Mark J Kushner

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/1167034/publications.pdf

Version: 2024-02-01

233	10,994	55	94
papers	citations	h-index	g-index

28242 39638

236	236	236	4990
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	The 2012 Plasma Roadmap. Journal Physics D: Applied Physics, 2012, 45, 253001.	1.3	511
2	A model for the discharge kinetics and plasma chemistry during plasma enhanced chemical vapor deposition of amorphous silicon. Journal of Applied Physics, 1988, 63, 2532-2551.	1.1	451
3	A model for plasma modification of polypropylene using atmospheric pressure discharges. Journal Physics D: Applied Physics, 2003, 36, 666-685.	1.3	415
4	Hybrid modelling of low temperature plasmas for fundamental investigations and equipment design. Journal Physics D: Applied Physics, 2009, 42, 194013.	1.3	291
5	O2(Î”1) production in Heâˆ•O2 mixtures in flowing low pressure plasmas. Journal of Applied Physics, 2004, 96, 2451-2465.	1.1	250
6	Numerical investigation of the kinetics and chemistry of rf glow discharge plasmas sustained in He, N2, O2, He/N2/O2, He/CF4/O2, and SiH4/NH3using a Monte Carloâ€fluid hybrid model. Journal of Applied Physics, 1992, 71, 1654-1673.	1.1	226
7	Atmospheric pressure dielectric barrier discharges interacting with liquid covered tissue. Journal Physics D: Applied Physics, 2014, 47, 165201.	1.3	201
8	Reaction chemistry and optimization of plasma remediation of NxOyfrom gas streams. Journal of Applied Physics, 1995, 78, 2074-2085.	1.1	197
9	Argon metastable densities in radio frequency Ar, Ar/O2 and Ar/CF4 electrical discharges. Journal of Applied Physics, 1997, 82, 2805-2813.	1.1	188
10	A general memristor-based partial differential equation solver. Nature Electronics, 2018, 1, 411-420.	13.1	183
11	Plasma remediation of trichloroethylene in silent discharge plasmas. Journal of Applied Physics, 1993, 74, 5378-5386.	1.1	173
12	Helium atmospheric pressure plasma jets touching dielectric and metal surfaces. Journal of Applied Physics, 2015, 118, 013301.	1.1	167
13	Atmospheric pressure plasma jets interacting with liquid covered tissue: touching and not-touching the liquid. Journal Physics D: Applied Physics, 2014, 47, 475203.	1.3	164
14	A Comparison of Corona-Treated and Flame-Treated Polypropylene Films. Plasmas and Polymers, 2003, 8, 61-95.	1.5	161
15	Formation of reactive oxygen and nitrogen species by repetitive negatively pulsed helium atmospheric pressure plasma jets propagating into humid air. Plasma Sources Science and Technology, 2015, 24, 035026.	1.3	150
16	Air plasma treatment of liquid covered tissue: long timescale chemistry. Journal Physics D: Applied Physics, 2016, 49, 425204.	1.3	149
17	Removal of SO2from gas streams using a dielectric barrier discharge and combined plasma photolysis. Journal of Applied Physics, 1991, 69, 4409-4417.	1.1	147
18	Investigations of surface reactions during C2F6 plasma etching of SiO2 with equipment and feature scale models. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2001, 19, 524-538.	0.9	147

