Masaya Shigeta

List of Publications by Year
in descending order

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Version: 2024-02-01

110	1,765	279798	345221
papers	citations	23 h-index	36 g-index

112	112	112	569
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Thermal plasmas for nanofabrication. Journal Physics D: Applied Physics, 2011, 44, 174025.	2.8	166
2	Growth mechanism of silicon-based functional nanoparticles fabricated by inductively coupled thermal plasmas. Journal Physics D: Applied Physics, 2007, 40, 2407-2419.	2.8	75
3	Numerical investigation for nano-particle synthesis in an RF inductively coupled plasma. Thin Solid Films, 2004, 457, 192-200.	1.8	71
4	Growth model of binary alloy nanopowders for thermal plasma synthesis. Journal of Applied Physics, 2010, 108, .	2.5	67
5	Numerical investigation of cooling effect on platinum nanoparticle formation in inductively coupled thermal plasmas. Journal of Applied Physics, 2008, 103, .	2.5	55
6	Turbulence modelling of thermal plasma flows. Journal Physics D: Applied Physics, 2016, 49, 493001.	2.8	53
7	Formation mechanism of titanium boride nanoparticles by RF induction thermal plasma. Chemical Engineering Journal, 2012, 183, 483-491.	12.7	51
8	Numerical Analysis of Metallic Nanoparticle Synthesis Using RF Inductively Coupled Plasma Flows. Journal of Heat Transfer, 2005, 127, 1222-1230.	2.1	44
9	Numerical analysis for co-condensation processes in silicide nanoparticle synthesis using induction thermal plasmas at atmospheric pressure conditions. Journal of Materials Research, 2005, 20, 2801-2811.	2.6	41
10	Numerical simulation of molten metal droplet transfer and weld pool convection during gas metal arc welding using incompressible smoothed particle hydrodynamics method. International Journal of Heat and Mass Transfer, 2018, 121, 978-985.	4.8	40
11	Time-dependent 3D simulation of an argon RF inductively coupled thermal plasma. Plasma Sources Science and Technology, 2012, 21, 055029.	3.1	38
12	Two-Directional Nodal Model for Co-Condensation Growth of Multicomponent Nanoparticles in Thermal Plasma Processing. Journal of Thermal Spray Technology, 2009, 18, 1022-1037.	3.1	34
13	Modeling of non-equilibrium argonâ€“oxygen induction plasmas under atmospheric pressure. International Journal of Heat and Mass Transfer, 2006, 49, 1073-1082.	4.8	33
14	Computational simulation of a particle-laden RF inductively coupled plasma with seeded potassium. International Journal of Heat and Mass Transfer, 2004, 47, 707-716.	4.8	31
15	A two-dimensional nodal model with turbulent effects for the synthesis of Si nano-particles by inductively coupled thermal plasmas. Plasma Sources Science and Technology, 2012, 21, 025001.	3.1	31
16	Multi-component co-condensation model of Ti-based boride/silicide nanoparticle growth in induction thermal plasmas. Thin Solid Films, 2007, 515, 4217-4227.	1.8	30
17	Three-dimensional flow dynamics of an argon RF plasma with dc jet assistance: a numerical study. Journal Physics D: Applied Physics, 2013, 46, 015401.	2.8	30
18	Two-dimensional analysis of nanoparticle formation in induction thermal plasmas with counterflow cooling. Thin Solid Films, 2008, 516, 4415-4422.	1.8	29

