Arne Kromm

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/7343863/publications.pdf

Version: 2024-02-01

80	1,120	567144	501076
papers	citations	15	28
		h-index	g-index

83	83	83	729
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Effect of hatch length on the development of microstructure, texture and residual stresses in selective laser melted superalloy Inconel 718. Materials and Design, 2017, 134, 139-150.	3.3	202
2	The Influence of the Support Structure on Residual Stress and Distortion in SLM Inconel 718 Parts. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2018, 49, 3038-3046.	1.1	75
3	Critical role of scan strategies on the development of microstructure, texture, and residual stresses during laser powder bed fusion additive manufacturing. Additive Manufacturing, 2021, 38, 101792.	1.7	55
4	The residual stress in as-built Laser Powder Bed Fusion IN718 alloy as a consequence of the scanning strategy induced microstructure. Scientific Reports, 2020, 10, 14645.	1.6	43
5	Residual stress engineering by low transformation temperature alloysâ€"state of the art and recent developments. Welding in the World, Le Soudage Dans Le Monde, 2014, 58, 729-741.	1.3	38
6	Welding residual stresses in 960 MPa grade QT and TMCP high-strength steels. Journal of Manufacturing Processes, 2017, 27, 226-232.	2.8	35
7	Characterizing PHASE TRANSFORMATIONS of different LTT alloys and their effect on RESIDUAL STRESSES and COLD CRACKING. Welding in the World, Le Soudage Dans Le Monde, 2011, 55, 48-56.	1.3	34
8	In situ study of structural integrity of low transformation temperature (LTT)-welds. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2011, 528, 5566-5575.	2.6	33
9	On the interplay of microstructure and residual stress in LPBF IN718. Journal of Materials Science, 2021, 56, 5845-5867.	1.7	32
10	Determination of Residual Stresses in Low Transformation Temperature (LTT -) Weld Metals using X-ray and High Energy Synchrotron Radiation. Welding in the World, Le Soudage Dans Le Monde, 2009, 53, 3-16.	1.3	26
11	Influence of Support Configurations on the Characteristics of Selective Laser-Melted Inconel 718. Jom, 2018, 70, 343-348.	0.9	26
12	Residual Stresses in Multilayer Welds with Different Martensitic Transformation Temperatures Analyzed by High-Energy Synchrotron Diffraction. Materials Science Forum, 0, 681, 37-42.	0.3	24
13	Scanning Manufacturing Parameters Determining the Residual Stress State in LPBF IN718 Small Parts. Advanced Engineering Materials, 2021, 23, 2100158.	1.6	23
14	<i>In Situ</i> Observation of Phase Transformations during Welding of Low Transformation Temperature Filler Material. Materials Science Forum, 0, 638-642, 3769-3774.	0.3	21
15	Residual Stress in Selective Laser Melted Inconel 718: Influence of the Removal from Base Plate and Deposition Hatch Length. Materials Performance and Characterization, 2018, 7, 717-735.	0.2	21
16	In-situ synchrotron diffraction and digital image correlation technique for characterizations of retained austenite stability in low-alloyed transformation induced plasticity steel. Scripta Materialia, 2010, 63, 1149-1152.	2.6	19
17	Formation of welding residual stresses in low transformation temperature (LTT) materials. Soldagem E Inspecao, 2009, 14, 74-81.	0.6	18
18	Investigation of physically simulated weld HAZ and CCT diagram of HSLA armour steel. Welding in the World, Le Soudage Dans Le Monde, 2018, 62, 47-54.	1.3	17

