

Shinichi Tashiro

List of Publications by Year in descending order

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101
papers

952
citations

471509

17
h-index

552781

26
g-index

104
all docs

104
docs citations

104
times ranked

332
citing authors

#	ARTICLE	IF	CITATIONS
1	Study for TIG&MIG hybrid welding process. <i>Welding in the World, Le Soudage Dans Le Monde</i> , 2014, 58, 11-18.	2.5	73
2	Elucidation of the weld pool convection and keyhole formation mechanism in the keyhole plasma arc welding. <i>International Journal of Heat and Mass Transfer</i> , 2019, 131, 920-931.	4.8	56
3	Numerical analysis of fume formation mechanism in arc welding. <i>Journal Physics D: Applied Physics</i> , 2010, 43, 434012.	2.8	41
4	Analysis of the energy propagation in the keyhole plasma arc welding using a novel fully coupled plasma arc-keyhole-weld pool model. <i>International Journal of Heat and Mass Transfer</i> , 2019, 141, 604-614.	4.8	40
5	Experimental investigation on the weld pool formation process in plasma keyhole arc welding. <i>Journal Physics D: Applied Physics</i> , 2018, 51, 015204.	2.8	30
6	The measurement of metal droplet temperature in GMA welding by infrared two-colour pyrometry. <i>Welding International</i> , 2010, 24, 81-87.	0.7	29
7	Prediction of energy source properties of free-burning arcs. <i>Vacuum</i> , 2006, 80, 1190-1194.	3.5	27
8	Study on factors affecting the droplet temperature in plasma MIG welding process. <i>Journal Physics D: Applied Physics</i> , 2018, 51, 135206.	2.8	27
9	CO ₂ -shielded arc as a high-intensity heat source. <i>Vacuum</i> , 2006, 80, 1195-1198.	3.5	25
10	A novel electrode-arc-weld pool model for studying the keyhole formation in the keyhole plasma arc welding process. <i>Journal Physics D: Applied Physics</i> , 2019, 52, 165203.	2.8	25
11	Analysis of heat transfer and material flow in hybrid KPAW-GMAW process based on the novel three dimensional CFD simulation. <i>International Journal of Heat and Mass Transfer</i> , 2020, 147, 118921.	4.8	25
12	A Study of Thermal Pinch Effect of Welding Arcs. <i>Yosetsu Gakkai Ronbunshu/Quarterly Journal of the Japan Welding Society</i> , 2007, 25, 336-342.	0.5	24
13	The Surface Temperature Measurement of Weld Pool by Infrared Two-Color Pyrometry. <i>Yosetsu Gakkai Ronbunshu/Quarterly Journal of the Japan Welding Society</i> , 2009, 27, 34-40.	0.5	22
14	Numerical analysis of plasma arc physical characteristics under additional constraint of keyhole. <i>Chinese Physics B</i> , 2018, 27, 034701.	1.4	19
15	Effect of the eddies formed inside a weld pool on welding defects during plasma keyhole arc welding. <i>Journal of Manufacturing Processes</i> , 2020, 59, 649-657.	5.9	19
16	Numerical simulation of fume formation process in GMA welding. <i>Welding in the World, Le Soudage Dans Le Monde</i> , 2018, 62, 1331-1339.	2.5	18
17	The influence mechanism of variable polarity plasma arc pressure on flat keyhole welding stability. <i>Journal of Manufacturing Processes</i> , 2019, 37, 519-528.	5.9	18
18	Material flow analyses of high-efficiency joint process in VPPA keyhole flat welding by X-ray transmission system. <i>Journal of Cleaner Production</i> , 2020, 250, 119450.	9.3	18