#	Article	IF	Citations
19	Plasma atomic layer etching using conventional plasma equipment. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2009, 27, 37-50.	0.9	145
20	Modeling of microdischarge devices: Pyramidal structures. Journal of Applied Physics, 2004, 95, 846-859.	1.1	143
21	Twoâ€dimensional hybrid model of inductively coupled plasma sources for etching. Applied Physics Letters, 1993, 63, 605-607.	1.5	138
22	Properties of c-C[sub 4]F[sub 8] inductively coupled plasmas. II. Plasma chemistry and reaction mechanism for modeling of Ar/c-C[sub 4]F[sub 8]/O[sub 2] discharges. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2004, 22, 511.	0.9	116
23	Simulation of the gasâ€phase processes in remoteâ€plasmaâ€activated chemicalâ€vapor deposition of silicon dielectrics using rare gasâ€"silaneâ€ammonia mixtures. Journal of Applied Physics, 1992, 71, 4173-4189.	1.1	113
24	The role of negative ions in the formation of particles in lowâ€pressure plasmas. Journal of Applied Physics, 1993, 74, 853-861.	1.1	106
25	A threeâ€dimensional model for inductively coupled plasma etching reactors: Azimuthal symmetry, coil properties, and comparison to experiments. Journal of Applied Physics, 1996, 80, 1337-1344.	1.1	102
26	Plasma chemistry of He/O2/SiH4and He/N2O/SiH4mixtures for remote plasmaâ€activated chemicalâ€vapor deposition of silicon dioxide. Journal of Applied Physics, 1993, 74, 6538-6553.	1.1	100
27	Electron collisions with atoms, ions, molecules, and surfaces: Fundamental science empowering advances in technology. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 7026-7034.	3.3	99
28	Structure of positive streamers inside gaseous bubbles immersed in liquids. Journal Physics D: Applied Physics, 2009, 42, 132003.	1.3	98
29	Excitation mechanisms of the electronâ€beamâ€pumped atomic xenon (5dâ†'6p) laser in Ar/Xe mixtures. Journal of Applied Physics, 1989, 66, 5131-5145.	1.1	95
30	Monte Carloâ€fluid hybrid model of the accumulation of dust particles at sheath edges in radioâ€frequency discharges. Applied Physics Letters, 1991, 59, 638-640.	1.5	95
31	Excitation mechanisms and gain modeling of the highâ€pressure atomic Ar laser in He/Ar mixtures. Journal of Applied Physics, 1994, 75, 1883-1890.	1.1	93
32	Propagation mechanisms of guided streamers in plasma jets: the influence of electronegativity of the surrounding gas. Plasma Sources Science and Technology, 2015, 24, 035022.	1.3	89
33	Predictions of ion energy distributions and radical fluxes in radio frequency biased inductively coupled plasma etching reactors. Journal of Applied Physics, 1996, 79, 2275-2286.	1.1	86
34	Integrated plasma equipment model for polysilicon etch profiles in an inductively coupled plasma reactor with subwafer and superwafer topography. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1997, 15, 1913-1921.	0.9	83
35	A model for particulate contaminated glow discharges. Journal of Applied Physics, 1991, 69, 6952-6961.	1.1	81
36	Modeling of magnetically enhanced capacitively coupled plasma sources: Ar discharges. Journal of Applied Physics, 2003, 94, 1436-1447.	1.1	78

#	Article	IF	Citations
37	Destruction mechanisms for formaldehyde in atmospheric pressure low temperature plasmas. Journal of Applied Physics, 1993, 73, 51-55.	1.1	76
38	Observations of electric discharge streamer propagation and capillary oscillations on the surface of air bubbles in water. Journal Physics D: Applied Physics, 2011, 44, 082001.	1.3	75
39	Experimental and modeling analysis of fast ionization wave discharge propagation in a rectangular geometry. Physics of Plasmas, 2011, 18, .	0.7	73
40	A semianalytic radio frequency sheath model integrated into a two-dimensional hybrid model for plasma processing reactors. Journal of Applied Physics, 1997, 81, 569-577.	1.1	72
41	The effect of radio frequency plasma processing reactor circuitry on plasma characteristics. Journal of Applied Physics, 1998, 83, 5087-5094.	1.1	69
42	High energy electron fluxes in dc-augmented capacitively coupled plasmas. II. Effects on twisting in high aspect ratio etching of dielectrics. Journal of Applied Physics, 2010, 107, .	1.1	67
43	Atmospheric pressure plasma activation of water droplets. Journal Physics D: Applied Physics, 2019, 52, 355207.	1.3	66
44	Dynamics of a coplanar-electrode plasma display panel. II. Cell optimization. Journal of Applied Physics, 1999, 85, 3470-3476.	1.1	65
45	Plasma abatement of perfluorocompounds in inductively coupled plasma reactors. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2000, 18, 213-231.	0.9	65
46	Propagation of negative electrical discharges through 2-dimensional packed bed reactors. Journal Physics D: Applied Physics, 2017, 50, 025203.	1.3	65
47	Ion activation energy delivered to wounds by atmospheric pressure dielectric-barrier discharges: sputtering of lipid-like surfaces. Journal Physics D: Applied Physics, 2012, 45, 115203.	1.3	64
48	Plasma etching of high aspect ratio features in SiO2 using Ar/C4F8/O2 mixtures: A computational investigation. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2019, 37, .	0.9	64
49	Interaction between soot particles and NOx during dielectric barrier discharge plasma remediation of simulated diesel exhaust. Journal of Applied Physics, 2000, 88, 6060-6071.	1.1	63
50	Consequences of propene and propane on plasma remediation of NOx. Journal of Applied Physics, 2000, 88, 3739-3747.	1.1	63
51	Mechanisms for CF2 radical generation and loss on surfaces in fluorocarbon plasmas. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2000, 18, 2661-2668.	0.9	62
52	Streamer dynamics in gases containing dust particles. Plasma Sources Science and Technology, 2006, 15, 591-602.	1.3	62
53	Chemical kinetics in an atmospheric pressure helium plasma containing humidity. Physical Chemistry Chemical Physics, 2018, 20, 24263-24286.	1.3	62
54	Design issues in ionized metal physical vapor deposition of copper. Journal of Applied Physics, 1998, 83, 35-43.	1.1	59

