Microstructure to Creep Response of Hot Isostatically Pressed and Aged Electron Beam Melted Inconel 718. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2018, 49, 5107-5117.	2.2	36
18	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. Jom, 2018, 70, 1686-1691.	1.9	29

#	Article	IF	Citations
19	Post-processing to Modify the Î± Phase Micro-Texture and Î² Phase Grain Morphology in Ti-6Al-4V Fabricated by Powder Bed Electron Beam Melting. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2019, 50, 3429-3439.	2.2	28
20	The effect of beam scan strategies on microstructural variations in Ti-6Al-4V fabricated by electron beam powder bed fusion. Materials and Design, 2020, 196, 109165.	7.0	28
21	Effect of Hypoeutectic Boron Additions on the Grain Size and Mechanical Properties of Ti-6Al-4V Manufactured with Powder Bed Electron Beam Additive Manufacturing. Jom, 2017, 69, 472-478.	1.9	27
22	Effect of Interlayer Cooling Time, Constraint and Tool Path Strategy on Deformation of Large Components Made by Laser Metal Deposition with Wire. Applied Sciences (Switzerland), 2019, 9, 5115.	2.5	26
23	Influence of scan strategy on porosity and microstructure of Ti-6Al-4V fabricated by electron beam powder bed fusion. Materials Today Communications, 2020, 24, 100962.	1.9	22
24	On the potential mechanisms of Î² to Î±â€²â€‰+â€‰Î² decomposition in two phase titanium alloys during additive manufacturing: a combined transmission Kikuchi diffraction and 3D atom probe study. Journal of Materials Science, 2020, 55, 1715-1726.	3.7	21
25	A first principles study of commonly observed planar defects in Ti/TiB system. Computational Materials Science, 2018, 150, 197-201.	3.0	19
26	Laser surface modification for synthesis of textured bioactive and biocompatible Caâ€“P coatings on Tiâ€“6Alâ€“4V. Journal of Materials Science: Materials in Medicine, 2011, 22, 1393-1406.	3.6	18
27	Investigating the effect of metal powder recycling in Electron beam Powder Bed Fusion using process log data. Additive Manufacturing, 2020, 32, 100994.	3.0	17
28	Microstructure and high temperature tensile properties of 316L fabricated by laser powder-bed fusion. Additive Manufacturing, 2021, 37, 101723.	3.0	17
29	Powder spreading, densification, and part deformation in binder jetting additive manufacturing. Progress in Additive Manufacturing, 2022, 7, 111-125.	4.8	16
30	High temperature high strength austenitic steel fabricated by laser powder-bed fusion. Acta Materialia, 2022, 231, 117876.	7.9	16
31	Texture evolution during processing and post-processing of maraging steel fabricated by laser powder bed fusion. Scientific Reports, 2022, 12, 6396.	3.3	14
32	Optimization of direct aging temperature of Ti free grade 300 maraging steel manufactured using laser powder bed fusion (LPBF). Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 817, 141266.	5.6	13
33	Texture evolution as a function of scan strategy and build height in electron beam melted Ti-6Al-4V. Additive Manufacturing, 2021, 46, 102118.	3.0	12
34	Implications of post-processing induced microstructural changes on the deformation and fracture response of additively manufactured Tiâ€“6Alâ€“4V. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 795, 139986.	5.6	10
35	Microstructure evolution during binder jet additive manufacturing of H13 tool steel. Additive Manufacturing, 2020, 36, 101534.	3.0	10
36	Role of thermo-mechanical gyrations on the Î±/Î² interface stability in a Ti6Al4V AM alloy. Scripta Materialia, 2021, 204, 114134.	5.2	10

#	Article	IF	Citations
37	Predicting sintering window during supersolidus liquid phase sintering of steels using feedstock analysis and CALPHAD. Materials Letters, 2021, 304, 130648.	2.6	9
38	Predicting geometric influences in metal additive manufacturing. Materials Today Communications, 2020, 25, 101174.	1.9	8
39	Leveraging Solute Segregation in Laser Powder Bed Fusion to Achieve Superior Strength and Ductility Via Single-Step Heat Treatment in Ti-Free Grade 300 Maraging Steel. Jom, 2020, 72, 4221-4231.	1.9	7
40	Dynamic phase transformations in additively manufactured Ti-6Al-4V during thermo-mechanical gyrations. Materialia, 2020, 14, 100883.	2.7	7
41	Progress in the Processing and Understanding of Alloy 718 Fabricated Through Powder Bed Additive Manufacturing Processes. Minerals, Metals and Materials Series, 2018, , 69-88.	0.4	6
42	Insights into the Transformation-Induced Plasticity (TRIP) Effect in Ti-Free Grade 300 Maraging Steel Manufactured by Laser Powder Bed Fusion (LPBF). Jom, 2020, 72, 4187-4195.	1.9	4
43	Thermodynamics and kinetics of precipitation and austenite reversion during aging of Ti-free grade 300 maraging steel manufactured by laser powder bed fusion (LPBF). Journal of Materials Science, 2021, 56, 18722-18739.	3.7	4
44	Solidification texture, variant selection, and phase fraction in a spot-melt electron-beam powder bed fusion processed Ti-6Al-4V. Additive Manufacturing, 2021, 46, 102136.	3.0	4
45	Data Mining and Visualization of High-Dimensional ICME Data for Additive Manufacturing. Integrating Materials and Manufacturing Innovation, 2022, 11, 57-70.	2.6	4
46	Multi-scale characterization of supersolidus liquid phase sintered H13 tool steel manufactured via binder jet additive manufacturing. Additive Manufacturing, 2022, , 102834.	3.0	4
47	Binder Jet-Metals. , 2022, , 120-133.		2
48	Additive Manufacturing of Tool Steels. , 2020, , 366-373.		1