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19	Numerical study on arc-droplet coupled behavior in magnetic field controlled GMAW process. Journal Physics D: Applied Physics, 2020, 53, 115202.	2.8	18
20	Physical mechanism of material flow in variable polarity plasma arc keyhole welding revealed by <i>in situ</i> x-ray imaging. Physics of Fluids, 2021, 33, .	4.0	18
21	Numerical analysis of AC tungsten inert gas welding of aluminum plate in consideration of oxide layer cleaning. Thin Solid Films, 2011, 519, 7025-7029.	1.8	17
22	Effect of Arc Pressure on the Digging Process in Variable Polarity Plasma Arc Welding of A5052P Aluminum Alloy. Materials, 2019, 12, 1071.	2.9	17
23	Influence of shielding gas composition on molten metal flow behavior during plasma keyhole arc welding process. Journal of Manufacturing Processes, 2020, 53, 431-437.	5.9	17
24	Application of pulse plasma MIG welding process to Al/steel dissimilar joining. Welding in the World, Le Soudage Dans Le Monde, 2020, 64, 857-871.	2.5	16
25	Properties of Mass and Heat Transfer for Tube Cathode Arcs. Yosetsu Gakkai Ronbunshu/Quarterly Journal of the Japan Welding Society, 2007, 25, 3-9.	0.5	16
26	Numerical analysis of energy source properties of hollow cathode arc. Surface and Coatings Technology, 2007, 201, 5431-5434.	4.8	13
27	Experimental Observation of Cleaning Action of Cathode Spots in AC TIG Welding of Aluminum Plates. Yosetsu Gakkai Ronbunshu/Quarterly Journal of the Japan Welding Society, 2011, 29, 5s-8s.	0.5	12
28	Study on new GMA welding process with duplex current feeding. Yosetsu Gakkai Ronbunshu/Quarterly Journal of the Japan Welding Society, 2016, 34, 150-157.	0.5	12
29	Modeling of a xenon short arc lamp considering the behavior of tungsten vapour evaporated from electrodes. Journal Physics D: Applied Physics, 2019, 52, 334001.	2.8	11
30	Numerical simulation of keyhole welding of aluminium thick plate with plasma arc. Welding International, 2012, 26, 441-447.	0.7	10
31	Droplet Temperature Measurement in Metal Inert Gas Welding Process by Using Two Color Temperature Measurement Method. Yosetsu Gakkai Ronbunshu/Quarterly Journal of the Japan Welding Society, 2017, 35, 160s-164s.	0.5	10
32	The effect of electrode energy balance on variable polarity plasma arc pressure. International Journal of Heat and Mass Transfer, 2019, 145, 118715.	4.8	10
33	Metal Vapor Behavior in GTA Welding of a Stainless Steel Considering the Marangoni Effect. IEE Transactions on Electrical and Electronic Engineering, 2009, 4, 497-503.	1.4	9
34	Numerical Simulation of Diffusion of Multiple Metal Vapours in a TIG Arc Plasma for Welding of Stainless Steel. Welding in the World, Le Soudage Dans Le Monde, 2009, 53, R166-R170.	2.5	9
35	Physical mechanisms of fluid flow and joint inhomogeneity in variable-polarity plasma arc welding of thick aluminum alloy plates. Physics of Fluids, 2021, 33, .	4.0	9
36	Numerical analysis of non-equilibrium plasma property in anode boundary layer of argon Gas Tungsten Arc. Surface and Coatings Technology, 2010, 205, S115-S119.	4.8	8