#	Article	IF	Citations
19	Modeling and simulation of a turbulentâ€like thermal plasma jet for nanopowder production. IEEJ Transactions on Electrical and Electronic Engineering, 2019, 14, 16-28.	1.4	29
20	Effect of precursor fraction on silicide nanopowder growth under thermal plasma conditions: A computational study. Powder Technology, 2016, 288, 191-201.	4.2	28
21	Numerical Simulation of Joining Process in a TIG Welding System Using Incompressible SPH Method. Yosetsu Gakkai Ronbunshu/Quarterly Journal of the Japan Welding Society, 2015, 33, 34s-38s.	0.5	26
22	Numerical simulation of a potassium-seeded turbulent RF inductively coupled plasma with particles. Thin Solid Films, 2003, 435, 5-12.	1.8	24
23	Incompressible SPH Simulation of Double-Diffusive Convection Phenomena. International Journal of Emerging Multidisciplinary Fluid Sciences, 2009, 1, 1-18.	0.5	23
24	Investigation of the bilayer region of metal vapor in a helium tungsten inert gas arc plasma on stainless steel by imaging spectroscopy. Journal Physics D: Applied Physics, 2019, 52, 354003.	2.8	23
25	Numerical simulation of an RF inductively coupled plasma for functional enhancement by seeding vaporized alkali metal. EPJ Applied Physics, 2002, 18, 125-133.	0.7	22
26	Two-temperature chemically-non-equilibrium modeling of argon induction plasmas with diatomic gas. International Journal of Heat and Mass Transfer, 2006, 49, 4867-4876.	4.8	22
27	Effect of Saturation Pressure Difference on Metalâ€“Silicide Nanopowder Formation in Thermal Plasma Fabrication. Nanomaterials, 2016, 6, 43.	4.1	21
28	Numerical Study of Axial Magnetic Effects on a Turbulent Thermal Plasma Jet for Nanopowder Production Using 3D Time-Dependent Simulation. Journal of Flow Control Measurement &amp Visualization, 2018, 06, 107-123.	0.1	21
29	Numerical Simulation of a Weld Pool Formation in a TIG Welding Using an Incompressible SPH Method. Yosetsu Gakkai Ronbunshu/Quarterly Journal of the Japan Welding Society, 2014, 32, 213-222.	0.5	20
30	Numerical study of the metal vapour transport in tungsten inert-gas welding in argon for stainless steel. Applied Mathematical Modelling, 2020, 79, 713-728.	4.2	20
31	Numerical Investigation of Heat Transfer During Submerged Arc Welding Phenomena by Coupled DEM-ISPH Simulation. International Journal of Heat and Mass Transfer, 2021, 171, 121062.	4.8	19
32	Numerical study on thermal non-equilibrium of arc plasmas in TIG welding processes using a two-temperature model. Welding in the World, Le Soudage Dans Le Monde, 2017, 61, 197-207.	2.5	17
33	Numerical simulation of slag forming process during submerged arc welding using DEM-ISPH hybrid method. Welding in the World, Le Soudage Dans Le Monde, 2018, 62, 1323-1330.	2.5	17
34	Simple equations to describe aerosol growth. Modelling and Simulation in Materials Science and Engineering, 2012, 20, 045017.	2.0	16
35	Effect of rare earth metal on plasma properties in GMAW using CO2 shielding gas. Welding in the World, Le Soudage Dans Le Monde, 2017, 61, 1039-1047.	2.5	16
36	Visualization of electromagnetic-thermal-fluid phenomena in arc welding. Japanese Journal of Applied Physics, 2020, 59, SA0805.	1.5	16

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37	Mixing and magnetic effects on a nonequilibrium argon plasma jet. International Journal of Thermal Sciences, 2001, 40, 273-278.	4.9	15
38	Analysis of dynamic plasma behaviours in gas metal arc welding by imaging spectroscopy. Welding International, 2017, 31, 669-680.	0.7	15
39	Numerical study of the effects and transport mechanisms of iron vapour in tungsten inert-gas welding in argon. Journal Physics D: Applied Physics, 2020, 53, 044004.	2.8	15
40	Simulating Turbulent Thermal Plasma Flows for Nanopowder Fabrication. Plasma Chemistry and Plasma Processing, 2020, 40, 775-794.	2.4	15
41	Investigation of transient metal vapour transport processes in helium arc welding by imaging spectroscopy. Journal Physics D: Applied Physics, 2020, 53, 425202.	2.8	14
42	Recent Progresses of Welding and Joining Engineering. Yosetsu Gakkai Shi/Journal of the Japan Welding Society, 2020, 89, 322-335.	0.1	14
43	Analysis of dynamic plasma behaviors in gas metal arc welding by imaging spectroscopy. Yosetsu Gakkai Ronbunshu/Quarterly Journal of the Japan Welding Society, 2015, 33, 118-125.	0.5	14
44	Numerical Analysis for Preparation of Silicon-Based Intermetallic Nano-Particles in Induction Thermal Plasma Flow Systems. JSME International Journal Series B, 2005, 48, 425-431.	0.3	13
45	Modeling of Submerged Arc Welding Phenomena and Experimental Study of the Heat Source Characteristics. Yosetsu Gakkai Ronbunshu/Quarterly Journal of the Japan Welding Society, 2017, 35, 93-101.	0.5	13
46	Computational Study of Quenching Effects on Growth Processes and Size Distributions of Silicon Nanoparticles at a Thermal Plasma Tail. Nanomaterials, 2021, 11, 1370.	4.1	13
47	Comparison between methods measuring arc efficiency of gas tungsten arc welding. Science and Technology of Welding and Joining, 2021, 26, 371-376.	3.1	12
48	Anisotropic Nd-Fe ultrafine particles with stable and metastable phases prepared by induction thermal plasma. Journal of Alloys and Compounds, 2021, 873, 159724.	5.5	12
49	Modelling and measurements of gas tungsten arc welding in argonâ€“helium mixtures with metal vapour. Welding in the World, Le Soudage Dans Le Monde, 2021, 65, 767-783.	2.5	12
50	Effects of a constricted nozzle on the arc phenomena in TIG welding process. Yosetsu Gakkai Ronbunshu/Quarterly Journal of the Japan Welding Society, 2014, 32, 47-51.	0.5	11
51	Incompressible SPH Simulation of Weld Pool Convection with Molten Metal Droplets in a GMA Welding. Yosetsu Gakkai Ronbunshu/Quarterly Journal of the Japan Welding Society, 2015, 33, 332-340.	0.5	11
52	Anisotropic Sm-Co nanopowder prepared by induction thermal plasma. Journal of Alloys and Compounds, 2021, 882, 160633.	5.5	11
53	Modeling of non-equilibrium argonâ€“hydrogen induction plasmas under atmospheric pressure. Thin Solid Films, 2007, 515, 4209-4216.	1.8	10
54	Visualization of Submerged Arc Welding Phenomena by X-ray Observation and Direct Observation. Yosetsu Gakkai Ronbunshu/Quarterly Journal of the Japan Welding Society, 2018, 36, 9WL-12WL.	0.5	10

