

# Jialuo Ding

## List of Publications by Year in descending order

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Version: 2024-02-01

62  
papers

5,337  
citations

101543

36  
h-index

128289

60  
g-index

63  
all docs

63  
docs citations

63  
times ranked

2004  
citing authors

#	ARTICLE	IF	CITATIONS
1	Wire + Arc Additive Manufacturing. <i>Materials Science and Technology</i> , 2016, 32, 641-647.	1.6	1,107
2	Effect of arc mode in cold metal transfer process on porosity of additively manufactured Al-6.3%Cu alloy. <i>International Journal of Advanced Manufacturing Technology</i> , 2015, 76, 1593-1606.	3.0	352
3	The effect of inter-layer cold working and post-deposition heat treatment on porosity in additively manufactured aluminum alloys. <i>Journal of Materials Processing Technology</i> , 2016, 230, 26-34.	6.3	267
4	The strengthening effect of inter-layer cold working and post-deposition heat treatment on the additively manufactured Al-6.3Cu alloy. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2016, 651, 18-26.	5.6	259
5	Numerical analysis of heat transfer and fluid flow in multilayer deposition of PAW-based wire and arc additive manufacturing. <i>International Journal of Heat and Mass Transfer</i> , 2018, 124, 504-516.	4.8	173
6	A computationally efficient finite element model of wire and arc additive manufacture. <i>International Journal of Advanced Manufacturing Technology</i> , 2014, 70, 227-236.	3.0	150
7	Deformation microstructures and strengthening mechanisms for the wire+arc additively manufactured Al-Mg4.5Mn alloy with inter-layer rolling. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2018, 712, 292-301.	5.6	148
8	Microstructure and mechanical properties of double-wire+arc additively manufactured Al-Cu-Mg alloys. <i>Journal of Materials Processing Technology</i> , 2018, 255, 347-353.	6.3	142
9	Microstructural evolution and mechanical properties of maraging steel produced by wire + arc additive manufacture process. <i>Materials Characterization</i> , 2018, 143, 152-162.	4.4	137
10	Criticality of porosity defects on the fatigue performance of wire+arc additive manufactured titanium alloy. <i>International Journal of Fatigue</i> , 2019, 122, 208-217.	5.7	130
11	A Comparative Study of Additively Manufactured Thin Wall and Block Structure with Al-6.3%Cu Alloy Using Cold Metal Transfer Process. <i>Applied Sciences (Switzerland)</i> , 2017, 7, 275.	2.5	124
12	Microstructure and mechanical properties of wire + arc additively manufactured 2024 aluminum alloy components: As-deposited and post heat-treated. <i>Journal of Manufacturing Processes</i> , 2019, 40, 27-36.	5.9	124
13	Wire + Arc Additive Manufacture of 17-4 PH stainless steel: Effect of different processing conditions on microstructure, hardness, and tensile strength. <i>Journal of Materials Processing Technology</i> , 2019, 268, 54-62.	6.3	109
14	Enhancing mechanical properties of wire+arc additively manufactured INCONEL 718 superalloy through in-process thermomechanical processing. <i>Materials and Design</i> , 2018, 160, 1042-1051.	7.0	106
15	Investigation of process factors affecting mechanical properties of INCONEL 718 superalloy in wire + arc additive manufacture process. <i>Journal of Materials Processing Technology</i> , 2019, 265, 201-209.	6.3	106
16	A modular path planning solution for Wire + Arc Additive Manufacturing. <i>Robotics and Computer-Integrated Manufacturing</i> , 2019, 60, 1-11.	9.9	98
17	Design for Wire + Arc Additive Manufacture: design rules and build orientation selection. <i>Journal of Engineering Design</i> , 2017, 28, 568-598.	2.3	91
18	Tandem metal inert gas process for high productivity wire arc additive manufacturing in stainless steel. <i>Additive Manufacturing</i> , 2019, 25, 545-550.	3.0	89

