

# Kenji Ishikawa

## List of Publications by Year in descending order

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288  
papers

5,486  
citations

109321

35  
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123424

61  
g-index

294  
all docs

294  
docs citations

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times ranked

3648  
citing authors

#	ARTICLE	IF	CITATIONS
1	Effect of Indirect Nonequilibrium Atmospheric Pressure Plasma on Anti-Proliferative Activity against Chronic Chemo-Resistant Ovarian Cancer Cells In Vitro and In Vivo. PLoS ONE, 2013, 8, e81576.	2.5	335
2	Plasma-Activated Medium Selectively Kills Glioblastoma Brain Tumor Cells by Down-Regulating a Survival Signaling Molecule, AKT Kinase. Plasma Medicine, 2011, 1, 265-277.	0.6	284
3	Cold plasma interactions with enzymes in foods and model systems. Trends in Food Science and Technology, 2016, 55, 39-47.	15.1	275
4	Cell survival of glioblastoma grown in medium containing hydrogen peroxide and/or nitrite, or in plasma-activated medium. Archives of Biochemistry and Biophysics, 2016, 605, 102-108.	3.0	203
5	Non-thermal atmospheric pressure plasma activates lactate in Ringer's solution for anti-tumor effects. Scientific Reports, 2016, 6, 36282.	3.3	167
6	Plasma Agriculture from Laboratory to Farm: A Review. Processes, 2020, 8, 1002.	2.8	125
7	Red blood cell coagulation induced by low-temperature plasma treatment. Archives of Biochemistry and Biophysics, 2016, 605, 95-101.	3.0	93
8	Plasma Medical Science for Cancer Therapy: Toward Cancer Therapy Using Nonthermal Atmospheric Pressure Plasma. IEEE Transactions on Plasma Science, 2014, 42, 3760-3764.	1.3	91
9	State of the art in medical applications using non-thermal atmospheric pressure plasma. Reviews of Modern Plasma Physics, 2017, 1, 1.	4.1	90
10	Cell survival and proliferation signaling pathways are downregulated by plasma-activated medium in glioblastoma brain tumor cells. Plasma Medicine, 2012, 2, 207-220.	0.6	76
11	Etching yield of SiO <sub>2</sub> irradiated by F <sub>x</sub> , CF <sub>x</sub> <sup>+</sup> (x=1,2,3) ion with energies from 250 to 2000 eV. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2004, 22, 1166-1168.	2.1	73
12	Effects of •OH and •NO radicals in the aqueous phase on H <sub>2</sub> O <sub>2</sub> and NO <sub>2</sub> generated in plasma-activated medium. Journal Physics D: Applied Physics, 2017, 50, 155202.	2.8	73
13	Inactivation of <i>Penicillium digitatum</i> Spores by a High-Density Ground-State Atomic Oxygen-Radical Source Employing an Atmospheric-Pressure Plasma. Applied Physics Express, 2011, 4, 116201.	2.4	71
14	Density control of carbon nanowalls grown by CH <sub>4</sub> /H <sub>2</sub> plasma and their electrical properties. Carbon, 2014, 68, 380-388.	10.3	64
15	Inactivation effects of neutral reactive-oxygen species on <i>Penicillium digitatum</i> spores using non-equilibrium atmospheric-pressure oxygen radical source. Applied Physics Letters, 2013, 103, .	3.3	61
16	EPR-Spin Trapping and Flow Cytometric Studies of Free Radicals Generated Using Cold Atmospheric Argon Plasma and X-Ray Irradiation in Aqueous Solutions and Intracellular Milieu. PLoS ONE, 2015, 10, e0136956.	2.5	60
17	Initial stage of native oxide growth on hydrogen terminated silicon (111) surfaces. Journal of Applied Physics, 1996, 79, 472-477.	2.5	58
18	Plasma Blood Coagulation Without Involving the Activation of Platelets and Coagulation Factors. Plasma Processes and Polymers, 2015, 12, 1348-1353.	3.0	57

