

Gon-Ho Kim

List of Publications by Year in descending order

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100
papers

824
citations

566801

15
h-index

610482

24
g-index

101
all docs

101
docs citations

101
times ranked

817
citing authors

#	ARTICLE	IF	CITATIONS
1	Polymer surface modification by plasma source ion implantation. <i>Surface and Coatings Technology</i> , 1997, 93, 261-264.	2.2	118
2	Effect on plasma and etch-rate uniformity of controlled phase shift between rf voltages applied to powered electrodes in a triode capacitively coupled plasma reactor. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2009, 27, 13-19.	0.9	33
3	Global model analysis of negative ion generation in low-pressure inductively coupled hydrogen plasmas with bi-Maxwellian electron energy distributions. <i>Physics of Plasmas</i> , 2015, 22, 033506.	0.7	33
4	Efficacy of a New Navigable Percutaneous Disc Decompression Device (L'DISQ) in Patients with Herniated Nucleus Pulposus Related to Radicular Pain. <i>Pain Medicine</i> , 2011, 12, 370-376.	0.9	31
5	Enhancement of the Virtual Metrology Performance for Plasma-Assisted Oxide Etching Processes by Using Plasma Information (PI) Parameters. <i>IEEE Transactions on Semiconductor Manufacturing</i> , 2015, 28, 241-246.	1.4	30
6	Fabrication of sintered tungsten by spark plasma sintering and investigation of thermal stability. <i>International Journal of Refractory Metals and Hard Materials</i> , 2017, 69, 164-169.	1.7	29
7	Quantitation of the ROS production in plasma and radiation treatments of biotargets. <i>Scientific Reports</i> , 2019, 9, 19837.	1.6	27
8	Influence of H ⁺ ion irradiation on the surface and microstructural changes of a nuclear graphite. <i>Fusion Engineering and Design</i> , 2012, 87, 344-351.	1.0	25
9	Development of the Virtual Metrology for the Nitride Thickness in Multi-Layer Plasma-Enhanced Chemical Vapor Deposition Using Plasma-Information Variables. <i>IEEE Transactions on Semiconductor Manufacturing</i> , 2018, 31, 232-241.	1.4	25
10	High-temperature thermo-mechanical behavior of functionally graded materials produced by plasma sprayed coating: Experimental and modeling results. <i>Metals and Materials International</i> , 2016, 22, 817-824.	1.8	17
11	Plasma uniformity and phase-controlled etching in a very high frequency capacitive discharge. <i>Journal of Applied Physics</i> , 2009, 106, 023303.	1.1	16
12	Frequency and electrode shape effects on etch rate uniformity in a dual-frequency capacitive reactor. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2012, 30, .	0.9	16
13	Enhancement of deuterium retention in damaged tungsten by plasma-induced defect clustering. <i>Nuclear Fusion</i> , 2017, 57, 126042.	1.6	16
14	Development of Virtual Metrology Using Plasma Information Variables to Predict Si Etch Profile Processed by SF ₆ /O ₂ /Ar Capacitively Coupled Plasma. <i>Materials</i> , 2021, 14, 3005.	1.3	16
15	The bactericidal effect of an atmospheric-pressure plasma jet on <i>Porphyromonas gingivalis</i> biofilms on sandblasted and acid-etched titanium discs. <i>Journal of Periodontal and Implant Science</i> , 2019, 49, 319.	0.9	16
16	Effects of shroud gas injection on material properties of tungsten layers coated by plasma spraying. <i>Thin Solid Films</i> , 2010, 518, 6369-6372.	0.8	15
17	Characteristics of a non-Maxwellian electron energy distribution in a low-pressure argon plasma. <i>Journal of the Korean Physical Society</i> , 2014, 64, 1819-1827.	0.3	15
18	Effect of annealing with pressure on tungsten film properties fabricated by atmospheric plasma spray. <i>Metals and Materials International</i> , 2014, 20, 1037-1042.	1.8	14

