

Michael Rethmeier

List of Publications by Year in descending order

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221
papers

4,692
citations

117453

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149479

56
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all docs

224
docs citations

224
times ranked

2557
citing authors

#	ARTICLE	IF	CITATIONS
1	Mechanical Properties Characterization of Welded Automotive Steels. <i>Metals</i> , 2020, 10, 1.	1.0	201
2	Laser Metal Deposition as Repair Technology for Stainless Steel and Titanium Alloys. <i>Physics Procedia</i> , 2012, 39, 376-381.	1.2	170
3	Numerical modeling for the effect of pin profiles on thermal and material flow characteristics in friction stir welding. <i>Materials & Design</i> , 2015, 77, 114-125.	5.1	146
4	Thermal energy generation and distribution in friction stir welding of aluminum alloys. <i>Energy</i> , 2014, 77, 720-731.	4.5	144
5	About the influence of a steady magnetic field on weld pool dynamics in partial penetration high power laser beam welding of thick aluminium parts. <i>International Journal of Heat and Mass Transfer</i> , 2013, 60, 309-321.	2.5	133
6	Simultaneous measurement of tool torque, traverse force and axial force in friction stir welding. <i>Journal of Manufacturing Processes</i> , 2013, 15, 495-500.	2.8	107
7	Experimental and numerical investigation of an electromagnetic weld pool support system for high power laser beam welding of austenitic stainless steel. <i>Journal of Materials Processing Technology</i> , 2014, 214, 578-591.	3.1	107
8	Numerical simulation of full penetration laser welding of thick steel plate with high power high brightness laser. <i>Journal of Materials Processing Technology</i> , 2014, 214, 1710-1720.	3.1	106
9	PA position full penetration high power laser beam welding of up to 30 mm thick AlMg3 plates using electromagnetic weld pool support. <i>Science and Technology of Welding and Joining</i> , 2012, 17, 128-133.	1.5	84
10	Laser Metal Deposition as Repair Technology for a Gas Turbine Burner Made of Inconel 718. <i>Physics Procedia</i> , 2016, 83, 761-768.	1.2	84
11	Numerical simulation of full-penetration laser beam welding of thick aluminium plates with inductive support. <i>Journal Physics D: Applied Physics</i> , 2012, 45, 035201.	1.3	83
12	In-situ distortions in LMD additive manufacturing walls can be measured with digital image correlation and predicted using numerical simulations. <i>Additive Manufacturing</i> , 2018, 20, 101-110.	1.7	79
13	Design of Experiments for Laser Metal Deposition in Maintenance, Repair and Overhaul Applications. <i>Procedia CIRP</i> , 2013, 11, 245-248.	1.0	74
14	Deformation behaviour of spot-welded high strength steels for automotive applications. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2010, 527, 7099-7108.	2.6	73
15	Environmental and Social Life Cycle Assessment of Welding Technologies. <i>Procedia CIRP</i> , 2015, 26, 293-298.	1.0	72
16	Plume attenuation of laser radiation during high power fiber laser welding. <i>Laser Physics Letters</i> , 2011, 8, 475-480.	0.6	62
17	Numerical calculation of residual stress development of multi-pass gas metal arc welding. <i>Journal of Constructional Steel Research</i> , 2012, 72, 12-19.	1.7	62
18	Hybrid laser arc welding of X80 and X120 steel grade. <i>Science and Technology of Welding and Joining</i> , 2014, 19, 15-24.	1.5	62

