

Uwe Reisgen

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/9536513/publications.pdf>

Version: 2024-02-01

121
papers

991
citations

623734

14
h-index

642732

23
g-index

128
all docs

128
docs citations

128
times ranked

794
citing authors

#	ARTICLE	IF	CITATIONS
1	Laser beam welding under vacuum of high grade materials. <i>Welding in the World, Le Soudage Dans Le Monde</i> , 2016, 60, 403-413.	2.5	50
2	Welding Thick Steel Plates with Fibre Lasers and GMAW. <i>Welding in the World, Le Soudage Dans Le Monde</i> , 2010, 54, R62-R70.	2.5	47
3	Increasing the manufacturing efficiency of WAAM by advanced cooling strategies. <i>Welding in the World, Le Soudage Dans Le Monde</i> , 2020, 64, 1409-1416.	2.5	41
4	Assessment of the biological effects of welding fumes emitted from metal inert gas welding processes of aluminium and zinc-plated materials in humans. <i>International Journal of Hygiene and Environmental Health</i> , 2014, 217, 160-168.	4.3	40
5	Electron beam welding of aluminum to copper: mechanical properties and their relation to microstructure. <i>Welding in the World, Le Soudage Dans Le Monde</i> , 2016, 60, 21-31.	2.5	38
6	Plasma Multiwire Technology with Alternating Wire Feed for Tailor-Made Material Properties in Wire and Arc Additive Manufacturing. <i>Metals</i> , 2019, 9, 745.	2.3	26
7	Digital Image Correlation Analysis Of The Effects Of The Overlap Length, Adhesive Thickness And Adherends Yield Strength Over Similar And Dissimilar Joints Of High Strength Steel And Aluminum Alloys. <i>International Journal of Adhesion and Adhesives</i> , 2018, 83, 69-75.	2.9	23
8	Modeling of weld pool phenomena in tungsten inert gas, CO2-laser and hybrid (TIG+CO2-laser) welding. <i>Journal of Laser Applications</i> , 2016, 28, .	1.7	21
9	Analysis of the thermo-mechanical mechanism during ultrasonic welding of battery tabs using high-speed image capturing. <i>Welding in the World, Le Soudage Dans Le Monde</i> , 2019, 63, 1573-1582.	2.5	21
10	Numerical and Experimental Investigation of Tensile Behavior of Laser Beam Welded TRIP700 Steel. <i>ISIJ International</i> , 2011, 51, 429-434.	1.4	20
11	Connected, digitalized welding production“Industrie 4.0 in gas metal arc welding. <i>Welding in the World, Le Soudage Dans Le Monde</i> , 2019, 63, 1121-1131.	2.5	20
12	Comparison of Residual Stress Measurements Conducted by X-ray Stress Analysis and Incremental Hole Drilling Method. <i>Journal of Thermal Spray Technology</i> , 2020, 29, 1218-1228.	3.1	19
13	Modelling of electromagnetic processes in system “welding arc” evaporating anode™ Part 1 “ Model of anode region. <i>Science and Technology of Welding and Joining</i> , 2010, 15, 457-462.	3.1	16
14	Structural health monitoring of an adhesively bonded CFRP aircraft fuselage by ultrasonic Lamb Waves. <i>Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering</i> , 2020, 234, 2000-2010.	1.3	16
15	Laser Beam Welding of Open-Porous Metallic Foams for Application in Cooling Structures of Combined Cycle Power Plants. <i>Journal of Engineering for Gas Turbines and Power</i> , 2010, 132, .	1.1	15
16	Laser beam welding in vacuum of thick plate structural steel. , 2013, , .		15
17	Machine vision system for online weld pool observation of gas metal arc welding processes. <i>Welding in the World, Le Soudage Dans Le Monde</i> , 2014, 58, 707-711.	2.5	15
18	Analysis of the submerged arc in comparison between a pulsed and non-pulsed process. <i>Welding in the World, Le Soudage Dans Le Monde</i> , 2016, 60, 703-711.	2.5	15