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19	Improvement of mechanical property of air plasma sprayed tungsten film using pulsed electric current treatment. <i>International Journal of Refractory Metals and Hard Materials</i> , 2016, 60, 99-103.	1.7	14
20	Measurement of sheath expansion in plasma source ion implantation. <i>Surface and Coatings Technology</i> , 2001, 136, 97-101.	2.2	12
21	Deposition/erosion and H/D retention characteristics in gaps of PFCs in KSTAR studied by cavity technique. <i>Journal of Nuclear Materials</i> , 2013, 438, S698-S706.	1.3	12
22	The measurement of nitrogen ion species ratio in inductively coupled plasma source ion implantation. <i>Surface and Coatings Technology</i> , 2001, 136, 106-110.	2.2	11
23	Field-emission performance and structural change mechanism of multiwalled carbon nanotubes by oxygen plasma treatment. <i>Thin Solid Films</i> , 2013, 547, 202-206.	0.8	11
24	Metal surface oxidation by using dielectric barrier discharge. <i>Thin Solid Films</i> , 2010, 518, 6394-6398.	0.8	10
25	Mechanism of cone-shaped carbon nanotube bundle formation by plasma treatment. <i>Carbon</i> , 2010, 48, 3864-3873.	5.4	10
26	Effects of metastable species in helium and argon atmospheric pressure plasma jets (APPJs) on inactivation of periodontopathogenic bacteria. <i>Journal of the Korean Physical Society</i> , 2016, 68, 1176-1191.	0.3	10
27	Characteristics of vapor coverage formation on an RF-driven metal electrode to discharge a plasma in saline solution. <i>Plasma Sources Science and Technology</i> , 2012, 21, 055017.	1.3	9
28	Standing wave effect on plasma distribution in an inductively coupled plasma source with a short antenna. <i>Journal Physics D: Applied Physics</i> , 2014, 47, 015205.	1.3	9
29	Determination of electron energy probability function in low-temperature plasmas from current-voltage characteristics of two Langmuir probes filtered by Savitzky-Golay and Blackman window methods. <i>Current Applied Physics</i> , 2015, 15, 1173-1183.	1.1	9
30	Design of optical emission spectroscopy based plasma parameter controller for real-time advanced equipment control. <i>Computers and Chemical Engineering</i> , 2017, 100, 38-47.	2.0	9
31	Ion-neutral collision effect on ion-ion two-stream-instability near sheath-presheath boundary in two-ion-species plasmas. <i>Plasma Sources Science and Technology</i> , 2017, 26, 06LT01.	1.3	9
32	Effects of argon and oxygen flow rate on water vapor barrier properties of silicon oxide coatings deposited on polyethylene terephthalate by plasma enhanced chemical vapor deposition. <i>Thin Solid Films</i> , 2010, 518, 1929-1934.	0.8	8
33	Recrystallization of bulk and plasma-coated tungsten with accumulated thermal energy relevant to Type-I ELM in ITER H-mode operation. <i>Journal of Nuclear Materials</i> , 2015, 463, 215-218.	1.3	8
34	Characteristics of a plasma information variable in phenomenology-based, statistically-tuned virtual metrology to predict silicon dioxide etching depth. <i>Current Applied Physics</i> , 2019, 19, 1068-1075.	1.1	8
35	Application of PI-VM for management of the metal target plasma etching processes in OLED display manufacturing. <i>Plasma Physics and Controlled Fusion</i> , 2019, 61, 014032.	0.9	8
36	Predictive control of the plasma processes in the OLED display mass production referring to the discontinuity qualifying PI-VM. <i>Physics of Plasmas</i> , 2020, 27, .	0.7	8

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37	Measurement of expanding plasma sheath from a target biased by a negative pulse with a fast rise time. <i>Journal of Applied Physics</i> , 2003, 93, 1384-1388.	1.1	7
38	Etching of Multi-Walled Carbon Nanotubes Using Energetic Plasma Ions. <i>Japanese Journal of Applied Physics</i> , 2006, 45, 8317-8322.	0.8	7
39	Preliminary test results on tungsten tile with castellation structures in KSTAR. <i>Fusion Engineering and Design</i> , 2014, 89, 1704-1708.	1.0	7
40	Bullet Velocity Distribution of a Helium Atmospheric-Pressure Plasma Jet in Various Mixed Ambient Conditions. <i>IEEE Transactions on Plasma Science</i> , 2015, 43, 2054-2063.	0.6	7
41	Deuterium ion irradiation induced blister formation and destruction. <i>Fusion Engineering and Design</i> , 2016, 109-111, 624-628.	1.0	7
42	Hydroxyl Radical Generation on Bubble Surface of Aqua-Plasma Discharge. <i>IEEE Transactions on Plasma Science</i> , 2011, 39, 2658-2659.	0.6	6
43	Dynamic sheath expansion in a non-uniform plasma with ion drift. <i>Plasma Sources Science and Technology</i> , 2011, 20, 045014.	1.3	6
44	Field emission characteristics of cone-shaped carbon-nanotube bundles fabricated using an oxygen plasma. <i>Journal of the Korean Physical Society</i> , 2012, 61, 1083-1087.	0.3	6
45	How to determine the relative ion concentrations of multiple-ion-species plasmas generated in the multi-dipole filament source. <i>Journal Physics D: Applied Physics</i> , 2015, 48, 225201.	1.3	6
46	Vacuum pump age effects by the exposure to the corrosive gases on the Cr etch rate as observed using optical emission spectroscopy in an Ar/O ₂ /Cl ₂ mixed plasma. <i>Thin Solid Films</i> , 2016, 603, 154-159.	0.8	6
47	Cause analysis of the faults in HARC etching processes by using the PI-VM model for OLED display manufacturing. <i>Plasma Processes and Polymers</i> , 2019, 16, 1900030.	1.6	6
48	Design of a self-tuning adaptive model predictive controller using recursive model parameter estimation for real-time plasma variable control. <i>Computers and Chemical Engineering</i> , 2019, 123, 126-142.	2.0	6
49	Plasma information-based virtual metrology (PI-VM) and mass production process control. <i>Journal of the Korean Physical Society</i> , 2022, 80, 647-669.	0.3	6
50	Numerical investigation of plasma recovery in plasma source ion implantation. <i>Thin Solid Films</i> , 2012, 521, 197-200.	0.8	5
51	Driving frequency dependency of gas species in the bubble formation for aqua-plasma generation. <i>Current Applied Physics</i> , 2013, 13, S54-S58.	1.1	5
52	Analysis of Langmuir Probe Data Using Wavelet Transform. <i>IEEE Transactions on Plasma Science</i> , 2004, 32, 355-361.	0.6	4
53	Self-consistent circuit model for plasma source ion implantation. <i>Review of Scientific Instruments</i> , 2008, 79, 02C502.	0.6	4
54	Numerical Analysis on the Electrical and Thermal Flow Characteristics of Ar-N ₂ Inductively Coupled Plasma Torch System. <i>Journal of the Korean Physical Society</i> , 2018, 72, 755-764.	0.3	4