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19	Vaporâ€“plasma plume investigation during high-power fiber laser welding. <i>Laser Physics</i> , 2013, 23, 016001.	0.6	61
20	Numerical assessment and experimental verification of the influence of the Hartmann effect in laser beam welding processes by steady magnetic fields. <i>International Journal of Thermal Sciences</i> , 2016, 101, 24-34.	2.6	57
21	Dependency of martensite start temperature on prior austenite grain size and its influence on welding-induced residual stresses. <i>Computational Materials Science</i> , 2013, 69, 251-260.	1.4	56
22	Life Cycle Assessment of welding technologies for thick metal plate welds. <i>Journal of Cleaner Production</i> , 2015, 108, 46-53.	4.6	53
23	Equivalent heat source approach in a 3D transient heat transfer simulation of full-penetration high power laser beam welding of thick metal plates. <i>International Journal of Heat and Mass Transfer</i> , 2018, 122, 1003-1013.	2.5	53
24	Welding Thick Steel Plates with Fibre Lasers and GMAW. <i>Welding in the World, Le Soudage Dans Le Monde</i> , 2010, 54, R62-R70.	1.3	47
25	Laser-Hybrid Welding of Thick Plates up to 32 mm Using a 20 kW Fibre Laser. <i>Yosetsu Gakkai Ronbunshu/Quarterly Journal of the Japan Welding Society</i> , 2009, 27, 74s-79s.	0.1	46
26	Understanding grain refinement in aluminium welding. <i>Welding in the World, Le Soudage Dans Le Monde</i> , 2015, 59, 767-784.	1.3	45
27	Experimental and numerical assessment of weld pool behavior and final microstructure in wire feed laser beam welding with electromagnetic stirring. <i>Journal of Manufacturing Processes</i> , 2019, 45, 408-418.	2.8	44
28	Laser Beam Welding of Aluminum Alloys Under the Influence of an Electromagnetic Field. <i>Physics Procedia</i> , 2013, 41, 4-11.	1.2	43
29	Improved degassing in laser beam welding of aluminum die casting by an electromagnetic field. <i>Journal of Materials Processing Technology</i> , 2018, 253, 51-56.	3.1	43
30	Thermographic testing of spot welds. <i>NDT and E International</i> , 2012, 48, 23-29.	1.7	41
31	Predicting the influence of groove angle on heat transfer and fluid flow for new gas metal arc welding processes. <i>International Journal of Heat and Mass Transfer</i> , 2012, 55, 102-111.	2.5	40
32	Experimental and Numerical Investigation of an Electromagnetic Weld Pool Control for Laser Beam Welding. <i>Physics Procedia</i> , 2014, 56, 515-524.	1.2	39
33	Numerical investigation of energy input characteristics for high-power fiber laser welding at different positions. <i>International Journal of Advanced Manufacturing Technology</i> , 2015, 80, 931-946.	1.5	39
34	Welding with High-power Lasers: Trends and Developments. <i>Physics Procedia</i> , 2016, 83, 15-25.	1.2	38
35	Finite element analysis of in-situ distortion and bulging for an arbitrarily curved additive manufacturing directed energy deposition geometry. <i>Additive Manufacturing</i> , 2018, 24, 264-272.	1.7	36
36	Numerical calculation of residual stress development of multi-pass gas metal arc welding under high restraint conditions. <i>Materials & Design</i> , 2012, 35, 201-209.	5.1	35