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37	Development of novel MIG welding process with duplex current feeding. Journal of Manufacturing Processes, 2019, 47, 74-82.	5.9	8
38	Coupled mechanisms of the keyhole, energy transfer and compositional change associated with the variable polarity plasma arc process. Journal Physics D: Applied Physics, 2021, 54, 115204.	2.8	8
39	Numerical analysis of the effect of heat loss by zinc evaporation on aluminum alloy to hot-dip galvanized steel joints by electrode negative polarity ratio varied AC pulse gas metal arc welding. Journal of Manufacturing Processes, 2021, 69, 671-683.	5.9	8
40	Observation of the Behavior of Cathode Spots in AC Tungsten Inert Gas Welding on Aluminum Plate. Yosetsu Gakkai Ronbunshu/Quarterly Journal of the Japan Welding Society, 2015, 33, 135s-138s.	0.5	8
41	Effect of admixture of metal vapor on cathode surface temperature of plasma torch. Surface and Coatings Technology, 2008, 202, 5255-5258.	4.8	7
42	Numerical analysis of the influence of particle charging on the fume formation process in arc welding. Journal Physics D: Applied Physics, 2013, 46, 224007.	2.8	7
43	Electron temperature measurement of tungsten inert gas arcs. Thin Solid Films, 2008, 516, 6628-6633.	1.8	6
44	Improvement of bead formation of plasma MIG welding in pure argon atmosphere. Yosetsu Gakkai Ronbunshu/Quarterly Journal of the Japan Welding Society, 2011, 29, 39s-42s.	0.5	6
45	Influence of Pilot Gas Composition on Convective Pattern of Weld Pool Surface in Plasma Keyhole Arc Welding. Yosetsu Gakkai Ronbunshu/Quarterly Journal of the Japan Welding Society, 2017, 35, 98s-102s.	0.5	6
46	Investigating cathode spot behavior in argon alternating current tungsten inert gas welding of aluminum through experimental observation. Journal Physics D: Applied Physics, 2019, 52, 26LT02.	2.8	6
47	3D Numerical Study of External Axial Magnetic Field-Controlled High-Current GMAW Metal Transfer Behavior. Materials, 2020, 13, 5792.	2.9	6
48	Elucidation of arc coupling mechanism in plasma-MIG hybrid welding process through spectroscopic measurement of 3D distributions of plasma temperature and iron vapor concentration. Journal of Manufacturing Processes, 2022, 77, 743-753.	5.9	6
49	Numerical Analysis of Physical Characteristics and Heat Transfer Decoupling Behavior in Bypass Coupling Variable Polarity Plasma Arc. Materials, 2022, 15, 3174.	2.9	6
50	Influence of Current Feeding Position of Duplex Current Feeding MIG Welding on Droplet Heat Quantity. Materials, 2019, 12, 3590.	2.9	5
51	Study on the Decoupled Transfer of Heat and Mass in Wire Variable Polarity Plasma Arc Welding. Materials, 2020, 13, 1073.	2.9	5
52	Numerical Analysis of Metal Transfer Process in Plasma MIG Welding. Metals, 2022, 12, 326.	2.3	5
53	Effect of Flux Ratio on Droplet Transfer Behavior in Metal-Cored Arc Welding. Metals, 2022, 12, 1069.	2.3	5
54	Numerical simulation of new welding process with duplex current feeding. Yosetsu Gakkai Ronbunshu/Quarterly Journal of the Japan Welding Society, 2016, 34, 223-230.	0.5	4

