

Koichi Takaki

List of Publications by Year in descending order

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111
papers

1,420
citations

516710

16
h-index

414414

32
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115
all docs

115
docs citations

115
times ranked

1070
citing authors

#	ARTICLE	IF	CITATIONS
1	A review on 3D printable food materials: types and development trends. <i>International Journal of Food Science and Technology</i> , 2022, 57, 164-172.	2.7	22
2	High-Voltage and Pulsed Power Technologies. , 2022, , 25-48.		0
3	Growth Properties and Sensitivities to Various Bactericidal Methods of Cold-Tolerant Microorganisms Isolated from Packed Tofu. <i>Agronomy</i> , 2022, 12, 233.	3.0	1
4	Mutation of <i>Bacillus velezensis</i> Using Corona Discharge. <i>Agronomy</i> , 2022, 12, 166.	3.0	2
5	Outcomes of Pulsed Electric Fields and Nonthermal Plasma Treatments on Seed Germination and Protein Functions. <i>Agronomy</i> , 2022, 12, 482.	3.0	12
6	3D printing properties and printability definition of Pennahiaargentata surimi and rice starch. <i>Food Bioscience</i> , 2022, 48, 101748.	4.4	11
7	Influence of Waveform of Applied Voltage on H ₂ Production From Methane Reforming Using Dielectric Barrier Discharge. <i>IEEE Transactions on Plasma Science</i> , 2021, 49, 147-153.	1.3	2
8	Characteristics of Self-Organized Structure in Microgap Dielectric Barrier Discharge at Atmospheric Pressure. <i>IEEE Transactions on Plasma Science</i> , 2021, 49, 91-97.	1.3	2
9	Influence of Relative Humidity on Ethylene Removal Using Dielectric Barrier Discharge. <i>IEEE Transactions on Plasma Science</i> , 2021, 49, 61-68.	1.3	9
10	Impact of pre-treatment with pulsed electric field on drying rate and changes in spinach quality during hot air drying. <i>Innovative Food Science and Emerging Technologies</i> , 2021, 68, 102615.	5.6	25
11	Influence of a plasma-treated nutrient solution containing 2,4-dichlorobenzoic acid on the growth of cucumber in a hydroponic system. <i>Journal of Applied Physics</i> , 2021, 129, 143301.	2.5	5
12	Silicon Wafer Etching Rate Characteristics with Burst Width Using 150 kHz Band High-Power Burst Inductively Coupled Plasma. <i>Micromachines</i> , 2021, 12, 599.	2.9	3
13	Mechanism of pulsed electric field enzyme activity change and pulsed discharge permeabilization of agricultural products. <i>Japanese Journal of Applied Physics</i> , 2021, 60, 060501.	1.5	14
14	Development of compact inductive energy storage pulsed-power generator driven by 13 kV SiC-MOSFET. <i>Review of Scientific Instruments</i> , 2021, 92, 064706.	1.3	5
15	Effect of water ice-glazing on the quality of frozen swimming crab (<i>Portunus trituberculatus</i>) by liquid nitrogen spray freezing during frozen storage. <i>International Journal of Refrigeration</i> , 2021, 131, 1010-1015.	3.4	16
16	Eugenol-chitosan nanoemulsion as an edible coating: Its impact on physicochemical, microbiological and sensorial properties of hairtail (<i>Trichiurus haumela</i>) during storage at 4°C. <i>International Journal of Biological Macromolecules</i> , 2021, 183, 2199-2204.	7.5	26
17	Nutrition and protein function, properties (structure, rheology, thermal stability) analysis of Nepture volute based on proteomics and in vitro digestion/cells model. <i>Food Bioscience</i> , 2021, 43, 101321.	4.4	8
18	Function of plasma and electrostatics for keeping quality of agricultural produce in post-harvest stage. <i>Japanese Journal of Applied Physics</i> , 2021, 60, 010501.	1.5	17

