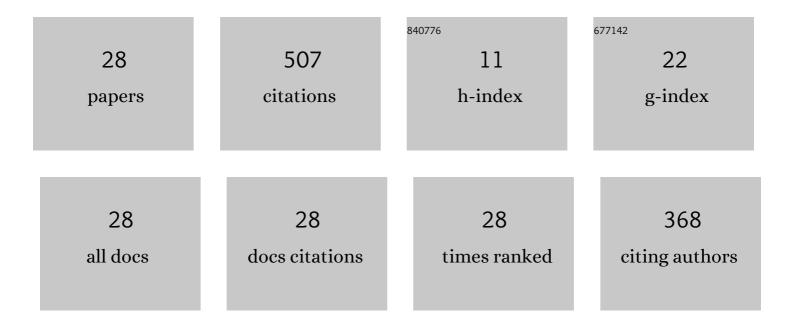
## Kai Hilgenberg

List of Publications by Year in descending order

Source: https://exaly.com/author-pdf/1856999/publications.pdf Version: 2024-02-01



KAI HILCENBERC

#	Article	IF	CITATIONS
1	Damage tolerant design of additively manufactured metallic components subjected to cyclic loading: State of the art and challenges. Progress in Materials Science, 2021, 121, 100786.	32.8	106
2	In-Situ Defect Detection in Laser Powder Bed Fusion by Using Thermography and Optical Tomography—Comparison to Computed Tomography. Metals, 2020, 10, 103.	2.3	90
3	Improved degassing in laser beam welding of aluminum die casting by an electromagnetic field. Journal of Materials Processing Technology, 2018, 253, 51-56.	6.3	43
4	Effects of inter layer time and build height on resulting properties of 316L stainless steel processed by laser powder bed fusion. Additive Manufacturing, 2020, 32, 101080.	3.0	42
5	Enabling the 3D Printing of Metal Components in µâ€Gravity. Advanced Materials Technologies, 2019, 4, 1900506.	5.8	31
6	Experimental Determination of the Emissivity of Powder Layers and Bulk Material in Laser Powder Bed Fusion Using Infrared Thermography and Thermocouples. Metals, 2020, 10, 1546.	2.3	30
7	Probing a novel heat source model and adaptive remeshing technique to simulate laser powder bed fusion with experimental validation. Computational Materials Science, 2020, 181, 109752.	3.0	30
8	In situ heat accumulation by geometrical features obstructing heat flux and by reduced inter layer times in laser powder bed fusion of AISI 316L stainless steel. Procedia CIRP, 2020, 94, 155-160.	1.9	22
9	High Power Laser Beam Welding of Thick-walled Ferromagnetic Steels with Electromagnetic Weld Pool Support. Physics Procedia, 2016, 83, 362-372.	1.2	18
10	Build-up strategies for additive manufacturing of three dimensional Ti-6Al-4V-parts produced by laser metal deposition. Journal of Laser Applications, 2018, 30, .	1.7	18
11	Process Induced Preheating in Laser Powder Bed Fusion Monitored by Thermography and Its Influence on the Microstructure of 316L Stainless Steel Parts. Metals, 2021, 11, 1063.	2.3	17
12	Microstructural evolution and geometrical properties of TiB2 metal matrix composite protrusions on hot work tool steel surfaces manufactured by laser implantation. International Journal of Advanced Manufacturing Technology, 2020, 106, 481-501.	3.0	12
13	Dispersion behavior of TiB2 particles in AISI D2 tool steel surfaces during pulsed laser dispersing and their influence on material properties. Applied Surface Science, 2019, 467-468, 493-504.	6.1	8
14	Numerical simulation of the weld pool dynamics during pulsed laser welding using adapted heat source models. Procedia CIRP, 2018, 74, 679-682.	1.9	5
15	Investigation of the thermal and tribological performance of localized laser dispersed tool surfaces under hot stamping conditions. Wear, 2021, 476, 203694.	3.1	5
16	Influence of welding parameters on electromagnetic supported degassing of die-casted and wrought aluminum. Journal of Laser Applications, 2020, 32, .	1.7	4
17	Towards a Methodology for Component Design of Metallic AM Parts Subjected to Cyclic Loading. Metals, 2021, 11, 709.	2.3	4
18	Experimental and numerical comparison of heat accumulation during laser powder bed fusion of 316L stainless steel. Progress in Additive Manufacturing, 2022, 7, 1071-1083.	4.8	4

Kai Hilgenberg

#	Article	IF	CITATIONS
19	Surface Structuring by Pulsed Laser Implantation. Materials Science Forum, 2016, 879, 750-755.	0.3	3
20	Laser Implantation: An Innovative Technique for Surface Texturing. PhotonicsViews, 2019, 16, 38-41.	0.1	3
21	Localized Laser Dispersing of Titanium-Based Particles for Improving the Tribological Performance of Hot Stamping Tools. Journal of Manufacturing and Materials Processing, 2020, 4, 68.	2.2	3
22	Investigation of the thermal history of L-PBF metal parts by feature extraction from in-situ SWIR thermography. , 2021, , .		3
23	On the influence of TiB2, TiC, and TiN hard particles on the microstructure of localized laser dispersed AISI D2 tool steel surfaces. Journal of Laser Applications, 2020, 32, 022028.	1.7	3
24	Numerical and Experimental Investigation of Controlled Weld Pool Displacement by Electromagnetic Forces for Joining Dissimilar Materials. Metals, 2020, 10, 1447.	2.3	1
25	Schadensentwicklung und Schadenstoleranz von SLM-gefertigten Strukturen. , 2017, , 241-270.		1
26	Tribological and Thermal Behavior of Laser Implanted Tool Surfaces for Hot Stamping AlSi Coated 22MnB5 Sheets. Defect and Diffusion Forum, 0, 414, 69-74.	0.4	1
27	Investigations on TaC Localized Dispersed X38CrMoV5-3 Surfaces with Regard to the Manufacturing of Wear Resistant Protruded Surface Textures. Lasers in Manufacturing and Materials Processing, 2020, 7, 38-58.	2.2	0
28	Laser Implantation of Niobium and Titanium-Based Particles on Hot Working Tool Surfaces for Improving the Tribological Performance within Hot Stamping. Defect and Diffusion Forum, 0, 404, 117-123.	0.4	0