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37	Hybrid laser arc welding of thick high-strength pipeline steels of grade X120 with adapted heat input. <i>Journal of Materials Processing Technology</i> , 2020, 275, 116358.	3.1	35
38	Influences of mesh density and transformation behavior on the result quality of numerical calculation of welding induced distortion. <i>Simulation Modelling Practice and Theory</i> , 2011, 19, 1847-1859.	2.2	33
39	Full penetration laser beam welding of thick duplex steel plates with electromagnetic weld pool support. <i>Journal of Laser Applications</i> , 2016, 28, .	0.8	33
40	Effect of heat source configuration on the result quality of numerical calculation of welding-induced distortion. <i>Simulation Modelling Practice and Theory</i> , 2012, 20, 112-123.	2.2	31
41	Susceptibility of electrolytically galvanized dual-phase steel sheets to liquid metal embrittlement during resistance spot welding. <i>Welding in the World, Le Soudage Dans Le Monde</i> , 2018, 62, 1031-1037.	1.3	31
42	Numerical and experimental investigation of thermo-fluid flow and element transport in electromagnetic stirring enhanced wire feed laser beam welding. <i>International Journal of Heat and Mass Transfer</i> , 2019, 144, 118663.	2.5	31
43	The influence of magnetic field orientation on metal mixing in electromagnetic stirring enhanced wire feed laser beam welding. <i>Journal of Materials Processing Technology</i> , 2021, 294, 117135.	3.1	30
44	Laser Beam Oscillation Strategies for Fillet Welds in Lap Joints. <i>Physics Procedia</i> , 2014, 56, 458-466.	1.2	29
45	Influence of heat input and preheating on the cooling rate, microstructure and mechanical properties at the hybrid laser-arc welding of API 5L X80 steel. <i>Procedia CIRP</i> , 2018, 74, 748-751.	1.0	29
46	Prevention of liquid metal embrittlement cracks in resistance spot welds by adaption of electrode geometry. <i>Science and Technology of Welding and Joining</i> , 2020, 25, 303-310.	1.5	29
47	Comparison of analytical and numerical welding temperature field calculation. <i>Computational Materials Science</i> , 2010, 47, 1005-1015.	1.4	27
48	Geometric distortion-compensation via transient numerical simulation for directed energy deposition additive manufacturing. <i>Science and Technology of Welding and Joining</i> , 2020, 25, 468-475.	1.5	27
49	Revealing joining mechanism in refill friction stir spot welding of AZ31 magnesium alloy to galvanized DP600 steel. <i>Materials and Design</i> , 2021, 209, 109997.	3.3	26
50	Characterization of microstructure and deformation behaviour of resistance spot welded AZ31 magnesium alloy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2012, 549, 149-156.	2.6	25
51	Influence Of Ti And B Additions On Grain Size And Weldability Of Aluminium Alloy 6082. <i>Welding in the World, Le Soudage Dans Le Monde</i> , 2012, 56, 95-104.	1.3	24
52	Study on the role of recondensation flux in high power laser welding by computational fluid dynamics simulations. <i>Journal of Laser Applications</i> , 2018, 30, .	0.8	24
53	Investigation of solidification cracking susceptibility during laser beam welding using an in-situ observation technique. <i>Science and Technology of Welding and Joining</i> , 2018, 23, 234-240.	1.5	24
54	Investigation of liquid metal embrittlement of dual phase steel joints by electro-thermomechanical spot-welding simulation. <i>Science and Technology of Welding and Joining</i> , 2019, 24, 624-633.	1.5	24

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55	Characteristics of weld pool behavior in laser welding with various power inputs. <i>Welding in the World, Le Soudage Dans Le Monde</i> , 2014, 58, 269-277.	1.3	23
56	Laser Beam Welding of Thick Titanium Sheets in the Field of Marine Technology. <i>Physics Procedia</i> , 2014, 56, 582-590.	1.2	23
57	Increasing Performance and Energy Efficiency of Gas Metal Arc Welding by a High Power Tandem Process. <i>Procedia CIRP</i> , 2016, 40, 642-647.	1.0	23
58	Low heat input gas metal arc welding for dissimilar metal weld overlays part II: the transition zone. <i>Welding in the World, Le Soudage Dans Le Monde</i> , 2018, 62, 317-324.	1.3	23
59	Avoidance of liquid metal embrittlement during resistance spot welding by heat input dependent hold time adaption. <i>Science and Technology of Welding and Joining</i> , 2020, 25, 617-624.	1.5	23
60	Ultrasonic field profile evaluation in acoustically inhomogeneous anisotropic materials using 2D ray tracing model: Numerical and experimental comparison. <i>Ultrasonics</i> , 2013, 53, 396-411.	2.1	22
61	Low heat input gas metal arc welding for dissimilar metal weld overlays part I: the heat-affected zone. <i>Welding in the World, Le Soudage Dans Le Monde</i> , 2016, 60, 459-473.	1.3	22
62	Comparison between GTA and laser beam welding of 9%Ni steel for critical cryogenic applications. <i>Journal of Materials Processing Technology</i> , 2018, 261, 193-201.	3.1	22
63	Quantitative evaluation of ultrasonic C-scan image in acoustically homogeneous and layered anisotropic materials using three dimensional ray tracing method. <i>Ultrasonics</i> , 2014, 54, 551-562.	2.1	21
64	Environmental energy efficiency of single wire and tandem gas metal arc welding. <i>Welding in the World, Le Soudage Dans Le Monde</i> , 2017, 61, 733-743.	1.3	21
65	Improved mechanical properties of cast Mg alloy welds via texture weakening by differential rotation refill friction stir spot welding. <i>Scripta Materialia</i> , 2021, 203, 114113.	2.6	21
66	The effect of tack welding on numerically calculated welding-induced distortion. <i>Journal of Materials Processing Technology</i> , 2012, 212, 308-314.	3.1	20
67	Influence of Solute Content and Solidification Parameters on Grain Refinement of Aluminum Weld Metal. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2013, 44, 3198-3210.	1.1	20
68	MIG Welding of Magnesium Alloys Metallographic Aspects. <i>Welding in the World, Le Soudage Dans Le Monde</i> , 2004, 48, 28-33.	1.3	19
69	In-situ synchrotron diffraction and digital image correlation technique for characterizations of retained austenite stability in low-alloyed transformation induced plasticity steel. <i>Scripta Materialia</i> , 2010, 63, 1149-1152.	2.6	19
70	Influence of HAZ cracks on fatigue resistance of resistance spot welded joints made of advanced high strength steels. <i>Science and Technology of Welding and Joining</i> , 2011, 16, 440-445.	1.5	19
71	Influence of grain size on mechanical properties of aluminium GTA weld metal. <i>Welding in the World, Le Soudage Dans Le Monde</i> , 2013, 57, 293.	1.3	19
72	Finite element modeling of an alternating current electromagnetic weld pool support in full penetration laser beam welding of thick duplex stainless steel plates. <i>Journal of Laser Applications</i> , 2016, 28, .	0.8	19