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19	Progress in nanoscale dry processes for fabrication of high-aspect-ratio features: How can we control critical dimension uniformity at the bottom?. Japanese Journal of Applied Physics, 2018, 57, 06JA01.	1.5	57
20	Mass-analyzed CF <sub>x</sub> + (x=1,2,3) ion beam study on selectivity of SiO <sub>2</sub> -to-SiN etching and a-C:F film deposition. Journal of Applied Physics, 2005, 97, 053302.	2.5	55
21	Plasma with high electron density and plasma-activated medium for cancer treatment. Clinical Plasma Medicine, 2015, 3, 72-76.	3.2	55
22	Lysosomal nitric oxide determines transition from autophagy to ferroptosis after exposure to plasma-activated Ringer's lactate. Redox Biology, 2021, 43, 101989.	9.0	55
23	Plasma-activated medium (PAM) kills human cancer-initiating cells. Pathology International, 2018, 68, 23-30.	1.3	50
24	Ultrahigh-Speed Synthesis of Nanographene Using Alcohol In-Liquid Plasma. Applied Physics Express, 2012, 5, 035101.	2.4	48
25	Oxidative stress-dependent and -independent death of glioblastoma cells induced by non-thermal plasma-exposed solutions. Scientific Reports, 2019, 9, 13657.	3.3	48
26	Small size gold nanoparticles enhance apoptosis-induced by cold atmospheric plasma via depletion of intracellular GSH and modification of oxidative stress. Cell Death Discovery, 2020, 6, 83.	4.7	46
27	Helium-based cold atmospheric plasma-induced reactive oxygen species-mediated apoptotic pathway attenuated by platinum nanoparticles. Journal of Cellular and Molecular Medicine, 2016, 20, 1737-1748.	3.6	43
28	Molecular mechanisms of non-thermal plasma-induced effects in cancer cells. Biological Chemistry, 2018, 400, 87-91.	2.5	43
29	Measurement of Hydrogen Radical Density and Its Impact on Reduction of Copper Oxide in Atmospheric-Pressure Remote Plasma Using H <sub>2</sub> and Ar Mixture Gases. Applied Physics Express, 2010, 3, 126101.	2.4	42
30	Transitional change to amorphous fluorinated carbon film deposition under energetic irradiation of mass-analyzed carbon monofluoride ions on silicon dioxide surfaces. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2003, 21, L1-L3.	2.1	40
31	Surface reactions during etching of organic low-k films by plasmas of N <sub>2</sub> and H <sub>2</sub> . Journal of Applied Physics, 2006, 99, 083305.	2.5	40
32	Analysis of GaN Damage Induced by Cl <sub>2</sub> /SiCl <sub>4</sub> /Ar Plasma. Japanese Journal of Applied Physics, 2011, 50, 08JE03.	1.5	40
33	Spatial distributions of O, N, NO, OH and vacuum ultraviolet light along gas flow direction in an AC-excited atmospheric pressure Ar plasma jet generated in open air. Journal Physics D: Applied Physics, 2017, 50, 195202.	2.8	37
34	Electron spin resonance as a tool to monitor the influence of novel processing technologies on food properties. Trends in Food Science and Technology, 2020, 100, 77-87.	15.1	37
35	As-grown deep-level defects in n-GaN grown by metal-organic chemical vapor deposition on freestanding GaN. Journal of Applied Physics, 2012, 112, .	2.5	36
36	Progress and prospects in nanoscale dry processes: How can we control atomic layer reactions?. Japanese Journal of Applied Physics, 2017, 56, 06HA02.	1.5	36

