ChuanSong Wu

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

269 papers

5,311 citations

37 h-index 56 g-index

285 ext. papers

6,486 ext. citations

3.7 avg, IF

6.78 L-index

#	Paper	IF	Citations
269	Friction stir based welding and processing technologies - processes, parameters, microstructures and applications: A review. <i>Journal of Materials Science and Technology</i> , 2018 , 34, 1-38	9.1	250
268	Friction stir welding process of dissimilar metals of 6061-T6 aluminum alloy to AZ31B magnesium alloy. <i>Journal of Materials Processing Technology</i> , 2015 , 218, 38-47	5.3	136
267	Application of ultrasonic vibrations in welding and metal processing: A status review. <i>Journal of Manufacturing Processes</i> , 2017 , 26, 295-322	5	131
266	Characterization of plastic deformation and material flow in ultrasonic vibration enhanced friction stir welding. <i>Scripta Materialia</i> , 2015 , 102, 95-98	5.6	115
265	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
264	Thermal energy generation and distribution in friction stir welding of aluminum alloys. <i>Energy</i> , 2014 , 77, 720-731	7.9	108
263	Plasma arc welding: Process, sensing, control and modeling. <i>Journal of Manufacturing Processes</i> , 2014 , 16, 74-85	5	97
262	Modeling the effects of ultrasonic vibration on friction stir welding. <i>Journal of Materials Processing Technology</i> , 2015 , 222, 91-102	5.3	81
261	Simultaneous measurement of tool torque, traverse force and axial force in friction stir welding. Journal of Manufacturing Processes, 2013 , 15, 495-500	5	80
260	Fabrication of AA6061/Al2O3 nano ceramic particle reinforced composite coating by using friction stir processing. <i>Journal of Materials Science</i> , 2010 , 45, 4431-4438	4.3	77
259	Improved weld macrosection, microstructure and mechanical properties of 2024Al-T4 butt joints in ultrasonic vibration enhanced friction stir welding. <i>Science and Technology of Welding and Joining</i> , 2015 , 20, 345-352	3.7	73
258	Effect of ultrasonic vibration on welding load, temperature and material flow in friction stir welding. <i>Journal of Materials Processing Technology</i> , 2017 , 239, 273-283	5.3	72
257	Auxiliary energy assisted friction stir welding latatus review. Science and Technology of Welding and Joining, 2015, 20, 631-649	3.7	71
256	Adaptive volumetric heat source models for laser beam and laser + pulsed GMAW hybrid welding processes. <i>International Journal of Advanced Manufacturing Technology</i> , 2011 , 57, 245-255	3.2	70
255	Numerical analysis of the coupled arcweld poolleyhole behaviors in stationary plasma arc welding. <i>International Journal of Heat and Mass Transfer</i> , 2015 , 84, 839-847	4.9	63
254	Weld microstructure and mechanical properties in ultrasonic enhanced friction stir welding of Al alloy to Mg alloy. <i>Journal of Materials Processing Technology</i> , 2018 , 254, 145-157	5.3	59
253	An adaptive heat source model for finite-element analysis of keyhole plasma arc welding. <i>Computational Materials Science</i> , 2009 , 46, 167-172	3.2	58

