

Michael A Lieberman

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

85
papers

7,074
citations

34
h-index

84
g-index

88
ext. papers

7,711
ext. citations

2.9
avg, IF

6.09
L-index

#	Paper	IF	Citations
85	Nonlinear transmission line (NTL) model study of electromagnetic effects in high-frequency asymmetrically driven capacitive discharges. <i>Physics of Plasmas</i> , 2022 , 29, 013508	2.1	1
84	Particle-in-cell simulations of the alpha and gamma modes in collisional nitrogen capacitive discharges. <i>Plasma Sources Science and Technology</i> , 2021 , 30, 035001	3.5	4
83	Nonlinear harmonic excitations in collisional, asymmetrically-driven capacitive discharges. <i>Plasma Sources Science and Technology</i> , 2021 , 30, 045017	3.5	2
82	Particle-in-cell simulations and passive bulk model of collisional capacitive discharge. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2020 , 38, 023003	2.9	4
81	Multi-mode ionization instability induced striations in RF driven He/H ₂ O atmospheric pressure plasma (APP) discharges. <i>Physics of Plasmas</i> , 2019 , 26, 093506	2.1	1
80	Observation of Nonlinear Standing Waves Excited by Plasma-Series-Resonance-Enhanced Harmonics in Capacitive Discharges. <i>Physical Review Letters</i> , 2019 , 122, 185002	7.4	20
79	Instability-enhanced transport in low temperature magnetized plasma. <i>Physics of Plasmas</i> , 2019 , 26, 070702	2.1	7
78	Ionization instability induced striations in low frequency and pulsed He/H ₂ O atmospheric pressure plasmas. <i>Physics of Plasmas</i> , 2018 , 25, 013535	2.1	6
77	Symmetry breaking in high frequency, symmetric capacitively coupled plasmas. <i>Physics of Plasmas</i> , 2018 , 25, 093517	2.1	10
76	Experimental investigation of standing wave effect in dual-frequency capacitively coupled argon discharges: role of a low-frequency source. <i>Plasma Sources Science and Technology</i> , 2018 , 27, 055017	3.5	12
75	Ion Energy and Angular Distribution in Biased Inductively Coupled Ar/O ₂ Discharges by Using a Hybrid Model. <i>Plasma Processes and Polymers</i> , 2017 , 14, 1600100	3.4	8
74	Ionization instability induced striations in atmospheric pressure He/H ₂ O RF and DC discharges. <i>Journal Physics D: Applied Physics</i> , 2017 , 50, 145204	3	4
73	A nonlinear electromagnetics model of an asymmetrically-driven, low pressure capacitive discharge. <i>Physics of Plasmas</i> , 2017 , 24, 083517	2.1	13
72	Effect of a dielectric layer on plasma uniformity in high frequency electronegative capacitive discharges. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2017 , 35, 05C311	2.9	12
71	Nonlinear series resonance and standing waves in dual-frequency capacitive discharges. <i>Plasma Sources Science and Technology</i> , 2017 , 26, 015007	3.5	20
70	Linear electromagnetic excitation of an asymmetric low pressure capacitive discharge with unequal sheath widths. <i>Physics of Plasmas</i> , 2016 , 23, 013501	2.1	18
69	2D fluid-analytical simulation of electromagnetic effects in low pressure, high frequency electronegative capacitive discharges. <i>Plasma Sources Science and Technology</i> , 2016 , 25, 035007	3.5	9

