

Huabin Chen

List of Publications by Year in descending order

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45
papers

1,445
citations

279798

23
h-index

345221

36
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48
all docs

48
docs citations

48
times ranked

724
citing authors

#	ARTICLE	IF	CITATIONS
1	Cracking mechanism and susceptibility of laser melting deposited Inconel 738 superalloy. <i>Materials and Design</i> , 2019, 183, 108105.	7.0	113
2	EMD-based pulsed TIG welding process porosity defect detection and defect diagnosis using GA-SVM. <i>Journal of Materials Processing Technology</i> , 2017, 239, 92-102.	6.3	102
3	Real-time control of welding penetration during robotic GTAW dynamical process by audio sensing of arc length. <i>International Journal of Advanced Manufacturing Technology</i> , 2014, 74, 235-249.	3.0	75
4	Online Monitoring and Model-Free Adaptive Control of Weld Penetration in VPPAW Based on Extreme Learning Machine. <i>IEEE Transactions on Industrial Informatics</i> , 2019, 15, 2732-2740.	11.3	68
5	Multisensor-based real-time quality monitoring by means of feature extraction, selection and modeling for Al alloy in arc welding. <i>Mechanical Systems and Signal Processing</i> , 2015, 60-61, 151-165.	8.0	65
6	A novel sound-based belt condition monitoring method for robotic grinding using optimally pruned extreme learning machine. <i>Journal of Materials Processing Technology</i> , 2018, 260, 9-19.	6.3	55
7	The acquisition and processing of real-time information for height tracking of robotic GTAW process by arc sensor. <i>International Journal of Advanced Manufacturing Technology</i> , 2013, 65, 1031-1043.	3.0	54
8	Online welding quality monitoring based on feature extraction of arc voltage signal. <i>International Journal of Advanced Manufacturing Technology</i> , 2014, 70, 1661-1671.	3.0	52
9	VPPAW penetration monitoring based on fusion of visual and acoustic signals using t-SNE and DBN model. <i>Materials and Design</i> , 2017, 123, 1-14.	7.0	52
10	Monitoring of weld joint penetration during variable polarity plasma arc welding based on the keyhole characteristics and PSO-ANFIS. <i>Journal of Materials Processing Technology</i> , 2017, 239, 113-124.	6.3	52
11	A novel material removal prediction method based on acoustic sensing and ensemble XGBoost learning algorithm for robotic belt grinding of Inconel 718. <i>International Journal of Advanced Manufacturing Technology</i> , 2019, 105, 217-232.	3.0	50
12	Effect of weave frequency and amplitude on temperature field in weaving welding process. <i>International Journal of Advanced Manufacturing Technology</i> , 2014, 75, 803-813.	3.0	44
13	Penetration state recognition based on the double-sound-sources characteristic of VPPAW and hidden Markov Model. <i>Journal of Materials Processing Technology</i> , 2016, 234, 33-44.	6.3	43
14	Research on the Real-time Tracking Information of Three-dimension Welding Seam in Robotic GTAW Process Based on Composite Sensor Technology. <i>Journal of Intelligent and Robotic Systems: Theory and Applications</i> , 2012, 68, 89-103.	3.4	41
15	Closed-Loop Control of Robotic Arc Welding System with Full-penetration Monitoring. <i>Journal of Intelligent and Robotic Systems: Theory and Applications</i> , 2009, 56, 565-578.	3.4	39
16	Arc spectral processing technique with its application to wire feed monitoring in Al-Mg alloy pulsed gas tungsten arc welding. <i>Journal of Materials Processing Technology</i> , 2013, 213, 707-716.	6.3	34
17	Point cloud 3D parent surface reconstruction and weld seam feature extraction for robotic grinding path planning. <i>International Journal of Advanced Manufacturing Technology</i> , 2020, 107, 827-841.	3.0	33
18	Prediction of weld bead geometry of MAG welding based on XGBoost algorithm. <i>International Journal of Advanced Manufacturing Technology</i> , 2019, 101, 2283-2295.	3.0	31