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73	Numerical simulation of thermally induced residual stresses in friction stir welding of aluminum alloy 2024-T3 at different welding speeds. <i>International Journal of Advanced Manufacturing Technology</i> , 2017, 91, 1443-1452.	1.5	19
74	Development of a novel optical measurement technique to investigate the hot cracking susceptibility during laser beam welding. <i>Welding in the World, Le Soudage Dans Le Monde</i> , 2019, 63, 435-441.	1.3	19
75	Simulation of inverse heat conduction problems in fusion welding with extended analytical heat source models. <i>Frontiers of Materials Science</i> , 2011, 5, 119-125.	1.1	18
76	High Power Laser Beam Welding of Thick-walled Ferromagnetic Steels with Electromagnetic Weld Pool Support. <i>Physics Procedia</i> , 2016, 83, 362-372.	1.2	18
77	Energy efficiency and environmental impacts of high power gas metal arc welding. <i>International Journal of Advanced Manufacturing Technology</i> , 2017, 91, 3503-3513.	1.5	18
78	Influence of non-uniform martensitic transformation on residual stresses and distortion of GMA-welding. <i>Journal of Constructional Steel Research</i> , 2017, 128, 193-200.	1.7	18
79	Build-up strategies for additive manufacturing of three dimensional Ti-6Al-4V-parts produced by laser metal deposition. <i>Journal of Laser Applications</i> , 2018, 30, .	0.8	18
80	Microstructure of Inconel 718 parts with constant mass energy input manufactured with direct energy deposition. <i>Procedia Manufacturing</i> , 2019, 36, 256-266.	1.9	18
81	Improvement of Filler Wire Dilution Using External Oscillating Magnetic Field at Full Penetration Hybrid Laser-Arc Welding of Thick Materials. <i>Metals</i> , 2019, 9, 594.	1.0	18
82	On the search for the origin of the bulge effect in high power laser beam welding. <i>Journal of Laser Applications</i> , 2019, 31, .	0.8	18
83	Numerical Analysis of Hot Cracking in Laser-Hybrid Welded Tubes. <i>Advances in Materials Science and Engineering</i> , 2013, 2013, 1-8.	1.0	17
84	Assessing carbon dioxide emission reduction potentials of improved manufacturing processes using multiregional input output frameworks. <i>Journal of Cleaner Production</i> , 2017, 163, 154-165.	4.6	17
85	Weld pool shape observation in high power laser beam welding. <i>Procedia CIRP</i> , 2018, 74, 683-686.	1.0	17
86	Quantifying Mechanical Properties of Automotive Steels with Deep Learning Based Computer Vision Algorithms. <i>Metals</i> , 2020, 10, 163.	1.0	17
87	Methodology to improve applicability of welding simulation. <i>Science and Technology of Welding and Joining</i> , 2008, 13, 496-508.	1.5	16
88	Investigation of the hot cracking susceptibility of laser welds with the controlled tensile weldability test. <i>Journal of Strain Analysis for Engineering Design</i> , 2012, 47, 587-599.	1.0	16
89	Solidification cracking in laser GMA hybrid welding of thick-walled parts. <i>Science and Technology of Welding and Joining</i> , 2014, 19, 209-213.	1.5	16
90	Numerical Simulation on the Origin of Solidification Cracking in Laser Welded Thick-Walled Structures. <i>Metals</i> , 2018, 8, 406.	1.0	16