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252	Vision-based observation of keyhole geometry in plasma arc welding. <i>International Journal of Thermal Sciences</i> , 2013 , 63, 38-45	4.1	57	
251	Material flow in ultrasonic vibration enhanced friction stir welding. <i>Journal of Materials Processing Technology</i> , 2015 , 225, 32-44	5.3	56	
250	Analysis of the TIG welding arc behavior. <i>Computational Materials Science</i> , 1997 , 7, 308-314	3.2	55	
249	Local microstructure evolution in Al 6061-T6 friction stir weld nugget enhanced by ultrasonic vibration. <i>Materials and Design</i> , 2016 , 92, 710-723	8.1	54	
248	Elimination of tunnel defect in ultrasonic vibration enhanced friction stir welding. <i>Materials and Design</i> , 2016 , 90, 350-358	8.1	54	
247	Transient model of heat transfer and material flow at different stages of friction stir welding process. <i>Journal of Manufacturing Processes</i> , 2017 , 25, 323-339	5	53	
246	Heat input and metal transfer influences on the weld geometry and microstructure during underwater wet FCAW. <i>Journal of Materials Processing Technology</i> , 2016 , 238, 373-382	5.3	52	
245	An improved simulation of heat transfer and fluid flow in plasma arc welding with modified heat source model. <i>International Journal of Thermal Sciences</i> , 2013 , 64, 93-104	4.1	48	
244	Analysis of excited droplet oscillation and detachment in active control of metal transfer. <i>Computational Materials Science</i> , 2004 , 31, 147-154	3.2	48	
243	Modified constitutive equation for use in modeling the ultrasonic vibration enhanced friction stir welding process. <i>Scripta Materialia</i> , 2016 , 119, 21-26	5.6	45	
242	Improvement of welding heat source models for TIG-MIG hybrid welding process. <i>Journal of Manufacturing Processes</i> , 2014 , 16, 485-493	5	44	
241	The effect of the welding parameters and tool size on the thermal process and tool torque in reverse dual-rotation friction stir welding. <i>International Journal of Machine Tools and Manufacture</i> , 2015 , 91, 1-11	9.4	44	
240	Effect of current waveforms on metal transfer in pulsed gas metal arc welding. <i>Measurement Science and Technology</i> , 2005 , 16, 2459-2465	2	41	
239	Numerical simulation of temperature field, fluid flow and weld bead formation in oscillating single mode laser-GMA hybrid welding. <i>Journal of Materials Processing Technology</i> , 2017 , 242, 147-159	5.3	40	
238	Single vision system for simultaneous observation of keyhole and weld pool in plasma arc welding. Journal of Materials Processing Technology, 2015 , 215, 71-78	5.3	40	
237	One-dimensional analysis of the anode boundary layer in free-burning argon arcs. <i>Journal Physics D: Applied Physics</i> , 1999 , 32, 605-611	3	40	
236	Numerical simulation of ultrasonic field and its acoustoplastic influence on friction stir welding. <i>Materials and Design</i> , 2016 , 104, 102-115	8.1	40	
235	Energy propagation in plasma arc welding with keyhole tracking. <i>Energy</i> , 2014 , 64, 1044-1056	7.9	38	

234	Numerical analysis of both front- and back-side deformation of fully-penetrated GTAW weld pool surfaces. <i>Computational Materials Science</i> , 2007 , 39, 635-642	3.2	38
233	Diminishing intermetallic compound layer in ultrasonic vibration enhanced friction stir welding of aluminum alloy to magnesium alloy. <i>Materials Letters</i> , 2017 , 203, 81-84	3.3	37
232	Plasma arc and weld pool coupled modeling of transport phenomena in keyhole welding. <i>International Journal of Heat and Mass Transfer</i> , 2016 , 92, 628-638	4.9	37
231	Numerical Analysis of Heat Transfer and Fluid Flow in Keyhole Plasma Arc Welding. <i>Numerical Heat Transfer; Part A: Applications</i> , 2011 , 60, 685-698	2.3	37
230	Sensing controlled pulse key-holing condition in plasma arc welding. <i>Transactions of Nonferrous Metals Society of China</i> , 2009 , 19, 341-346	3.3	37
229	A numerical model of pin thread effect on material flow and heat generation in shear layer during friction stir welding. <i>Journal of Manufacturing Processes</i> , 2018 , 36, 10-21	5	36
228	Modeling the transient heat transfer for the controlled pulse key-holing process in plasma arc welding. <i>International Journal of Thermal Sciences</i> , 2011 , 50, 1664-1671	4.1	35
227	Effect of ultrasonic vibration on the intermetallic compound layer formation in Al/Cu friction stir weld joints. <i>Journal of Alloys and Compounds</i> , 2019 , 785, 512-522	5.7	34
226	Determination of heat generation by correlating the interfacial friction stress with temperature in friction stir welding. <i>Journal of Manufacturing Processes</i> , 2018 , 31, 801-811	5	34
225	Experimental sensing of the keyhole exit deviation from the torch axis in plasma arc welding. <i>International Journal of Advanced Manufacturing Technology</i> , 2014 , 71, 1209-1219	3.2	34
224	Visualization and simulation of plastic material flow in friction stir welding of 2024 aluminium alloy plates. <i>Transactions of Nonferrous Metals Society of China</i> , 2012 , 22, 1445-1451	3.3	34
223	Image processing of weld pool and keyhole in Nd:YAG laser welding of stainless steel based on visual sensing. <i>Transactions of Nonferrous Metals Society of China</i> , 2011 , 21, 423-428	3.3	33
222	Analysis of the heat flux distribution at the anode of a TIG welding arc. <i>Computational Materials Science</i> , 2002 , 24, 323-327	3.2	33
221	Numerical simulation of plasma arc welding with keyhole-dependent heat source and arc pressure distribution. <i>International Journal of Advanced Manufacturing Technology</i> , 2015 , 78, 593-602	3.2	32
220	Gas metal arc welding process monitoring and quality evaluation using neural networks. <i>Science and Technology of Welding and Joining</i> , 2000 , 5, 324-328	3.7	32
219	Current waveform effects on CMT welding of mild steel. <i>Journal of Materials Processing Technology</i> , 2017 , 243, 395-404	5.3	31
218	Effects of phase difference on the behavior of arc and weld pool in tandem P-GMAW. <i>Journal of Materials Processing Technology</i> , 2015 , 225, 45-55	5.3	31
217	Visualizing the influence of the process parameters on the keyhole dimensions in plasma arc welding. <i>Measurement Science and Technology</i> , 2012 , 23, 105603	2	31

