Guijun Bi

List of Publications by Year
in descending order

107 papers	4,433 citations	109264 35 h-index	114418 63 g-index
107 all docs	107 docs citations	107 times ranked	3135 citing authors

#	Article	IF	Citations
1	Analysis of the combustion mechanism of diesel surrogate fuel under CO2/O2 atmosphere. Fuel, 2022, 309, 122223.	3.4	5
2	Laser aided additive manufacturing of spatially heterostructured steels. International Journal of Machine Tools and Manufacture, 2022, 172, 103817.	6.2	26
3	Microstructure and mechanical behavior of the laser synthesized composites modified by micro/nano scale rare earth oxides. Journal of Alloys and Compounds, 2022, 895, 162641.	2.8	6
4	Enhanced corrosion resistance of laser aided additive manufactured CoCrNi medium entropy alloys with oxide inclusion. Corrosion Science, 2022, 195, 109965.	3.0	26
5	Effects of laser pulse modulation on intermetallic compounds formation for welding of Ti-6Al-4V and AA7075 using AA4047 filler. Materials and Design, 2022, 213, 110325.	3.3	27
6	Effect of cyclic heat treatment on microstructure and mechanical properties of laser aided additive manufacturing Tiâ€“6Alâ€“2Snâ€“4Zrâ€“2Mo alloy. , 2022, 1, 100002.		13
7	Microstructure and wear behavior of laser clad interstitial CoCrFeNi high entropy alloy coating reinforced by carbon nanotubes. Surface and Coatings Technology, 2022, 434, 128241.	2.2	28
8	Feasibility Study on Deposition of Tribaloy T800 on Cobalt-Based L605 Using Micro-Laser-Aided Additive Manufacturing. Metals, 2022, 12, 586.	1.0	1
9	In-process adaptive dimension correction strategy for laser aided additive manufacturing using laser line scanning. Journal of Materials Processing Technology, 2022, 303, 117544.	3.1	19
10	Microstructure evaluation and resultant mechanical properties of laser- arc hybrid additive manufactured Cu-Cr-Zr alloy. Journal of Alloys and Compounds, 2022, 912, 165044.	2.8	18
11	Effects of High-Concentration CO2 on Ignition Delay Time of 70% n-Heptane/30% Toluene Mixtures. Journal of Sensors, 2022, 2022, 1-17.	0.6	0
12	Study of the intrinsic mechanisms of nickel additive for grain refinement and strength enhancement of laser aided additively manufactured Tiâ€“6Alâ€“4V. International Journal of Extreme Manufacturing, 2022, 4, 035102.	6.3	18
13	Influence of surface porosity on fatigue life of additively manufactured ASTM A131 EH36 steel. International Journal of Fatigue, 2021, 142, 105894.	2.8	11
14	Rapid surface defect identification for additive manufacturing with in-situ point cloud processing and machine learning. Virtual and Physical Prototyping, 2021, 16, 50-67.	5.3	78
15	Microstructure and mechanical behavior of laser aided additive manufactured low carbon interstitial Fe49.5Mn30Co10Cr10C0.5 multicomponent alloy. Journal of Materials Science and Technology, 2021, 77, 38-46.	5.6	18
16	Additive manufacturing of steelâ€“copper functionally graded material with ultrahigh bonding strength. Journal of Materials Science and Technology, 2021, 72, 217-222.	5.6	64
17	Multiphysics Modeling, Sensitivity Analysis, and Optical Performance Optimization for Optical Laser Head in Additive Manufacturing. Applied Sciences (Switzerland), 2021, 11, 868.	1.3	1
18	On the heterogeneous cooling rates in laser-clad Al-50Si alloy. Surface and Coatings Technology, 2021, 408, 126780.	2.2	12