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37	New Hopes for Plasma-Based Cancer Treatment. <i>Plasma</i> , 2018, 1, 150-155.	1.8	35
38	Improvement of yield and grain quality by periodic cold plasma treatment with rice plants in a paddy field. <i>Plasma Processes and Polymers</i> , 2021, 18, .	3.0	35
39	Analysis of GaN Damage Induced by Cl <sub>2</sub> /SiCl <sub>4</sub> /Ar Plasma. <i>Japanese Journal of Applied Physics</i> , 2011, 50, 08JE03.	1.5	34
40	Laser Scattering Diagnosis of a 60-Hz Non-Equilibrium Atmospheric Pressure Plasma Jet. <i>Applied Physics Express</i> , 2011, 4, 026101.	2.4	33
41	Real-time <i>in situ</i> electron spin resonance measurements on fungal spores of <i>Penicillium digitatum</i> during exposure of oxygen plasmas. <i>Applied Physics Letters</i> , 2012, 101, 013704.	3.3	33
42	Oxidation mechanism of <i>Penicillium digitatum</i> spores through neutral oxygen radicals. <i>Japanese Journal of Applied Physics</i> , 2014, 53, 010209.	1.5	33
43	Non-thermal plasma-activated medium modified metabolomic profiles in the glycolysis of U251SP glioblastoma. <i>Archives of Biochemistry and Biophysics</i> , 2019, 662, 83-92.	3.0	33
44	Asymmetric peak line shape of infrared dielectric function spectra for thermally grown silicon dioxide films. <i>Journal of Applied Physics</i> , 2000, 88, 7150-7156.	2.5	32
45	Effectiveness of plasma diagnostic in ultra high frequency and radio frequency hybrid plasmas for synthesis of silicon nitride film at low temperature. <i>Journal of Applied Physics</i> , 2014, 116, .	2.5	31
46	Cold atmospheric helium plasma causes synergistic enhancement in cell death with hyperthermia and an additive enhancement with radiation. <i>Scientific Reports</i> , 2017, 7, 11659.	3.3	31
47	Chemical bond modification in porous SiOCH films by H <sub>2</sub> and H <sub>2</sub> /N <sub>2</sub> plasmas investigated by <i>in situ</i> infrared reflection absorption spectroscopy. <i>Journal of Applied Physics</i> , 2011, 110, .	2.5	30
48	Thermal cyclic etching of silicon nitride using formation and desorption of ammonium fluorosilicate. <i>Applied Physics Express</i> , 2016, 9, 106201.	2.4	30
49	Quantitative clarification of inactivation mechanism of <i>Penicillium digitatum</i> spores treated with neutral oxygen radicals. <i>Japanese Journal of Applied Physics</i> , 2015, 54, 01AG05.	1.5	28
50	Hydrogen peroxide sensor based on carbon nanowalls grown by plasma-enhanced chemical vapor deposition. <i>Japanese Journal of Applied Physics</i> , 2017, 56, 06HF03.	1.5	28
51	Impact of seed color and storage time on the radish seed germination and sprout growth in plasma agriculture. <i>Scientific Reports</i> , 2021, 11, 2539.	3.3	28
52	H <sub>2</sub> /N <sub>2</sub> plasma damage on porous dielectric SiOCH film evaluated by <i>in situ</i> film characterization and plasma diagnostics. <i>Journal of Applied Physics</i> , 2011, 109, .	2.5	27
53	Direct current superposed dual-frequency capacitively coupled plasmas in selective etching of SiOCH over SiC. <i>Journal Physics D: Applied Physics</i> , 2012, 45, 025203.	2.8	27
54	Polyethylene terephthalate (PET) surface modification by VUV and neutral active species in remote oxygen or hydrogen plasmas. <i>Plasma Processes and Polymers</i> , 2019, 16, 1800175.	3.0	26