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19	Comparison of plasma characteristics of high-power pulsed sputtering glow discharge and hollow-cathode discharge. Japanese Journal of Applied Physics, 2021, 60, 015501.	1.5	4
20	Pulsed Power Applications for Protein Conformational Change and the Permeabilization of Agricultural Products. Molecules, 2021, 26, 6288.	3.8	7
21	The impact of thawing on the quality attributes of swimming crab (<i>Portunus trituberculatus</i>) frozen by liquid nitrogen freezing. CYTA - Journal of Food, 2021, 19, 33-39.	1.9	6
22	Differentiation between fresh and frozen-thawed scallop adductor muscle as raw materials for sashimi during cold storage. Journal of Food Science, 2021, 86, 5262-5271.	3.1	5
23	Pulsed power applications for agriculture and food processing. Reviews of Modern Plasma Physics, 2021, 5, 1.	4.1	15
24	Observation of the development of pulsed discharge inside a bubble under water using ICCD cameras. Vacuum, 2020, 182, 109690.	3.5	4
25	Condition-dependent adenosine monophosphate decomposition pathways in striated adductor muscle from Japanese scallop (<i>Patinopecten yessoensis</i>). Journal of Food Science, 2020, 85, 1462-1469.	3.1	11
26	Influence of Drying Rate on Hot Air Drying Processing of Fresh Foods Using Pulsed Electric Field. IEEJ Transactions on Electrical and Electronic Engineering, 2020, 15, 1123-1125.	1.4	9
27	Decomposition process of volatile organic compounds dissolved into water by pulsed discharge inside bubble. Japanese Journal of Applied Physics, 2020, 59, SHHA06.	1.5	3
28	Stimulatory growth effect of lightning strikes applied in the vicinity of shiitake mushroom bed logs. Journal Physics D: Applied Physics, 2020, 53, 204002.	2.8	4
29	Silicon wafer etching by pulsed high-power inductively coupled Ar/CF ₄ plasma with 150 kHz band frequency. Japanese Journal of Applied Physics, 2020, 59, SHHE04.	1.5	6
30	High-voltage technologies for agriculture and food processing. Journal Physics D: Applied Physics, 2019, 52, 473001.	2.8	49
31	Influence of Electric Parameters on Hydroxyl Radical Production by Positive Pulsed Discharge Inside of a Bubble in Water. IEEE Transactions on Plasma Science, 2019, 47, 1105-1113.	1.3	10
32	Global model analysis of Ar inductively coupled plasma driven by a 150 kHz-band high-power pulse burst. Japanese Journal of Applied Physics, 2019, 58, SAAB06.	1.5	2
33	High-voltage and Plasma Applications for Agriculture, Fishery and Food Processing. Journal of Smart Processing, 2019, 9, 108-115.	0.1	0
34	High-voltage and Plasma Applications for Agriculture, Fishery and Food Processing. Vacuum and Surface Science, 2019, 62, 363-368.	0.1	0
35	Electrical Characteristics of 3.3 kV SiC-MOSFET and Development of Inductive Energy Storage Pulsed Power Generator. IEEJ Transactions on Fundamentals and Materials, 2019, 139, 413-420.	0.2	0
36	Estimation of Hydroxyl Radicals Produced by Pulsed Discharge Inside Bubble in Water Using Indigo Carmine as Chemical Probe. IEEE Transactions on Plasma Science, 2018, 46, 663-669.	1.3	12

