

# Masaya Shigeta

## List of Publications by Year in descending order

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110  
papers

1,765  
citations

279798

23  
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all docs

112  
docs citations

112  
times ranked

569  
citing authors

#	ARTICLE	IF	CITATIONS
1	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
2	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
3	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
4	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
5	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
6	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
7	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
8	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
9	Numerical Investigation of Heat Transfer During Submerged Arc Welding Phenomena by Coupled DEM-SPH Simulation. International Journal of Heat and Mass Transfer, 2021, 171, 121062.	4.8	19
10	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
11	Anisotropic Sm-Co nanopowder prepared by induction thermal plasma. Journal of Alloys and Compounds, 2021, 882, 160633.	5.5	11
12	Modelling and measurements of gas tungsten arc welding in argon-helium mixtures with metal vapour. Welding in the World, Le Soudage Dans Le Monde, 2021, 65, 767-783.	2.5	12
13	Study on Proper Welding Condition for Ultranarrow Gap Submerged Arc Welding. Welding International, 2021, 35, 369-381.	0.7	7
14	Dross Formation Process During Gas Cutting Using Three-Dimensional Particle Simulation. Journal of Smart Processing, 2021, 10, 373-381.	0.1	2
15	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
16	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
17	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
18	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

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19	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
20	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
21	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
22	Experimental study on effects of gas-shielding in lap-fillet arc welding. Welding International, 2021, 35, 492-507.	0.7	4
23	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
24	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
25	Visualization of electromagnetic-thermal-fluid phenomena in arc welding. Japanese Journal of Applied Physics, 2020, 59, SA0805.	1.5	16
26	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
27	Simulating Turbulent Thermal Plasma Flows for Nanopowder Fabrication. Plasma Chemistry and Plasma Processing, 2020, 40, 775-794.	2.4	15
28	Recent Progresses of Welding and Joining Engineering. Yosetsu Gakkai Shi/Journal of the Japan Welding Society, 2020, 89, 322-335.	0.1	14
29	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
30	Numerical Simulation of Droplet Transfer with TiO <sub>2</sub> 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
31	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
32	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
33	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
34	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
35	Numerical Analysis of the Correlation between Arc Plasma Fluctuation and Nanoparticle Growth—Transport under Atmospheric Pressure. Nanomaterials, 2019, 9, 1736.	4.1	9

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37	Modeling and simulation of a turbulent-like thermal plasma jet for nanopowder production. IEEJ Transactions on Electrical and Electronic Engineering, 2019, 14, 16-28.	1.4	29
38	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
39	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
40	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
41	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
42	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
43	To Diagnose Complex Electromagnetic-Thermal-Fluid Phenomena of Arc Welding. Journal of Smart Processing, 2018, 7, 3-7.	0.1	0
44	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
45	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
46	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 & Visualization, 2018, 06, 66-81.	0.1	9
47	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 & Visualization, 2018, 06, 107-123.	0.1	21
48	Analysis of dynamic plasma behaviours in gas metal arc welding by imaging spectroscopy. Welding International, 2017, 31, 669-680.	0.7	15
49	Effect of rare earth metal on plasma properties in GMAW using CO <sub>2</sub> shielding gas. Welding in the World, Le Soudage Dans Le Monde, 2017, 61, 1039-1047.	2.5	16
50	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
51	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
52	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
53	Diagnostic of Heat Source Characteristics in Gas Metal Arc Welding Using CO <sub>2</sub> Shielding Gas. Yosetsu Gakkai Ronbunshu/Quarterly Journal of the Japan Welding Society, 2017, 35, 103s-107s.	0.5	8
54	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

