Chin-Wook Chung

List of Publications by Year
in descending order

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122	1,722	304743	330143
papers	citations	22 h-index	37 g-index

123	123	123	682
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Floating probe for electron temperature and ion density measurement applicable to processing plasmas. Journal of Applied Physics, 2007, 101, 033305.	2.5	161
2	On the E to H and H to E transition mechanisms in inductively coupled plasma. Physics of Plasmas, 2006, 13, 063510.	1.9	88
3	Experimental observation of the transition from nonlocal to local electron kinetics in inductively coupled plasmas. Applied Physics Letters, 2010, 96, .	3.3	78
4	Effects of rf-bias power on plasma parameters in a low gas pressure inductively coupled plasma. Applied Physics Letters, 2010, 96, .	3.3	76
5	Self-consistent global model with multi-step ionizations in inductively coupled plasmas. Physics of Plasmas, 2005, 12, 073501.	1.9	75
6	On the hysteresis in E to H and H to E transitions and the multistep ionization in inductively coupled plasma. Applied Physics Letters, 2007, 90, 191502.	3.3	67
7	Evolution of the electron energy distribution and E-H mode transition in inductively coupled nitrogen plasma. Physics of Plasmas, 2010, 17, 033506.	1.9	63
8	On the multistep ionizations in an argon inductively coupled plasma. Physics of Plasmas, 2006, 13, 053502.	1.9	57
9	Collisionless electron heating by radio frequency bias in low gas pressure inductive discharge. Applied Physics Letters, 2012, 101, .	3.3	50
10	Effects of RF bias power on electron energy distribution function and plasma uniformity in inductively coupled argon plasma. Thin Solid Films, 2011, 519, 7009-7013.	1.8	42
11	Effect of multistep ionizations on the electron temperature in an argon inductively coupled plasma. Applied Physics Letters, 2005, 87, 131502.	3.3	38
12	Discharge mode transition and hysteresis in inductively coupled plasma. Applied Physics Letters, 2013, 102, .	3.3	36
13	Eâ€“H mode transition in inductively coupled plasma using Ar, O2, N2, and mixture gas. Current Applied Physics, 2011, 11, S149-S153.	2.4	34
14	Low energy electron heating and evolution of the electron energy distribution by diluted O2 in an inductive Ar/O2 mixture discharge. Physics of Plasmas, 2010, 17, 013501.	1.9	33
15	Comparison of pressure dependence of electron energy distributions in oxygen capacitively and inductively coupled plasmas. Physical Review E, 2010, 81, 046402.	2.1	32
16	Distributed Ferromagnetic Inductively Coupled Plasma as an Alternative Plasma Processing Tool. Japanese Journal of Applied Physics, 2006, 45, 8035-8041.	1.5	29
17	Observation of inverse hysteresis in the E to H mode transitions in inductively coupled plasmas. Plasma Sources Science and Technology, 2010, 19, 015011.	3.1	29
18	Evolution of electron temperature in inductively coupled plasma. Applied Physics Letters, 2017, 110, .	3.3	28