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55	Micro-range uniformity control of the etching profile in the OLED display mass production referring to the PI-VM model. <i>Physics of Plasmas</i> , 2021, 28, 103505.	0.7	4
56	The effect of plasma exposure and annealing atmosphere on shallow junction formation using plasma source ion implantation. <i>Surface and Coatings Technology</i> , 2002, 157, 19-25.	2.2	3
57	Time-resolved plasma measurement in a high-power pulsed ICP source for large area. <i>Surface and Coatings Technology</i> , 2004, 186, 161-164.	2.2	3
58	Low-energy D ⁺ and H ⁺ ion irradiation effects on highly oriented pyrolytic graphite. <i>Journal of Applied Physics</i> , 2013, 114, 214310.	1.1	3
59	Investigation of SOL plasma interaction with graphite PFC. <i>Journal of Nuclear Materials</i> , 2015, 463, 753-756.	1.3	3
60	Optimal Parameters for Intervertebral Disk Resection Using Aqua-Plasma Beams. <i>Journal of Neurological Surgery, Part A: Central European Neurosurgery</i> , 2019, 80, 034-038.	0.4	3
61	Characteristics of Molybdenum as a Plasma-Generating Electrode. <i>Science of Advanced Materials</i> , 2016, 8, 1844-1847.	0.1	3
62	Population Kinetics Modeling of Low-Temperature Argon Plasma. <i>Atoms</i> , 2021, 9, 100.	0.7	3
63	Development of model predictive control of fluorine density in SF ₆ /O ₂ /Ar etch plasma by oxygen flow rate. <i>Current Applied Physics</i> , 2022, 36, 183-186.	1.1	3
64	Design and operation of an Omegatron mass spectrometer for measurements of positive and negative ion species in electron cyclotron resonance plasmas. <i>Plasma Sources Science and Technology</i> , 2000, 9, 97-107.	1.3	2
65	Investigation of Current on the Conducting Target Biased with a Large Negative Potential in the Non-Uniform Plasma. <i>Japanese Journal of Applied Physics</i> , 2006, 45, L686-L689.	0.8	2
66	Hydrogen Adsorption Property of Pore Structure Controlled Single-Walled Carbon Nanotubes with Electron Irradiation. <i>Journal of Physical Chemistry C</i> , 2010, 114, 13975-13978.	1.5	2
67	Experimental investigation of plasma recovery during the pulse-off time in plasma source ion implantation. <i>Thin Solid Films</i> , 2013, 547, 13-16.	0.8	2
68	Characteristics of OH* Generation in Pin-to-Electrolyte Discharges. <i>IEEE Transactions on Plasma Science</i> , 2014, 42, 2814-2815.	0.6	2
69	Characterization of Two-“Radio-Frequency”-Driven Dual Antenna Negative Hydrogen Ion Sources. <i>Fusion Science and Technology</i> , 2015, 68, 105-112.	0.6	2
70	Observation of oversaturation-induced defect formation in tungsten irradiated by low energy deuterium ion. <i>Journal of the Korean Physical Society</i> , 2016, 69, 518-524.	0.3	2
71	Optical diagnostics for the highly populated tail of an electron energy distribution function in very-high-frequency capacitively coupled plasma using spin- and dipole-forbidden lines. <i>Journal Physics D: Applied Physics</i> , 2017, 50, 225201.	1.3	2
72	Safety evaluation of atmospheric pressure plasma jets in <i>in vitro</i> and <i>in vivo</i> experiments. <i>Journal of Periodontal and Implant Science</i> , 2021, 51, 213.	0.9	2