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19	A novel material removal rate model based on single grain force for robotic belt grinding. <i>Journal of Manufacturing Processes</i> , 2021, 68, 1-12.	5.9	31
20	Porosity detection in pulsed GTA welding of 5A06 Al alloy through spectral analysis. <i>Journal of Materials Processing Technology</i> , 2018, 259, 332-340.	6.3	29
21	Visual-Acoustic Penetration Recognition in Variable Polarity Plasma Arc Welding Process Using Hybrid Deep Learning Approach. <i>IEEE Access</i> , 2020, 8, 120417-120428.	4.2	29
22	Investigation of porosity in pulsed GTAW of aluminum alloys based on spectral and X-ray image analyses. <i>Journal of Materials Processing Technology</i> , 2017, 243, 365-373.	6.3	26
23	Progress and perspectives of in-situ optical monitoring in laser beam welding: Sensing, characterization and modeling. <i>Journal of Manufacturing Processes</i> , 2022, 75, 767-791.	5.9	26
24	Acoustic signal-based tool condition monitoring in belt grinding of nickel-based superalloys using RF classifier and MLR algorithm. <i>International Journal of Advanced Manufacturing Technology</i> , 2018, 98, 859-872.	3.0	25
25	A prediction model for keyhole geometry and acoustic signatures during variable polarity plasma arc welding based on extreme learning machine. <i>Sensor Review</i> , 2016, 36, 257-266.	1.8	24
26	Spectral diagnosis and defects prediction based on ELM during the GTAW of Al alloys. <i>Measurement: Journal of the International Measurement Confederation</i> , 2019, 136, 405-414.	5.0	22
27	Arc sound model for pulsed GTAW and recognition of different penetration states. <i>International Journal of Advanced Manufacturing Technology</i> , 2020, 108, 3175-3191.	3.0	21
28	Prediction of welding quality characteristics during pulsed GTAW process of aluminum alloy by multisensory fusion and hybrid network model. <i>Journal of Manufacturing Processes</i> , 2021, 68, 209-224.	5.9	19
29	A study of dynamic energy partition in belt grinding based on grinding effects and temperature dependent mechanical properties. <i>Journal of Materials Processing Technology</i> , 2021, 294, 117112.	6.3	19
30	The realization of no back chipping for thick plate welding. <i>International Journal of Advanced Manufacturing Technology</i> , 2014, 74, 79-88.	3.0	17
31	Microstructure and mechanical properties of HSLA thick plates welded by novel double-sided gas metal arc welding. <i>International Journal of Advanced Manufacturing Technology</i> , 2015, 78, 457-464.	3.0	17
32	A novel feature-guided trajectory generation method based on point cloud for robotic grinding of freeform welds. <i>International Journal of Advanced Manufacturing Technology</i> , 2021, 115, 1763-1781.	3.0	17
33	A new method to achieve dynamic heat input monitoring in robotic belt grinding of Inconel 718. <i>Journal of Manufacturing Processes</i> , 2020, 57, 575-588.	5.9	16
34	Weld penetration in situ prediction from keyhole dynamic behavior under time-varying VPPAW pools via the OS-ELM model. <i>International Journal of Advanced Manufacturing Technology</i> , 2019, 104, 3929-3941.	3.0	15
35	Parameter Self-Optimizing Clustering for Autonomous Extraction of the Weld Seam Based on Orientation Saliency in Robotic MAG Welding. <i>Journal of Intelligent and Robotic Systems: Theory and Applications</i> , 2016, 83, 219-237.	3.4	12
36	Quality analysis of CMT lap welding based on welding electronic parameters and welding sound. <i>Journal of Manufacturing Processes</i> , 2022, 74, 1-13.	5.9	12

#	ARTICLE	IF	CITATIONS
37	Vision-based deviation extraction for three-dimensional control in robotic welding with steel sheet. International Journal of Advanced Manufacturing Technology, 2018, 95, 4449-4458.	3.0	11
38	A novel energy partition model for belt grinding of Inconel 718. Journal of Manufacturing Processes, 2021, 64, 1296-1306.	5.9	11
39	Spectroscopic Diagnostics of Pulsed Gas Tungsten Arc Welding Plasma and Its Effect on Weld Formation of Aluminum-Magnesium Alloy. Spectroscopy Letters, 2013, 46, 350-363.	1.0	10
40	Online Monitoring of Variable Polarity TIG Welding Penetration State Based on Fusion of Welding Characteristic Parameters and SVM. Transactions on Intelligent Welding Manufacturing, 2019, , 87-104.	0.3	6
41	Influences of weaving parameters on dynamic characteristics and stability control of the droplet transfer in arc-weaving P-CMAW process. International Journal of Advanced Manufacturing Technology, 2022, 119, 5233-5250.	3.0	6
42	Isotropic etching polishing of belt ground Inconel 718 to improve surface strengthening and quality. Surface and Coatings Technology, 2022, 436, 128292.	4.8	6
43	Weld penetration identification for VPPAW based on keyhole features and extreme learning machine. , 2016, , .		5
44	In situ studies of full-field residual stress mapping of SS304 stainless steel welds using DIC. International Journal of Advanced Manufacturing Technology, 2020, 109, 45-55.	3.0	2
45	Mixed logic dynamic model for the hybrid characteristics of the dual robotic welding process and system. , 2016, , .		1