#	ARTICLE	IF	CITATIONS
19	Design framework for model-based self-optimizing manufacturing systems. International Journal of Advanced Manufacturing Technology, 2018, 97, 519-528.	3.0	15
20	Stability analysis of the Cold Metal Transfer (CMT) brazing process for galvanized steel plates with ZnAl4 filler metal. International Journal of Advanced Manufacturing Technology, 2019, 103, 2485-2494.	3.0	15
21	Experimental research of hybrid welding processes in combination of gas tungsten arc with CO ₂ - or Yb:YAG-laser beam. Journal of Laser Applications, 2016, 28, .	1.7	14
22	Analysis and specification of the crash behaviour of plastics/metal-hybrid composites by experimental and numerical methods. Production Engineering, 2017, 11, 183-193.	2.3	14
23	3D printing in steel construction with the automated Wire Arc Additive Manufacturing. Ce/Papers, 2019, 3, 577-583.	0.3	14
24	Deep learning approaches for force feedback based void defect detection in friction stir welding. Journal of Advanced Joining Processes, 2022, 5, 100087.	2.7	14
25	Two-dimensional arc stagnation pressure measurements for the double-electrode GTAW process. Science and Technology of Welding and Joining, 2016, 21, 275-280.	3.1	13
26	On formability of tailor laser welded blanks of DP/TRIP steel sheets. Science and Technology of Welding and Joining, 2010, 15, 337-342.	3.1	11
27	Innovative approach of joining hybrid components. Journal of Laser Applications, 2011, 23, 032007.	1.7	11
28	On the growth of intermetallic phases by heat treatment of friction stir welded aluminum steel joints. Production Engineering, 2017, 11, 175-182.	2.3	11
29	Arc-cathode attachment in GMA welding. Journal Physics D: Applied Physics, 2019, 52, 364003.	2.8	11
30	Electron beam welding of titanium aluminides – Influence of the welding parameters on the weld seam and microstructure. Materialwissenschaft Und Werkstofftechnik, 2010, 41, 897-907.	0.9	10
31	Modelling of electromagnetic processes in system –welding arc–evaporating anode–™ Part 2 – model of arc column and anode metal. Science and Technology of Welding and Joining, 2010, 15, 463-467.	3.1	10
32	Biaxial behavior of laser welded DP/TRIP steel sheets. International Journal of Advanced Manufacturing Technology, 2013, 68, 1075-1082.	3.0	10
33	Study of technological opportunities of GMA welding and surfacing with pulse electrode wire feed. Welding in the World, Le Soudage Dans Le Monde, 2016, 60, 525-533.	2.5	10
34	Corrosion Resistance and Microstructure of Welded Duplex Stainless Steel Surface Layers on Gray Cast Iron. Journal of Thermal Spray Technology, 2020, 29, 825-842.	3.1	10
35	Towards robotic steel construction through adaptive incremental point welding. Construction Robotics, 2020, 4, 49-60.	2.2	10
36	Quality prediction of disturbed ultrasonic metal welds. Journal of Advanced Joining Processes, 2022, 5, 100086.	2.7	10

#	ARTICLE	IF	CITATIONS
37	Modern hybrid welding process for structural steelwork engineeringâ€”Laser submerged arc hybrid welding. Journal of Laser Applications, 2016, 28, .	1.7	9
38	Arc characteristic evaluation of the double-electrode GTAW process using high current values. International Journal of Advanced Manufacturing Technology, 2018, 98, 929-936.	3.0	9
39	Influencing the electrical properties of laser beam vacuum-welded Cu-Al mixed joints. Journal of Laser Applications, 2019, 31, .	1.7	9
40	Study of the arc voltage in gas metal arc welding. Journal Physics D: Applied Physics, 2019, 52, 085202.	2.8	9
41	Hydrogen Embrittlement Susceptibility of Gas Metal Arc Welded Joints from a Highâ€”strength Lowâ€”Alloy Steel Grade S690QL. Steel Research International, 2020, 91, 2000131.	1.8	9
42	Investigations about the influence of the timeâ€”temperature curve on the formation of intermetallic phases during electron beam welding of steelâ€”aluminium material combinations. Welding in the World, Le Soudage Dans Le Monde, 2014, 58, 443-454.	2.5	8
43	Interaction of CO2-laser beam with argon plasma of gas tungsten arc. Welding in the World, Le Soudage Dans Le Monde, 2015, 59, 611-622.	2.5	8
44	Study on Workpiece and Welding Torch Height Control for Polydirectional WAAM by Means of Image Processing. , 2019, , .		8
45	Study of the wire resistance in gas metal arc welding. Journal Physics D: Applied Physics, 2019, 52, 085201.	2.8	8
46	Force feedback-based quality monitoring of the friction stir welding process utilizing an analytic algorithm. Welding in the World, Le Soudage Dans Le Monde, 2021, 65, 845-854.	2.5	8
47	Quantitative evaluation of SPH in TIG spot welding. Computational Particle Mechanics, 2023, 10, 1-18.	3.0	8
48	On the application of the theory of Lorentzian plasma to calculation of transport properties of multicomponent arc plasmas. European Physical Journal D, 2010, 57, 77-85.	1.3	7
49	Influence on martensite-start-temperature and volume expansion of low-transformation-temperature materials used for residual stress relief in beam welding. Materialwissenschaft Und Werkstofftechnik, 2017, 48, 1276-1282.	0.9	7
50	Comparison of FEM simulations to measurements of residual stresses for the example of a welded plate: a state-of-the-art report. Modelling and Simulation in Materials Science and Engineering, 2000, 8, 911-926.	2.0	6
51	Possibilities of a control of the droplet detachment in pulsed gas metal arc welding. Welding in the World, Le Soudage Dans Le Monde, 2013, 57, 701-706.	2.5	6
52	Cooling Curve Based Estimation of Mechanical Properties in High Strength Steel Welds. Materials Science Forum, 2016, 879, 1760-1765.	0.3	6
53	Transparent high-pressure nozzles for visualization of nozzle internal and external flow phenomena. Review of Scientific Instruments, 2019, 90, 033702.	1.3	6
54	Stiffness and strength analysis of hybrid adhesive bonded â€” resistance spot welded sandwich samples by means of virtual FE testing. Journal of Adhesion, 2019, 95, 543-557.	3.0	6

