Bey Vrancken

List of Publications by Year
in descending order

22 papers	3,883 citations	516215 16 h-index	752256 20 g-index
24 all docs	24 docs citations	24 times ranked	3272 citing authors

#	Article	IF	Citations
1	Heat treatment of Ti6Al4V produced by Selective Laser Melting: Microstructure and mechanical properties. Journal of Alloys and Compounds, 2012, 541, 177-185.	2.8	1,353
2	Microstructure and mechanical properties of a novel Î² titanium metallic composite by selective laser melting. Acta Materialia, 2014, 68, 150-158.	3.8	430
3	Changing the alloy composition of Al7075 for better processability by selective laser melting. Journal of Materials Processing Technology, 2016, 238, 437-445.	3.1	403
4	Effects of build orientation and heat treatment on the microstructure and mechanical properties of selective laser melted Ti6Al4V lattice structures. Additive Manufacturing, 2015, 5, 77-84.	1.7	313
5	Selective Laser Melting of Crack-Free High Density M2 High Speed Steel Parts by Baseplate Preheating. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2014, 136, .	1.3	213
6	Influence of Powder Bed Preheating on Microstructure and Mechanical Properties of H13 Tool Steel SLM Parts. Physics Procedia, 2016, 83, 882-890.	1.2	210
7	Residual stress via the contour method in compact tension specimens produced via selective laser melting. Scripta Materialia, 2014, 87, 29-32.	2.6	201
8	Selective laser melting of tungsten and tungsten alloys. International Journal of Refractory Metals and Hard Materials, 2018, 72, 27-32.	1.7	160
9	Texture and anisotropy in selective laser melting of NiTi alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 650, 225-232.	2.6	150
10	Selective laser melting produced layer-structured NiTi shape memory alloys with high damping properties and Elinvar effect. Scripta Materialia, 2018, 146, 246-250.	2.6	106
11	Analysis of laser-induced microcracking in tungsten under additive manufacturing conditions: Experiment and simulation. Acta Materialia, 2020, 194, 464-472.	3.8	74
12	Directional and oscillating residual stress on the mesoscale in additively manufactured Ti-6Al-4V. Acta Materialia, 2019, 168, 299-308.	3.8	62
13	Reducing residual stress by selective large-area diode surface heating during laser powder bed fusion additive manufacturing. Additive Manufacturing, 2019, 28, 228-235.	1.7	44
14	In-situ characterization of tungsten microcracking in Selective Laser Melting. Procedia CIRP, 2018, 74, 107-110.	1.0	29
15	Fatigue of Ti6Al4V Structural Health Monitoring Systems Produced by Selective Laser Melting. Materials, 2016, 9, 106.	1.3	26
16	Selective Laser Melting process optimization of Tiâ€“Moâ€“TiC metal matrix composites. CIRP Annals - Manufacturing Technology, 2019, 68, 221-224.	1.7	24
17	Additively manufactured metals for medical applications. , 2018, , 261-309.		21
18	Toward multiscale simulations of tailored microstructure formation in metal additive manufacturing. Materials Today, 2021, 51, 65-86.	8.3	16

#	Article	IF	Citations
19	Additive Manufacturing of Metals via Selective Laser Melting: Process Aspects and Material Developments. , 2015, , 69-99.		14
20	Microcrack mitigation during laser scanning of tungsten via preheating and alloying strategies. Additive Manufacturing, 2021, 46, 102158.	1.7	11
21	Residual stress analysis of in situ surface layer heating effects on laser powder bed fusion of 316L stainless steel. Additive Manufacturing, 2021, 47, 102252.	1.7	8
22	Heat treatment possibilities for an in situ Î²Ti-TiC composite made by laser powder bed fusion. Additive Manufacturing, 2020, 36, 101577.	1.7	5