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55	Plasma diagnostic approach for high rate nanocrystalline Si synthesis in RF/UHF hybrid plasmas using a PECVD process. <i>Plasma Sources Science and Technology</i> , 2015, 24, 025019.	3.1	25
56	Contribution of interface roughness to the infrared spectra of thermally grown silicon dioxide films. <i>Journal of Applied Physics</i> , 1999, 85, 4076-4082.	2.5	24
57	Effects of assisted magnetic field to an atmospheric-pressure plasma jet on radical generation at the plasma-surface interface and bactericidal function. <i>Plasma Sources Science and Technology</i> , 2016, 25, 065005.	3.1	24
58	Bactericidal pathway of <i>Escherichia coli</i> in buffered saline treated with oxygen radicals. <i>Journal Physics D: Applied Physics</i> , 2017, 50, 155208.	2.8	24
59	Self-limiting reactions of ammonium salt in CHF <sub>3</sub> /O <sub>2</sub> downstream plasma for thermal-cyclic atomic layer etching of silicon nitride. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2019, 37, .	2.1	24
60	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
61	A High-Temperature Nitrogen Plasma Etching for Preserving Smooth and Stoichiometric GaN Surface. <i>Applied Physics Express</i> , 2013, 6, 056201.	2.4	23
62	Experimental evidence of warm electron populations in magnetron sputtering plasmas. <i>Journal of Applied Physics</i> , 2015, 117, .	2.5	23
63	Intracellular responses to reactive oxygen and nitrogen species, and lipid peroxidation in apoptotic cells cultivated in plasma-activated medium. <i>Plasma Processes and Polymers</i> , 2017, 14, 1700123.	3.0	23
64	Numerical simulations of stable, high-electron-density atmospheric pressure argon plasma under pin-to-plane electrode geometry: effects of applied voltage polarity. <i>Journal Physics D: Applied Physics</i> , 2020, 53, 265204.	2.8	23
65	Synergistic Formation of Radicals by Irradiation with Both Vacuum Ultraviolet and Atomic Hydrogen: A Real-Time In Situ Electron Spin Resonance Study. <i>Journal of Physical Chemistry Letters</i> , 2011, 2, 1278-1281.	4.6	22
66	Effect of gas flow on transport of O ( <sup>3</sup> P <sub>j</sub> ) atoms produced in ac power excited non-equilibrium atmospheric-pressure O <sub>2</sub> /Ar plasma jet. <i>Journal Physics D: Applied Physics</i> , 2013, 46, 464006.	2.8	22
67	Histological and Nuclear Medical Comparison of Inflammation After Hemostasis with Non-Thermal Plasma and Thermal Coagulation. <i>Plasma Processes and Polymers</i> , 2015, 12, 1338-1342.	3.0	22
68	Selective production of reactive oxygen and nitrogen species in the plasma-treated water by using a nonthermal high-frequency plasma jet. <i>Japanese Journal of Applied Physics</i> , 2018, 57, 0102B4.	1.5	22
69	Systematic diagnostics of the electrical, optical, and physicochemical characteristics of low-temperature atmospheric-pressure helium plasma sources. <i>Journal Physics D: Applied Physics</i> , 2019, 52, 165202.	2.8	21
70	Synthesis of isolated carbon nanowalls via high-voltage nanosecond pulses in conjunction with CH <sub>4</sub> /H <sub>2</sub> plasma enhanced chemical vapor deposition. <i>Carbon</i> , 2020, 161, 403-412.	10.3	21
71	In vacuo measurements of dangling bonds created during Ar-diluted fluorocarbon plasma etching of silicon dioxide films. <i>Applied Physics Letters</i> , 2005, 86, 264104.	3.3	20
72	Epitaxial growth of GaN by radical-enhanced metalorganic chemical vapor deposition (REMOCVD) in the downflow of a very high frequency (VHF) N <sub>2</sub> /H <sub>2</sub> excited plasma – effect of TMG flow rate and VHF power. <i>Journal of Crystal Growth</i> , 2014, 391, 97-103.	1.5	20