#	ARTICLE	IF	CITATIONS
55	Characterization and modelling techniques for gas metal arc welding of DP 600 sheet steels. Charakterisierung und Modellierungstechniken für Metallschutzgasschweißen von DP 600 Blech-Stählen. Materialwissenschaft Und Werkstofftechnik, 2010, 41, 972-983.	0.9	5
56	Progress Towards Model Based Optimisation Of Gas Metal Arc Welding Processes. Welding in the World, Le Soudage Dans Le Monde, 2012, 56, 35-40.	2.5	5
57	Human biomonitoring of aluminium after a single, controlled manual metal arc inert gas welding process of an aluminium-containing worksheet in nonwelders. International Archives of Occupational and Environmental Health, 2015, 88, 913-923.	2.3	5
58	Characterisation of quasi-stationary temperature fields in laser welding by infrared thermography. Materialwissenschaft Und Werkstofftechnik, 2017, 48, 1283-1289.	0.9	5
59	Numerical investigation of droplet impact on the welding pool in gas metal arc welding. Materialwissenschaft Und Werkstofftechnik, 2017, 48, 1206-1212.	0.9	5
60	Laser beam submerged arc hybrid welding: A novel hybrid welding process. Journal of Laser Applications, 2018, 30, 042012.	1.7	5
61	Electron beam welding in atmosphere of aluminum die casting alloys made of different qualities. Welding in the World, Le Soudage Dans Le Monde, 2018, 62, 1207-1213.	2.5	5
62	Characteristics of resistance projection-welded aluminum-copper interconnects. Welding in the World, Le Soudage Dans Le Monde, 2019, 63, 1593-1599.	2.5	5
63	Enhanced osteogenic differentiation of human mesenchymal stromal cells as response to periodical microstructured Ti6Al4V surfaces. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2020, 108, 2218-2226.	3.4	5
64	Effects of evaporation-determined model of arc-cathode coupling on weld pool formation in GMAW process simulation. Welding in the World, Le Soudage Dans Le Monde, 2020, 64, 847-856.	2.5	5
65	Joining of plastic-metal hybrid components by overmoulding of specially designed form-closure elements. Materialwissenschaft Und Werkstofftechnik, 2021, 52, 367-378.	0.9	5
66	Microstructure and Corrosion Behavior of Functionally Graded Wire Arc Additive Manufactured Steel Combinations. Steel Research International, 2021, 92, 2100387.	1.8	5
67	Adjustment of chemical composition with dissimilar filler wire in 1.4301 austenitic stainless steel to influence residual stress in laser beam welds. Journal of Advanced Joining Processes, 2022, 5, 100081.	2.7	5
68	Application and benchmark of SPH for modeling the impact in thermal spraying. Computational Particle Mechanics, 2022, 9, 1137-1152.	3.0	5
69	Development of a Multidirectional Wire Arc Additive Manufacturing (WAAM) Process with Pure Object Manipulation: Process Introduction and First Prototypes. Journal of Manufacturing and Materials Processing, 2021, 5, 134.	2.2	5
70	Nanophase hardfaced coatings. Materialwissenschaft Und Werkstofftechnik, 2009, 40, 618-622.	0.9	4
71	Transport properties of multicomponent thermal plasmas: Grad method versus Chapman-Enskog method. Physics of Plasmas, 2013, 20, .	1.9	4
72	Tensile Stress Analyses through Digital Image Correlation of Single Lap Joints of High Strength Steel and Aluminum Alloy Using Adhesive Bonding. Materials Science Forum, 2016, 879, 363-368.	0.3	4