#	Article	IF	Citations
55	Trench filling by ionized metal physical vapor deposition. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2001, 19, 2652-2663.	0.9	59
56	Plasma-driven solution electrolysis. Journal of Applied Physics, 2021, 129, .	1.1	58
57	Computer simulation of materials processing plasma discharges. Critical Reviews in Solid State and Materials Sciences, 1989, 16, 1-35.	6.8	56
58	Pulsed plasmas as a method to improve uniformity during materials processing. Journal of Applied Physics, 2004, 96, 82-93.	1.1	56
59	Helium atmospheric pressure plasma jets interacting with wet cells: delivery of electric fields. Journal Physics D: Applied Physics, 2016, 49, 185201.	1.3	56
60	On the balance between silylene and silyl radicals in rf glow discharges in silane: The effect on deposition rates ofaâ€Si:H. Journal of Applied Physics, 1987, 62, 2803-2811.	1.1	55
61	Model for noncollisional heating in inductively coupled plasma processing sources. Journal of Applied Physics, 1997, 81, 5966-5974.	1.1	55
62	Wave propagation and power deposition in magnetically enhanced inductively coupled and helicon plasma sources. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2001, 19, 76-86.	0.9	53
63	Integrated feature scale modeling of plasma processing of porous and solid SiO2. I. Fluorocarbon etching. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2004, 22, 1242-1259.	0.9	53
64	Electron energy distributions and anomalous skin depth effects in high-plasma-density inductively coupled discharges. Physical Review E, 2002, 66, 066411.	0.8	52
65	Multiple microdischarge dynamics in dielectric barrier discharges. Journal of Applied Physics, 1998, 84, 4153-4160.	1.1	51
66	450 mm dual frequency capacitively coupled plasma sources: Conventional, graded, and segmented electrodes. Journal of Applied Physics, 2010, 108, 113306.	1.1	50
67	Plasma-induced flow instabilities in atmospheric pressure plasma jets. Applied Physics Letters, 2017, 111, .	1.5	49
68	Electron energy distributions in electron cyclotron resonance discharges for materials processing. Journal of Applied Physics, 1992, 72, 33-42.	1.1	48
69	Atomic layer etching of 3D structures in silicon: Self-limiting and nonideal reactions. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2017, 35, .	0.9	47
70	Solving the spatially dependent Boltzmannâ€™s equation for the electronâ€velocity distribution using flux corrected transport. Journal of Applied Physics, 1989, 66, 5763-5774.	1.1	45
71	Two-dimensional modeling of long-term transients in inductively coupled plasmas using moderate computational parallelism. II. Ar/Cl2 pulsed plasmas. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2002, 20, 325-334.	0.9	45
72	Calculated cross sections for electron collisions with NF₃, NF₂and NF with applications to remote plasma sources. Plasma Sources Science and Technology, 2017, 26, 065010.	1.3	45

#	Article	IF	Citations
73	Molecular admixtures and impurities in atmospheric pressure plasma jets. Journal of Applied Physics, 2018, 124, .	1.1	45
74	Transient behavior in quasi-atomic layer etching of silicon dioxide and silicon nitride in fluorocarbon plasmas. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2018, 36, .	0.9	45
75	Role of neutral transport in aspect ratio dependent plasma etching of three-dimensional features. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2017, 35, .	0.9	44
76	Mutual shielding of closely spaced dust particles in low pressure plasmas. Journal of Applied Physics, 1994, 75, 3351-3357.	1.1	43
77	Continuous processing of polymers in repetitively pulsed atmospheric pressure discharges with moving surfaces and gas flow. Journal Physics D: Applied Physics, 2007, 40, 6953-6968.	1.3	43
78	Breakdown characteristics in nonplanar geometries and hollow cathode pseudospark switches. Journal of Applied Physics, 1992, 71, 94-100.	1.1	42
79	Control of electron energy distributions and plasma characteristics of dual frequency, pulsed capacitively coupled plasmas sustained in Ar and Ar/CF₄/O₂. Plasma Sources Science and Technology, 2012, 21, 055028.	1.3	42
80	Monte Carlo simulation of surface kinetics during plasma enhanced chemical vapor deposition of SiO2 using oxygen/tetraethoxysilane chemistry. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1993, 11, 2562-2571.	0.9	41
81	Two-dimensional modeling of long-term transients in inductively coupled plasmas using moderate computational parallelism. I. Ar pulsed plasmas. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2002, 20, 313-324.	0.9	41
82	Radially dependent solutions of Boltzmannâ€™s equation in lowâ€temperature plasmas using a modified twoâ€term expansion. Journal of Applied Physics, 1993, 73, 1080-1090.	1.1	40
83	Seasoning of plasma etching reactors: Ion energy distributions to walls and real-time and run-to-run control strategies. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2008, 26, 498-512.	0.9	40
84	Long-term effects of multiply pulsed dielectric barrier discharges in air on thin water layers over tissue: stationary and random streamers. Journal Physics D: Applied Physics, 2015, 48, 494002.	1.3	39
85	Electrode configurations in atmospheric pressure plasma jets: production of reactive species. Plasma Sources Science and Technology, 2018, 27, 105020.	1.3	39
86	Noncollisional heating and electron energy distributions in magnetically enhanced inductively coupled and helicon plasma sources. Journal of Applied Physics, 2001, 90, 3699-3712.	1.1	38
87	Controlling VUV photon fluxes in low-pressure inductively coupled plasmas. Plasma Sources Science and Technology, 2015, 24, 034017.	1.3	38
88	Plasma kinetics in a nanosecond pulsed filamentary discharge sustained in Arâ€“H2O and H2O. Journal Physics D: Applied Physics, 2019, 52, 044003.	1.3	38
89	Electron transport coefficients in dusty argon plasmas. Applied Physics Letters, 1989, 55, 951-953.	1.5	37
90	Modeling of magnetically enhanced capacitively coupled plasma sources: Ar/C4F8/O2 discharges. Journal of Applied Physics, 2004, 95, 834-845.	1.1	37

