

Tatsuo Ishijima

List of Publications by Year in descending order

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94
papers

1,425
citations

361413

20
h-index

395702

33
g-index

94
all docs

94
docs citations

94
times ranked

1331
citing authors

#	ARTICLE	IF	CITATIONS
1	Multibubble plasma production and solvent decomposition in water by slot-excited microwave discharge. <i>Applied Physics Letters</i> , 2007, 91, .	3.3	92
2	Cold plasma on full-thickness cutaneous wound accelerates healing through promoting inflammation, re-epithelialization and wound contraction. <i>Clinical Plasma Medicine</i> , 2014, 2, 28-35.	3.2	77
3	Role of divertor geometry on detachment and core plasma performance in JT60U. <i>Journal of Nuclear Materials</i> , 1999, 266-269, 182-188.	2.7	70
4	Evaluation of extra- and intracellular OH radical generation, cancer cell injury, and apoptosis induced by a non-thermal atmospheric-pressure plasma jet. <i>Journal Physics D: Applied Physics</i> , 2013, 46, 425401.	2.8	65
5	Efficient production of microwave bubble plasma in water for plasma processing in liquid. <i>Plasma Sources Science and Technology</i> , 2010, 19, 015010.	3.1	63
6	Characterization of surface dielectric barrier discharge influenced by intermediate frequency for ozone production. <i>Plasma Sources Science and Technology</i> , 2016, 25, 035012.	3.1	63
7	Progress in nanoscale dry processes for fabrication of high-aspect-ratio features: How can we control critical dimension uniformity at the bottom?. <i>Japanese Journal of Applied Physics</i> , 2018, 57, 06JA01.	1.5	57
8	High radiation and high density experiments in JT-60U. <i>Nuclear Fusion</i> , 2001, 41, 227-233.	3.5	54
9	Quantitative Analysis of Ozone and Nitrogen Oxides Produced by a Low Power Miniaturized Surface Dielectric Barrier Discharge: Effect of Oxygen Content and Humidity Level. <i>Plasma Chemistry and Plasma Processing</i> , 2019, 39, 165-185.	2.4	39
10	A method for large-scale synthesis of Al-doped TiO ₂ nanopowder using pulse-modulated induction thermal plasmas with time-controlled feedstock feeding. <i>Journal Physics D: Applied Physics</i> , 2014, 47, 195304.	2.8	38
11	Tomographic reconstruction of bolometry for JT-60U diverted tokamak characterization. <i>Plasma Physics and Controlled Fusion</i> , 2001, 43, 959-983.	2.1	33
12	A high-speed photoresist removal process using multibubble microwave plasma under a mixture of multiphase plasma environment. <i>Applied Physics Letters</i> , 2013, 103, .	3.3	33
13	Rapid plasma treatment of polyimide for improved adhesive and durable copper film deposition. <i>Thin Solid Films</i> , 2012, 521, 22-26.	1.8	28
14	Humidity effects on surface dielectric barrier discharge for gaseous naphthalene decomposition. <i>Physics of Plasmas</i> , 2018, 25, .	1.9	28
15	Role of atomic nitrogen during GaN growth by plasma-assisted molecular beam epitaxy revealed by appearance mass spectrometry. <i>Applied Physics Letters</i> , 2007, 90, 172114.	3.3	27
16	Spatial Variation of Negative Oxygen Ion Energy Distribution in RF Magnetron Plasma with Oxide Target. <i>Japanese Journal of Applied Physics</i> , 2009, 48, 116004.	1.5	26
17	Progress and perspectives in dry processes for nanoscale feature fabrication: fine pattern transfer and high-aspect-ratio feature formation. <i>Japanese Journal of Applied Physics</i> , 2019, 58, SE0802.	1.5	24
18	A Simple Technique to Improve Contractile Effect of Cold Plasma Jet on Acute Mouse Wound by Dropping Water. <i>Plasma Processes and Polymers</i> , 2015, 12, 1128-1138.	3.0	22