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216	Analysis of additional electromagnetic force for mitigating the humping bead in high-speed gas metal arc welding. <i>Journal of Materials Processing Technology</i> , 2016 , 229, 207-215	5.3	30
215	Influence of the external magnetic field on fluid flow, temperature profile and humping bead in high speed gas metal arc welding. <i>International Journal of Heat and Mass Transfer</i> , 2018 , 116, 1282-1291	1 ^{4.9}	30
214	Evaluation of local strain distribution in ultrasonic enhanced Al 6061-T6 friction stir weld nugget by EBSD analysis. <i>Materials and Design</i> , 2016 , 99, 135-144	8.1	30
213	Backward flowing molten metal in weld pool and its influence on humping bead in high-speed GMAW. <i>Journal of Materials Processing Technology</i> , 2016 , 237, 342-350	5.3	30
212	Suppression of intermetallic reaction layer by ultrasonic assistance during friction stir welding of Al and Mg based alloys. <i>Journal of Alloys and Compounds</i> , 2020 , 827, 154343	5.7	29
211	Numerical simulation of transient development and diminution of weld pool in gas tungsten arc welding. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2004 , 12, 13-20	2	29
210	Constitutive equation including acoustic stress work and plastic strain for modeling ultrasonic vibration assisted friction stir welding process. <i>International Journal of Machine Tools and Manufacture</i> , 2019 , 145, 103434	9.4	28
209	A unified 3D model for an interaction mechanism of the plasma arc, weld pool and keyhole in plasma arc welding. <i>Journal Physics D: Applied Physics</i> , 2015 , 48, 465504	3	28
208	Computer simulation of fluid dynamics and heat transfer in full-penetrated TIG weld pools with surface depression. <i>Computational Materials Science</i> , 1994 , 2, 341-349	3.2	28
207	Influence of tool tilt angle on heat transfer and material flow in friction stir welding. <i>Journal of Manufacturing Processes</i> , 2020 , 59, 98-112	5	28
206	Measurement of the keyhole entrance and topside weld pool geometries in keyhole plasma arc welding with dual CCD cameras. <i>Journal of Materials Processing Technology</i> , 2017 , 248, 39-48	5.3	27
205	Analysis of the dynamic performance of a complex ultrasonic horn for application in friction stir welding. <i>International Journal of Advanced Manufacturing Technology</i> , 2018 , 97, 1269-1284	3.2	27
204	Precursor ultrasonic effect on grain structure development of AA6061-T6 friction stir weld. <i>Materials and Design</i> , 2017 , 116, 207-218	8.1	26
203	Numerical analysis of double-electrode gas metal arc welding process. <i>Computational Materials Science</i> , 2007 , 39, 416-423	3.2	26
202	Analysis and characterization of dynamic recrystallization and grain structure evolution in friction stir welding of aluminum plates. <i>Acta Materialia</i> , 2021 , 207, 116692	8.4	26
201	Influence of low current auxiliary TIG arc on high speed TIG-MIG hybrid welding. <i>Journal of Materials Processing Technology</i> , 2017 , 243, 131-142	5.3	25
200	Numerical analysis of mass transfer and material mixing in friction stir welding of aluminum/magnesium alloys. <i>Journal of Manufacturing Processes</i> , 2018 , 32, 380-394	5	25
199	Experimental observation of both keyhole and its surrounding thermal field in plasma arc welding. International Journal of Heat and Mass Transfer, 2014, 70, 439-448	4.9	25