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73	Non-thermal plasma-activated lactate solution kills U251SP glioblastoma cells in an innate reductive manner with altered metabolism. Archives of Biochemistry and Biophysics, 2020, 688, 108414.	3.0	20
74	Interaction of oxygen with polystyrene and polyethylene polymer films: A mechanistic study. Journal of Applied Physics, 2020, 127, .	2.5	20
75	Influences of substrate temperatures on etch rates of PECVD-SiN thin films with a CF <sub>4</sub> /H <sub>2</sub> plasma. Applied Surface Science, 2021, 542, 148550.	6.1	20
76	Low temperature plasma irradiation products of sodium lactate solution that induce cell death on U251SP glioblastoma cells were identified. Scientific Reports, 2021, 11, 18488.	3.3	20
77	Effects of Dissolved Oxygen in HF Solution on Silicon Surface Morphology. Japanese Journal of Applied Physics, 1995, 34, 732-736.	1.5	19
78	Simultaneous achievement of antimicrobial property and plant growth promotion using plasma-activated benzoic compound solution. Plasma Processes and Polymers, 2019, 16, 1900023.	3.0	19
79	Surface and gas-phase observations of Ar-diluted c-C <sub>4</sub> F <sub>8</sub> plasma by using real-time infrared spectroscopy and planar laser-induced fluorescence. Journal of Applied Physics, 2003, 93, 1403-1408.	2.5	18
80	Structural change in diamond by hydrogen plasma treatment at room temperature. Diamond and Related Materials, 2005, 14, 1939-1942.	3.9	18
81	Highly Selective Etching of SiO <sub>2</sub> over Si <sub>3</sub> N <sub>4</sub> and Si in Capacitively Coupled Plasma Employing C <sub>5</sub> HF <sub>7</sub> Gas. Japanese Journal of Applied Physics, 2013, 52, 016201.	1.5	18
82	Effects of nitrogen on the apoptosis of and changes in gene expression in human lymphoma U937 cells exposed to argon-based cold atmospheric pressure plasma. International Journal of Molecular Medicine, 2016, 37, 1706-1714.	4.0	18
83	Nanographene synthesis employing in-liquid plasmas with alcohols or hydrocarbons. Japanese Journal of Applied Physics, 2018, 57, 026201.	1.5	18
84	Chemical reactions during plasma-enhanced atomic layer deposition of SiO <sub>2</sub> films employing aminosilane and O <sub>2</sub> /Ar plasma at 50 Å°C. Japanese Journal of Applied Physics, 2014, 53, 010305.	1.5	17
85	Selective atomic-level etching using two heating procedures, infrared irradiation and ion bombardment, for next-generation semiconductor device manufacturing. Journal Physics D: Applied Physics, 2017, 50, 194001.	2.8	17
86	Dynamic analysis of reactive oxygen nitrogen species in plasma-activated culture medium by UV absorption spectroscopy. Journal of Applied Physics, 2017, 122, .	2.5	17
87	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
88	Adjusted multiple gases in the plasma flow induce differential antitumor potentials of plasma-activated solutions. Plasma Processes and Polymers, 2020, 17, 1900259.	3.0	17
89	Selective etching of SiN against SiO <sub>2</sub> and poly-Si films in hydrofluoroethane chemistry with a mixture of CH <sub>2</sub> FCH <sub>2</sub> , O <sub>2</sub> , and Ar. Applied Surface Science, 2021, 541, 148439.	6.1	17
90	Rapid growth of micron-sized graphene flakes using in-liquid plasma employing iron phthalocyanine-added ethanol. Applied Physics Express, 2018, 11, 015102.	2.4	16