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37	Development of automatically controlled corona plasma system for inactivation of pathogen in hydroponic cultivation medium of tomato. <i>Journal of Electrostatics</i> , 2018, 91, 61-69.	1.9	29
38	Influence of oxygen concentration on ethylene removal using dielectric barrier discharge. <i>Japanese Journal of Applied Physics</i> , 2018, 57, 01AG04.	1.5	16
39	Influence of pulsed electric field on enzymes, bacteria and volatile flavor compounds of unpasteurized sake. <i>Plasma Science and Technology</i> , 2018, 20, 044008.	1.5	6
40	Development of Compact High-Voltage Power Supply for Stimulation to Promote Fruiting Body Formation in Mushroom Cultivation. <i>Materials</i> , 2018, 11, 2471.	2.9	10
41	Influence of Pulse Width on Radical Production in ns-pulsed Discharge Reactor. <i>IEEJ Transactions on Fundamentals and Materials</i> , 2018, 138, 84-90.	0.2	3
42	External AC Electric Field-Induced Conformational Change in Bovine Serum Albumin. <i>IEEE Transactions on Plasma Science</i> , 2017, 45, 489-494.	1.3	15
43	Removal of Ethylene and By-products Using Packed Bed Dielectric Barrier Discharge with Ag Nanoparticle-loaded Zeolite. <i>Electronics and Communications in Japan</i> , 2017, 100, 3-11.	0.5	6
44	Influence of sodium carbonate on decomposition of formic acid by pulsed discharge plasma inside bubble in water. <i>Japanese Journal of Applied Physics</i> , 2016, 55, 07LF02.	1.5	11
45	Inactivation of Bacteria using Discharge Plasma under Liquid Fertilizer in a Hydroponic Culture System. <i>Plasma Medicine</i> , 2016, 6, 247-254.	0.6	25
46	Improvement of Growth Rate of <i>Brassica para var. perviridis</i> by Discharge inside Bubble under Water in Hydroponic Cultivation. <i>Electronics and Communications in Japan</i> , 2016, 99, 72-79.	0.5	7
47	Removal of Ethylene and By-products Using Dielectric Barrier Discharge with Ag Nanoparticle-Loaded Zeolite for Keeping Freshness of Fruits and Vegetables. <i>Transactions of the Materials Research Society of Japan</i> , 2016, 41, 41-45.	0.2	15
48	Simultaneous Decomposition of Phenol and Sodium Formate by Discharge Inside Bubble in Water. <i>Transactions of the Materials Research Society of Japan</i> , 2016, 41, 183-187.	0.2	5
49	Introduction to the Special Issue on The 9th Asia-Pacific International Symposium on the Basics and Applications of Plasma Technology (APSPT-9), and The 28th Symposium on Plasma Science for Materials (SPSM-28). <i>IEEE Transactions on Plasma Science</i> , 2016, 44, 3050-3051.	1.3	0
50	Long period preservation of marine products using electrostatic field. <i>Japanese Journal of Applied Physics</i> , 2016, 55, 07LG07.	1.5	4
51	Fabrication of diamond-like carbon films using short-pulse HiPIMS. <i>Surface and Coatings Technology</i> , 2016, 286, 239-245.	4.8	53
52	Applications of Electrostatics for Preservation and Distribution of Agricultural Products; Inactivation of Bacteria and Decomposition of Ethylene. <i>Journal of the Institute of Electrical Engineers of Japan</i> , 2016, 136, 810-815.	0.0	0
53	Removal of Ethylene and By-Products using Packed Bed Dielectric Barrier Discharge with Ag Nanoparticle-Loaded Zeolite. <i>IEEJ Transactions on Fundamentals and Materials</i> , 2015, 135, 320-327.	0.2	1
54	Improvement of growth rate of plants by bubble discharge in water. <i>Japanese Journal of Applied Physics</i> , 2015, 54, 01AG07.	1.5	55

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55	Temporal and spatial distributions of carbon shunting arc plasma. Japanese Journal of Applied Physics, 2015, 54, 01AA04.	1.5	2
56	Improvement of deoxidization efficiency of nitric monoxide by shortening pulse width of semiconductor opening switch pulse power generator. Japanese Journal of Applied Physics, 2015, 54, 01AG02.	1.5	8
57	Decomposition of Ethylene Using Dual-Polarity Pulsed Dielectric Barrier Discharge. IEEE Transactions on Plasma Science, 2015, 43, 3476-3482.	1.3	29
58	Influence of Pulse Width on Decolorization Efficiency of Organic Dye by Discharge Inside Argon Bubble in Water. IEEJ Transactions on Fundamentals and Materials, 2015, 135, 437-438.	0.2	1
59	Improvement of Growth Rate of <i>Brassica rapa</i> var. <i>perviridis</i> by Discharge Inside Bubble Under Water in Hydroponic Cultivation. IEEJ Transactions on Fundamentals and Materials, 2015, 135, 467-472.	0.2	2
60	Design of High-School Mathematics Class Utilizing Electrical Energy as Teaching Materials. IEEJ Transactions on Fundamentals and Materials, 2015, 135, 630-635.	0.2	2
61	Effects of Electrical Stimulation by High Voltage Pulse Generator on Yield of <i>Pleurotus</i> Takizawa in Sawdust-Bed Cultivation. IEEJ Transactions on Fundamentals and Materials, 2015, 135, 353-354.	0.2	0
62	Spatial Distribution of a High-Power Impulse Magnetron Sputtering Glow Plasma by a Controlled Unbalanced Magnetic Field. IEEE Transactions on Plasma Science, 2014, 42, 2786-2787.	1.3	4
63	Effect of Electrical Stimulation on Fruit Body Formation in Cultivating Mushrooms. Microorganisms, 2014, 2, 58-72.	3.6	30
64	Preservation of Fresh Food Using AC Electric Field. Journal of Advanced Oxidation Technologies, 2014, 17, .	0.5	9
65	2-D Measurement of Charged Particles Diffusing From a Double DC Corona Discharge Ionizer. IEEE Transactions on Plasma Science, 2013, 41, 1863-1868.	1.3	3
66	Carbon Ion Production Using a High-Power Impulse Magnetron Sputtering Glow Plasma. IEEE Transactions on Plasma Science, 2013, 41, 3012-3020.	1.3	13
67	Physical and microbial collection efficiencies of an electrostatic precipitator for abating airborne particulates in postharvest agricultural processing. Journal of Electrostatics, 2013, 71, 734-738.	1.9	13
68	Improvement of Growth Rate of <i>Brassica rapa</i> var. <i>perviridis</i> by Discharge Inside Bubble in Water. IEEJ Transactions on Fundamentals and Materials, 2013, 133, 211-216.	0.2	5
69	Influence of Pulse Width on Polyphenol Extraction from Agricultural Products by Pulsed Electric Field. IEEJ Transactions on Fundamentals and Materials, 2013, 133, 32-37.	0.2	9
70	Novel Package of SiC-JFET for a Switching Pulse Supply Operating at 1 MHz for an Induction Synchrotron. IEEE Transactions on Plasma Science, 2012, 40, 2205-2210.	1.3	7
71	Water Remediation Using Pulsed Power Discharge under Water with an Advanced Oxidation Process. Journal of Advanced Oxidation Technologies, 2012, 15, .	0.5	16
72	A New Approach to High-Power Pulsed Glow Plasma Generation: Shunting Glow Plasma. IEEE Transactions on Plasma Science, 2012, 40, 1801-1808.	1.3	5