198	Modeling of the thermal fluid flow and keyhole shape in stationary plasma arc welding. <i>International Journal of Heat and Fluid Flow</i> , 2012 , 34, 117-125	2.4	25
197	Subgrain formation in ultrasonic enhanced friction stir welding of aluminium alloy. <i>Materials Letters</i> , 2016 , 183, 34-39	3.3	25
196	Influence of tool thread pitch on material flow and thermal process in friction stir welding. <i>Journal of Materials Processing Technology</i> , 2020 , 275, 116281	5.3	25
195	Material flow, microstructure and mechanical properties of friction stir welded AA 2024-T3 enhanced by ultrasonic vibrations. <i>Journal of Manufacturing Processes</i> , 2017 , 30, 385-395	5	24
194	Evaluation of capabilities of ultrasonic vibration on the surface, electrical and mechanical behaviours of aluminium to copper dissimilar friction stir welds. <i>International Journal of Mechanical Sciences</i> , 2020 , 183, 105784	5.5	24
193	Analysis of active control of metal transfer in modified pulsed GMAW. <i>Science and Technology of Welding and Joining</i> , 2007 , 12, 10-14	3.7	24
192	Vision-based measurement of weld pool geometry in constant-current gas tungsten arc welding. <i>Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture</i> , 2003 , 217, 879-882	2.4	24
191	Suppression of humping bead in high speed GMAW with external magnetic field. <i>Science and Technology of Welding and Joining</i> , 2016 , 21, 131-139	3.7	23
190	Numerical analysis of the heat and fluid flow in a weld pool with a dynamic keyhole. <i>International Journal of Heat and Fluid Flow</i> , 2013 , 40, 186-197	2.4	23
189	Correlation of keyhole exit deviation distance and weld pool thermo-state in plasma arc welding process. <i>International Journal of Heat and Mass Transfer</i> , 2017 , 104, 310-317	4.9	23
188	Prevention of humping bead associated with high welding speed by double-electrode gas metal arc welding. <i>International Journal of Advanced Manufacturing Technology</i> , 2012 , 63, 573-581	3.2	23
187	Numerical simulation of keyhole behaviors and fluid dynamics in lasergas metal arc hybrid welding of ferrite stainless steel plates. <i>Journal of Manufacturing Processes</i> , 2017 , 25, 235-245	5	22
186	A comparison of TIG-MIG hybrid welding with conventional MIG welding in the behaviors of arc, droplet and weld pool. <i>Journal of Materials Processing Technology</i> , 2019 , 270, 345-355	5.3	22
185	Visualization of hump formation in high-speed gas metal arc welding. <i>Measurement Science and Technology</i> , 2009 , 20, 115702	2	22
184	Visual sensing of the weld pool geometry from the topside view in keyhole plasma arc welding. Journal of Manufacturing Processes, 2017 , 26, 74-83	5	21
183	Modeling the Material Flow and Heat Transfer in Reverse Dual-Rotation Friction Stir Welding. Journal of Materials Engineering and Performance, 2014 , 23, 2918-2929	1.6	21
182	Numerical analysis of welding residual stress and distortion in laser+GMAW hybrid welding of aluminum alloy T-joint. <i>Acta Metallurgica Sinica (English Letters)</i> , 2013 , 26, 352-360	2.5	21
181	Effect of ultrasonic vibration on fatigue performance of AA 2024-T3 friction stir weld joints. <i>Journal of Manufacturing Processes</i> , 2017 , 29, 85-95	5	21