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55	Influence of shielding gas on cathode spot behaviours in alternating current tungsten inert gas welding of aluminium. <i>Science and Technology of Welding and Joining</i> , 2020, 25, 258-264.	3.1	4
56	Influence of Electrode Energy Balance on Gas Convective Pattern of a High-Pressure Xenon Short Arc Lamp. <i>Plasma Chemistry and Plasma Processing</i> , 2020, 40, 819-837.	2.4	4
57	Relationship among Welding Defects with Convection and Material Flow Dynamic Considering Principal Forces in Plasma Arc Welding. <i>Metals</i> , 2021, 11, 1444.	2.3	4
58	Numerical Analysis on Influence of Electrical Conductivity of Wire on Droplet Temperature in Duplex Current Feeding MIG Welding. <i>Yosetsu Gakkai Ronbunshu/Quarterly Journal of the Japan Welding Society</i> , 2017, 35, 51s-55s.	0.5	4
59	Comparison of Wettability of Beads in MIG Welding Process with Duplex Current Feeding and Conventional MIG Welding Process. <i>Journal of Smart Processing</i> , 2017, 6, 28-32.	0.1	4
60	Behaviors of Cathode Spot in Alternative Current Helium TIG Welding of Aluminum. <i>Journal of Smart Processing</i> , 2018, 7, 243-250.	0.1	4
61	Observation of Microstructure and Mechanical Properties in Heat Affected Zone of As-Welded Carbon Steel by Using Plasma MIG welding Process. <i>Metals</i> , 2022, 12, 315.	2.3	4
62	Temperature Distribution of Argon Gas Tungsten Arc Considering the Nonequilibrium Effect. <i>IEEE Transactions on Plasma Science</i> , 2008, 36, 1070-1071.	1.3	3
63	Numerical analysis of fume formation mechanism in TIG welding. <i>Welding International</i> , 2015, 29, 165-172.	0.7	3
64	Effect of Plasma Flow in Plasma MIG Welding Process to the Microstructure Refinement at Heat Affected Zone of As-Welded Carbon Steel. <i>Materials Science Forum</i> , 2020, 1010, 15-20.	0.3	3
65	Numerical Simulation of the Behavior of Hydrogen Source in a Novel Welding Process to Reduce Diffusible Hydrogen. <i>Materials</i> , 2020, 13, 1619.	2.9	3
66	Dependence of non-equilibrium plasma property of argon GTA on arc current. <i>Yosetsu Gakkai Ronbunshu/Quarterly Journal of the Japan Welding Society</i> , 2008, 26, 111-116.	0.5	2
67	Optical Measurement of Surface Temperature Distribution of Weld Pool in AC Tungsten Inert Gas Welding of Aluminum A1050. <i>Journal of Smart Processing</i> , 2019, 8, 213-218.	0.1	2
68	A Study on the Effect of Current Waveform on Intermetallics Formation and the Weldability of Dissimilar Materials Welded Joints (AA5052 Alloy+GI Steel) in AC Pulse GMAW. <i>Metals</i> , 2021, 11, 561.	2.3	2
69	Study on new GMA welding process with duplex current feeding. <i>Yosetsu Gakkai Ronbunshu/Quarterly Journal of the Japan Welding Society</i> , 2017, 35, 56s-60s.	0.5	2
70	Influence of Cross-Wind on CO2 Arc Welding of Carbon Steel. <i>Metals</i> , 2021, 11, 1677.	2.3	2
71	Visualization of Welding and Joining Phenomena with X-ray Transmission Systems. <i>Yosetsu Gakkai Shi/Journal of the Japan Welding Society</i> , 2013, 82, 505-508.	0.1	2
72	Application of Duplex Current Feeding Metal Inert Gas Welding to Overlay Welding Using Nickel Based Alloy Welding. <i>Journal of Smart Processing</i> , 2019, 9, 140-147.	0.1	2

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73	Study of Shieldability of the Low Hydrogen Welding Process by Numerical Simulation. Journal of Smart Processing, 2020, 9, 199-207.	0.1	2
74	Mild steel metal rotating spray transfer behavior in magnetically controlled gas metal arc welding. Materials Today Communications, 2022, 31, 103352.	1.9	2
75	Effective Electrode Work Functions in Helium Gas Tungsten Arc During Operation. Plasma Processes and Polymers, 2007, 4, S995-S998.	3.0	1
76	Non-equilibrium plasma property of ArGTA in low current range. Thin Solid Films, 2010, 518, 3453-3456.	1.8	1
77	Temperature Distribution of Plasma Arc Contaminated with Iron Vapor from Anode under Consideration of Self-absorption. Journal of International Council on Electrical Engineering, 2011, 1, 339-344.	0.4	1
78	Report of 9th International Conference on Trends in Welding Research. Yosetsu Gakkai Shi/Journal of the Japan Welding Society, 2012, 81, 607-609.	0.1	1
79	Observation of Metal Transfer in Plasma MIG Welding Process. Yosetsu Gakkai Ronbunshu/Quarterly Journal of the Japan Welding Society, 2017, 35, 33s-37s.	0.5	1
80	Numerical Simulation of Gas Flow in a Novel Torch for Reducing Diffusible Hydrogen. Journal of Smart Processing, 2019, 8, 219-224.	0.1	1
81	Investigation of the influence of buoyancy on gas convection of a horizontal xenon short arc lamp through 3D numerical simulation. Journal Physics D: Applied Physics, 2020, 53, 385205.	2.8	1
82	Numerical Simulation of Energy Balance of Short Arc Lamp. IEEJ Transactions on Power and Energy, 2013, 133, 424-429.	0.2	1
83	Influence of Sulfur Content on Penetration Depth in TIG Welding for High Manganese Stainless Steels. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2021, 52, 5293.	2.2	1
84	Numerical simulation of welding fume formation mechanism in gas tungsten arc welding. Transactions of the Materials Research Society of Japan, 2010, 35, 801-804.	0.2	1
85	Numerical Simulation of Stationary AC Tungsten Inert Gas Welding of Aluminum Plate in Consideration of Oxide Layer Cleaning. IEEJ Transactions on Power and Energy, 2012, 132, 422-427.	0.2	1
86	Driving Force Variation in Weld Pool Affected by Current Density and Flow Velocity of Gas Tungsten Arc Welding. IEEJ Transactions on Power and Energy, 2012, 132, 486-492.	0.2	1
87	Influence of Groove on Metal Vapour Behavior and Arc Characteristics in TIG Welding of High Manganese Stainless Steels. Plasma Chemistry and Plasma Processing, 2022, 42, 229-245.	2.4	1
88	Numerical Analysis of Heat Source Properties of Pulsed Tungsten Inert Gas Arc. Transactions of the Materials Research Society of Japan, 2012, 37, 161-164.	0.2	0
89	Evaluation of Radiation Characteristics of Xenon Short Arc Lamp by Numerical Simulation. Journal of Smart Processing, 2017, 6, 40-45.	0.1	0
90	Numerical Analysis of Plasma Keyhole Welding of an Aluminum Thin Plate. Ceramic Transactions, 0, , 189-194.	0.1	0