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73	Self-Organization Pattern of Microgap Atmospheric Barrier Discharge. IEEE Transactions on Plasma Science, 2011, 39, 2202-2203.	1.3	5
74	Development of Self-Organized Filaments in a Microgap Atmospheric Barrier Discharge on Bismuth Silicon Oxide Dielectrics. IEEE Transactions on Plasma Science, 2011, 39, 2140-2141.	1.3	2
75	Discharge Formation of DBD With Floating Electrode Array at Atmospheric Pressure in Mixed Gas of Helium and Nitrogen. IEEE Transactions on Plasma Science, 2011, 39, 2148-2149.	1.3	0
76	Development of Pulsed Discharge Inside Bubble in Water. IEEE Transactions on Plasma Science, 2011, 39, 2654-2655.	1.3	19
77	Influence of circuit parameter on ozone synthesis using inductive energy storage system pulsed power generator. IEEE Transactions on Dielectrics and Electrical Insulation, 2011, 18, 1752-1758.	2.9	14
78	Streamer Propagation of Nanosecond Pulse Discharge With Various Rise Times. IEEE Transactions on Plasma Science, 2011, 39, 2232-2233.	1.3	20
79	Development of a Megahertz High-Voltage Switching Pulse Modulator Using a SiC-JFET for an Induction Synchrotron. IEEE Transactions on Plasma Science, 2011, 39, 730-736.	1.3	7
80	Optimization of Reactor Configuration for NO_x Removal Using Magnetic Compression Pulsed-Power Generator. IEEE Transactions on Plasma Science, 2011, 39, 1713-1720.	1.3	9
81	Purification of High-Conductivity Water Using Gas-Liquid Phase Discharge Reactor. IEEE Transactions on Plasma Science, 2010, 38, 2694-2700.	1.3	36
82	Agricultural and Food Processing Applications of Pulsed Power and Plasma Technologies. IEEE Transactions on Fundamentals and Materials, 2010, 130, 963-971.	0.2	6
83	Industrial Applications of Pulsed Power Technology. IEEE Transactions on Fundamentals and Materials, 2009, 129, 62-65.	0.2	4
84	Agricultural and Food Processing Applications of Pulsed Power Technology. IEEE Transactions on Fundamentals and Materials, 2009, 129, 439-445.	0.2	9
85	Influence of electrode configuration on ozone synthesis and microdischarge property in dielectric barrier discharge reactor. Vacuum, 2008, 83, 128-132.	3.5	89
86	Self-Organization of Microgap Dielectric-Barrier Discharge in Gas Flow. IEEE Transactions on Plasma Science, 2008, 36, 1260-1261.	1.3	6
87	Induction of Long Gap Discharge by Water Jet. IEEE Transactions on Plasma Science, 2008, 36, 1148-1149.	1.3	2
88	Effect of Micro Hydrodynamic Flow in Microgap Discharge at Atmospheric Pressure. Plasma and Fusion Research, 2008, 3, 007-007.	0.7	2
89	The Effect of Electron Density and Electron Temperature on the Partial Oxidation of Benzene Using a Micro-Plasma Reactor. Journal of Chemical Engineering of Japan, 2007, 40, 749-754.	0.6	5
90	Industrial Applications of Pulsed Power Technology. IEEE Transactions on Dielectrics and Electrical Insulation, 2007, 14, 1051-1064.	2.9	303