#	Article	IF	Citations
19	Effect of antenna size on electron kinetics in inductively coupled plasmas. Physics of Plasmas, 2013, 20, 101607.	1.9	26
20	Experimental verification of the Boltzmann relation in confined plasmas: Comparison of noble and molecule gases. Physics of Plasmas, 2013, 20, 033504.	1.9	26
21	Effect of Electron Energy Distribution on the Hysteresis of Plasma Discharge: Theory, Experiment and Modeling. Scientific Reports, 2015, 5, 15254.	3.3	26
22	Observation of collisionless heating of low energy electrons in low pressure inductively coupled argon plasmas. Applied Physics Letters, 2008, 93, .	3.3	22
23	Measurement of electron temperature and ion density using the self-bias effect in plasmas. Physics of Plasmas, 2010, 17, .	1.9	22
24	Observation of pressure gradient and related flow rate effect on the plasma parameters in plasma processing reactor. Physics of Plasmas, 2011, 18, .	1.9	19
25	Understanding the Synthesis of Ethylene Glycol Pulsed Plasma Discharges. Plasma Processes and Polymers, 2013, 10, 119-135.	3.0	19
26	In situ method for real time measurement of dielectric film thickness in plasmas. Journal of Applied Physics, 2010, 107, .	2.5	18
27	Comparisons of the electrical characteristics by impedance matching conditions on the Eâ€“H and Hâ€“E transition and the hysteresis of inductively coupled plasma. Thin Solid Films, 2012, 521, 185-188.	1.8	17
28	Two-dimensional-spatial distribution measurement of electron temperature and plasma density in low temperature plasmas. Review of Scientific Instruments, 2013, 84, 053505.	1.3	17
29	Electron energy flux control using dual power in side-type inductively coupled plasma. Physics of Plasmas, 2011, 18, .	1.9	16
30	Variation of the electron energy distribution with He dilution in an inductively coupled argon discharge. Physics of Plasmas, 2012, 19, .	1.9	16
31	Electron heating and control of electron energy distribution for the enhancement of the plasma ashing processing. Plasma Sources Science and Technology, 2015, 24, 024001.	3.1	16
32	E-H heating mode transition in inductive discharges with different antenna sizes. Physics of Plasmas, 2015, 22, .	1.9	15
33	Measurements of the total energy lost per electronâ€“ion pair lost in low-pressure inductive argon, helium, oxygen and nitrogen discharge. Plasma Sources Science and Technology, 2011, 20, 015005.	3.1	14
34	A study on the maximum power transfer condition in an inductively coupled plasma using transformer circuit model. Physics of Plasmas, 2013, 20, .	1.9	14
35	Plasma diagnostic method using intermodulation frequencies in a Langmuir probe. Applied Physics Letters, 2013, 103, .	3.3	14
36	Experimental investigation of edge-to-center density ratio in inductively coupled plasmas. Physics of Plasmas, 2010, 17, 073504.	1.9	13

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37	Effect of the RF bias on the plasma density in an argon inductively coupled plasma. Physics of Plasmas, 2020, 27, .	1.9	13
38	Determination of metastable level densities in a low-pressure inductively coupled argon plasma by the line-ratio method of optical emission spectroscopy. Journal Physics D: Applied Physics, 2011, 44, 285203.	2.8	12
39	Harmonic analysis of sideband signals generated in plasmas. Thin Solid Films, 2011, 519, 7042-7044.	1.8	12
40	Experimental investigation on plasma parameter profiles on a wafer level with reactor gap lengths in an inductively coupled plasma. Physics of Plasmas, 2015, 22, .	1.9	12
41	Evolution of Two-Dimensional Plasma Density on the Eâ€“H Heating-Mode Transition in Planar-Type Inductively Coupled Plasma. IEEE Transactions on Plasma Science, 2011, 39, 2536-2537.	1.3	10
42	Double probe diagnostics based on harmonic current detection for electron temperature and electropositive ion flux measurement in RF plasmas. Measurement Science and Technology, 2012, 23, 085001.	2.6	10
43	Transition of electron kinetics in weakly magnetized inductively coupled plasmas. Physics of Plasmas, 2013, 20, 101612.	1.9	10
44	Effects of capacitor termination to an antenna coil on the plasma parameters in a radio frequency inductively coupled plasma. Plasma Sources Science and Technology, 2013, 22, 055011.	3.1	10
45	Effect of remote inductively coupled plasma (ICP) on the electron energy probability function of an in-tandem main ICP. Physics of Plasmas, 2017, 24, .	1.9	10
46	Experimental investigation of edge-to-center density ratio in E-H mode transition of an inductively coupled plasma. Physics of Plasmas, 2017, 24, 123506.	1.9	10
47	Investigation of the Boltzmann relation in plasmas with non-Maxwellian electron distribution. Physics of Plasmas, 2014, 21, 023511.	1.9	9
48	A study on plasma parameters in Ar/SF6 inductively coupled plasma. Physics of Plasmas, 2017, 24, .	1.9	9
49	Electron energy distribution modification by RF bias in Ar/SF6 inductively coupled plasmas. Applied Physics Letters, 2019, 115, .	3.3	9
50	Experimental measurement of the total energy losses in a low pressure inductively coupled argon plasma. Applied Physics Letters, 2009, 95, 111501.	3.3	8
51	Pulsed plasma measurement method using harmonic analysis. Journal of Applied Physics, 2015, 117, 243302.	2.5	8
52	Effect of the electron energy distribution on total energy loss with argon in inductively coupled plasmas. Physics of Plasmas, 2015, 22, .	1.9	8
53	Improved numerical AC superposition method for electron energy distribution functions. Physics of Plasmas, 2017, 24, .	1.9	8
54	Method for measurement of transferred power to plasma in inductive discharges. Thin Solid Films, 2013, 547, 9-12.	1.8	7