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91	Numerical simulation of heat source properties of pulsed tungsten inert gas arc. Yosetsu Gakkai Ronbunshu/Quarterly Journal of the Japan Welding Society, 2011, 29, 9s-13s.	0.5	0
92	Numerical Analysis on Effects of Power Source Characteristics on Arc Properties in Gas Tungsten Arc. Yosetsu Gakkai Ronbunshu/Quarterly Journal of the Japan Welding Society, 2011, 29, 1s-4s.	0.5	0
93	New Development of Numerical Simulation Technology of High Current Phenomena. IEEJ Transactions on Power and Energy, 2013, 133, 405-408.	0.2	0
94	State-of-the-art technology in visualization of arc welding process. Yosetsu Gakkai Shi/Journal of the Japan Welding Society, 2013, 82, 99-104.	0.1	0
95	The Effect of Cold Cracking Prevention of FCAW by the Welding Process for Reducing Diffusible Hydrogen. Journal of Smart Processing, 2019, 9, 33-37.	0.1	0
96	Influence of Thermodynamic and Transport Properties of Gas on Heat Load to Bulb of Xenon Short Arc Lamp. Journal of Smart Processing, 2019, 9, 148-155.	0.1	0
97	Influence of the magnesium content on cathode spot behavior in AC TIG welding of aluminum alloy. Yosetsu Gakkai Ronbunshu/Quarterly Journal of the Japan Welding Society, 2019, 37, 181-186.	0.5	0
98	Numerical Prediction of Influence of Gas Species on Gas Convective Pattern of Short Arc Lamp. Yosetsu Gakkai Ronbunshu/Quarterly Journal of the Japan Welding Society, 2020, 38, 30s-34s.	0.5	0
99	Numerical Analysis on Thermal Characteristics of Direct Current Pulsed Gas Metal Arc Welded Joints of AA5052 Aluminum Alloy to DP590 High Strength Steel. Yosetsu Gakkai Ronbunshu/Quarterly Journal of the Japan Welding Society, 2020, 38, 93s-97s.	0.5	0
100	Numerical study of keyhole behaviors and thermal fluid flow in high current plasma arc welding. Yosetsu Gakkai Ronbunshu/Quarterly Journal of the Japan Welding Society, 2020, 38, 40s-43s.	0.5	0
101	A Study on Reducing Oxygen Content in Weld Metals for Narrow Groove GMA Welding with a Local CO ₂ Adding Nozzle. Yosetsu Gakkai Ronbunshu/Quarterly Journal of the Japan Welding Society, 2021, 39, 301-308.	0.5	0