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91	Hybrid laser-arc welding of thick-walled ferromagnetic steels with electromagnetic weld pool support. <i>Welding in the World, Le Soudage Dans Le Monde</i> , 2018, 62, 767-774.	1.3	16
92	Laser Welding of SLM-Manufactured Tubes Made of IN625 and IN718. <i>Materials</i> , 2019, 12, 2967.	1.3	16
93	Mechanical Properties of Single-pass Hybrid Laser Arc Welded 25 mm Thick-walled Structures Made of Fine-grained Structural Steel. <i>Procedia Manufacturing</i> , 2019, 36, 112-120.	1.9	16
94	Study on the transition behavior of the bulging effect during deep penetration laser beam welding. <i>International Journal of Heat and Mass Transfer</i> , 2022, 184, 122171.	2.5	16
95	Evaluation of fatigue crack propagation in spot welded joints by stiffness measurements. <i>International Journal of Fatigue</i> , 2011, 33, 740-745.	2.8	15
96	Laser Beam Weldability of High-Manganese Austenitic and Duplex Stainless Steel Sheets. <i>Welding in the World, Le Soudage Dans Le Monde</i> , 2012, 56, 9-20.	1.3	15
97	Welding residual stress reduction by scanning of a defocused beam. <i>Journal of Materials Processing Technology</i> , 2012, 212, 19-26.	3.1	15
98	Determination of local stress-strain properties of resistance spot-welded joints of advanced high-strength steels using the instrumented indentation test. <i>Journal of Materials Science</i> , 2012, 47, 1504-1513.	1.7	15
99	Sustainable Welding Process Selection Based on Weight Space Partitions. <i>Procedia CIRP</i> , 2016, 40, 127-132.	1.0	15
100	3D laser metal deposition: process steps for additive manufacturing. <i>Welding in the World, Le Soudage Dans Le Monde</i> , 2018, 62, 877-883.	1.3	15
101	Theoretical study of influence of electromagnetic stirring on transport phenomena in wire feed laser beam welding. <i>Journal of Laser Applications</i> , 2020, 32, .	0.8	15
102	Approach to assess a fast welding simulation in an industrial environment – Application for an automotive welded part. <i>International Journal of Automotive Technology</i> , 2011, 12, 895-901.	0.7	14
103	Assessing the predictive capability of numerical additive manufacturing simulations via in-situ distortion measurements on a LMD component during build-up. <i>Procedia CIRP</i> , 2018, 74, 158-162.	1.0	14
104	Embedding electronics into additive manufactured components using laser metal deposition and selective laser melting. <i>Procedia CIRP</i> , 2018, 74, 168-171.	1.0	14
105	Laser beam oscillation welding for automotive applications. <i>Welding in the World, Le Soudage Dans Le Monde</i> , 2018, 62, 1039-1047.	1.3	14
106	Developments in hybrid laser-arc welding technology. , 2013, , 505-521.		13
107	On the relationship between the bulge effect and the hot cracking formation during deep penetration laser beam welding. <i>Procedia CIRP</i> , 2020, 94, 5-10.	1.0	13
108	Influence of oscillating magnetic field on the keyhole stability in deep penetration laser beam welding. <i>Optics and Laser Technology</i> , 2021, 135, 106715.	2.2	13