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91	Infrared Spectroscopy Study of Chemical Oxides Formed by a Sequence of RCA Standard Cleaning Treatments. <i>Journal of the Electrochemical Society</i> , 1996, 143, 2995-3000.	2.9	15
92	Rapid electron density decay observed by surface-wave probe in afterglow of pulsed fluorocarbon-based plasma. <i>Japanese Journal of Applied Physics</i> , 2016, 55, 080309.	1.5	15
93	Liquid dynamics in response to an impinging low-temperature plasma jet. <i>Journal Physics D: Applied Physics</i> , 2019, 52, 075203.	2.8	15
94	Hydrophobic treatment of organics against glass employing nonequilibrium atmospheric pressure pulsed plasmas with a mixture of CF <sub>4</sub> and N <sub>2</sub> gases. <i>Journal of Applied Physics</i> , 2011, 109, .	2.5	14
95	Effects of nitrogen plasma post-treatment on electrical conduction of carbon nanowalls. <i>Japanese Journal of Applied Physics</i> , 2014, 53, 040307.	1.5	14
96	A new framework for performance prediction of advanced MOSFETs with plasma-induced recess structure and latent defect site. , 2008, , .		13
97	Formation of Nanoporous Features, Flat Surfaces, or Crystallographically Oriented Etched Profiles by the Si Chemical Dry Etching Using the Reaction of F <sub>2</sub> + NO → F + FNO at an Elevated Temperature. <i>Journal of Physical Chemistry C</i> , 2013, 117, 20810-20818.	3.1	13
98	Silicon nitride etching performance of CH <sub>2</sub> F <sub>2</sub> plasma diluted with argon or krypton. <i>Japanese Journal of Applied Physics</i> , 2015, 54, 040303.	1.5	13
99	Suppression of plasma-induced damage on GaN etched by a Cl <sub>2</sub> plasma at high temperatures. <i>Japanese Journal of Applied Physics</i> , 2015, 54, 06GB04.	1.5	13
100	Investigation of effects of ion energies on both plasma-induced damage and surface morphologies and optimization of high-temperature Cl <sub>2</sub> plasma etching of GaN. <i>Japanese Journal of Applied Physics</i> , 2017, 56, 026502.	1.5	13
101	Review of methods for the mitigation of plasma-induced damage to low- $\epsilon$ dielectric-constant interlayer dielectrics used for semiconductor logic device interconnects. <i>Plasma Processes and Polymers</i> , 2019, 16, 1900039.	3.0	13
102	A 65-nm CMOS Fully Integrated Analysis Platform Using an On-Chip Vector Network Analyzer and a Transmission-Line-Based Detection Window for Analyzing Circulating Tumor Cell and Exosome. <i>IEEE Transactions on Biomedical Circuits and Systems</i> , 2019, 13, 470-479.	4.0	13
103	<i>In situ</i> surface analysis of an ion-energy-dependent chlorination layer on GaN during cyclic etching using Ar <sup>+</sup> ions and Cl radicals. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2020, 38, .	2.1	13
104	Functional nitrogen science based on plasma processing: quantum devices, photocatalysts and activation of plant defense and immune systems. <i>Japanese Journal of Applied Physics</i> , 2022, 61, SA0805.	1.5	13
105	Analysis of native oxide growth process on an atomically flattened and hydrogen terminated Si (111) surface in pure water using Fourier transformed infrared reflection absorption spectroscopy. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 1998, 16, 375-381.	2.1	12
106	Behaviors of Absolute Densities of N, H, and NH <sub>3</sub> at Remote Region of High-Density Radical Source Employing N <sub>2</sub> + H <sub>2</sub> Mixture Plasmas. <i>Japanese Journal of Applied Physics</i> , 2011, 50, 01AE03.	1.5	12
107	Feature Profiles on Plasma Etch of Organic Films by a Temporal Control of Radical Densities and Real-Time Monitoring of Substrate Temperature. <i>Japanese Journal of Applied Physics</i> , 2012, 51, 016202.	1.5	12
108	Photoluminescence recovery by <i>in-situ</i> exposure of plasma-damaged n-GaN to atomic hydrogen at room temperature. <i>AIP Advances</i> , 2012, 2, .	1.3	12