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19	Additive manufacturing of multi-scale heterostructured high-strength steels. Materials Research Letters, 2021, 9, 291-299.	4.1	49
20	Microstructure and mechanical properties of ASTM A131 EH36 steel fabricated by laser aided additive manufacturing. Materials Characterization, 2021, 174, 110949.	1.9	4
21	Integrated numerical modelling and deep learning for multi-layer cube deposition planning in laser aided additive manufacturing. Virtual and Physical Prototyping, 2021, 16, 318-332.	5.3	16
22	Laves phase tuning for enhancing high temperature mechanical property improvement in laser directed energy deposited Inconel 718. Composites Part B: Engineering, 2021, 215, 108819.	5.9	33
23	Influence of oxides on the cryogenic tensile properties of the laser aided additive manufactured CoCrNi medium entropy alloy. Composites Part B: Engineering, 2021, 216, 108837.	5.9	30
24	Stiffness modeling of an industrial robot with a gravity compensator considering link weights. Mechanism and Machine Theory, 2021, 161, 104331.	2.7	27
25	Achieving grain refinement and ultrahigh yield strength in laser aided additive manufacturing of Tiâˆ’6Alâˆ’4V alloy by trace Ni addition. Virtual and Physical Prototyping, 2021, 16, 417-427.	5.3	32
26	Superior strength-ductility in laser aided additive manufactured high-strength steel by combination of intrinsic tempering and heat treatment. Virtual and Physical Prototyping, 2021, 16, 460-480.	5.3	17
27	Progress and perspectives in laser additive manufacturing of key aeroengine materials. International Journal of Machine Tools and Manufacture, 2021, 170, 103804.	6.2	156
28	Thermo-metallurgical simulation and performance evaluation of hybrid laser arc welding of chromium-molybdenum steel. Materials and Design, 2021, 210, 110029.	3.3	11
29	An evolutional algorithm for automatic 2D layer segmentation in laser-aided additive manufacturing. Additive Manufacturing, 2021, 47, 102342.	1.7	1
30	Comparative study of microstructure evaluation and mechanical properties of 4043 aluminum alloy fabricated by wire-based additive manufacturing. Materials and Design, 2020, 186, 108205.	3.3	78
31	Alâ€“Cu alloy fabricated by novel laser-tungsten inert gas hybrid additive manufacturing. Additive Manufacturing, 2020, 32, 100954.	1.7	15
32	Double-side friction stir welding of thick magnesium alloy: microstructure and mechanical properties. Science and Technology of Welding and Joining, 2020, 25, 359-368.	1.5	20
33	Effect of post-deposition heat treatment on laser-TIG hybrid additive manufactured Al-Cu alloy. Virtual and Physical Prototyping, 2020, 15, 445-459.	5.3	25
34	Data-Driven Adaptive Control for Laser-Based Additive Manufacturing with Automatic Controller Tuning. Applied Sciences (Switzerland), 2020, 10, 7967.	1.3	12
35	Effect of nAl₂O₃ on the part density and microstructure during the laser-based powder bed fusion of AlSi₁₀Mg composite. Rapid Prototyping Journal, 2020, 26, 727-735.	1.6	14
36	Mechanical properties and microstructure evolution of selective laser melting Inconel 718 along building direction and sectional dimension. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 794, 139941.	2.6	38

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37	IN100 Ni-based superalloy fabricated by micro-laser aided additive manufacturing: Correlation of the microstructure and fracture mechanism. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 788, 139467.	2.6	16
38	High-mass-proportion TiCp/Ti6Al4V titanium matrix composites prepared by directed energy deposition. Additive Manufacturing, 2020, 35, 101323.	1.7	15
39	Surface Monitoring for Additive Manufacturing with in-situ Point Cloud Processing. , 2020, , .		9
40	Heuristic Kinematics of a Redundant Robot-Positioner System for Additive Manufacturing. , 2020, , .		2
41	Fatigue behavior of ASTM A131 EH36 steel samples additively manufactured with selective laser melting. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 777, 139049.	2.6	8
42	Excellent combination of strength and ductility of CoCrNi medium entropy alloy fabricated by laser aided additive manufacturing. Additive Manufacturing, 2020, 34, 101202.	1.7	17
43	Thermal field prediction for laser scanning paths in laser aided additive manufacturing by physics-based machine learning. Computer Methods in Applied Mechanics and Engineering, 2020, 362, 112734.	3.4	77
44	Feasibility Study on Fabrication of Large-Scale Offshore Structural Steel Component Using LAAM Technology. , 2020, , .		0
45	Comparison of carbon-based reinforcement on laser aided additive manufacturing Inconel 625 composites. Applied Surface Science, 2019, 490, 522-534.	3.1	35
46	Thermal analyses for optimal scanning pattern evaluation in laser aided additive manufacturing. Journal of Materials Processing Technology, 2019, 271, 178-188.	3.1	33
47	Characterization of wear properties of the functionally graded material deposited on cast iron by laser-aided additive manufacturing. International Journal of Advanced Manufacturing Technology, 2019, 105, 4097-4105.	1.5	20
48	Interplay between microstructure and deformation behavior of a laser-welded CoCrFeNi high entropy alloy. Materials Research Express, 2019, 6, 046514.	0.8	14
49	Influence of pulse energy density in micro laser weld of crack sensitive Al alloy sheets. Journal of Manufacturing Processes, 2019, 38, 1-8.	2.8	23
50	Thermo-mechanical analyses for optimized path planning in laser aided additive manufacturing processes. Materials and Design, 2019, 162, 80-93.	3.3	75
51	Improvement of densification and microstructure of ASTM A131 EH36 steel samples additively manufactured via selective laser melting with varying laser scanning speed and hatch spacing. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 746, 300-313.	2.6	36
52	Laser-Induced Graphene on Additive Manufacturing Parts. Nanomaterials, 2019, 9, 90.	1.9	24
53	Microstructure and enhanced strength of laser aided additive manufactured CoCrFeNiMn high entropy alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 744, 137-144.	2.6	166
54	Comparison Study on Additive Manufacturing (AM) and Powder Metallurgy (PM) AlSi10Mg Alloys. Jom, 2018, 70, 644-649.	0.9	19