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109	Shielded metal arc welding of 9%Ni steel using matching ferritic filler metal. <i>Science and Technology of Welding and Joining</i> , 2021, 26, 116-122.	1.5	13
110	Spectral diagnostics of a vapor-plasma plume produced during welding with a high-power ytterbium fiber laser. <i>Optics and Spectroscopy (English Translation of Optika I Spektroskopiya)</i> , 2013, 115, 140-146.	0.2	12
111	Modeling of Gas Metal Arc Welding Process Using an Analytically Determined Volumetric Heat Source. <i>ISIJ International</i> , 2013, 53, 698-703.	0.6	12
112	Numerical simulation of solidification crack formation during laser beam welding of austenitic stainless steels under external load. <i>Welding in the World, Le Soudage Dans Le Monde</i> , 2016, 60, 1001-1008.	1.3	12
113	Full penetration hybrid laser arc welding of up to 28 mm thick S355 plates using electromagnetic weld pool support. <i>Journal of Physics: Conference Series</i> , 2018, 1109, 012015.	0.3	12
114	Improvements of hybrid laser arc welding for shipbuilding T-joints with 2F position of 8Åmm thick steel. <i>Optics and Laser Technology</i> , 2021, 143, 107284.	2.2	12
115	Case Study for Welding Simulation in the Automotive Industry. <i>Welding in the World, Le Soudage Dans Le Monde</i> , 2011, 55, 89-98.	1.3	11
116	Study of gap and misalignment tolerances at hybrid laser arc welding of thick-walled steel with electromagnetic weld pool support system. <i>Procedia CIRP</i> , 2018, 74, 757-760.	1.0	11
117	Build-up strategies for temperature control using laser metal deposition for additive manufacturing. <i>Welding in the World, Le Soudage Dans Le Monde</i> , 2018, 62, 1073-1081.	1.3	11
118	The detrimental molten pool narrowing phenomenon in wire feed laser beam welding and its suppression by magnetohydrodynamic technique. <i>International Journal of Heat and Mass Transfer</i> , 2022, 193, 122913.	2.5	11
119	Resistance spot welding and weldbonding of advanced high strength steels. <i>Materialwissenschaft Und Werkstofftechnik</i> , 2010, 41, 931-939.	0.5	10
120	Numerical sensitivity analysis of welding-induced residual stress depending on variations in continuous cooling transformation behavior. <i>Frontiers of Materials Science</i> , 2011, 5, 168-178.	1.1	10
121	Reconstruction of 3D transient temperature field for fusion welding processes on basis of discrete experimental data. <i>Welding in the World, Le Soudage Dans Le Monde</i> , 2015, 59, 497-512.	1.3	10
122	Design of neural network arc sensor for gap width detection in automated narrow gap GMAW. <i>Welding in the World, Le Soudage Dans Le Monde</i> , 2018, 62, 819-830.	1.3	10
123	Automated Toolâ€™Path Generation for Rapid Manufacturing of Additive Manufacturing Directed Energy Deposition Geometries. <i>Steel Research International</i> , 2020, 91, 2000017.	1.0	10
124	Experimental and numerical study on the influence of the laser hybrid parameters in partial penetration welding on the solidification cracking in the weld root. <i>Welding in the World, Le Soudage Dans Le Monde</i> , 2020, 64, 501-511.	1.3	10
125	Mechanical properties characterization of resistance spot welded DP1000 steel under uniaxial tensile tests. <i>Materialpruefung/Materials Testing</i> , 2019, 61, 527-532.	0.8	10
126	Methods to Obtain Weld Discontinuities in Spot-Welded Joints Made of Advanced High-Strength Steels. <i>Welding in the World, Le Soudage Dans Le Monde</i> , 2011, 55, 99-106.	1.3	9