#	Article	IF	Citations
91	Consequences of asymmetric pumping in low pressure plasma processing reactors: A three-dimensional modeling study. Journal of Applied Physics, 1997, 82, 5312-5320.	1.1	36
92	Ion composition of expanding microdischarges in dielectric barrier discharges. Journal of Applied Physics, 1998, 83, 7522-7532.	1.1	36
93	Self-consistent three-dimensional model of dust particle transport and formation of Coulomb crystals in plasma processing reactors. Journal of Applied Physics, 2002, 92, 6451-6460.	1.1	36
94	Ion drag effects in inductively coupled plasmas for etching. Applied Physics Letters, 1996, 68, 903-905.	1.5	34
95	Monte Carlo Simulation of the Electrodeposition of Copper. Journal of the Electrochemical Society, 2002, 149, C396.	1.3	34
96	Investigation of feature orientation and consequences of ion tilting during plasma etching with a three-dimensional feature profile simulator. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2017, 35, .	0.9	34
97	A phenomenological model for surface deposition kinetics during plasma and sputter deposition of amorphous hydrogenated silicon. Journal of Applied Physics, 1987, 62, 4763-4772.	1.1	33
98	Electronâ€beam controlled radio frequency discharges for plasma processing. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1996, 14, 2094-2101.	0.9	33
99	Influence of modeling and simulation on the maturation of plasma technology: Feature evolution and reactor design. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2003, 21, S152-S156.	0.9	33
100	Branching and path-deviation of positive streamers resulting from statistical photon transport. Plasma Sources Science and Technology, 2014, 23, 065041.	1.3	33
101	Investigation of capillary nanosecond discharges in air at moderate pressure: comparison of experiments and 2D numerical modelling. Journal Physics D: Applied Physics, 2014, 47, 365202.	1.3	33
102	Fluorine Plasma Treatments of Polypropylene Films, 1 â€“ Surface Characterization. Plasma Processes and Polymers, 2010, 7, 107-122.	1.6	32
103	Controlling VUV photon fluxes in pulsed inductively coupled Ar/Cl₂plasmas and potential applications in plasma etching. Plasma Sources Science and Technology, 2017, 26, 024005.	1.3	32
104	Time-resolved evolution of micro-discharges, surface ionization waves and plasma propagation in a two-dimensional packed bed reactor. Plasma Sources Science and Technology, 2018, 27, 085002.	1.3	32
105	The effects of He addition on the performance of the fissionâ€fragment excited Ar/Xe atomic xenon laser. Journal of Applied Physics, 1991, 69, 1843-1848.	1.1	31
106	Monte Carlo-fluid model of chlorine atom production in Cl2, HCl, and CCl4 radio-frequency discharges for plasma etching. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1992, 10, 2179.	1.6	31
107	Penetration of plasma into the wafer-focus ring gap in capacitively coupled plasmas. Journal of Applied Physics, 2007, 101, 113307.	1.1	31
108	Pattern dependent profile distortion during plasma etching of high aspect ratio features in SiO2. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2020, 38, .	0.9	30