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19	In-situ UV Absorption Spectroscopy for Observing Dissolved Ozone in Water. Journal of Photopolymer Science and Technology = [Fotoporima Konwakai Shi], 2016, 29, 427-432.	0.3	22
20	Fine Structure of O-Kinetic Energy Distribution in RF Plasma and Its Formation Mechanism. Applied Physics Express, 2009, 2, 126001.	2.4	21
21	Novel Antenna Coupler Design for Production of Meter-Scale High-Density Planar Surface Wave Plasma. Japanese Journal of Applied Physics, 2010, 49, 086002.	1.5	18
22	Fundamental study of Ti feedstock evaporation and the precursor formation process in inductively coupled thermal plasmas during TiO ₂ nanopowder synthesis. Journal Physics D: Applied Physics, 2016, 49, 305501.	2.8	18
23	High-rate synthesis of Si nanowires using modulated induction thermal plasmas. Applied Physics Express, 2017, 10, 096201.	2.4	18
24	Operational performance of JT-60U W-shaped divertor. Journal of Nuclear Materials, 1999, 266-269, 296-301.	2.7	17
25	A large amount synthesis of nanopowder using modulated induction thermal plasmas synchronized with intermittent feeding of raw materials. Journal of Physics: Conference Series, 2012, 406, 012001.	0.4	17
26	Free radical generation by non-equilibrium atmospheric pressure plasma in alcohol-water mixtures: an EPR-spin trapping study. Journal Physics D: Applied Physics, 2018, 51, 095202.	2.8	17
27	When plasma jet is effective for chronic wound bacteria inactivation, is it also effective for wound healing?. Clinical Plasma Medicine, 2019, 14, 100085.	3.2	17
28	Design of Large-Area Surface Wave Plasma Excited by Slotted Waveguide Antennas with Novel Power Divider. Japanese Journal of Applied Physics, 2011, 50, 036002.	1.5	16
29	Influence of applied voltage waveforms on the performance of surface dielectric barrier discharge reactor for decomposition of naphthalene. Journal Physics D: Applied Physics, 2015, 48, 195201.	2.8	16
30	Radiation and spectroscopy analysis of divertor discharges with neon gas puff in JT-60U. Plasma Physics and Controlled Fusion, 1999, 41, 1155-1166.	2.1	14
31	Impurity behavior in high performance radiative discharges of JT-60U. Journal of Nuclear Materials, 2001, 290-293, 1002-1008.	2.7	14
32	Spatiotemporal distribution of thermal plasma temperature and precursor formation in a torch during TiO ₂ nanopowder synthesis. Plasma Sources Science and Technology, 2017, 26, 075008.	3.1	13
33	Temperature Behavior in a Tandem Type of Modulated Induction Thermal Plasma for Materials Processings. Journal of Physics: Conference Series, 2013, 441, 012016.	0.4	12
34	Two-dimensional spectroscopic observation of a pulse-modulated induction thermal plasma torch for nanopowder synthesis. Journal of Physics: Conference Series, 2014, 550, 012026.	0.4	12
35	Evaluation the effectiveness of combinative treatment of cold plasma jet, Indonesian honey, and micro-well dressing to accelerate wound healing. Clinical Plasma Medicine, 2017, 5-6, 14-25.	3.2	12
36	Carbon impurity behavior in w-shaped pumped divertor of JT-60U. Journal of Nuclear Materials, 1999, 266-269, 1078-1083.	2.7	11

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37	Experimental investigation of magnetic arc blow in plasma arc cutting. <i>Welding in the World, Le Soudage Dans Le Monde</i> , 2015, 59, 45-51.	2.5	11
38	Computational non-chemically equilibrium model on the current zero simulation in a model N_2 circuit breaker under the free recovery condition. <i>Journal Physics D: Applied Physics</i> , 2016, 49, 055204.	2.8	11
39	Numerical study on the evaporation process of feedstock powder under transient states in pulse-modulated induction thermal plasmas for nanoparticle synthesis. <i>Journal Physics D: Applied Physics</i> , 2020, 53, 325201.	2.8	11
40	Influence of temperature and pressure on solute decomposition efficiency by microwave-excited plasma. <i>Current Applied Physics</i> , 2011, 11, S195-S198.	2.4	10
41	Wave propagation and noncollisional heating in neutral loop and helicon discharges. <i>Physics of Plasmas</i> , 2011, 18, .	1.9	10
42	Spatial distribution of Ti vapor admixture ratio in Ar induction thermal plasma torch during Ti feedstock injection. <i>Japanese Journal of Applied Physics</i> , 2018, 57, 036101.	1.5	10
43	Comparative study on Manuka and Indonesian honeys to support the application of plasma jet during proliferative phase on wound healing. <i>Clinical Plasma Medicine</i> , 2018, 12, 1-9.	3.2	10
44	The LTE Thermofluid Simulation of Ar/SF_6 Gas-Blast Arcs in a Nozzle Space in an Arc Device. <i>IEEJ Transactions on Power and Energy</i> , 2016, 136, 741-748.	0.2	10
45	Time Evolution in Radiation Intensities of C_2 and H Spectra in $Ar/CH_4/H_2$ Pulse Modulated Induction Thermal Plasmas for Diamond Film Deposition. <i>Journal of Physics: Conference Series</i> , 2013, 441, 012017.	0.4	9
46	Novel design of high voltage pulse source for efficient dielectric barrier discharge generation by using silicon diodes for alternating current. <i>Review of Scientific Instruments</i> , 2017, 88, 065105.	1.3	9
47	Optical emission and surface characterization of stainless steel treated by pulsed microwave-atmospheric helium plasma jet. <i>European Physical Journal D</i> , 2017, 71, 1.	1.3	9
48	Influence of coil current modulation on polycrystalline diamond film deposition by irradiation of $Ar/CH_4/H_2$ inductively coupled thermal plasmas. <i>Journal Physics D: Applied Physics</i> , 2018, 51, 095601.	2.8	9
49	Development and characterization of a wire-plate air bubbling plasma for wastewater treatment using nanosecond pulsed high voltage. <i>Journal of Applied Physics</i> , 2018, 124, .	2.5	9
50	Rethinking surface reactions in nanoscale dry processes toward atomic precision and beyond: a physics and chemistry perspective. <i>Japanese Journal of Applied Physics</i> , 2019, 58, SE0801.	1.5	9
51	Loop Type of Inductively Coupled Thermal Plasmas System for Rapid Two-Dimensional Oxidation of Si Substrate Surface. <i>Plasma Chemistry and Plasma Processing</i> , 2018, 38, 599-620.	2.4	8
52	Systematic investigation of the effect of N_2 admixture ratio on barrier discharge in helium. <i>Journal Physics D: Applied Physics</i> , 2019, 52, 065202.	2.8	8
53	Effect of O-Ion Beam Irradiation during RF-Magnetron Sputtering on Characteristics of $CoFe/MgO$ Magnetic Tunnel Junctions. <i>Japanese Journal of Applied Physics</i> , 2011, 50, 023001.	1.5	7
54	Fundamental properties of a planar type of inductively coupled thermal plasma with current modulation. <i>Journal Physics D: Applied Physics</i> , 2016, 49, 385204.	2.8	7