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127	Assessment of thermal cycles by combining thermo-fluid dynamics and heat conduction in keyhole mode welding processes. <i>International Journal of Thermal Sciences</i> , 2019, 145, 105981.	2.6	9
128	Avoidance of end crater imperfections at high-power laser beam welding of closed circumferential welds. <i>Welding in the World, Le Soudage Dans Le Monde</i> , 2020, 64, 407-417.	1.3	9
129	Mechanical Properties of Weldbonded Joints of Advanced High Strength Steels. <i>Journal of Adhesion Science and Technology</i> , 2011, 25, 2369-2407.	1.4	8
130	Welding Residual Stresses Depending on Solid-State Transformation Behaviour Studied by Numerical and Experimental Methods. <i>Materials Science Forum</i> , 2011, 681, 85-90.	0.3	8
131	Experimental determination of TRIP-parameter K for mild- and high-strength low-alloy steels and a super martensitic filler material. <i>SpringerPlus</i> , 2016, 5, 754.	1.2	8
132	Low heat input gas metal arc welding for dissimilar metal weld overlays part III: hydrogen-assisted cracking susceptibility. <i>Welding in the World, Le Soudage Dans Le Monde</i> , 2019, 63, 591-598.	1.3	8
133	Notch impact toughness of laser beam welded thick sheets of cryogenic nickel alloyed steel X8Ni9. <i>Procedia CIRP</i> , 2020, 94, 627-631.	1.0	8
134	Effects on the distortion of Inconel 718 components along a hybrid laser-based additive manufacturing process chain using laser powder bed fusion and laser metal deposition. <i>Progress in Additive Manufacturing</i> , 2021, 6, 385-394.	2.5	8
135	Weld Metal Grain Refinement of Aluminium Alloy 5083 through Controlled Additions of Ti and B. <i>Materialpruefung/Materials Testing</i> , 2011, 53, 604-609.	0.8	8
136	Statistical analysis of weld bead geometry in Ti6Al4V laser cladding. <i>Materialpruefung/Materials Testing</i> , 2017, 59, 837-843.	0.8	8
137	Investigation of the Extrapolation Capability of an Artificial Neural Network Algorithm in Combination with Process Signals in Resistance Spot Welding of Advanced High-Strength Steels. <i>Metals</i> , 2021, 11, 1874.	1.0	8
138	Mathematical modeling of the geometrical differences between the weld end crater and the steady-state weld pool. <i>Journal of Laser Applications</i> , 2020, 32, .	0.8	7
139	Numerical Analysis of the Partial Penetration High Power Laser Beam Welding of Thick Sheets at High Process Speeds. <i>Metals</i> , 2021, 11, 1319.	1.0	7
140	Elucidation of the Bulging Effect by an Improved Ray-Tracing Algorithm in Deep Penetration Wire Feed Laser Beam Welding and Its Influence on the Mixing Behavior. <i>Advanced Engineering Materials</i> , 2022, 24, .	1.6	7
141	Weld seam formation and mechanical properties of girth welds performed with laser-GMA-hybrid process on pipes of grade X65. , 2010, , .		6
142	Experimental investigation of the laser-plume interaction during high power fiber laser welding. , 2011, , .		6
143	High-energy synchrotron diffraction study of a transformation induced plasticity steel during tensile deformation. <i>Journal of Strain Analysis for Engineering Design</i> , 2011, 46, 581-591.	1.0	6
144	Efficient gap filling in MAG welding using optical sensors. <i>Welding in the World, Le Soudage Dans Le Monde</i> , 2014, 58, 637-647.	1.3	6

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145	Joint-site structure friction welding method as a tool for drive pinion light weighting in heavy-duty trucks. <i>Journal of Materials Processing Technology</i> , 2014, 214, 1921-1927.	3.1	6
146	Numerical sensitivity analysis of TRIP-parameter K on weld residual stresses for steel S355J2+ N. <i>Journal of Thermal Stresses</i> , 2016, 39, 201-219.	1.1	6
147	Highspeed-plasma-laser-cladding of thin wear resistance coatings: A process approach as a hybrid metal deposition-technology. <i>Vacuum</i> , 2019, 166, 123-126.	1.6	6
148	Numerical study of additional element transport in wire feed laser beam welding. <i>Procedia CIRP</i> , 2020, 94, 722-725.	1.0	6
149	Wire Arc Additive Manufacturing with Novel Al-Mg-Si Filler Wire – Assessment of Weld Quality and Mechanical Properties. <i>Metals</i> , 2021, 11, 1243.	1.0	6
150	Bestimmung der Rissanfälligkeit von hochfesten Stählen beim Widerstandspunktschweißen. <i>Materialprüfung/Materials Testing</i> , 2016, 58, 612-616.	0.8	6
151	Porosity of LMD manufactured parts analyzed by Archimedes method and CT. <i>Materialprüfung/Materials Testing</i> , 2018, 60, 1055-1060.	0.8	6
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