#	Article	IF	Citations
109	Ion energy and angular distributions into the waferâ€"focus ring gap in capacitively coupled discharges. Journal Physics D: Applied Physics, 2008, 41, 062004.	1.3	29
110	Atmospheric pressure plasma jets onto a reactive water layer over tissue: pulse repetition rate as a control mechanism. Journal Physics D: Applied Physics, 2019, 52, 015201.	1.3	29
111	Simulation of the shielding of dust particles in low pressure glow discharges. Applied Physics Letters, 1993, 62, 2197-2199.	1.5	28
112	Generation of reactive species in water film dielectric barrier discharges sustained in argon, helium, air, oxygen and nitrogen. Journal Physics D: Applied Physics, 2020, 53, 435206.	1.3	27
113	A Monte Carlo simulation of radiation trapping in electrodeless gas discharge lamps. Journal Physics D: Applied Physics, 2004, 37, 1780-1791.	1.3	26
114	Fluorine Plasma Treatments of Poly(propylene) Films, 2 â€" Modeling Reaction Mechanisms and Scaling. Plasma Processes and Polymers, 2010, 7, 123-150.	1.6	26
115	High energy electron fluxes in dc-augmented capacitively coupled plasmas I. Fundamental characteristics. Journal of Applied Physics, 2010, 107, 023308.	1.1	26
116	Ionization wave propagation in an atmospheric pressure plasma multi-jet. Plasma Sources Science and Technology, 2019, 28, 125009.	1.3	26
117	Translationally hot neutrals in etching discharges. Journal of Applied Physics, 1991, 70, 1240-1251.	1.1	25
118	Multi-scale simulation of functionalization of rough polymer surfaces using atmospheric pressure plasmas. Journal Physics D: Applied Physics, 2006, 39, 1594-1598.	1.3	25
119	Synthesis of Silicon Nanoparticles in Nonthermal Capacitively-Coupled Flowing Plasmas: Processes and Transport. Plasma Chemistry and Plasma Processing, 2016, 36, 941-972.	1.1	25
120	Formation of surface ionization waves in a plasma enhanced packed bed reactor for catalysis applications. Chemical Engineering Journal, 2020, 382, 123038.	6.6	25
121	Discharge instabilities initiated by nonuniform laser extraction in electronâ€beam sustained discharge KrF lasers. Journal of Applied Physics, 1987, 62, 101-107.	1.1	24
122	Simulation of the switching performance of an optically triggered pseudoâ€spark thyratron. Journal of Applied Physics, 1989, 66, 2325-2331.	1.1	24
123	Pulsed inductively coupled chlorine plasmas in the presence of a substrate bias. Applied Physics Letters, 2001, 79, 2145-2147.	1.5	24
124	Insights to scaling remote plasma sources sustained in NF3mixtures. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2017, 35, 031302.	0.9	23
125	Interactions between atmospheric pressure plasmas and metallic catalyst particles in packed bed reactors. Journal Physics D: Applied Physics, 2021, 54, 104001.	1.3	23
126	Positive charging of grains in an afterglow plasma is enhanced by ions drifting in an electric field. Physics of Plasmas, 2021, 28, .	0.7	23

#	Article	IF	Citations
127	Response times and energy partitioning in electronâ€beamâ€excited plasmas. Journal of Applied Physics, 1989, 66, 2297-2306.	1.1	22
128	Multiâ€beamâ€bulk model for electron transport during commutation in an optically triggered pseudospark thyratron. Applied Physics Letters, 1990, 57, 1619-1621.	1.5	22
129	Regimes of particle trapping in inductively coupled plasma processing reactors. Applied Physics Letters, 1996, 68, 3716-3718.	1.5	22
130	A model for transport and agglomeration of particles in reactive ion etching plasma reactors. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1996, 14, 562-566.	0.9	22
131	Microdischarges for use as microthrusters: modelling and scaling. Journal Physics D: Applied Physics, 2008, 41, 105208.	1.3	22
132	Numerical study of the influence of surface reaction probabilities on reactive species in an rf atmospheric pressure plasma containing humidity. Plasma Physics and Controlled Fusion, 2018, 60, 014035.	0.9	22
133	Highly selective Si3N4/SiO2etching using an NF3/N2/O2/H2remote plasma. I. Plasma source and critical fluxes. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2020, 38, 023007.	0.9	22
134	Power matching to pulsed inductively coupled plasmas. Journal of Applied Physics, 2020, 127, .	1.1	22
135	Modeling of high power semiconductor switches operated in the nonlinear mode. Journal of Applied Physics, 1996, 79, 2084-2090.	1.1	21
136	Shapes of agglomerates in plasma etching reactors. Journal of Applied Physics, 1997, 81, 5960-5965.	1.1	21
137	The consequences of air flow on the distribution of aqueous species during dielectric barrier discharge treatment of thin water layers. Plasma Sources Science and Technology, 2016, 25, 055020.	1.3	21
138	Three-dimensional measurements of plasma parameters in an inductively coupled plasma processing chamber. Physics of Plasmas, 2019, 26, .	0.7	21
139	The effect of subwafer dielectrics on plasma properties in plasma etching reactors. Journal of Applied Physics, 1995, 77, 3668-3673.	1.1	20
140	Comparison of two-dimensional and three-dimensional models for profile simulation of poly-Si etching of finite length trenches. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1998, 16, 3274-3280.	0.9	20
141	Modeling of implantation and mixing damage during etching of SiO2 over Si in fluorocarbon plasmas. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2011, 29, .	0.9	20
142	Integrated feature scale modeling of plasma processing of porous and solid SiO2. II. Residual fluorocarbon polymer stripping and barrier layer deposition. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2004, 22, 1260-1274.	0.9	19
143	Ionization wave propagation on a micro cavity plasma array. Applied Physics Letters, 2011, 99, .	1.5	19
144	Space and phase resolved ion energy and angular distributions in single- and dual-frequency capacitively coupled plasmas. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2013, 31, .	0.9	19

