Bey Vrancken

List of Publications by Year in Descending Order

24 papers	2,707 citations	16 h-index	24 g-index
24 ext. papers	3,294 ext. citations	6.3 avg, IF	5.36 L-index

#	Paper	IF	Citations
24	Toward multiscale simulations of tailored microstructure formation in metal additive manufacturing. *Materials Today*, **2021**,	21.8	3
23	Microcrack mitigation during laser scanning of tungsten via preheating and alloying strategies. *Additive Manufacturing*, **2021**, 46, 102158	6.1	2
22	Residual stress analysis of in situ surface layer heating effects on laser powder bed fusion of 316L stainless steel. *Additive Manufacturing*, **2021**, 47, 102252	6.1	2
21	Analysis of laser-induced microcracking in tungsten under additive manufacturing conditions: Experiment and simulation. *Acta Materialia*, **2020**, 194, 464-472	8.4	39
20	Heat treatment possibilities for an in situ Ti-TiC composite made by laser powder bed fusion. *Additive Manufacturing*, **2020**, 36, 101577	6.1	1
19	Directional and oscillating residual stress on the mesoscale in additively manufactured Ti-6Al-4V. *Acta Materialia*, **2019**, 168, 299-308	8.4	36
18	Reducing residual stress by selective large-area diode surface heating during laser powder bed fusion additive manufacturing. *Additive Manufacturing*, **2019**, 28, 228-235	6.1	32
17	Selective Laser Melting process optimization of TiMoTiC metal matrix composites. *CIRP Annals - Manufacturing Technology*, **2019**, 68, 221-224	4.9	17
16	Additively manufactured metals for medical applications **2018**, 261-309		12
15	Selective laser melting produced layer-structured NiTi shape memory alloys with high damping properties and Elinvar effect. *Scripta Materialia*, **2018**, 146, 246-250	5.6	68
14	Selective laser melting of tungsten and tungsten alloys. *International Journal of Refractory Metals and Hard Materials*, **2018**, 72, 27-32	4.1	100
13	In-situ characterization of tungsten microcracking in Selective Laser Melting. *Procedia CIRP*, **2018**, 74, 107-110	1.8	17
12	Influence of Powder Bed Preheating on Microstructure and Mechanical Properties of H13 Tool Steel SLM Parts. *Physics Procedia*, **2016**, 83, 882-890		139
11	On the Fatigue Crack Growth Performance of Ti6Al4V Manufactured by Laser Metal Deposition **2016**, 1453-1457		
10	Texture and anisotropy in selective laser melting of NiTi alloy. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2016**, 650, 225-232	5.3	99
9	Fatigue of Ti6Al4V Structural Health Monitoring Systems Produced by Selective Laser Melting. *Materials*, **2016**, 9,	3.5	18
8	Preheating of Selective Laser Melted Ti6Al4V: Microstructure and Mechanical Properties **2016**, 1269-1277		5

7	Changing the alloy composition of Al7075 for better processability by selective laser melting. *Journal of Materials Processing Technology*, **2016**, 238, 437-445	5.3	257
6	Additive Manufacturing of Metals via Selective Laser Melting: Process Aspects and Material Developments **2015**, 69-99		11
5	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	6.1	262
4	Residual stress via the contour method in compact tension specimens produced via selective laser melting. *Scripta Materialia*, **2014**, 87, 29-32	5.6	146
3	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,	3.3	134
2	Microstructure and mechanical properties of a novel titanium metallic composite by selective laser melting. *Acta Materialia*, **2014**, 68, 150-158	8.4	318
1	Heat treatment of Ti6Al4V produced by Selective Laser Melting: Microstructure and mechanical properties. *Journal of Alloys and Compounds*, **2012**, 541, 177-185	5.7	989