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55	Global model including multistep ionizations in helium plasmas. Physics of Plasmas, 2016, 23, 123508.	1.9	7
56	On the E to H mode transition in a dual frequency (2 and 13.56â€‰MHz) inductively coupled plasma. Physics of Plasmas, 2020, 27, 023503.	1.9	7
57	Correlation of RF impedance with Ar plasma parameters in semiconductor etch equipment using inductively coupled plasma. AIP Advances, 2021, 11, 025027.	1.3	7
58	Improvement of Plasma Resistance of Anodic Aluminum-Oxide Film in Sulfuric Acid Containing Cerium(IV) Ion. Coatings, 2020, 10, 103.	2.6	7
59	Noninvasive method to measure the ion flux in capacitive discharge. Applied Physics Letters, 2007, 91, 221505.	3.3	6
60	Measurement of the total energy losses per electron-ion lost in various mixed gas inductively coupled plasmas. Physics of Plasmas, 2010, 17, 043508.	1.9	6
61	Effect of helium on spatial plasma parameters in low pressure argon-helium plasma. Applied Physics Letters, 2012, 100, 164107.	3.3	6
62	Spatial measurements of electron energy distribution and plasma parameters in a weakly magnetized inductive discharge. Physics of Plasmas, 2013, 20, .	1.9	6
63	Control of plasma density distribution via wireless power transfer in an inductively coupled plasma. Plasma Sources Science and Technology, 2013, 22, 032002.	3.1	6
64	Colorimetric polydiacetylene for plasma diagnostics. Sensors and Actuators B: Chemical, 2014, 203, 130-134.	7.8	6
65	Temporal evolution of two-dimensional electron temperature and ion flux on a substrate in a pulsed-power inductively coupled plasma. Physics of Plasmas, 2017, 24, 053510.	1.9	6
66	Nonlinear circuit analysis of harmonic currents in a floating Langmuir probe with a capacitive load. Plasma Sources Science and Technology, 2017, 26, 025001.	3.1	6
67	High efficient plasma generation in an inductively coupled plasma using a passive resonant antenna. Plasma Sources Science and Technology, 2019, 28, 105018.	3.1	6
68	Effect of low frequency power on the electron energy distribution function in argon inductively coupled plasmas. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2020, 38, .	1.2	6
69	Measurement of sheath thickness at a floating potential. Physics of Plasmas, 2014, 21, 023512.	1.9	5
70	Evolution of two-dimensional plasma parameters in the plane of the wafer during the E- to H- and H- to E-mode transition in an inductively coupled plasma. Plasma Sources Science and Technology, 2018, 27, 055018.	3.1	5
71	Measurement of the electron energy distribution function in CO2 inductively coupled plasma. Physics of Plasmas, 2019, 26, .	1.9	5
72	Hysteresis and current reduction during Eâ€“H mode transition in an inductively coupled plasma. Physics of Plasmas, 2020, 27, .	1.9	5