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109	Quantum Chemical Investigation for Chemical Dry Etching of SiO <sub>2</sub> by Flowing NF <sub>3</sub> into H <sub>2</sub> Downflow Plasma. Japanese Journal of Applied Physics, 2012, 51, 016201.	1.5	12
110	Wavelength Dependence of Photon-Induced Interface Defects in Hydrogenated Silicon Nitride/Si Structure during Plasma Etching Processes. Japanese Journal of Applied Physics, 2013, 52, 05ED01.	1.5	12
111	Spatial profiles of interelectrode electron density in direct current superposed dual-frequency capacitively coupled plasmas. Journal Physics D: Applied Physics, 2017, 50, 155201.	2.8	12
112	High-durability catalytic electrode composed of Pt nanoparticle-supported carbon nanowalls synthesized by radical-injection plasma-enhanced chemical vapor deposition. Journal Physics D: Applied Physics, 2017, 50, 40LT01.	2.8	12
113	Reduced HeLa cell viability in methionine-containing cell culture medium irradiated with microwave-excited atmospheric-pressure plasma. Plasma Processes and Polymers, 2018, 15, 1700200.	3.0	12
114	Rapid thermal-cyclic atomic-layer etching of titanium nitride in CHF <sub>3</sub> /O <sub>2</sub> downstream plasma. Journal Physics D: Applied Physics, 2019, 52, 475106.	2.8	12
115	Cancer Treatments Using Low-Temperature Plasma. Current Medicinal Chemistry, 2021, 28, 8549-8558.	2.4	12
116	Early-stage modification of a silicon oxide surface in fluorocarbon plasma for selective etching over silicon. Journal of Applied Physics, 2002, 91, 1661-1666.	2.5	11
117	Rapid measurement of substrate temperatures by frequency-domain low-coherence interferometry. Applied Physics Letters, 2013, 103, 182102.	3.3	11
118	Nanographene synthesized in triple-phase plasmas as a highly durable support of catalysts for polymer electrolyte fuel cells. Japanese Journal of Applied Physics, 2018, 57, 045101.	1.5	11
119	Laser-drilling formation of through-glass-via (TGV) on polymer-laminated glass. Journal of Materials Science: Materials in Electronics, 2019, 30, 10183-10190.	2.2	11
120	Feature Profiles on Plasma Etch of Organic Films by a Temporal Control of Radical Densities and Real-Time Monitoring of Substrate Temperature. Japanese Journal of Applied Physics, 2012, 51, 016202.	1.5	11
121	Critical flux ratio of hydrogen radical to film precursor in microcrystalline silicon deposition for solar cells. Applied Physics Letters, 2012, 101, .	3.3	10
122	Impact of hydrogen radical-injection plasma on fabrication of microcrystalline silicon thin film for solar cells. Journal of Applied Physics, 2013, 113, 033304.	2.5	10
123	Supercritical Fluid Deposition of High-Density Nanoparticles of Photocatalytic TiO <sub>2</sub> on Carbon Nanowalls. Applied Physics Express, 2013, 6, 045103.	2.4	10
124	Spatiotemporal behaviors of absolute density of atomic oxygen in a planar type of Ar/O <sub>2</sub> non-equilibrium atmospheric-pressure plasma jet. Plasma Sources Science and Technology, 2014, 23, 025004.	3.1	10
125	Robust characteristics of semiconductor-substrate temperature measurement by autocorrelation-type frequency-domain low-coherence interferometry. Japanese Journal of Applied Physics, 2015, 54, 01AB03.	1.5	10
126	Hydrofluorocarbon ion density of argon- or krypton-diluted CH <sub>2</sub> F <sub>2</sub> plasmas: generation of CH <sub>2</sub> F <sup>+</sup> and CHF <sub>2</sub> <sup>+</sup> by dissociative-ionization in charge exchange collisions. Journal Physics D: Applied Physics, 2015, 48, 045202.	2.8	10