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19	Designing a WAAM Based Manufacturing System for Defence Applications. Procedia CIRP, 2015, 37, 48-53.	1.9	82
20	Study on microstructure and tensile properties of high nitrogen Cr-Mn steel processed by CMT wire and arc additive manufacturing. Materials and Design, 2019, 166, 107611.	7.0	82
21	Fracture toughness and fatigue crack growth rate properties in wire+arc additive manufactured Ti-6Al-4V. Fatigue and Fracture of Engineering Materials and Structures, 2017, 40, 790-803.	3.4	80
22	Influence of Cold Metal Transfer Process and Its Heat Input on Weld Bead Geometry and Porosity of Aluminum-Copper Alloy Welds. Rare Metal Materials and Engineering, 2016, 45, 606-611.	0.8	78
23	Oxide accumulation effects on wire + arc layer-by-layer additive manufacture process. Journal of Materials Processing Technology, 2018, 252, 739-750.	6.3	76
24	Design study for wire and arc additive manufacture. International Journal of Product Development, 2014, 19, 2.	0.2	74
25	Development of a laminar flow local shielding device for wire + arc additive manufacture. Journal of Materials Processing Technology, 2015, 226, 99-105.	6.3	73
26	Design and cracking susceptibility of additively manufactured Al-Cu-Mg alloys with tandem wires and pulsed arc. Journal of Materials Processing Technology, 2018, 262, 210-220.	6.3	71
27	Micropore evolution in additively manufactured aluminum alloys under heat treatment and inter-layer rolling. Materials and Design, 2020, 186, 108288.	7.0	67
28	A Passive Imaging System for Geometry Measurement for the Plasma Arc Welding Process. IEEE Transactions on Industrial Electronics, 2017, 64, 7201-7209.	7.9	65
29	Properties of wire+arc additively manufactured 2024 aluminum alloy with different solution treatment temperature. Materials Letters, 2018, 230, 275-278.	2.6	63
30	Microstructure, defects, and mechanical properties of wire+arc additively manufactured Al Cu4.3-Mg1.5 alloy. Materials and Design, 2020, 186, 108357.	7.0	60
31	Microstructure and mechanical properties of TOP-TIG-wire and arc additive manufactured super duplex stainless steel (ER2594). Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 762, 138097.	5.6	57
32	Crack path selection at the interface of wrought and wire+arc additive manufactured Ti-6Al-4V. Materials and Design, 2016, 104, 365-375.	7.0	52
33	Preliminary Investigation of Building Strategies of Maraging Steel Bulk Material Using Wire+Arc Additive Manufacture. Journal of Materials Engineering and Performance, 2019, 28, 594-600.	2.5	51
34	The effect of wire size on high deposition rate wire and plasma arc additive manufacture of Ti-6Al-4V. Journal of Materials Processing Technology, 2021, 288, 116842.	6.3	49
35	Ultrasonic phased array inspection of a Wire + Arc Additive Manufactured (WAAM) sample with intentionally embedded defects. Additive Manufacturing, 2019, 29, 100806.	3.0	41
36	Assessing the effect of TIG alternating current time cycle on aluminium wire + arc additive manufacture. Additive Manufacturing, 2017, 18, 186-193.	3.0	40