68	Standing striations due to ionization instability in atmospheric pressure He/H ₂ O radio frequency capacitive discharges. <i>Plasma Sources Science and Technology</i> , 2016 , 25, 054009	3.5	8
67	Nonlinear standing wave excitation by series resonance-enhanced harmonics in low pressure capacitive discharges. <i>Plasma Sources Science and Technology</i> , 2015 , 24, 055011	3.5	22
66	Analytical model of atmospheric pressure, helium/trace gas radio-frequency capacitive Penning discharges. <i>Plasma Sources Science and Technology</i> , 2015 , 24, 025009	3.5	12
65	Particle-in-cell and global simulations of the transition in atmospheric pressure Penning-dominated capacitive discharges. <i>Plasma Sources Science and Technology</i> , 2014 , 23, 035014	3.5	18
64	Comparison of a hybrid model with experiments in atmospheric pressure helium and argon capacitive rf discharges. <i>Plasma Sources Science and Technology</i> , 2014 , 23, 065048	3.5	12
63	Hybrid model of neutral diffusion, sheaths, and the transition in an atmospheric pressure He/H ₂ O bounded rf discharge. <i>Journal Physics D: Applied Physics</i> , 2014 , 47, 305203	3	13
62	Fast 2D fluid-analytical simulation of ion energy distributions and electromagnetic effects in multi-frequency capacitive discharges. <i>Plasma Sources Science and Technology</i> , 2014 , 23, 064003	3.5	19
61	Electron heating in low pressure capacitive discharges revisited. <i>Physics of Plasmas</i> , 2014 , 21, 123505	2.1	18
60	Hybrid model of atmospheric pressure Ar/O ₂ /TiCl ₄ radio-frequency capacitive discharge for TiO ₂ deposition. <i>Journal of Applied Physics</i> , 2014 , 115, 183302	2.5	3
59	A benchmark study of a capacitively coupled oxygen discharge of the oopd1 particle-in-cell Monte Carlo code. <i>Plasma Sources Science and Technology</i> , 2013 , 22, 035011	3.5	61
58	Narrow gap electronegative capacitive discharges. <i>Physics of Plasmas</i> , 2013 , 20, 101603	2.1	1
57	Analytical-numerical global model of atmospheric-pressure radio-frequency capacitive discharges. <i>Plasma Sources Science and Technology</i> , 2012 , 21, 035013	3.5	47
56	Ar ⁺ and Xe ⁺ velocities near the presheath-sheath boundary in an Ar/Xe discharge. <i>Physical Review Letters</i> , 2011 , 107, 045002	7.4	26
55	Fast 2D hybrid fluid-analytical simulation of inductive/capacitive discharges. <i>Plasma Sources Science and Technology</i> , 2011 , 20, 035009	3.5	40
54	Two-dimensional particle-in-cell simulations of transport in a magnetized electronegative plasma. <i>Journal of Applied Physics</i> , 2010 , 108, 103305	2.5	9
53	Waves in expanding electronegative plasmas containing double layers. <i>Journal of Applied Physics</i> , 2010 , 107, 123301	2.5	3
52	Double layer formation in a two-region electronegative plasma. <i>Physics of Plasmas</i> , 2009 , 16, 122114	2.1	7
51	Enhancement of ohmic and stochastic heating by resonance effects in capacitive radio frequency discharges: a theoretical approach. <i>Physical Review Letters</i> , 2008 , 101, 085004	7.4	130

