

Michael Rethmeier

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223
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3,874
ext. citations

2.6
avg, IF

5.92
L-index

#	Paper	IF	Citations
218	Laser Metal Deposition as Repair Technology for Stainless Steel and Titanium Alloys. <i>Physics Procedia</i> , 2012 , 39, 376-381		129
217	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		112
216	Thermal energy generation and distribution in friction stir welding of aluminum alloys. <i>Energy</i> , 2014 , 77, 720-731	7.9	108
215	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	4.9	104
214	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	5.3	85
213	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	5.3	84
212	Simultaneous measurement of tool torque, traverse force and axial force in friction stir welding. <i>Journal of Manufacturing Processes</i> , 2013 , 15, 495-500	5	80
211	Mechanical Properties Characterization of Welded Automotive Steels. <i>Metals</i> , 2020 , 10, 1	2.3	73
210	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	3.7	72
209	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	3	66
208	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	5.3	64
207	Laser Metal Deposition as Repair Technology for a Gas Turbine Burner Made of Inconel 718. <i>Physics Procedia</i> , 2016 , 83, 761-768		64
206	Design of Experiments for Laser Metal Deposition in Maintenance, Repair and Overhaul Applications. <i>Procedia CIRP</i> , 2013 , 11, 245-248	1.8	61
205	Environmental and Social Life Cycle Assessment of Welding Technologies. <i>Procedia CIRP</i> , 2015 , 26, 293-298		53
204	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	6.1	52
203	Plume attenuation of laser radiation during high power fiber laser welding. <i>Laser Physics Letters</i> , 2011 , 8, 475-480	1.5	52
202	Numerical calculation of residual stress development of multi-pass gas metal arc welding. <i>Journal of Constructional Steel Research</i> , 2012 , 72, 12-19	3.8	51

201	Hybrid laser arc welding of X80 and X120 steel grade. <i>Science and Technology of Welding and Joining</i> , 2014 , 19, 15-24	3.7	48
200	Vapor-plasma plume investigation during high-power fiber laser welding. <i>Laser Physics</i> , 2013 , 23, 016001	1.2	48
199	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	4.1	40
198	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	3.2	40
197	Welding Thick Steel Plates with Fibre Lasers and GMAW. <i>Welding in the World, Le Soudage Dans Le Monde</i> , 2010 , 54, R62-R70	1.9	38
196	Life Cycle Assessment of welding technologies for thick metal plate welds. <i>Journal of Cleaner Production</i> , 2015 , 108, 46-53	10.3	36
195	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	0.7	35
194	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	3.2	33
193	Experimental and Numerical Investigation of an Electromagnetic Weld Pool Control for Laser Beam Welding. <i>Physics Procedia</i> , 2014 , 56, 515-524		33
192	Laser Beam Welding of Aluminum Alloys Under the Influence of an Electromagnetic Field. <i>Physics Procedia</i> , 2013 , 41, 4-11		30
191	Understanding grain refinement in aluminium welding. <i>Welding in the World, Le Soudage Dans Le Monde</i> , 2015 , 59, 767-784	1.9	30
190	Welding with High-power Lasers: Trends and Developments. <i>Physics Procedia</i> , 2016 , 83, 15-25		30
189	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	5.3	30
188	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		29
187	Thermographic testing of spot welds. <i>NDT and E International</i> , 2012 , 48, 23-29	4.1	28
186	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	3.9	28
185	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	4.9	27
184	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	3.9	24

183	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	1.9	23
182	Full penetration laser beam welding of thick duplex steel plates with electromagnetic weld pool support. <i>Journal of Laser Applications</i> , 2016 , 28, 022420	2.1	23
181	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	5	21
180	Laser Beam Oscillation Strategies for Fillet Welds in Lap Joints. <i>Physics Procedia</i> , 2014 , 56, 458-466		21
179	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	5.3	20
178	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	1.8	20
177	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, 012013	2.1	19
176	Laser Beam Welding of Thick Titanium Sheets in the Field of Marine Technology. <i>Physics Procedia</i> , 2014 , 56, 582-590		19
175	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, 551-62	3.5	19
174	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	1.9	19
173	Comparison of analytical and numerical welding temperature field calculation. <i>Computational Materials Science</i> , 2010 , 47, 1005-1015	3.2	19
172	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	3.7	19
171	Increasing Performance and Energy Efficiency of Gas Metal Arc Welding by a High Power Tandem Process. <i>Procedia CIRP</i> , 2016 , 40, 642-647	1.8	18
170	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	5.6	18
169	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, 022404	2.1	18
168	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	5.3	18
167	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	6.1	18
166	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	2.3	17