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73	Effects of RF bias frequency and power on the plasma parameters and ash rate in a remote plasma source. Plasma Sources Science and Technology, 2021, 30, 025009.	3.1	5
74	Probe diagnostics in the far scrape-off layer plasma of Korea Superconducting Tokamak Advanced Research tokamak using a sideband harmonic method. Review of Scientific Instruments, 2015, 86, 123508.	1.3	4
75	The sheath effect on the floating harmonic method. Physics of Plasmas, 2015, 22, 123503.	1.9	4
76	A study on improvement of discharge characteristic by using a transformer in a capacitively coupled plasma. Physics of Plasmas, 2015, 22, .	1.9	4
77	Transient voltage analysis on a series capacitor of the floating probe for plasma diagnostics. Plasma Sources Science and Technology, 2018, 27, 075010.	3.1	4
78	A method for measuring negative ion density distribution using harmonic currents in a low-pressure oxygen plasma. Plasma Sources Science and Technology, 2020, 29, 065017.	3.1	4
79	Local electron and ion density control using passive resonant coils in inductively coupled plasma. Plasma Sources Science and Technology, 2021, 30, 025002.	3.1	4
80	A wafer-like apparatus for two-dimensional measurement of plasma parameters and temperature distribution in low-temperature plasmas. Review of Scientific Instruments, 2021, 92, 053531.	1.3	4
81	Effect of RF bias power on discharge mode transition and its hysteresis in inductively coupled plasmas. Physics of Plasmas, 2022, 29, .	1.9	4
82	Electromagnetically coupled resonators using toroidal ferrite core for wireless power transfer. , 2012, , .		3
83	Real-time dielectric-film thickness measurement system for plasma processing chamber wall monitoring. Review of Scientific Instruments, 2015, 86, 123502.	1.3	3
84	Control of Spatial Power Deposition by Wireless Power Transfer Method Applicable to Inductively Coupled Plasma. IEEE Transactions on Plasma Science, 2015, 43, 2766-2767.	1.3	3
85	Control of the floating potential using dual-frequency. Physics of Plasmas, 2016, 23, .	1.9	3
86	Experimental investigation on the spatial distribution of floating potential at the wafer-level in inductively coupled oxygen plasma. Physics of Plasmas, 2019, 26, 083509.	1.9	3
87	Experimental investigation on the reduction in antenna coil current during the E to H mode transition in an inductively coupled plasma. Physics of Plasmas, 2019, 26, .	1.9	3
88	Control of the spatial distribution of ion flux in dual inductively coupled plasmas. Journal of Applied Physics, 2021, 129, .	2.5	3
89	Low-energy electron beam generation in inductively coupled plasma via a DC biased grid. Plasma Sources Science and Technology, 2022, 31, 025002.	3.1	3
90	Enhanced plasma generation in capacitively coupled plasma using a parallel inductor. Plasma Sources Science and Technology, 0, , .	3.1	3