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180	Numerical simulation of the dynamic characteristics of weld pool geometry with step-changes of welding parameters. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2004 , 12, 765-780	2	21
179	Ultrasonic vibration assisted friction stir welding of aluminium alloy and pure copper. <i>Journal of Manufacturing Processes</i> , 2019 , 39, 114-127	5	20
178	Effect of fluid flow in the weld pool on the numerical simulation accuracy of the thermal field in hybrid welding. <i>Journal of Manufacturing Processes</i> , 2015 , 20, 215-223	5	20
177	Numerical analysis of heat generation and temperature field in reverse dual-rotation friction stir welding. <i>International Journal of Advanced Manufacturing Technology</i> , 2014 , 74, 319-334	3.2	20
176	Thermomechanical analysis for Laser+GMAW-P hybrid welding process. <i>Computational Materials Science</i> , 2010 , 47, 848-856	3.2	20
175	Real-time sensing and monitoring in robotic gas metal arc welding. <i>Measurement Science and Technology</i> , 2007 , 18, 303-310	2	20
174	Modelling the transient behaviour of pulsed current tungsten-inert-gas weldpools. <i>Modelling and Simulation in Materials Science and Engineering</i> , 1999 , 7, 15-23	2	19
173	A novel unified model of keyhole plasma arc welding. <i>International Journal of Heat and Mass Transfer</i> , 2019 , 133, 885-894	4.9	18
172	Numerical analysis of temperature field during double-sided arc welding of thick materials. <i>Computational Materials Science</i> , 2002 , 25, 457-468	3.2	18
171	Influence of temperature and alloying on the apparent diffusivity of hydrogen in high strength steel. <i>International Journal of Hydrogen Energy</i> , 2015 , 40, 6714-6725	6.7	17
170	Numerical analysis of molten pool behavior during underwater wet FCAW process. <i>Journal of Manufacturing Processes</i> , 2018 , 32, 538-552	5	17
169	An integrated model for analysing the effects of ultrasonic vibration on tool torque and thermal processes in friction stir welding. <i>Science and Technology of Welding and Joining</i> , 2018 , 23, 365-379	3.7	17
168	An evolutionary keyhole-mode heat transfer model in continuous plasma arc welding. <i>International Journal of Heat and Mass Transfer</i> , 2018 , 117, 1188-1198	4.9	17
167	Progress in Thermomechanical Analysis of Friction Stir Welding. <i>Chinese Journal of Mechanical Engineering (English Edition)</i> , 2020 , 33,	2.5	16
166	Numerical Analysis of Forming Mechanism of Hump Bead in High Speed GMAW. <i>Welding in the World, Le Soudage Dans Le Monde</i> , 2010 , 54, R286-R291	1.9	16
165	Numerical analysis of the temperature profiles and weld dimension in high power direct-diode laser welding. <i>Computational Materials Science</i> , 2009 , 46, 49-56	3.2	16
164	Intelligent monitoring and recognition of the short-circuiting gasThetal arc welding process. Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture, 2004, 218, 1145-1151	2.4	16
163	Analysis of heat transfer and material flow in reverse dual-rotation friction stir welding. Welding in the World, Le Soudage Dans Le Monde, 2015, 59, 629-638	1.9	15