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55	Rapid Surface Oxidation of the Si Substrate Using Longitudinally Long Ar/O ₂ Loop Type of Inductively Coupled Thermal Plasmas. IEEE Transactions on Plasma Science, 2016, 44, 3164-3171.	1.3	7
56	Evaluation of arc quenching characteristics of various gases using power semiconductors. Journal Physics D: Applied Physics, 2017, 50, 485602.	2.8	7
57	Ethanol extract of the natural product of Daun sirih (Piper betle) leaves may impede the effectiveness of the plasma jet contact style for acute wounds. Clinical Plasma Medicine, 2019, 15, 100090.	3.2	7
58	Progress and perspectives in dry processes for leading-edge manufacturing of devices: toward intelligent processes and virtual product development. Japanese Journal of Applied Physics, 2019, 58, SE0804.	1.5	7
59	Numerical Simulation on Dynamics and Thermal Decomposition of Spallation Polymer Particles Flying in Polymer Ablated Arcs. IEJ Transactions on Power and Energy, 2015, 135, 681-687.	0.2	7
60	Evaluation on current interruption ability of CO ₂ and SF ₆ using current and voltage application highly controlled by power semiconductors. , 2015, , .		6
61	Influence of the gas flow rate on the nonchemical equilibrium N ₂ arc behavior in a model nozzle circuit breaker. Journal Physics D: Applied Physics, 2016, 49, 425202.	2.8	6
62	Rotation of Cylindrical Plasmas in the GAMMA 10 Tandem Mirror. Physical Review Letters, 1997, 78, 3872-3875.	7.8	5
63	Temperature dependence of the D ⁺ replacement rates in D-implanted oxide ceramics exposed to H ₂ O vapor. Nuclear Instruments & Methods in Physics Research B, 2007, 258, 282-286.	1.4	5
64	Enhancement of Non-Equilibrium Atmospheric Pressure He Plasma Discharges by Using Silicon Diode for Alternating Current. Journal of Physics: Conference Series, 2013, 441, 012018.	0.4	5
65	Fundamentals of planar-type inductively coupled thermal plasmas on a substrate for large-area material processing. Japanese Journal of Applied Physics, 2016, 55, 07LB03.	1.5	5
66	Uniform Surface Oxidation of an Si Substrate by a Planar Modulated Inductively Coupled Thermal Plasma with Molecular Gas Feed. Plasma Chemistry and Plasma Processing, 2017, 37, 857-876.	2.4	5
67	A numerical model on dynamic behavior of vapor from the electrode in low-pressure arcs using moving particle method. , 2017, , .		5
68	Thermal re-ignition processes of switching arcs with various gas-blast using voltage application highly controlled by powersemiconductors. Journal Physics D: Applied Physics, 2018, 51, 215202.	2.8	5
69	The LTE simulation on decaying arc plasmas in various LTE arc quenching gases in a model circuit breaker. , 2015, , .		4
70	Application of a Non-thermal Atmospheric Pressure Plasma Jet to the Decomposition of Salicylic Acid to Inorganic Carbon. Chemistry Letters, 2015, 44, 1473-1475.	1.3	4
71	Study of the decomposition mechanism of PMMA-type polymers by hydrogen radicals. Thin Solid Films, 2015, 575, 12-16.	1.8	4
72	Progress and perspectives in dry processes for emerging multidisciplinary applications: how can we improve our use of dry processes?. Japanese Journal of Applied Physics, 2019, 58, SE0803.	1.5	4