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73	Bias Frequency Effect on the Accuracy of Floating Probe Measurement. Journal of the Korean Physical Society, 2009, 55, 1841-1848.	0.3	2
74	Effect of Helmholtz Oscillation on Auto-shroud for APS Tungsten Carbide Coating. Journal of Thermal Spray Technology, 2013, 22, 756-763.	1.6	1
75	Laser-Assisted H ¹³ C Spectroscopy for Measurement of Negative Ion Density in a Hydrogen Plasma. Fusion Science and Technology, 2015, 68, 171-177.	0.6	1
76	Determination of electron energy distribution function shape for non-Maxwellian plasmas using floating harmonics method. Journal Physics D: Applied Physics, 2015, 48, 022001.	1.3	1
77	Development of plasma sources and diagnostics for the simulation of fusion edge plasmas. Journal of the Korean Physical Society, 2022, 80, 735-758.	0.3	1
78	Calculation of transport parameters in KT-1 tokamak edge plasma. Current Applied Physics, 2001, 1, 497-503.	1.1	0
79	A study on m=1 mode helicon wave propagation in a weakly magnetized inductively coupled plasma source. , 0, , .		0
80	Development of in-situ plasma density monitoring method in inductively coupled plasma. , 0, , .		0
81	O/sub 2/-gas flow-rate effect on the atmospheric dielectric barrier discharge plasma. , 0, , .		0
82	Study on the optimum operating condition of the dielectric barrier discharge (DBD) for removing photoresist. , 0, , .		0
83	Study on magnetized inductively coupled plasma with Nagoya III antenna. , 0, , .		0
84	Time transient sheaths in collisionless and collisional plasmas. , 0, , .		0
85	Use of rotating compensator spectroscopic ellipsometry for monitoring the photoresist etching on Si wafer. , 2003, , .		0
86	Ion irradiation effects on the structural deformation of multi-walled carbon nanotubes. , 0, , .		0
87	Structural Deformation of Carbon Nanotubes using Energetic Plasma Ion Irradiation. IEEE International Conference on Plasma Science, 2005, , .	0.0	0
88	Determination of Plasma Current on the Electrode Biased a High Negative Potential. , 2006, , .		0
89	Analysis of Electron Energy Distribution Function from a Langmuir Probe Data Using the Bi-orthogonal Wavelet Transform. , 2006, , .		0
90	Plasma Flow Characteristics in a Spray-Type Dielectric Barrier Discharge Reactor. IEEE Transactions on Plasma Science, 2009, 37, 773-784.	0.6	0

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91	Effects of discharge gas metastable energy level on the nitric oxide radical generation in Atmospheric Pressure Plasma Jet for oral bacteria removal. , 2012, , .		0
92	Analysis on Interface Diffusion-Induced Embrittlement between Tungsten and Graphite with Reactive Diffusion Barrier Model. Fusion Science and Technology, 2015, 68, 113-119.	0.6	0
93	Improvement of dynamic range of electron energy probability function from two asymmetrical collecting area probe data filtered by Savitzky-Golay and Blackman window methods. , 2015, , .		0
94	Observation of two-ion-stream instability in sheath-presheath transition region by LIF measurement. , 2015, , .		0
95	Real-time Etch Control to Reduce First Wafer Effect in SF ₆ /O ₂ /Ar Plasma. , 2018, , .		0
96	Recursive Model Estimation for the Plasma Parameters Quality Control. Computer Aided Chemical Engineering, 2018, 43, 279-284.	0.3	0
97	Online System Identification for the Real Time Control of the Plasma Parameters. Computer Aided Chemical Engineering, 2018, , 2041-2046.	0.3	0
98	Phenomenology-based model predictive control of electron density in Ar/SF ₆ capacitively coupled etch plasma. Journal of the Korean Physical Society, 2022, 80, 233-240.	0.3	0
99	Sparse Bayesian long short-term memory networks for computationally efficient stochastic modeling of plasma etch processes. Computers and Chemical Engineering, 2022, 159, 107696.	2.0	0
100	Simulations of fusion edge plasmas by linear plasma devices: physics and plasma-material interactions. Journal of the Korean Physical Society, 0, , 1.	0.3	0