#	Article	IF	Citations
145	The role of thermal energy accommodation and atomic recombination probabilities in low pressure oxygen plasmas. Plasma Physics and Controlled Fusion, 2017, 59, 024004.	0.9	19
146	Formation of XeI(B) in low pressure inductive radio frequency electric discharges sustained in mixtures of Xe and I2. Journal of Applied Physics, 1996, 80, 5593-5597.	1.1	18
147	Consequences of atomic layer etching on wafer scale uniformity in inductively coupled plasmas. Journal Physics D: Applied Physics, 2018, 51, 155201.	1.3	18
148	Ionization wave propagation in a He plasma jet in a controlled gas environment. Journal of Applied Physics, 2020, 128, 083301.	1.1	18
149	Fission fragment pumping of a neon plasma. Journal of Applied Physics, 1988, 63, 1796-1798.	1.1	17
150	Simulation of the formation of two-dimensional Coulomb liquids and solids in dusty plasmas. Journal of Applied Physics, 1997, 82, 2106-2114.	1.1	17
151	Downstream etching of silicon nitride using continuous-wave and pulsed remote plasma sources sustained in Ar/NF3/O2 mixtures. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2018, 36, .	0.9	17
152	Highly selective Si3N4/SiO2 etching using an NF3/N2/O2/H2 remote plasma. II. Surface reaction mechanism. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2020, 38, .	0.9	17
153	Short pulse electron beam excitation of the highâ€pressure atomic Ne laser. Journal of Applied Physics, 1993, 73, 8059-8065.	1.1	16
154	Pulsed plasmaâ€pulsed injection sources for remote plasma activated chemical vapor deposition. Journal of Applied Physics, 1993, 73, 4098-4100.	1.1	16
155	Angular anisotropy of electron energy distributions in inductively coupled plasmas. Journal of Applied Physics, 2003, 94, 5522-5529.	1.1	16
156	Electron energy distributions in a magnetized inductively coupled plasma. Physics of Plasmas, 2014, 21, 093512.	0.7	16
157	Enhanced control of the ionization rate in radio-frequency plasmas with structured electrodes via tailored voltage waveforms. Plasma Sources Science and Technology, 2017, 26, 125005.	1.3	16
158	Monte Carlo hydrodynamic simulation of neutral radical transport in low pressure remote plasma activated chemical vapor deposition. Applied Physics Letters, 1993, 62, 1594-1596.	1.5	15
159	The effect of CO2 on the plasma remediation of NxOy. Applied Physics Letters, 1996, 68, 2064-2066.	1.5	15
160	A Monte-Carlo model of xenon resonance radiation transport in a plasma display panel cell: Transition from optically thick to thin regimes. Journal of Applied Physics, 2000, 87, 2700-2707.	1.1	15
161	Propagation of positive discharges in an air bubble having an embedded water droplet. Plasma Sources Science and Technology, 2021, 30, 015005.	1.3	15
162	Heavyâ€ion versus electronâ€beam excitation of an excimer laser. Journal of Applied Physics, 1988, 64, 3799-3810.	1.1	14