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55	Experimental Measurements of Gas Shielding Characteristics in TIG Welding with a Constricted Nozzle. Yosetsu Gakkai Ronbunshu/Quarterly Journal of the Japan Welding Society, 2018, 36, 21-25.	0.5	10
56	Electrode contamination caused by metal vapour transport during tungsten inert gas welding. Science and Technology of Welding and Joining, 2021, 26, 258-263.	3.1	10
57	Development of a Welding Condition Optimization Program for Narrow Gap SAW. Yosetsu Gakkai Ronbunshu/Quarterly Journal of the Japan Welding Society, 2020, 38, 98s-102s.	0.5	10
58	Visualization of gas metal arc welding on globular to spray transition current. Science and Technology of Welding and Joining, 2018, 23, 87-94.	3.1	9
59	Modeling for collective growth of fume primary particles with charge effect in arc welding. Welding in the World, Le Soudage Dans Le Monde, 2018, 62, 203-213.	2.5	9
60	Numerical Analysis of the Correlation between Arc Plasma Fluctuation and Nanoparticle Growthâ€“Transport under Atmospheric Pressure. Nanomaterials, 2019, 9, 1736.	4.1	9
61	Numerical Simulation of Molten Metal Droplet Behavior in Gas Metal Arc Welding by Three-Dimensional Incompressible Smoothed Particle Hydrodynamics Method. Journal of Flow Control Measurement &amp Visualization, 2018, 06, 66-81.	0.1	9
62	Diagnostics and Numerical Analyses for Thermal and Flow Phenomena in Arc Welding. Journal of the Institute of Electrical Engineers of Japan, 2020, 140, 350-353.	0.0	9
63	Diagnostic of Heat Source Characteristics in Gas Metal Arc Welding Using CO₂ Shielding Gas. Yosetsu Gakkai Ronbunshu/Quarterly Journal of the Japan Welding Society, 2017, 35, 103s-107s.	0.5	8
64	High speed X-ray observation of digital controlled submerged arc welding phenomena. Science and Technology of Welding and Joining, 2021, 26, 332-340.	3.1	8
65	Numerical Analysis of Dynamic Behavior of Additives in Electrode During TIG Welding Process. Yosetsu Gakkai Ronbunshu/Quarterly Journal of the Japan Welding Society, 2017, 35, 73-84.	0.5	8
66	Imaging Spectroscopy for Transient Transport of Chromium Vapor During Helium TIG Welding. Yosetsu Gakkai Ronbunshu/Quarterly Journal of the Japan Welding Society, 2020, 38, 21s-24s.	0.5	8
67	Numerical Simulation of Droplet Transfer with TiO2 Flux Column During Flux Cored Arc Welding by 3D Smoothed Particle Hydrodynamics Method. Yosetsu Gakkai Ronbunshu/Quarterly Journal of the Japan Welding Society, 2020, 38, 84s-88s.	0.5	8
68	Mixing Enhancement and Interface Characteristics in a Small-Scale Channel. Journal of Fluid Science and Technology, 2008, 3, 1020-1030.	0.6	7
69	Hotwire Measurement and Numerical Analysis of Flows around a Straight Wing Vertical Axis Wind Turbine. 880-02 Nihon Kikai Gakkai RonbunshÅ« Transactions of the Japan Society of Mechanical Engineers Series B B-hen, 2011, 77, 637-646.	0.2	7
70	Study on Proper Welding Condition for Ultranarrow Gap Submerged Arc Welding. Welding International, 2021, 35, 369-381.	0.7	7
71	Numerical Investigation of a Local Oxygen Injection Effect on Argon Induction Plasmas Using a Chemically Non-Equilibrium Model. Journal of Chemical Engineering of Japan, 2006, 39, 1255-1264.	0.6	6
72	Qualitative and quantitative analyses of arc characteristics in SMAW. Welding in the World, Le Soudage Dans Le Monde, 2016, 60, 355-361.	2.5	6