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55	A multi-material part design framework in additive manufacturing. International Journal of Advanced Manufacturing Technology, 2018, 99, 2111-2119.	1.5	24
56	Joining of 3D-printed AlSi10Mg by friction stir welding. Welding in the World, Le Soudage Dans Le Monde, 2018, 62, 675-682.	1.3	26
57	Hole design quality identification in laser aided additive manufacturing. Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture, 2018, 232, 909-917.	1.5	6
58	Numerical and experimental study of laser aided additive manufacturing for melt-pool profile and grain orientation analysis. Materials and Design, 2018, 137, 286-297.	3.3	95
59	Effects of the TiC Nanoparticle on Microstructures and Tensile Properties of Selective Laser Melted IN718/TiC Nanocomposites. IOP Conference Series: Materials Science and Engineering, 2018, 317, 012074.	0.3	4
60	Investigation of porosity reduction, microstructure and mechanical properties for joining of selective laser melting fabricated aluminium composite via friction stir welding. Journal of Manufacturing Processes, 2018, 36, 33-43.	2.8	29
61	Numerical study of temperature and cooling rate in selective laser melting with functionally graded support structures. Additive Manufacturing, 2018, 24, 543-551.	1.7	20
62	Analytical Solution of Temperature Distribution in a Nonuniform Medium Due to a Moving Laser Beam and a Double Beam Scanning Strategy in the Selective Laser Melting Process. Journal of Heat Transfer, 2018, 140, .	1.2	3
63	Femtosecond Laser Produced Hydrophobic Hierarchical Structures on Additive Manufacturing Parts. Nanomaterials, 2018, 8, 601.	1.9	48
64	Process study and characterization of properties of FerCrNiMnCo high-entropy alloys fabricated by laser-aided additive manufacturing. , 2018, , .		2
65	Characteristic length of the solidified melt pool in selective laser melting process. Rapid Prototyping Journal, 2017, 23, 370-381.	1.6	15
66	Effects of laser cladding on fatigue performance of AISI 4340 steel in the as-clad and machine treated conditions. Journal of Materials Processing Technology, 2017, 243, 246-257.	3.1	39
67	A hybrid machine learning approach for additive manufacturing design feature recommendation. Rapid Prototyping Journal, 2017, 23, 983-997.	1.6	95
68	Strength and strain hardening of a selective laser melted AlSi10Mg alloy. Scripta Materialia, 2017, 141, 45-49.	2.6	312
69	Multidisciplinary design optimization to identify additive manufacturing resources in customized product development. Journal of Computational Design and Engineering, 2017, 4, 131-142.	1.5	29
70	Effects of heat treatment on microstructures and tensile properties of IN718/TiC nanocomposite fabricated by selective laser melting. International Journal of Precision Engineering and Manufacturing, 2017, 18, 1693-1701.	1.1	51
71	Commonality and performance metrics to evaluate and optimise the design of additive manufactured product families. International Journal of Manufacturing Research, 2017, 12, 44.	0.1	3
72	Design of a novel control strategy for laser-aided additive manufacturing processes. , 2016, , .		0