165	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	3.7	17
164	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	1.9	17
163	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	3.8	17
162	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	2.5	17
161	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	1.9	16
160	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	4.9	16
159	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	1.9	16
158	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	3.5	16
157	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	10.3	15
156	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	3.7	15
155	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, 022001	2.1	15
154	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	2.3	15
153	Numerical Analysis of Hot Cracking in Laser-Hybrid Welded Tubes. <i>Advances in Materials Science and Engineering</i> , 2013 , 2013, 1-8	1.5	15
152	High Power Laser Beam Welding of Thick-walled Ferromagnetic Steels with Electromagnetic Weld Pool Support. <i>Physics Procedia</i> , 2016 , 83, 362-372		15
151	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	1.9	15
150	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	3.2	14
149	On the search for the origin of the bulge effect in high power laser beam welding. <i>Journal of Laser Applications</i> , 2019 , 31, 022413	2.1	14
148	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	1.9	14

147	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 ¹⁴	4.3	14
146	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	1.6	14
145	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	1.3	14
144	Methodology to improve applicability of welding simulation. <i>Science and Technology of Welding and Joining</i> , 2008 , 13, 496-508	3.7	14
143	MIG Welding of Magnesium Alloys Metallographic Aspects. <i>Welding in the World, Le Soudage Dans Le Monde</i> , 2004 , 48, 28-33	1.9	14
142	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	1.9	14
141	Theoretical study of influence of electromagnetic stirring on transport phenomena in wire feed laser beam welding. <i>Journal of Laser Applications</i> , 2020 , 32, 022026	2.1	13
140	The effect of tack welding on numerically calculated welding-induced distortion. <i>Journal of Materials Processing Technology</i> , 2012 , 212, 308-314	5.3	13
139	Evaluation of fatigue crack propagation in spot welded joints by stiffness measurements. <i>International Journal of Fatigue</i> , 2011 , 33, 740-745	5	13
138	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	3.7	13
137	3D laser metal deposition: process steps for additive manufacturing. <i>Welding in the World, Le Soudage Dans Le Monde</i> , 2018 , 62, 877-883	1.9	12
136	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	5.3	12
135	Solidification cracking in laser GMA hybrid welding of thick-walled parts. <i>Science and Technology of Welding and Joining</i> , 2014 , 19, 209-213	3.7	12
134	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	0.7	12
133	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	5.3	12
132	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	3.7	11
131	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	1.9	11
130	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	1.9	11

129	Laser Welding of SLM-Manufactured Tubes Made of IN625 and IN718. <i>Materials</i> , 2019 , 12,	3.5	11
128	Welding residual stress reduction by scanning of a defocused beam. <i>Journal of Materials Processing Technology</i> , 2012 , 212, 19-26	5.3	11
127	Developments in hybrid laser-arc welding technology 2013 , 505-521		11
126	Weld pool shape observation in high power laser beam welding. <i>Procedia CIRP</i> , 2018 , 74, 683-686	1.8	11
125	Energy efficiency and environmental impacts of high power gas metal arc welding. <i>International Journal of Advanced Manufacturing Technology</i> , 2017 , 91, 3503-3513	3.2	10
124	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	1.9	10
123	Resistance spot welding and weldbonding of advanced high strength steels. <i>Materialwissenschaft Und Werkstofftechnik</i> , 2010 , 41, 931-939	0.9	10
122	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	1.5	9
121	Microstructure of Inconel 718 parts with constant mass energy input manufactured with direct energy deposition. <i>Procedia Manufacturing</i> , 2019 , 36, 256-266	1.5	9
120	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	1.9	9
119	Numerical Simulation on the Origin of Solidification Cracking in Laser Welded Thick-Walled Structures. <i>Metals</i> , 2018 , 8, 406	2.3	9
118	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	1.9	9
117	Sustainable Welding Process Selection Based on Weight Space Partitions. <i>Procedia CIRP</i> , 2016 , 40, 127-132	1.8	9
116	Embedding electronics into additive manufactured components using laser metal deposition and selective laser melting. <i>Procedia CIRP</i> , 2018 , 74, 168-171	1.8	9
115	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	9
114	Laser beam oscillation welding for automotive applications. <i>Welding in the World, Le Soudage Dans Le Monde</i> , 2018 , 62, 1039-1047	1.9	8
113	Modeling of Gas Metal Arc Welding Process Using an Analytically Determined Volumetric Heat Source. <i>ISIJ International</i> , 2013 , 53, 698-703	1.7	8
112	Case Study for Welding Simulation in the Automotive Industry. <i>Welding in the World, Le Soudage Dans Le Monde</i> , 2011 , 55, 89-98	1.9	8