#	ARTICLE	IF	CITATIONS
73	Innovative hybrid welding process for structural steelwork engineeringâ€”Laser submerged arc hybrid welding. Journal of Laser Applications, 2017, 29, 022401.	1.7	4
74	Residual stress measurement in AlSi alloys. Materialwissenschaft Und Werkstofftechnik, 2017, 48, 1270-1275.	0.9	4
75	The effect of beam oscillations on the microstructure and mechanical properties of electron beam welded steel joints. International Journal of Advanced Manufacturing Technology, 2019, 102, 2919-2931.	3.0	4
76	Reduction of distortion by using the low transformation temperature effect for high alloy steels in electron beam welding. Welding in the World, Le Soudage Dans Le Monde, 2021, 65, 23-34.	2.5	4
77	Comparative study of phase transformation temperatures in high strength steel weld metals. Materialpruefung/Materials Testing, 2017, 59, 344-347.	2.2	4
78	A methodology for detection of crack initiation in adhesively bonded joints under constant and variable amplitude fatigue loading. Journal of Adhesion, 0, , 1-22.	3.0	4
79	Connected, Digitalized Welding Productionâ€”Secure, Ubiquitous Utilization of Data Across Process Layers. Advanced Structured Materials, 2020, , 101-118.	0.5	4
80	Electromagnetic assessment of welding processes for packaging of electrical sheets. , 2020, , .		4
81	Human Biomonitoring of Chromium and Nickel from an Experimental Exposure to Manual Metal Arc Welding Fumes of Low and High Alloyed Steel. Annals of Occupational Hygiene, 2014, 59, 467-80.	1.9	3
82	Model-based description of arc length as a synergetic system parameter in pulsed GMAW. Welding in the World, Le Soudage Dans Le Monde, 2017, 61, 1169-1179.	2.5	3
83	Assessment of mechanical properties in high-strength steel weld metals by means of phase transformation temperature. Welding in the World, Le Soudage Dans Le Monde, 2018, 62, 1227-1236.	2.5	3
84	Study on identifying GMAW process deviations by means of optical and electrical process data using ANN. , 2020, , .		3
85	Effect of the temperature gradient on hot cracking susceptibility for electron beam welding Alloy 247 LC. Materialpruefung/Materials Testing, 2020, 62, 721-726.	2.2	3
86	Simulation of transient heat transfer and phase transformation in laser beam welding for low alloy steel and studying its influences on the welding residual stresses. Journal of Advanced Joining Processes, 2022, 5, 100080.	2.7	3
87	Curing Adhesives with Woven Fabrics Made of Polymer Optical Fibre and PET Yarn. Solid State Phenomena, 0, 333, 129-136.	0.3	3
88	Hydra and LUPuS - The exotics among the hybrid welding methods. , 2010, , .		2
89	Task of volumetrical evaporation and behaviour of droplets in pulsed MIG welding of AlMg alloys. Welding in the World, Le Soudage Dans Le Monde, 2013, 57, 507-514.	2.5	2
90	Laser beam welding under vacuum of a fine-grained steel. , 2014, , .		2