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127	CF <sub>3</sub> <sup>+</sup> fragmentation by electron impact ionization of perfluoro-propyl-vinyl-ethers, C <sub>5</sub> F <sub>10</sub> O, in gas phase. Japanese Journal of Applied Physics, 2015, 54, 040301.	1.5	10
128	Effects of Radical Species on Structural and Electronic Properties of Amorphous Carbon Films Deposited by Radical-Injection Plasma-Enhanced Chemical Vapor Deposition. Plasma Processes and Polymers, 2016, 13, 730-736.	3.0	10
129	Synthesis of calcium oxalate crystals in culture medium irradiated with non-equilibrium atmospheric-pressure plasma. Applied Physics Express, 2016, 9, 096201.	2.4	10
130	Lipid droplets exhaustion with caspases activation in HeLa cells cultured in plasma-activated medium observed by multiplex coherent anti-Stokes Raman scattering microscopy. Biointerphases, 2017, 12, 031006.	1.6	10
131	Electron behaviors in afterglow of synchronized dc-imposed pulsed fluorocarbon-based plasmas. Japanese Journal of Applied Physics, 2017, 56, 06HC03.	1.5	10
132	Electron impact ionization of perfluoro-methyl-vinyl-ether C <sub>3</sub> F <sub>6</sub> O. Plasma Sources Science and Technology, 2018, 27, 015009.	3.1	10
133	Insights into normothermic treatment with direct irradiation of atmospheric pressure plasma for biological applications. Japanese Journal of Applied Physics, 2021, 60, 010502.	1.5	10
134	In vacuo electron-spin-resonance study on amorphous fluorinated carbon films for understanding of surface chemical reactions in plasma etching. Applied Physics Letters, 2002, 81, 1773-1775.	3.3	9
135	Etching Damage in Diamond Studied Using an Energy-Controlled Oxygen Ion Beam. Japanese Journal of Applied Physics, 2007, 46, 60-64.	1.5	9
136	Quantum Chemical Investigation of Si Chemical Dry Etching by Flowing NF <sub>3</sub> into N <sub>2</sub> Downflow Plasma. Japanese Journal of Applied Physics, 2012, 51, 026505.	1.5	9
137	Atomic Oxygen Etching from the Top Edges of Carbon Nanowalls. Applied Physics Express, 2013, 6, 095201.	2.4	9
138	Surface roughness development on ArF-photoresist studied by beam-irradiation of CF <sub>4</sub> plasma. Journal Physics D: Applied Physics, 2013, 46, 102001.	2.8	9
139	Feedback Control System of Wafer Temperature for Advanced Plasma Processing and its Application to Organic Film Etching. IEEE Transactions on Semiconductor Manufacturing, 2015, 28, 515-520.	1.7	9
140	Plasma Diagnostics. , 2016, , 117-141.		9
141	Rethinking surface reactions in nanoscale dry processes toward atomic precision and beyond: a physics and chemistry perspective. Japanese Journal of Applied Physics, 2019, 58, SE0801.	1.5	9
142	Plasma-activated Ringer's lactate solution inhibits the cellular respiratory system in HeLa cells. Plasma Processes and Polymers, 2021, 18, 2100056.	3.0	9
143	Individual Roles of Atoms and Ions during Hydrogen Plasma Passivation of Surface Defects on GaN Created by Plasma Etching. Japanese Journal of Applied Physics, 2012, 51, 111002.	1.5	8
144	High H Radical Density Produced by 1-m-Long Atmospheric Pressure Microwave Plasma System. Japanese Journal of Applied Physics, 2013, 52, 11NE01.	1.5	8

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145	A Development of Atmospheric Pressure Plasma Equipment and Its Applications for Treatment of Ag Films Formed from Nano-Particle Ink. Journal of Physics: Conference Series, 2013, 441, 012019.	0.4	8
146	Behavior of absolute densities of atomic oxygen in the gas phase near an object surface in an AC-excited atmospheric pressure He plasma jet. Applied Physics Express, 2017, 10, 036201.	2.4	8
147	Dissociative properties of 1,1,1,2-tetrafluoroethane obtained by computational chemistry. Japanese Journal of Applied Physics, 2018, 57, 06JC02.	1.5	8
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