#	Article	IF	Citations
163	Consequences of three-dimensional physical and electromagnetic structures on dust particle trapping in high plasma density material processing discharges. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1998, 16, 2454-2462.	0.9	14
164	Controller design issues in the feedback control of radio frequency plasma processing reactors. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1999, 17, 704-712.	0.9	14
165	Filamentation of capacitively coupled plasmas in large magnetic fields. Physics of Plasmas, 2019, 26, .	0.7	14
166	Production of disilane and silyl sticking coefficients during plasmaâ€enhanced chemical vapor deposition of hydrogenated amorphous silicon. Applied Physics Letters, 1989, 54, 1642-1644.	1.5	13
167	Highâ€temperature kinetics in He and Ne buffered XeF lasers: The effect on absorption. Applied Physics Letters, 1989, 54, 102-104.	1.5	13
168	Helium plasma jet interactions with water in well plates. Plasma Processes and Polymers, 2020, 17, 1900179.	1.6	13
169	Guided plasma jets directed onto wet surfaces: angular dependence and control. Journal Physics D: Applied Physics, 2021, 54, 045206.	1.3	13
170	A hybrid model for particle transport and electron energy distributions in positive column electrical discharges using equivalent species transport. Journal of Applied Physics, 1995, 78, 5909-5918.	1.1	12
171	Properties of arrays of microplasmas: application to control of electromagnetic waves. Plasma Sources Science and Technology, 2017, 26, 105006.	1.3	12
172	Interaction of positive streamers in air with bubbles floating on liquid surfaces: conductive and dielectric bubbles. Plasma Sources Science and Technology, 2018, 27, 015016.	1.3	12
173	Direct dissociation of F2in electron beam pumped excimer lasers: The effect on electron density. Applied Physics Letters, 1988, 52, 1856-1858.	1.5	11
174	Perturbation of the cathode fall in directâ€current glow discharges by particulate contamination. Applied Physics Letters, 1991, 59, 3102-3104.	1.5	11
175	Electron current extraction from radio frequency excited micro-dielectric barrier discharges. Journal of Applied Physics, 2013, 113, 033301.	1.1	11
176	Plasma transport around dust agglomerates having complex shapes. Journal of Applied Physics, 1998, 83, 5670-5677.	1.1	10
177	Inflight electron impact excitation in ionized metal physical vapor deposition. Journal of Applied Physics, 2001, 89, 878-882.	1.1	10
178	Spatio-temporal plasma heating mechanisms in a radio frequency electrothermal microthruster. Plasma Sources Science and Technology, 2018, 27, 085011.	1.3	10
179	Propagation of atmospheric pressure plasmas through interconnected pores in dielectric materials. Journal of Applied Physics, 2021, 129, .	1.1	10
180	Electric field reversals resulting from voltage waveform tailoring in Ar/O₂ capacitively coupled plasmas sustained in asymmetric systems. Plasma Sources Science and Technology, 2021, 30, 085002.	1.3	10

#	Article	IF	Citations
181	The effects of groundâ€state dynamics on the emission spectra of electricâ€dischargeâ€pumped XeCl lasers: A model for injection locking. Journal of Applied Physics, 1989, 65, 4138-4149.	1.1	9
182	Characteristics of an optically activated pulsed power GaAs(Si:Cu) switch obtained by twoâ€dimensional modeling. Journal of Applied Physics, 1995, 77, 3518-3522.	1.1	9
183	Diagnostic technique for measuring plasma parameters near surfaces in radio frequency discharges. Applied Physics Letters, 1998, 73, 2730-2732.	1.5	9
184	Erosion of focus rings in capacitively coupled plasma etching reactors. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2021, 39, .	0.9	9
185	Cathode heating mechanisms in pseudospark plasma switches. Journal of Applied Physics, 1992, 72, 3374-3383.	1.1	8
186	Temperature dependent gain of the atomic xenon laser. Applied Physics Letters, 1993, 63, 2872-2874.	1.5	8
187	A time dependent propagator method for long mean free path transport of neutral particles in plasma processing reactors. Journal of Applied Physics, 1996, 79, 3423-3431.	1.1	8
188	Dynamics of Dielectric Barrier Discharges Over Wounded Skin. IEEE Transactions on Plasma Science, 2011, 39, 2964-2965.	0.6	8
189	Transients using low-high pulsed power in inductively coupled plasmas. Plasma Sources Science and Technology, 2020, 29, 085006.	1.3	8
190	Evidence for inelastic processes for N+3and N+4from ion energy distributions in He/N2radio frequency glow discharges. Journal of Applied Physics, 1996, 79, 93-98.	1.1	7
191	Characteristics of pulsed plasma doping sources for ultrashallow junction formation. Journal of Applied Physics, 2007, 101, 063305.	1.1	7
192	Particle trapping, size-filtering, and focusing in the nonthermal plasma synthesis of sub-10 nanometer particles. Journal Physics D: Applied Physics, 2022, 55, 235202.	1.3	7
193	2-dimensional ion velocity distributions measured by laser-induced fluorescence above a radio-frequency biased silicon wafer. Physics of Plasmas, 2013, 20, 083506.	0.7	6
194	Scaling of atomic layer etching of SiO2 in fluorocarbon plasmas: Transient etching and surface roughness. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2021, 39, 033003.	0.9	6
195	Scaling of silicon nanoparticle growth in low temperature flowing plasmas. Journal of Applied Physics, 2021, 130, .	1.1	6
196	Harmonic content and time variation of electron energy distributions in high-plasma-density, low-pressure inductively coupled discharges. Journal of Applied Physics, 2003, 94, 2223-2233.	1.1	5
197	Experimental and numerical study of fast gas heating and O atom production in a capillary nanosecond discharge. , 2014, , .		5
198	Scaling of pulsed nanosecond capillary plasmas at different specific energy deposition. Plasma Sources Science and Technology, 2020, 29, 125006.	1.3	5