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91	Hybrid Plasma Generation Triggered by a Shunting Arc Discharge Using a Positively Biased Electrode. IEEE Transactions on Plasma Science, 2007, 35, 1020-1026.	1.3	3
92	Shunting arc-produced hybrid plasma and its magnetic drive for PBI&D. Surface and Coatings Technology, 2007, 201, 6490-6494.	4.8	5
93	Optical Observation of Emission Spectra from a Hybrid Plasma Triggered by a Shunting Arc Discharge using a Positively Biased Electrode. Plasma Processes and Polymers, 2007, 4, S124-S128.	3.0	0
94	Production of Atmospheric-Pressure Glow Using Inductive Energy Storage System Pulsed Power Generator. International Power Modulator Symposium and High-Voltage Workshop, 2006, , .	0.0	0
95	Ion Extraction from Magnetically Driven Shunting Arc Plasma and Density Estimation at Sheath Boundary. IEEJ Transactions on Fundamentals and Materials, 2006, 126, 661-668.	0.2	0
96	Production of an Atmospheric-Pressure Glow Discharge Using an Inductive Energy Storage Pulsed Power Generator. Plasma Processes and Polymers, 2006, 3, 734-742.	3.0	17
97	Production of Pulse Glow Discharge in Atmospheric Pressure Nitrogen Using Needle-Array Electrode. Japanese Journal of Applied Physics, 2006, 45, 8241-8245.	1.5	9
98	Deposition of Tungsten Carbide Thin Films by Simultaneous RF Sputtering. Japanese Journal of Applied Physics, 2006, 45, 8449-8452.	1.5	4
99	Design of Electrical Mathematics for Improvement of Skill in Electric Circuits and Electromagnetic. IEEJ Transactions on Fundamentals and Materials, 2006, 126, 597-602.	0.2	0
100	High deposition rate of amorphous carbon film using a magnetically driven shunting arc discharge. Surface and Coatings Technology, 2005, 196, 203-206.	4.8	10
101	A Recipe of Science Education; Scientific Demonstrations of Lightning. Journal of Plasma and Fusion Research, 2004, 80, 669-677.	0.4	0
102	Production of Atmospheric-Pressure Glow Discharge. Journal of Plasma and Fusion Research, 2003, 79, 1002-1008.	0.4	16
103	A capacitor discharge technique with optimized energy for joining ceramics. Vacuum, 2002, 65, 457-462.	3.5	14
104	Determination of heat and ion fluxes in plasma immersion ion implantation by in situ measurement of temperature using laser interferometry. Surface and Coatings Technology, 2001, 136, 261-264.	4.8	12
105	Removal of NO and NO _x using a multipoint-type dielectric barrier discharge at a narrow gap. Journal Physics D: Applied Physics, 2001, 34, 2032-2036.	2.8	10
106	The Resistance of a High-Current Pulsed Discharge in Nitrogen. Japanese Journal of Applied Physics, 2001, 40, 979-983.	1.5	8
107	Treatment of Exhaust Gas from a Diesel Engine Generator by Dielectric Barrier Discharge. IEEJ Transactions on Fundamentals and Materials, 2000, 120, 553-559.	0.2	8
108	Experimental Study on Heat Flux from an Argon RF Plasma Using Laser Interferometry Method. Japanese Journal of Applied Physics, 1998, 37, 3514-3520.	1.5	9

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109	High-Voltage Methods for Mushroom Fruit-Body Developments. , 0, , .		5
110	Development of a Corona Discharge Ionizer Utilizing High-Voltage AC Power Supply Driven by PWM Inverter for Highly Efficient Electrostatic Elimination. , 0, , .		4
111	A Novel Wastewater Treatment Method Using Electrical Pulsed Discharge Plasma over a Water Surface. , 0, , .		2