#	ARTICLE	IF	CITATIONS
91	Schweißen mit dem Laserstrahl im Vakuum. <i>Vakuum in Forschung Und Praxis</i> , 2015, 27, 36-41.	0.1	2
92	Process control of gas metal arc welding processes by optical weld pool observation with combined quality models. , 2015, , .		2
93	Session 1: Young scientist forum. <i>Biomedizinische Technik</i> , 2019, 64, 1-18.	0.8	2
94	Individualized and controlled laser beam pretreatment process for adhesive bonding of fiber-reinforced plastics“Part I: Optical detection of impurities on the component surface. <i>Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering</i> , 2020, 234, 426-435.	2.5	2
95	Finite Element Simulation of Residual Stress Induced by High Energy Beam Welding in Dual Phase Steel. <i>Lasers in Manufacturing and Materials Processing</i> , 2020, 7, 154-176.	2.2	2
96	Visualization of the molten pool of the laser beam submerged arc hybrid welding process. <i>Welding in the World, Le Soudage Dans Le Monde</i> , 2020, 64, 721-727.	2.5	2
97	Individualized and controlled laser beam pretreatment process for adhesive bonding of fiber-reinforced plastics. II. Automatic laser process control by spectrometry. <i>Journal of Laser Applications</i> , 2021, 33, 012004.	1.7	2
98	Improvement of the adhesive bonding properties of an polyamide 6 injection molded fiber reinforced plastic component by laser beam pre-treatment. <i>Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering</i> , 2021, 235, 3243-3255.	1.9	2
99	Residual Stress Reduction with the LTT Effect in Low Carbon Manganese-Steel through Chemical Composition Manipulation Using Dissimilar Filler Material in Laser Beam Welding. <i>Metals</i> , 2022, 12, 911.	2.3	2
100	Influence of residual oxygen during laser beam welding under vacuum. <i>Materialpruefung/Materials Testing</i> , 2022, 64, 945-953.	2.2	2
101	The arc in hybrid welding serves as a sensor for the process quality. , 2008, , .		1
102	Hybrid welding with controlled short arcs - A variation of the reduction of the energy-per-unit length. , 2011, , .		1
103	Virtual welding equipment for simulation of GMAW processes with integration of power source regulation. <i>Frontiers of Materials Science</i> , 2011, 5, 79-89.	2.2	1
104	Thermal Joining with Zinc Based Solder “ New Potentials for Structural Lightweight Design. <i>Materials Science Forum</i> , 0, 783-786, 2741-2746.	0.3	1
105	Effects of heat treatment and welding process on superelastic behaviour and microstructure of micro electron beam welded NiTi. <i>Current Directions in Biomedical Engineering</i> , 2016, 2, 15-19.	0.4	1
106	Manipulating the melt propagation of short arc gas metal arc welding with diode lasers < 1kW for improvement in flexibility and process robustness. <i>Journal of Laser Applications</i> , 2019, 31, 022417.	1.7	1
107	Study on weld seam geometry control for connected gas metal arc welding systems. , 2020, , .		1
108	Simplified stiffness analysis for degraded single lap joints in the space sector “ Comparative analytical and finite element analysis. <i>Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering</i> , 2020, 234, 1956-1966.	1.3	1

#	ARTICLE	IF	CITATIONS
109	Concept for the calculation of the distribution of heat input in the cathode area by GMA welding. <i>Welding in the World, Le Soudage Dans Le Monde</i> , 2020, 64, 1605-1614.	2.5	1
110	Method development of statistical modeling for the description of welding fume emissions in gas metal arc welding using transient process characteristics. <i>Welding in the World, Le Soudage Dans Le Monde</i> , 2020, 64, 1497-1502.	2.5	1
111	Influence of mill scale on weld bead geometry and thermal cycle during GTA welding of high-strength steels. <i>Welding in the World, Le Soudage Dans Le Monde</i> , 2020, 64, 1175-1183.	2.5	1
112	Simplified surface heat source distribution for GMAW process simulation based on the EDACC principle. <i>Welding in the World, Le Soudage Dans Le Monde</i> , 2021, 65, 745-752.	2.5	1
113	Validation of evaporation-determined model of arc-cathode coupling in the peak current phase in pulsed GMA welding. <i>Journal Physics D: Applied Physics</i> , 0, , .	2.8	1
114	Hybrid laser welding in shipbuilding – Extension of the application range to vertical down welding. , 2014, , .		0
115	Modern hybrid welding process for structural steelwork engineering-laser submerged arc hybrid welding. , 2015, , .		0
116	Laser beam welding of ultrahigh strength martensitic steels with active cooling. <i>Journal of Laser Applications</i> , 2016, 28, 022408.	1.7	0
117	Industry 4.0 Enabler for CFRP Repairs in Vehicles. <i>Lightweight Design Worldwide</i> , 2017, 10, 36-41.	0.1	0
118	Material modeling of hyperelastic silicone adhesives considering stiffness reduction. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2019, 19, e201900192.	0.2	0
119	Axisymmetric two-phase flow simulations on space-time meshes. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2019, 19, e201900409.	0.2	0
120	Parameter Study on the Effects of Spot-welding on the Electromagnetic Properties of Magnetic Cores Constructed from Electrical Steel. , 2021, , .		0
121	Robustness and reliability assessment of Single-Sided Spot Welding as a process for sheet to closed profile joining for Body in White vehicle structures. <i>Welding International</i> , 0, , 1-26.	0.7	0