#	Article	IF	Citations
199	Atmospheric pressure plasma functionalization of polystyrene. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2022, 40, .	0.9	5
200	Townsend coefficients for electron scattering over dielectric surfaces. Journal of Applied Physics, 1988, 64, 4404-4409.	1.1	4
201	Fluorocarbon impurities in KrF lasers. Journal of Applied Physics, 1991, 69, 7419-7424.	1.1	4
202	Reactions in the afterglow of time modulated inductive discharges of Xe and I2 mixtures. Journal of Applied Physics, 1998, 84, 4727-4730.	1.1	4
203	Effects of a chirped bias voltage on ion energy distributions in inductively coupled plasma reactors. Journal of Applied Physics, 2017, 122, .	1.1	4
204	Microneedle Penetrating Array with Axon-Sized Dimensions for Cuff-less Peripheral Nerve Interfacing. , 2019, , .		4
205	Plasma-enhanced atomic layer deposition of SiO2 film using capacitively coupled Ar/O2 plasmas: A computational investigation. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2021, 39, 052403.	0.9	4
206	Ion-ion neutralization of iodine in radio-frequency inductive discharges of Xe and I2 mixtures. Journal of Applied Physics, 1997, 82, 2150-2155.	1.1	3
207	Simulation of Gas Phase Clustering of Nanocrystals in Sputter Discharges. Materials Research Society Symposia Proceedings, 1990, 206, 283.	0.1	2
208	Fundamentals of gas phase plasmas for treatment of human tissue. Studies in Health Technology and Informatics, 2011, 163, 297-303.	0.2	2
209	Computer simulation of massâ€selective plasmaâ€source ion implantation. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1994, 12, 1380-1386.	0.9	1
210	Time-Resolved Electron Energy Distributions and Plasma Characteristics in a Pulsed Capacitively Coupled Plasma. IEEE Transactions on Plasma Science, 2011, 39, 2542-2543.	0.6	1
211	Sumulation of porous low-k dielectric sealing by combined He and NH<inf>3</inf> plasma treatment. , 2009, , .		0
212	Modeling of mercury-free HID lamps: Kinetics and thermodynamcs. , 2010, , .		0
213	The interaction of plasma filaments in DBDS with wounded skin. , 2010, , .		0
214	Sealing of porous low-k dielectrics during plasma etching with H<inf>2</inf> plasma cleaning. , 2010, , .		0
215	Modeling of micro-dielectric barrier discharges. , 2010, , .		0
216	A computational study of interactions of multiple plasma filaments in DBDs with human skin. , 2010, , .		0

#	Article	IF	Citations
217	Independently controlled rf micro-dielectric barrier discharge arrays. , 2011, , .		0
218	Glow-to-arc transition in mercury-free HID lamps: Cathode phenomena and salt evaporation model. , 2011, , .		0
219	Direct and indirect treatment of living tissue: Dielectric barrier discharges VS. plasma jets. , 2011, , .		0
220	Numerical simulation of a microwave driven low pressure plasma for pet bottle treatment. , 2012, , .		0
221	Numerical simulation of a coaxial microplasma jet at atmospheric pressure. , 2012, , .		0
222	Atmospheric pressure plasmas penetrating through a packed-bed reactor. , 2013, , .		0
223	Arrays of atmospheric pressure microplasma jets: He/O<inf>2</inf> and Ar jets into air. , 2013, , .		0
224	The interaction of atmospheric pressure plasmas with liquid covered tissues. , 2013, , .		0
225	Glow-like atmospheric pressure micro-discharges produced by charge rollers. , 2013, , .		0
226	Computational investigation of dual-frequency power transfer in capacitively coupled plasmas. , 2013, , .		0
227	Control of electron energy distributions in inductively coupled plasmas using tandem sources. , 2013, , .		0
228	Control of ion energy distributions using phase shifting in multi-frequency capacitively coupled plasmas. , 2014, , .		0
229	Origins of aspect ratio dependent etching in plasma materials processing. , 2016, , .		0
230	Plasma formation during operation of diode (DPAL) and excimer (XPAL) pumped alkali lasers. , 2016, , .		0
231	Optimizing remote plasma sources for selective etching. , 2016, , .		0
232	Contact Edge Roughness In The Etching Of High Aspect Ratio Contacts In Sio<inf>2</inf>. , 2017, , .		0
233	10.1063/5.0069141.1. , 2021, , .		0