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91	Experimental observation of the plasma potential with the screening temperature. Physics of Plasmas, 2014, 21, 033506.	1.9	2
92	Experimental observation of the effect of electron attachment and detachment reactions on the electron energy distribution in an inductive oxygen discharge. Physics of Plasmas, 2020, 27, .	1.9	2
93	Electrical and plasma characterization of a hybrid plasma source combined with inductively coupled and capacitively coupled plasmas for O atom generation. Physics of Plasmas, 2020, 27, .	1.9	2
94	Effect of electron kinetics on plasma density in inductively coupled plasmas using a passive resonant antenna. Physics of Plasmas, 2020, 27, 063511.	1.9	2
95	Control of electron and ion density profiles via virtual ground position control in an inductively coupled plasma. Physics of Plasmas, 2020, 27, .	1.9	2
96	Experimental investigation on optimal plasma generation in inductively coupled plasma. Physics of Plasmas, 2021, 28, 053507.	1.9	2
97	Mode transition of power dissipation and plasma parameters in an asymmetric capacitive discharge. Thin Solid Films, 2013, 547, 38-42.	1.8	1
98	Study on Plasma Uniformity Using 2-D Measurement Method in Argon Inductively Coupled Plasmas. IEEE Transactions on Plasma Science, 2014, 42, 2858-2859.	1.3	1
99	Relatively high plasma density in low pressure inductive discharges. Physics of Plasmas, 2015, 22, 093517.	1.9	1
100	Pulsed floating-type Langmuir probe for measurements of electron energy distribution function in plasmas. Physics of Plasmas, 2017, 24, 013508.	1.9	1
101	Noninvasive electrical plasma monitoring method using reactor substrates as alternative current-sensing electrodes. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2018, 36, 031302.	2.1	1
102	Degradation Test for an Anodic Aluminum Oxide Film in Plasma Etching. Journal of the Korean Physical Society, 2019, 74, 1046-1051.	0.7	1
103	Nonlinear circuit analysis of intermodulation currents in a floating Langmuir probe with a capacitive load. Physics of Plasmas, 2020, 27, 033508.	1.9	1
104	Noninvasive method to measure the electron temperature in radio frequency capacitively coupled plasmas. Applied Physics Letters, 2021, 118, 204101.	3.3	1
105	Response to â€œComment on â€˜A study on improvement of discharge characteristic by using a transformer in a capacitively coupled plasmaâ€™â€•[Phys. Plasmas 28, 064701 (2021)]. Physics of Plasmas, 2021, 28, 064702.	1.9	1
106	Improvement of the floating probe method for ion density and electron temperature measurement without compensation due to voltage reduction across the sheath. Plasma Sources Science and Technology, 2021, 30, 065006.	3.1	1
107	A method for measuring plasma parameters and dielectric film thickness by analyzing transient voltages for deposition plasma processing monitoring. Plasma Sources Science and Technology, 2020, 29, 075006.	3.1	1
108	New Method to Measure the Electron Temperature and the Plasma Density in a Single-Frequency Capacitive Discharge. Journal of the Korean Physical Society, 2007, 51, 1307.	0.7	1

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109	Simultaneous measurements of plasma parameters and blob characteristics at the far-SOL region using a hybrid probe in KSTAR. Fusion Engineering and Design, 2021, 172, 112900.	1.9	1
110	Plasma and electrical characteristics depending on an antenna position in an inductively coupled plasma with a passive resonant antenna. Plasma Sources Science and Technology, 2022, 31, 015002.	3.1	1
111	Measurement of the electron energy distribution functions in low density RF plasmas through a tunable external RF filter. Plasma Sources Science and Technology, 0, , .	3.1	1
112	Hysteresis control using a DC magnetic field in an argon inductively coupled plasma. Physics of Plasmas, 2021, 28, .	1.9	1
113	Correlation of SiO₂ etch rate in CF₄ plasma with electrical circuit parameter obtained from VI probe in inductively coupled plasma etcher. Journal Physics D: Applied Physics, 0, , .	2.8	1
114	Inductively coupled RF heating of nano-particle for non-invasive and selective cancer cell destruction. , 2010, , .		0
115	Plasma diagnostics with high-time resolution based on floating harmonic method in pulsed plasma. , 2012, , .		0
116	Enhanced Plasma Uniformity in RF Plasma With Side Multihole. IEEE Transactions on Plasma Science, 2014, 42, 2766-2767.	1.3	0
117	A monitoring device made of an anodic aluminum oxide template for plasma-induced charging potential measurements in the high-aspect-ratio trench structure. Review of Scientific Instruments, 2018, 89, 115006.	1.3	0
118	Compensation of the sheath effects in cylindrical floating probes. Physics of Plasmas, 2018, 25, 053516.	1.9	0
119	Experimental comparative analysis on series and parallel antenna in an inductively coupled plasma. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2019, 37, 062922.	1.2	0
120	The opposite pressure dependence of electron temperature with respect to O2/Ar mixing ratio in an inductively coupled plasma. Physics of Plasmas, 2020, 27, 113504.	1.9	0
121	Development of high-efficiency capacitive discharge using magnetic resonance wireless power transfer systems. Plasma Sources Science and Technology, 2021, 30, 055017.	3.1	0
122	Two-dimensional measurements of the ELM filament using a multi-channel electrical probe array with high time resolution at the far SOL region in the KSTAR. Nuclear Engineering and Technology, 2022, , .	2.3	0