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73	The effect of processing conditions on the mechanical properties of polyethylene produced by selective laser sintering. Polymer Testing, 2016, 52, 89-93.	2.3	68
74	Fabrication of a new Al-Al2O3-CNTs composite using friction stir processing (FSP). Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 667, 125-131.	2.6	88
75	An additive manufacturing process model for product family design. Journal of Engineering Design, 2016, 27, 751-767.	1.1	21
76	Microstructure and mechanical properties of Inconel 625/nano-TiB2 composite fabricated by LAAM. Materials and Design, 2016, 111, 70-79.	3.3	55
77	Effect of Nano-Particle Addition on Grain Structure Evolution of Friction Stir-Processed Al 6061 During Postweld Annealing. Jom, 2016, 68, 2268-2273.	0.9	13
78	Microhardness and microstructure evolution of TiB2 reinforced Inconel 625/TiB2 composite produced by selective laser melting. Optics and Laser Technology, 2016, 80, 186-195.	2.2	101
79	A Cost-Driven Design Methodology for Additive Manufactured Variable Platforms in Product Families. Journal of Mechanical Design, Transactions of the ASME, 2016, 138, .	1.7	29
80	Laser welding of CP Ti to stainless steel with different temporal pulse shapes. Journal of Materials Processing Technology, 2016, 231, 58-65.	3.1	73
81	The Additive Manufacturing Process Setting Feasible Space Exploration and Association With Variable Product Platform Design. , 2015, , .		0
82	Thermo-mechanical model for simulating laser cladding induced residual stresses with single and multiple clad beads. Journal of Materials Processing Technology, 2015, 224, 89-101.	3.1	120
83	Semi-Analytic Solution of Multiple Inhomogeneous Inclusions and Cracks in an Infinite Space. International Journal of Computational Methods, 2015, 12, 1550002.	0.8	13
84	Enhanced welding efficiency in laser welding of highly reflective pure copper. Journal of Materials Processing Technology, 2015, 216, 287-293.	3.1	41
85	Friction stir welding of dissimilar materials between AA6061 and AA7075 Al alloys effects of process parameters. Materials & Design, 2014, 56, 185-192.	5.1	281
86	Effects of nano-Al2O3 particle addition on grain structure evolution and mechanical behaviour of friction-stir-processed Al. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 602, 143-149.	2.6	84
87	Microstructure and tensile properties of superalloy IN100 fabricated by micro-laser aided additive manufacturing. Materials & Design, 2014, 60, 401-408.	5.1	102
88	Micro-structure and Mechanical Properties of Nano-TiC Reinforced Inconel 625 Deposited using LAAM. Physics Procedia, 2013, 41, 828-834.	1.2	37
89	Study on influential factors for process monitoring and control in laser aided additive manufacturing. Journal of Materials Processing Technology, 2013, 213, 463-468.	3.1	102
90	An Additive Manufacturing resource process model for product family design. , 2013, , .		1

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91	Additive manufacturing and topology optimization to support product family design. , 2013, , 505-510.		1
92	Laser Transmission Welding of Transparent Thermoplastics Microfluidic Devices. , 2012, , .		1
93	Picosecond pulse of variable duration by phase matching frequency doubling crystal. Laser Physics, 2012, 22, 1455-1458.	0.6	0
94	Restoration of Nickel-Base Turbine Blade Knife-Edges with Controlled Laser Aided Additive Manufacturing. Physics Procedia, 2011, 12, 402-409.	1.2	94
95	Feasibility study on the Laser Aided Additive Manufacturing of die inserts for liquid forging. Materials & Design, 2010, 31, S112-S116.	5.1	15
96	Porosity formation and gas bubble retention in laser metal deposition. Applied Physics A: Materials Science and Processing, 2009, 97, 641-649.	1.1	163
97	Deposition of Tiâ€“6Alâ€“4V using a high power diode laser and wire, Part I: Investigation on the process characteristics. Surface and Coatings Technology, 2008, 202, 3933-3939.	2.2	144
98	Deposition of Tiâ€“6Alâ€“4V using a high power diode laser and wire, Part II: Investigation on the mechanical properties. Surface and Coatings Technology, 2008, 202, 4613-4619.	2.2	79
99	Study on the Deposition of Ni-base Waspaloy Powder via High Power Fiber Laser. , 2008, , .		1
100	Fibre laser welding of Ti6Al4V. , 2008, , .		0
101	The effect of output fibre diameter when welding austenitic stainless steel with a fibre laser. , 2007, , .		1
102	Development and qualification of a novel laser-cladding head with integrated sensors. International Journal of Machine Tools and Manufacture, 2007, 47, 555-561.	6.2	91
103	Identification and qualification of temperature signal for monitoring and control in laser cladding. Optics and Lasers in Engineering, 2006, 44, 1348-1359.	2.0	116
104	Investigation on the direct laser metallic powder deposition process via temperature measurement. Applied Surface Science, 2006, 253, 1411-1416.	3.1	47
105	Characterization of the process control for the direct laser metallic powder deposition. Surface and Coatings Technology, 2006, 201, 2676-2683.	2.2	108
106	Micro-Laser Welding of Plastics for the Applications in Micro-Fluidic Devices. Key Engineering Materials, 0, 447-448, 745-749.	0.4	1
107	Repair feasibility of SS416 stainless steel via laser aided additive manufacturing with SS410/Inconel625 powders. IOP Conference Series: Materials Science and Engineering, 0, 744, 012031.	0.3	3