#	Article	IF	Citations
19	Diffraction-Based Residual Stress Characterization in Laser Additive Manufacturing of Metals. Metals, 2021, 11, 1830.	1.0	15
20	Effects of Heat Control on the Stress Build- up during High- Strength Steel Welding under defined restraint conditions. Welding in the World, Le Soudage Dans Le Monde, 2011, 55, 58-65.	1.3	14
21	Fatigue Strength Improvement of Welded Structures Using New Low Transformation Temperature Filler Materials. Procedia Engineering, 2013, 66, 192-201.	1.2	14
22	Improving welding stresses by filler metal and heat control selection in component-related butt joints of high-strength steel. Welding in the World, Le Soudage Dans Le Monde, 2015, 59, 455-464.	1.3	13
23	Welding stress control in high-strength steel components using adapted heat control concepts. Welding in the World, Le Soudage Dans Le Monde, 2019, 63, 647-661.	1.3	13
24	In-situ-phase analysis using synchrotron radiation of low transformation temperature (LTT) welding material. Soldagem E Inspecao, 2009, 14, 82-88.	0.6	13
25	Towards the Optimization of Post-Laser Powder Bed Fusion Stress-Relieve Treatments of Stainless Steel 316L. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2021, 52, 5342-5356.	1.1	13
26	Engineering approach to assess residual stresses in welded components. Welding in the World, Le Soudage Dans Le Monde, 2017, 61, 91-106.	1.3	12
27	Time- and temperature-resolved synchrotron X-ray diffraction: observation of phase transformation and strain evolution in novel low temperature transformation weld filler materials. Journal of Strain Analysis for Engineering Design, 2011, 46, 563-579.	1.0	11
28	Residual Stress in Steel Fusion Welds Joined Using Low Transformation Temperature (LTT) Filler Material. Materials Science Forum, 0, 768-769, 620-627.	0.3	11
29	Real time monitoring of phase transformation and strain evolution in LTT weld filler material using EDXRD. Journal of Materials Processing Technology, 2014, 214, 2739-2747.	3.1	11
30	In-situ load analysis in multi-run welding using LTT filler materials. Welding in the World, Le Soudage Dans Le Monde, 2016, 60, 1159-1168.	1.3	10
31	Reversed austenite for enhancing ductility of martensitic stainless steel. IOP Conference Series: Materials Science and Engineering, 2017, 181, 012034.	0.3	10
32	Residual stresses in repair welds of high-strength low-alloy steels. Welding in the World, Le Soudage Dans Le Monde, 2015, 59, 757-765.	1.3	9
33	Real-time radiography for observation of crack growth during GTA welding. Welding in the World, Le Soudage Dans Le Monde, 2016, 60, 931-937.	1.3	9
34	Residual stresses of LTT welds in large-scale components. Welding in the World, Le Soudage Dans Le Monde, 2017, 61, 1089-1097.	1.3	9
35	Welding Residual Stresses Depending on Solid-State Transformation Behaviour Studied by Numerical and Experimental Methods. Materials Science Forum, 2011, 681, 85-90.	0.3	8
36	Measurement and numerical modeling of residual stresses in welded HSLA component-like I-girders. Welding in the World, Le Soudage Dans Le Monde, 2017, 61, 223-229.	1.3	8

#	Article	IF	Citations
37	Formation of multi-axial welding stresses due to material behaviour during fabrication of high-strength steel components. Welding in the World, Le Soudage Dans Le Monde, 2019, 63, 43-51.	1.3	8
38	Welding Residual Stress Distribution of Quenched and Tempered and Thermo-Mechanically Hot Rolled High Strength Steels. Advanced Materials Research, 2014, 996, 457-462.	0.3	7
39	Properties and weldability of modified low transformation temperature filler wires. Welding in the World, Le Soudage Dans Le Monde, 2015, 59, 413-425.	1.3	7
40	Load analyses of welded high-strength steel structures using image correlation and diffraction techniques. Welding in the World, Le Soudage Dans Le Monde, 2018, 62, 459-469.	1.3	7
41	In situ analysis of the strain evolution during welding using low transformation temperature filler materials. Science and Technology of Welding and Joining, 2019, 24, 243-255.	1.5	7
42	Influence of welding stresses on relief cracking during heat treatment of a creep-resistant 13CrMoV steel Part II: mechanisms of stress relief cracking during post weld heat treatment. Welding in the World, Le Soudage Dans Le Monde, 2020, 64, 819-829.	1.3	7
43	Surface- and volume-based investigation on influences of different Varestraint testing parameters and chemical compositions on solidification cracking in LTT filler metals. Welding in the World, Le Soudage Dans Le Monde, 2020, 64, 913-923.	1.3	7
44	Triaxial Residual Stress in Laser Powder Bed Fused 316L: Effects of Interlayer Time and Scanning Velocity. Advanced Engineering Materials, 2022, 24, .	1.6	7
45	High-energy synchrotron diffraction study of a transformation induced plasticity steel during tensile deformation. Journal of Strain Analysis for Engineering Design, 2011, 46, 581-591.	1.0	6
46	Optimization of welding loads with narrow groove and application of modified spray arc process. Welding in the World, Le Soudage Dans Le Monde, 2017, 61, 1077-1087.	1.3	6
47	Thin-wall effects and anisotropic deformation mechanisms of an additively manufactured Ni-based superalloy. Additive Manufacturing, 2020, 36, 101672.	1.7	6
48	Influence of welding stresses on relief cracking during heat treatment of a creep-resistant 13CrMoV steel: part Iâ€"effect of heat control on welding stresses and stress relief cracking. Welding in the World, Le Soudage Dans Le Monde, 2020, 64, 807-817.	1.3	6
49	The Importance of Subsurface Residual Stress in Laser Powder Bed Fusion IN718. Advanced Engineering Materials, 2022, 24, 2100895.	1.6	6
50	Influence of Local Weld Deformation on the Solidification Cracking Susceptibility of a Fully Austenitic Stainless Steel. , 2008, , 127-145.		6
51	Determination of residual stress evolution during repair welding of high-strength steel components. Forces in Mechanics, 2022, 6, 100073.	1.3	6
52	Investigation of residual stresses and microstructure effects on the fatigue behaviour of a L-PBF AlSi10Mg alloy. Procedia Structural Integrity, 2022, 38, 564-571.	0.3	6
53	Effect of Martensitic Phase Transformation on Stress Build-up during Multilayer Welding. Materials Science Forum, 0, 768-769, 660-667.	0.3	5
54	Evaluation of Weld Filler Alloying Concepts for Residual Stress Engineering by Means of Neutron and X-Ray Diffraction. Advanced Materials Research, 0, 996, 469-474.	0.3	5