162	Monte Carlo simulation of grain growth in heat-affected zone of 12 wt.% Cr ferritic stainless steel hybrid welds. <i>Computational Materials Science</i> , 2012 , 65, 442-449	3.2	15	
161	Effect of ultrasonic vibration on welding load, macrostructure, and mechanical properties of Al/Mg alloy joints fabricated by friction stir lap welding. <i>International Journal of Advanced Manufacturing Technology</i> , 2019 , 100, 1787-1799	3.2	15	
160	Numerical analysis of weld pool behaviors in plasma arc welding with the lattice Boltzmann method. <i>International Journal of Thermal Sciences</i> , 2018 , 124, 447-458	4.1	15	
159	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	
158	Compulsively constricted WAAM with arc plasma and droplets ejected from a narrow space. <i>Additive Manufacturing</i> , 2019 , 27, 109-117	6.1	14	
157	Numerical analysis of arc and droplet behaviors in gas metal arc welding with external compound magnetic field. <i>Journal of Materials Processing Technology</i> , 2020 , 282, 116638	5.3	14	
156	Effects of tool shoulder size on the thermal process and material flow behaviors in ultrasonic vibration enhanced friction stir welding. <i>Journal of Manufacturing Processes</i> , 2020 , 53, 69-83	5	13	
155	Effects of process parameters on weld bead defects in oscillating laser-GMA hybrid welding of lap joints. <i>International Journal of Advanced Manufacturing Technology</i> , 2017 , 93, 1877-1892	3.2	13	
154	Analysis of the transport phenomena in the interfacial region between TIG arcs and weld pools. <i>Computational Materials Science</i> , 1997 , 8, 243-250	3.2	13	
153	Neurofuzzy control of weld penetration in gas tungsten arc welding. <i>Science and Technology of Welding and Joining</i> , 2003 , 8, 143-148	3.7	13	
152	Modeling the anode boundary layer of high-intensity argon arcs. <i>Computational Materials Science</i> , 1999 , 15, 302-310	3.2	13	
151	COMPUTER SIMULATION OF THREE-DIMENSIONAL CONVECTION IN TRAVELLING MIG WELD POOLS. <i>Engineering Computations</i> , 1992 , 9, 529-537	1.4	13	
150	Effect of ultrasonic vibration on thermal and material flow behavior, microstructure and mechanical properties of friction stir welded Al/Cu joints. <i>International Journal of Advanced Manufacturing Technology</i> , 2020 , 107, 59-71	3.2	13	
149	Influence of shielding gas on undercutting formation in gas metal arc welding. <i>Journal of Materials Processing Technology</i> , 2016 , 234, 169-176	5.3	13	
148	Impeding effect of bubbles on metal transfer in underwater wet FCAW. <i>Journal of Manufacturing Processes</i> , 2019 , 45, 682-689	5	12	
147	Numerical and experimental investigation of keyholing process in ultrasonic vibration assisted plasma arc welding. <i>Journal of Manufacturing Processes</i> , 2020 , 50, 603-613	5	12	
146	Suppression of undercut defects in high-speed GMAW through a compound magnetic field. <i>Journal of Materials Processing Technology</i> , 2019 , 274, 116288	5.3	12	
145	Phase-field modelling of dynamic recrystallization process during friction stir welding of aluminium alloys. <i>Science and Technology of Welding and Joining</i> , 2020 , 25, 345-358	3.7	12	

144	Acoustic induced antifriction and its effect on thermo-mechanical behavior in ultrasonic assisted friction stir welding. <i>International Journal of Mechanical Sciences</i> , 2021 , 190, 106039	5.5	12	
143	A novel technique to join Al and Mg alloys: Ultrasonic vibration assisted linear friction stir welding. <i>Materials Today: Proceedings</i> , 2018 , 5, 18142-18151	1.4	12	
142	Effect of external magnetic field on weld pool flow conditions in high-speed gas metal arc welding. <i>Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture</i> , 2016 , 230, 188-193	2.4	11	
141	Determination of the traverse force in friction stir welding with different tool pin profiles. <i>Science and Technology of Welding and Joining</i> , 2019 , 24, 209-217	3.7	11	
140	Numerical analysis of weld pool geometry in globular-transfer gas metal arc welding. <i>Frontiers of Materials Science in China</i> , 2007 , 1, 24-29		11	
139	Study on the Progress of Welding Science and Technology in China. <i>Jixie Gongcheng Xuebao/Chinese Journal of Mechanical Engineering</i> , 2012 , 48, 19	1.3	11	
138	Progress in Numerical Simulation of Thermal Processes and Weld Pool Behaviors in Fusion Welding. Jixie Gongcheng Xuebao/Chinese Journal of Mechanical Engineering, 2018, 54, 1	1.3	11	
137	Intermetallic Diminution During Friction Stir Welding of Dissimilar Al/Mg Alloys in Lap Configuration Via Ultrasonic Assistance. <i>Metallurgical and Materials Transactions A: Physical</i> <i>Metallurgy and Materials Science</i> , 2020 , 51, 5725-5742	2.3	11	
136	Pulsed TIG Welding B razing of Aluminum B tainless Steel with an Al-Cu Twin Hot Wire. <i>Journal of Materials Engineering and Performance</i> , 2019 , 28, 1180-1189	1.6	11	
135	Numerical analysis of the ultrasound induced arc pressure increment in plasma arc welding. <i>Journal Physics D: Applied Physics</i> , 2019 , 52, 035201	3	11	
134	Effect of ultrasonic vibration exerted at the tool on friction stir welding process and joint quality. <i>Journal of Manufacturing Processes</i> , 2019 , 42, 192-201	5	10	
133	Modeling the dissimilar material flow and mixing in friction stir welding of aluminum to magnesium alloys. <i>Journal of Alloys and Compounds</i> , 2020 , 843, 156021	5.7	10	
132	Numerical investigation of heat generation and plastic deformation in ultrasonic assisted friction stir welding. <i>Journal of Manufacturing Processes</i> , 2020 , 56, 967-980	5	10	
131	Process Parametric Dependency of Axial Downward Force and Macro- and Microstructural Morphologies in Ultrasonically Assisted Friction Stir Welding of Al/Mg Alloys. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2020 , 51, 2863-2881	2.3	10	
130	Analysis of friction reduction effect due to ultrasonic vibration exerted in friction stir welding. <i>Journal of Manufacturing Processes</i> , 2018 , 35, 118-126	5	10	
129	Influence of molten metal flow on undercutting formation in GMAW. <i>Science and Technology of Welding and Joining</i> , 2017 , 22, 198-207	3.7	10	
128	Suppression of weld-bead defects and increase in the critical welding speed during high-speed arc welding. <i>Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture</i> , 2009 , 223, 751-757	2.4	10	
127	Electron beam welding of SiCp/LD2 composite. <i>Transactions of Nonferrous Metals Society of China</i> , 2006 , 16, 818-823	3.3	10	