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73	Thin film deposition method for ZnO nanosheets using low-temperature microwave-excited atmospheric pressure plasma jet. <i>Thin Solid Films</i> , 2019, 674, 58-63.	1.8	4
74	Polycrystalline diamond film fabrication using modulated inductively coupled thermal plasmas at different pressure conditions. <i>Journal of Applied Physics</i> , 2019, 126, 223302.	2.5	4
75	Numerical study of nanoparticle formation in two-coil tandem-type modulated induction thermal plasmas with simultaneous modulation of upper- and lower-coil currents. <i>Journal Physics D: Applied Physics</i> , 2022, 55, 044001.	2.8	4
76	Removal of carbon deposited film and hydrogen retention control by low temperature H ₂ N reactive plasmas. <i>Journal of Nuclear Materials</i> , 2013, 438, S1092-S1095.	2.7	3
77	Experimental study of magnetic arc blow for plasma arc cutting. <i>Welding International</i> , 2015, 29, 745-753.	0.7	3
78	Numerical simulation on thermal plasma temperature field in the torch for different conditions. <i>IOP Conference Series: Materials Science and Engineering</i> , 2018, 309, 012090.	0.6	3
79	Measurement of the density and rotational temperature of OH in a saturated water vapor slot-excited microwave plasma. <i>Journal Physics D: Applied Physics</i> , 2021, 54, 195201.	2.8	3
80	A water splitting model of Coulomb interactions of its dipole with surface defects of hydrogen implanted perovskite oxide. <i>Solid State Ionics</i> , 2008, 179, 793-796.	2.7	2
81	Spallation occurrence from polyamide materials irradiated by thermal plasma with water absorption. <i>Journal Physics D: Applied Physics</i> , 2016, 49, 385501.	2.8	2
82	Gradual Deformation of Bacterial Cell Morphology Due to the Effect of Nonthermal Atmospheric Pressure Plasma Jet-Treated Water (PTW). <i>IEEE Transactions on Radiation and Plasma Medical Sciences</i> , 2018, 2, 360-368.	3.7	2
83	Numerical parametric investigation on the temperature distribution in Ar/O ₂ induction thermal plasmas with Ti powder injection: Inclusion of particle evaporation. <i>IEEJ Transactions on Electrical and Electronic Engineering</i> , 2020, 15, 12-23.	1.4	2
84	Fabrication of Carbon Nanotubes by Slot-Excited Microwave Plasma-Enhanced Chemical Vapor Deposition. <i>Japanese Journal of Applied Physics</i> , 2008, 47, 5652.	1.5	1
85	Spatial Profile Measurement of SiH ₃ Radical Flux in SiH ₄ /H ₂ Microwave Plasma by Modified Appearance Mass Spectrometry. <i>Japanese Journal of Applied Physics</i> , 2011, 50, 08JB05.	1.5	1
86	Effective Dissolution of Biomass in Ionic Liquids by Irradiation of Non-Thermal Atmospheric Pressure Plasma. <i>Australian Journal of Chemistry</i> , 2017, 70, 731.	0.9	1
87	Influence of current modulation waveform on polycrystalline diamond film deposition using modulated induction thermal plasmas– Numerical and experimental studies –. <i>Journal Physics D: Applied Physics</i> , 0, , .	2.8	1
88	Effect of N ₂ /O ₂ inclusion on polymer ablation and spallation phenomena from polyamide during thermal plasma irradiation. , 2013, , .		0
89	Prompt response and durability of polymer ablation from synthetic fibers irradiated by thermal plasmas for arc resistant clothes. <i>Journal of Physics: Conference Series</i> , 2013, 441, 012037.	0.4	0
90	Suppression of hydrogenated carbon film deposition and hydrogen isotope retention by nitrogen addition into cold remote H/D and CH ₄ mixture plasmas. <i>Journal of Nuclear Materials</i> , 2015, 463, 693-696.	2.7	0

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91	Chemically non-equilibrium model of decaying N2 arcs in a model circuit breaker. , 2015, , .		0
92	Plasma Processing. Japanese Journal of Applied Physics, 2015, 54, 01A001.	1.5	0
93	Initial condition dependence of dynamics and evaporation of polymer spallation particles flying in polymer ablated arcs. , 2015, , .		0
94	Dry Process. Japanese Journal of Applied Physics, 2018, 57, 06J001.	1.5	0