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37	A wire deflection detection method based on image processing in wire+arc additive manufacturing. International Journal of Advanced Manufacturing Technology, 2017, 89, 755-763.	3.0	39
38	Improving mechanical properties of wire plus arc additively manufactured maraging steel through plastic deformation enhanced aging response. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 747, 111-118.	5.6	35
39	Effect of deposition strategies on fatigue crack growth behaviour of wire + arc additive manufactured titanium alloy Ti-6Al-4V. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 814, 141194.	5.6	33
40	Element partitioning and electron backscatter diffraction analysis from feeding wire to as-deposited microstructure of wire and arc additive manufacturing with super duplex stainless steel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 773, 138856.	5.6	31
41	Wire based plasma arc and laser hybrid additive manufacture of Ti-6Al-4V. Journal of Materials Processing Technology, 2021, 293, 117080.	6.3	31
42	Investigation of pulse advance cold metal transfer on aluminium wire arc additive manufacturing. International Journal of Rapid Manufacturing, 2015, 5, 44.	0.5	29
43	Oxidation of Ti-6Al-4V During Wire and Arc Additive Manufacture. 3D Printing and Additive Manufacturing, 2019, 6, 91-98.	2.9	29
44	Pore formation and evolution in wire+arc additively manufactured 2319 Al alloy. Additive Manufacturing, 2019, 30, 100900.	3.0	27
45	Effect of crack-like defects on the fracture behaviour of Wire + Arc Additively Manufactured nickel-base Alloy 718. Additive Manufacturing, 2020, 36, 101578.	3.0	27
46	Mechanical performance and microstructural characterisation of titanium alloy-alloy composites built by wire-arc additive manufacture. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 765, 138289.	5.6	26
47	The effect of processing parameters on rapid-heating $\hat{\Gamma}^2$ recrystallization in inter-pass deformed Ti-6Al-4V wire-arc additive manufacturing. Materials Characterization, 2020, 163, 110298.	4.4	20
48	A non-contact laser speckle sensor for the measurement of robotic tool speed. Robotics and Computer-Integrated Manufacturing, 2018, 53, 187-196.	9.9	18
49	Hybrid wire - arc additive manufacture and effect of rolling process on microstructure and tensile properties of Inconel 718. Journal of Materials Processing Technology, 2022, 299, 117361.	6.3	16
50	Understanding and designing post-build rolling for mitigation of residual stress and distortion in wire arc additively manufactured components. Materials and Design, 2022, 213, 110335.	7.0	16
51	Bead shape control in wire based plasma arc and laser hybrid additive manufacture of Ti-6Al-4V. Journal of Manufacturing Processes, 2021, 68, 1849-1859.	5.9	14
52	Computationally Efficient Models of High Pressure Rolling for Wire Arc Additively Manufactured Components. Applied Sciences (Switzerland), 2021, 11, 402.	2.5	12
53	Multi-energy source (MES) configuration for bead shape control in wire-based directed energy deposition (w-DED). Journal of Materials Processing Technology, 2022, 304, 117549.	6.3	12
54	Multi-layer ultrasonic imaging of as-built Wire + Arc Additive Manufactured components. Additive Manufacturing, 2021, 48, 102398.	3.0	10

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55	Wire Laser Arc Additive Manufacture of aluminium zinc alloys. <i>Welding in the World, Le Soudage Dans Le Monde</i> , 2020, 64, 1313-1319.	2.5	9
56	Collaborative Robotic Wire + Arc Additive Manufacture and Sensor-Enabled In-Process Ultrasonic Non-Destructive Evaluation. <i>Sensors</i> , 2022, 22, 4203.	3.8	7
57	A simplified modelling approach for thermal behaviour analysis in hybrid plasma arc-laser additive manufacturing. <i>International Journal of Heat and Mass Transfer</i> , 2022, 195, 123157.	4.8	7
58	Efficient determination and evaluation of steady-state thermal-mechanical variables generated by wire arc additive manufacturing and high pressure rolling. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2022, 30, 014001.	2.0	6
59	Effect of Substrate Alloy Type on the Microstructure of the Substrate and Deposited Material Interface in Aluminium Wire + Arc Additive Manufacturing. <i>Metals</i> , 2021, 11, 916.	2.3	5
60	Increasing the speed of automated ultrasonic inspection of as-built additive manufacturing components by the adoption of virtual source aperture. <i>Materials and Design</i> , 2022, 220, 110822.	7.0	3
61	Real-time Measurement of Electrical Conductivity for Aluminium Wires Using a Novel Calibration Method. , 2020, , .		1
62	Influence of Heat Treatment and Inter-Layer Rolling on the Evolution of Micropores in the Additively Manufactured Aluminum Alloys. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0