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73	The Relation Between Electrode Lifetime and Additive Consumption During TIG Welding. Yosetsu Gakkai Ronbunshu/Quarterly Journal of the Japan Welding Society, 2019, 37, 4WL-6WL.	0.5	6
74	Influences of welding conditions on the constricted TIG arcs. Yosetsu Gakkai Ronbunshu/Quarterly Journal of the Japan Welding Society, 2014, 32, 207-212.	0.5	6
75	Simulation of Flux Melting Process during a SAW by DEM-ISPH Hybrid Method. Yosetsu Gakkai Ronbunshu/Quarterly Journal of the Japan Welding Society, 2017, 35, 38s-41s.	0.5	5
76	Reliability evaluation of Fowler-Milne method in a temperature measurement of Gas Tungsten Arc. Yosetsu Gakkai Ronbunshu/Quarterly Journal of the Japan Welding Society, 2015, 33, 42-48.	0.5	5
77	Measurements and Numerical Simulations in Arc Welding Processes. Yosetsu Gakkai Shi/Journal of the Japan Welding Society, 2015, 84, 19-24.	0.1	5
78	Effect of shielding gas composition on gas metal arc welding phenomena using rare earth metal added wire. Yosetsu Gakkai Ronbunshu/Quarterly Journal of the Japan Welding Society, 2020, 38, 438-447.	0.5	5
79	Spatial composition distribution of a Ni-Cu binary alloy powder in a thermal plasma process. Journal of Alloys and Compounds, 2022, 898, 162792.	5.5	5
80	Numerical analysis of collective growth of primary fume particles in arc welding. Yosetsu Gakkai Ronbunshu/Quarterly Journal of the Japan Welding Society, 2015, 33, 365-375.	0.5	4
81	Experimental Study on Effects of Gas-shielding in Lap-fillet Arc Welding. Yosetsu Gakkai Ronbunshu/Quarterly Journal of the Japan Welding Society, 2021, 39, 51-63.	0.5	4
82	Experimental study on effects of gas-shielding in lap-fillet arc welding. Welding International, 2021, 35, 492-507.	0.7	4
83	Model Integration for Metal Nanoparticle Synthesis by an RF Thermal Plasma Flow with Counterflow Cooling(Fluids Engineering). 880-02 Nihon Kikai Gakkai RonbunshÅ« Transactions of the Japan Society of Mechanical Engineers Series B B-hen, 2009, 75, 2019-2028.	0.2	3
84	Effects of a constricted nozzle on the arc phenomena in the TIG welding process. Welding International, 2016, 30, 590-595.	0.7	3
85	Study on Proper Welding Condition for Ultra-Narrow Gap Submerged Arc Welding. Yosetsu Gakkai Ronbunshu/Quarterly Journal of the Japan Welding Society, 2021, 39, 64-74.	0.5	3
86	Particle Simulations of Molten Metal Flows in Arc Welding Processes. Yosetsu Gakkai Shi/Journal of the Japan Welding Society, 2017, 86, 436-442.	0.1	3
87	Identification of light emitting elements around tungsten electrode during TIG welding using optical emission spectroscopy. Yosetsu Gakkai Ronbunshu/Quarterly Journal of the Japan Welding Society, 2021, 39, 248-259.	0.5	3
88	Observation of Phenomena in the Slag Bath during Electroslag Welding. Yosetsu Gakkai Ronbunshu/Quarterly Journal of the Japan Welding Society, 2021, 39, 347-362.	0.5	3
89	Particle simulation of nugget formation process during steel/aluminum alloy dissimilar resistance spot welding and thickness estimation of intermetallic compounds. Yosetsu Gakkai Ronbunshu/Quarterly Journal of the Japan Welding Society, 2021, 39, 371-378.	0.5	3
90	Numerical Study on Leading-Edge Receptivity to Freestream Vertical Vorticity. Journal of Fluid Science and Technology, 2013, 8, 136-145.	0.6	2