#	Article	IF	Citations
55	A Critical Discussion on the Diffraction-Based Experimental Determination of Residual Stress in AM Parts. , 2020, , 122-138.		5
56	Residual Stresses in Selective Laser Melted Samples of a Nickel Based Superalloy. , 2018, , .		5
57	<i>In Situ</i> EDXRD Study of MAG-Welding Using LTT Weld Filler Materials under Structural Restraint. Materials Science Forum, 0, 905, 107-113.	0.3	5
58	Influence of Heat Control on Properties and Residual Stresses of Additive-Welded High-Strength Steel Components. Metals, 2022, 12, 951.	1.0	5
59	Influence of Heat Control on Welding Stresses in Multilayer-Component Welds of High-Strength Steel S960QL. Advanced Materials Research, 0, 996, 475-480.	0.3	4
60	From the Field to the Lab: Real Scale Assessment of Stresses in Welded Components. Materials Performance and Characterization, 2018, 7, 574-593.	0.2	4
61	Residual Stress Engineering in Fatigue Resistant Welds. Materials Science Forum, 0, 768-769, 613-619.	0.3	3
62	Capability of martensitic low transformation temperature welding consumables for increasing the fatigue strength of high strength steel joints. Materialpruefung/Materials Testing, 2020, 62, 891-900.	0.8	3
63	Influence of welding stresses on relief cracking during heat treatment of a creep-resistant 13CrMoV steel Part III: assessment of residual stresses from small-scale to real component welds. Welding in the World, Le Soudage Dans Le Monde, 2021, 65, 1671-1685.	1.3	3
64	Process-related influences and correlations in wire arc additive manufacturing of high-strength steels. IOP Conference Series: Materials Science and Engineering, 2021, 1147, 012002.	0.3	3
65	In Situ Studies of Phase Transformation and Residual Stresses in LTT Alloys During Welding Using Synchrotron Radiation. , 2010, , 13-26.		3
66	Residual Stress Influence on the Flexural Buckling of Welded I-Girders. , 2017, , .		3
67	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.	0.8	3
68	Henry Granjon Prize Competition 2011. Welding in the World, Le Soudage Dans Le Monde, 2012, 56, 2-11.	1.3	2
69	Multi-axial Analyses of Welding Stresses in High-Strength Steel Welds. , 2017, , .		2
70	Assessment of the Solidification Cracking Susceptibility of Welding Consumables in the Varestraint Test by Means of an Extended Evaluation Methodology. Advanced Engineering Materials, 2022, 24, .	1.6	2
71	<i>In Situ</i> Observation of Stress Accumulation during Sub-Merged Arc Welding. Advanced Materials Research, 0, 996, 417-423.	0.3	1
72	Solidification Cracking Assessment of LTT Filler Materials by Means of Varestraint Testing and ÂµCT. Materials, 2020, 13, 2726.	1.3	1

#	Article	IF	Citations
73	Residual Stress Formation in Component Related Stress Relief Cracking Tests of a Welded Creep-Resistant Steel. , 2018, , .		1
74	In-situ-Analyse der Phasenumwandlungskinetik wÃhrend des SchweiÃŸens. Materialpruefung/Materials Testing, 2010, 52, 204-210.	0.8	1
75	In-situ Analysis of Solid State Phase Transformation in TRIP-aided Steels by Synchrotron Diffraction. Yosetsu Gakkai Ronbunshu/Quarterly Journal of the Japan Welding Society, 2011, 29, 81s-85s.	0.1	0
76	Thermal Stability of Retained Austenite in Low Alloyed TRIP-Steel Determined by High Energy Synchrotron Radiation. Materials Science Forum, 2013, 772, 129-133.	0.3	0
77	Stress Build-Up during Multilayer Welding with Novel Martensitic Filler Materials*. HTM - Journal of Heat Treatment and Materials, 2014, 69, 80-88.	0.1	0
78	Influence of Heat Control on Residual Stresses in Low Transformation Temperature (LTT) Large Scale Welds. , 2017, , .		0
79	Combining Sectioning Method and X Ray Diffraction for Evaluation of Residual Stresses in Welded High Strength Steel Components. , 2017, , .		0
80	Influence of Weld Repair by Gouging on the Residual Stresses in High Strength Steels. , 2017, , .		0