111	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> , 2011 , 55, 102-102	4.9	8
110	Mechanical Properties of Weldbonded Joints of Advanced High Strength Steels. <i>Journal of Adhesion Science and Technology</i> , 2011 , 25, 2369-2407	2	8
109	Avoidance of liquid metal embrittlement during resistance spot welding by heat input dependent hold time adaptation. <i>Science and Technology of Welding and Joining</i> , 2020 , 25, 617-624	3.7	8
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	4.2	8
107	Mechanical properties characterization of resistance spot welded DP1000 steel under uniaxial tensile tests. <i>Materialprüfung/Materials Testing</i> , 2019 , 61, 527-532	1.9	7
106	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	1.8	7
105	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		7
104	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	1.8	7
103	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	1.9	7
102	Quantifying Mechanical Properties of Automotive Steels with Deep Learning Based Computer Vision Algorithms. <i>Metals</i> , 2020 , 10, 163	2.3	6
101	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	2.2	6
100	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	1.9	6
99	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	4.1	6
98	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	2.5	6
97	Weld seam formation and mechanical properties of girth welds performed with laser-GMA-hybrid process on pipes of grade X65 2010 ,		6
96	Welding Residual Stresses Depending on Solid-State Transformation Behaviour Studied by Numerical and Experimental Methods. <i>Materials Science Forum</i> , 2011 , 681, 85-90	0.4	6
95	Statistical analysis of weld bead geometry in Ti6Al4V laser cladding. <i>Materialprüfung/Materials Testing</i> , 2017 , 59, 837-843	1.9	6
94	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	1.9	6

93	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	5.6	6
92	Possibilities for compensating a higher heat input, in particular by the torch offset relative to the top sheet at the fillet weld on a lap joint. <i>Welding in the World, Le Soudage Dans Le Monde</i> , 2015 , 59, 443-453	1.9	5
91	Numerical study of additional element transport in wire feed laser beam welding. <i>Procedia CIRP</i> , 2020 , 94, 722-725	1.8	5
90	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, 022024	2.1	5
89	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	1.9	5
88	Efficient gap filling in MAG welding using optical sensors. <i>Welding in the World, Le Soudage Dans Le Monde</i> , 2014 , 58, 637-647	1.9	5
87	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	5.3	5
86	Mobile Vacuum in Pocket Format. <i>Laser Technik Journal</i> , 2015 , 12, 43-46		5
85	Influence of Production-Related Gaps on Strength Properties and Deformation Behaviour of Spot Welded Trip Steel HCT690T. <i>Welding in the World, Le Soudage Dans Le Monde</i> , 2012 , 56, 115-125	1.9	5
84	Experimental investigation of the laser-plume interaction during high power fiber laser welding 2011 ,		5
83	Post-Weld Residual Stress Mitigation by Scanning of a Defocused Laser Beam. <i>Physics Procedia</i> , 2011 , 12, 410-418		5
82	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	1.3	5
81	Weld Metal Grain Refinement of Aluminium Alloy 5083 through Controlled Additions of Ti and B. <i>Materialpruefung/Materials Testing</i> , 2011 , 53, 604-609	1.9	5
80	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	1.9	5
79	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	3.7	5
78	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	1.8	5
77	Numerical simulation of the weld pool dynamics during pulsed laser welding using adapted heat source models. <i>Procedia CIRP</i> , 2018 , 74, 679-682	1.8	5
76	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	3.7	4

75	Study on fatigue behavior of dissimilar materials and different methods of friction-welded joints for drive pinion in trucks. <i>Welding in the World, Le Soudage Dans Le Monde</i> , 2015 , 59, 917-926	1.9	4
74	Additive Prozesskette zur Instandsetzung von Bauteilen. <i>Laser Technik Journal</i> , 2013 , 10, 31-35		4
73	Welding Simulation in Car Body Construction. <i>Laser Technik Journal</i> , 2015 , 12, 33-37		4
72	Hot cracking in high power laser beam welding of thick high strength structural steels under restraint conditions 2010 ,		4
71	Assessment of hot cracking behaviour in welds. <i>International Journal of Materials Research</i> , 2011 , 102, 1001-1006	0.5	4
70	S141 Residual Stresses and In-Situ Measurement of Phase Transformation in Low Transformation Temperature (LTT) Welding Materials. <i>Powder Diffraction</i> , 2008 , 23, 188-188	1.8	4
69	Porosity of LMD manufactured parts analyzed by Archimedes method and CT. <i>Materialpruefung/Materials Testing</i> , 2018 , 60, 1055-1060	1.9	4
68	Sustainable Technologies for Thick Metal Plate Welding. <i>Sustainable Production, Life Cycle Engineering and Management</i> , 2017 , 71-84	0.4	4
67	Novel metrology to determine the critical strain conditions required for solidification cracking during laser welding of thin sheets. <i>Journal of Physics: Conference Series</i> , 2018 , 1109, 012047	0.3	4
66	Automatisierte Fertigung von Hohlprofilknoten für Jacket-Gründungsstrukturen. <i>Stahlbau</i> , 2018 , 87, 897-909	0.6	4
65	Wire Arc Additive Manufacturing with Novel Al-Mg-Si Filler Wire Assessment of Weld Quality and Mechanical Properties. <i>Metals</i> , 2021 , 11, 1243	2.3	4
64	Laser beam oscillation for fillet welding. <i>Welding in the World, Le Soudage Dans Le Monde</i> , 2014 , 58, 865-872	0.7	3
63	Study of Fatigue Behavior for Spot Welded Tensile Shear Specimens of Advanced High Strength Steels. <i>Steel Research International</i> , 2012 , 83, 988-994	1.6	3
62	Electromagnetic control of the weld pool dynamics in partial penetration laser beam welding of aluminium alloys 2012 ,		3
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