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91	Incompressible SPH Simulation of a Flow in Weld Pool with Metal Droplets. Journal of Smart Processing, 2015, 4, 165-170.	0.1	2
92	Dross Formation Process During Gas Cutting Using Three-Dimensional Particle Simulation. Journal of Smart Processing, 2021, 10, 373-381.	0.1	2
93	Experimental study on control of highly unsteady separating flow. Journal of Fluid Science and Technology, 2014, 9, JFST0046-JFST0046.	0.6	1
94	Influences of welding conditions on the constricted TIG arcs. Welding International, 2016, 30, 927-934.	0.7	1
95	G0306 Numerical Simulation of a Deforming Liquid Body on a Solid Surface Using Incompressible SPH method. The Proceedings of the Fluids Engineering Conference, 2013, 2013, _G0306-01_-_G0306-04_.	0.0	1
96	Asymmetric Abel Inversion in Imaging Spectroscopy for Tilted TIG Arc Plasma. Yosetsu Gakkai Ronbunshu/Quarterly Journal of the Japan Welding Society, 2021, 39, 233-240.	0.5	1
97	Experimental investigation of dominant factors for droplet ejection from electrode during AC TIG welding. Yosetsu Gakkai Ronbunshu/Quarterly Journal of the Japan Welding Society, 2021, 39, 260-266.	0.5	1
98	Numerical investigation for dominant factors in slag transfer and deposition process during metal active gas welding using incompressible smoothed particle hydrodynamics method. Yosetsu Gakkai Ronbunshu/Quarterly Journal of the Japan Welding Society, 2021, 39, 277-290.	0.5	1
99	Numerical study of heat transfer process during electroslag welding by two-dimensional particle method. Yosetsu Gakkai Ronbunshu/Quarterly Journal of the Japan Welding Society, 2021, 39, 363-370.	0.5	1
100	Numerical investigation for dominant factors in slag transfer and deposition process during metal active gas welding using incompressible smoothed particle hydrodynamics method. Welding International, 2022, 36, 297-313.	0.7	1
101	Computer Simulation of Nano Metallic-Particle Synthesis in an Advanced RF Inductively Coupled Plasma. AIP Conference Proceedings, 2004, , .	0.4	0
102	To Diagnose Complex Electromagnetic-Thermal-Fluid Phenomena of Arc Welding. Journal of Smart Processing, 2018, 7, 3-7.	0.1	0
103	208 Numerical Simulation for the Functionalization of the Radio Frequency Inductively Coupled Plasma Flow. The Proceedings of Conference of Tohoku Branch, 2001, 2001.36, 62-63.	0.0	0
104	Generation of Velocity Fluctuations in a Boundary Layer by a Piezoelectric Actuator. , 2011, , .		0
105	S052011 Numerical Study of Receptivity to Freestream Disturbances for Case of an Elliptic Leading Edge. The Proceedings of Mechanical Engineering Congress Japan, 2012, 2012, _S052011-1-_S052011-5.	0.0	0
106	S051024 Measurement of Flow Field around Airfoil of Vertical Axis Wind Turbine. The Proceedings of Mechanical Engineering Congress Japan, 2012, 2012, _S051024-1-_S051024-5.	0.0	0
107	J051056 SPH Simulation of Solid Body Washed Away by Liquid Flow. The Proceedings of Mechanical Engineering Congress Japan, 2012, 2012, _J051056-1-_J051056-5.	0.0	0
108	G051046 Study on Feedforward Control of Instability Waves in a Boundary Layer. The Proceedings of Mechanical Engineering Congress Japan, 2013, 2013, _G051046-1-_G051046-4.	0.0	0

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109	Development of Prediction Technique of Weld Pool Formation with Heat Source Model. Yosetsu Gakkai Shi/Journal of the Japan Welding Society, 2017, 86, 27-31.	0.1	0
110	é«˜ã‚¨ãƒ³ã‚¿ãƒ«ãƒ”ãƒ¼ãƒ—ãƒ©ã‚ºãƒžæµå‹•å´ã‚’åˆ©ç”¨ã—ãŸãƒŠãƒŽç²’åå§‡å‰µè£½ãƒ—ãƒã‚»ã‚¹ã«ãŠã‘ã‚‹è«¸ç¾è±¡ã®ãƒ¢ãƒ‡ãƒªãƒ³ã	0.1	0