126	Vision-based neuro-fuzzy control of weld penetration in gas tungsten arc welding of thin sheets. <i>International Journal of Modelling, Identification and Control</i> , 2006 , 1, 126	0.6	10
125	Investigating the generation process of molten droplets and arc plasma in the confined space during compulsively constricted WAAM. <i>Journal of Materials Processing Technology</i> , 2020 , 275, 116355	5.3	10
124	Numerical Simulation for the Optimization of Polygonal Pin Profiles in Friction Stir Welding of Aluminum. <i>Acta Metallurgica Sinica (English Letters)</i> , 2021 , 34, 1065-1078	2.5	10
123	Thermal analysis of friction stir processing (FSP) using arbitrary Lagrangian-Eulerian (ALE) and smoothed particle hydrodynamics (SPH) meshing techniques. <i>Materialwissenschaft Und Werkstofftechnik</i> , 2020 , 51, 550-557	0.9	9
122	Numerical investigation on the effect of process parameters on arc and metal transfer in magnetically controlled gas metal arc welding. <i>Vacuum</i> , 2020 , 177, 109391	3.7	9
121	Effect of ultrasonic vibration on current density and keyholing capability of plasma arc. <i>Science and Technology of Welding and Joining</i> , 2020 , 25, 422-430	3.7	9
120	Transient variation of arc heat flux and pressure distribution on keyhole wall in PAW. <i>Welding in the World, Le Soudage Dans Le Monde</i> , 2016 , 60, 363-371	1.9	9
119	A 3-D lattice Boltzmann analysis of weld pool dynamic behaviors in plasma arc welding. <i>Applied Thermal Engineering</i> , 2018 , 139, 623-635	5.8	9
118	Numerical analysis of temperature profile and weld dimension in laser+pulsed gas metal arc welding hybrid welding. <i>Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture</i> , 2011 , 225, 528-542	2.4	9
117	Experimental determination of weld pool geometry in gas tungsten arc welding. <i>Science and Technology of Welding and Joining</i> , 2001 , 6, 288-292	3.7	9
116	Comprehensive analysis of spatter loss in wet FCAW considering interactions of bubbles, droplets and arc [Part 2: Visualization & mechanisms. <i>Journal of Manufacturing Processes</i> , 2019 , 40, 105-112	5	8
115	Effect of ultrasonic vibration on dynamic recrystallization in friction stir welding. <i>Journal of Manufacturing Processes</i> , 2020 , 56, 87-95	5	8
114	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
113	Effects of welding heat input on microstructure and hardness in heat-affected zone of HQ130 steel. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2001 , 9, 25-36	2	8
112	Influence of arc interactions on heat and mass transfer during a two-arc hybrid welding. <i>International Journal of Heat and Mass Transfer</i> , 2020 , 148, 119058	4.9	8
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