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55	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
56	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
57	Effect of Saturation Pressure Difference on Metalâ€™Silicide Nanopowder Formation in Thermal Plasma Fabrication. Nanomaterials, 2016, 6, 43.	4.1	21
58	Turbulence modelling of thermal plasma flows. Journal Physics D: Applied Physics, 2016, 49, 493001.	2.8	53
59	Effect of precursor fraction on silicide nanopowder growth under thermal plasma conditions: A computational study. Powder Technology, 2016, 288, 191-201.	4.2	28
60	Influences of welding conditions on the constricted TIG arcs. Welding International, 2016, 30, 927-934.	0.7	1
61	Effects of a constricted nozzle on the arc phenomena in the TIG welding process. Welding International, 2016, 30, 590-595.	0.7	3
62	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
63	Incompressible SPH Simulation of a Flow in Weld Pool with Metal Droplets. Journal of Smart Processing, 2015, 4, 165-170.	0.1	2
64	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
65	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
66	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
67	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
68	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
69	Measurements and Numerical Simulations in Arc Welding Processes. Yosetsu Gakkai Shi/Journal of the Japan Welding Society, 2015, 84, 19-24.	0.1	5
70	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
71	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
72	Experimental study on control of highly unsteady separating flow. Journal of Fluid Science and Technology, 2014, 9, JFST0046-JFST0046.	0.6	1

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73	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
74	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
75	Numerical Study on Leading-Edge Receptivity to Freestream Vertical Vorticity. Journal of Fluid Science and Technology, 2013, 8, 136-145.	0.6	2
76	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
77	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
78	Simple equations to describe aerosol growth. Modelling and Simulation in Materials Science and Engineering, 2012, 20, 045017.	2.0	16
79	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
80	Time-dependent 3D simulation of an argon RF inductively coupled thermal plasma. Plasma Sources Science and Technology, 2012, 21, 055029.	3.1	38
81	Formation mechanism of titanium boride nanoparticles by RF induction thermal plasma. Chemical Engineering Journal, 2012, 183, 483-491.	12.7	51
82	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
83	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
84	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
85	Thermal plasmas for nanofabrication. Journal Physics D: Applied Physics, 2011, 44, 174025.	2.8	166
86	Hotwire Measurement and Numerical Analysis of Flows around a Straight Wing Vertical Axis Wind Turbine. 880-02 Nihon Kikai Gakkai Ronbunshu Transactions of the Japan Society of Mechanical Engineers Series B B-hen, 2011, 77, 637-646.	0.2	7
87	Generation of Velocity Fluctuations in a Boundary Layer by a Piezoelectric Actuator. , 2011, , .		0
88	Growth model of binary alloy nanopowders for thermal plasma synthesis. Journal of Applied Physics, 2010, 108, .	2.5	67
89	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
90	Incompressible SPH Simulation of Double-Diffusive Convection Phenomena. International Journal of Emerging Multidisciplinary Fluid Sciences, 2009, 1, 1-18.	0.5	23

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91	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
92	Two-dimensional analysis of nanoparticle formation in induction thermal plasmas with counterflow cooling. Thin Solid Films, 2008, 516, 4415-4422.	1.8	29
93	Numerical investigation of cooling effect on platinum nanoparticle formation in inductively coupled thermal plasmas. Journal of Applied Physics, 2008, 103, .	2.5	55
94	Mixing Enhancement and Interface Characteristics in a Small-Scale Channel. Journal of Fluid Science and Technology, 2008, 3, 1020-1030.	0.6	7
95	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
96	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
97	Modeling of non-equilibrium argonâ€“hydrogen induction plasmas under atmospheric pressure. Thin Solid Films, 2007, 515, 4209-4216.	1.8	10
98	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
99	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
100	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
101	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
102	Numerical Analysis of Metallic Nanoparticle Synthesis Using RF Inductively Coupled Plasma Flows. Journal of Heat Transfer, 2005, 127, 1222-1230.	2.1	44
103	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
104	Computer Simulation of Nano Metallic-Particle Synthesis in an Advanced RF Inductively Coupled Plasma. AIP Conference Proceedings, 2004, , .	0.4	0
105	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
106	Numerical investigation for nano-particle synthesis in an RF inductively coupled plasma. Thin Solid Films, 2004, 457, 192-200.	1.8	71
107	Numerical simulation of a potassium-seeded turbulent RF inductively coupled plasma with particles. Thin Solid Films, 2003, 435, 5-12.	1.8	24
108	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

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109	Mixing and magnetic effects on a nonequilibrium argon plasma jet. International Journal of Thermal Sciences, 2001, 40, 273-278.	4.9	15
110	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