50	Modeling electromagnetic effects in capacitive discharges. <i>Plasma Sources Science and Technology</i> , 2008 , 17, 015018	3.5	66
49	The effects of nonlinear series resonance on Ohmic and stochastic heating in capacitive discharges. <i>Physics of Plasmas</i> , 2008 , 15, 063505	2.1	72
48	Theory of a double-layer in an expanding electronegative plasma. <i>Physics of Plasmas</i> , 2007 , 14, 093502	2.1	31
47	Inductive heating and E to H transitions in high frequency capacitive discharges. <i>Plasma Sources Science and Technology</i> , 2006 , 15, S130-S136	3.5	46
46	Stochastic heating in single and dual frequency capacitive discharges. <i>Physics of Plasmas</i> , 2006 , 13, 053506	2.1	131
45	Grounded radio-frequency electrodes in contact with high density plasmas. <i>Physics of Plasmas</i> , 2005 , 12, 103505	2.1	12
44	Inductive heating and E to H transitions in capacitive discharges. <i>Physical Review Letters</i> , 2005 , 95, 205001	1.4	53
43	2005 ,		3055
42	Self-consistent nonlinear transmission line model of standing wave effects in a capacitive discharge. <i>Physics of Plasmas</i> , 2004 , 11, 1775-1785	2.1	91
41	Dynamics of steady and unsteady operation of inductive discharges with attaching gases. <i>Journal of Applied Physics</i> , 2003 , 94, 831-843	2.5	29
40	Self-consistent discharge characteristics of collisional helicon plasmas. <i>Physics of Plasmas</i> , 2003 , 10, 882-890	2.1	30
39	Radical dynamics in unstable CF ₄ inductive discharges. <i>Journal of Applied Physics</i> , 2003 , 94, 76-84	2.5	30
38	Standing wave and skin effects in large-area, high-frequency capacitive discharges. <i>Plasma Sources Science and Technology</i> , 2002 , 11, 283-293	3.5	279
37	Photoresist etching in an inductively coupled, traveling wave driven, large area plasma source. <i>Journal of Applied Physics</i> , 2001 , 89, 869-877	2.5	7
36	Effect of ion energy on photoresist etching in an inductively coupled, traveling wave driven, large area plasma source. <i>Journal of Applied Physics</i> , 2001 , 89, 5318-5321	2.5	5
35	Effect of Ar addition to an O ₂ plasma in an inductively coupled, traveling wave driven, large area plasma source: O ₂ /Ar mixture plasma modeling and photoresist etching. <i>Journal of Applied Physics</i> , 2001 , 90, 3205-3211	2.5	68
34	Modeling a metal vapor buffer-gas hollow cathode discharge. <i>Journal of Applied Physics</i> , 2000 , 87, 7191-7197	2.1	12
33	Instabilities in low-pressure inductive discharges with attaching gases. <i>Applied Physics Letters</i> , 1999 , 75, 3617-3619	3.4	59

32	Internal sheaths in electronegative discharges. <i>Journal of Applied Physics</i> , 1999 , 86, 4142-4153	2.5	67
31	Magnetic induction and plasma impedance in a planar inductive discharge. <i>Plasma Sources Science and Technology</i> , 1998 , 7, 83-95	3.5	29
30	Measurements of pulsed-power modulated argon plasmas in an inductively coupled plasma source. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 1996 , 14, 391-397	2.9	86
29	Role of etch products in polysilicon etching in a high-density chlorine discharge. <i>Plasma Chemistry and Plasma Processing</i> , 1996 , 16, 99-120	3.6	144
28	Global model of Ar, O ₂ , Cl ₂ , and Ar/O ₂ high-density plasma discharges. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 1995 , 13, 368-380	2.9	420
27	Spatially averaged (global) model of time modulated high density argon plasmas. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 1995 , 13, 2498-2507	2.9	219
26	High frequency reactive ion etching of silylated photoresist. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 1994 , 12, 1351		7
25	Global Model of Plasma Chemistry in a High Density Oxygen Discharge. <i>Journal of the Electrochemical Society</i> , 1994 , 141, 1546-1555	3.9	191
24	Capacitive RF discharges modelled by particle-in-cell Monte Carlo simulation. II. Comparisons with laboratory measurements of electron energy distribution functions. <i>Plasma Sources Science and Technology</i> , 1993 , 2, 273-278	3.5	91
23	Analytic model of the ion angular distribution in a collisional sheath. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 1993 , 11, 1275-1282	2.9	25
22	Self-consistent electron cyclotron resonance absorption in a plasma with varying parameters. <i>Journal of Applied Physics</i> , 1992 , 72, 3924-3933	2.5	27
21	Structural and Interfacial Characteristics of thin (. <i>Materials Research Society Symposia Proceedings</i> , 1991 , 223, 75		1
20	Model of plasma immersion ion implantation for voltage pulses with finite rise and fall times. <i>Journal of Applied Physics</i> , 1991 , 70, 3481-3487	2.5	148
19	Sheath voltage ratio for asymmetric rf discharges. <i>Journal of Applied Physics</i> , 1991 , 69, 3823-3829	2.5	39
18	Selective Copper Plating in Silicon Dioxide Trenches with Metal Plasma Immersion Ion Implantation. <i>Materials Research Society Symposia Proceedings</i> , 1991 , 223, 377		6
17	Oxidation of silicon in an electron cyclotron resonance oxygen plasma: Kinetics, physicochemical, and electrical properties. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 1990 , 8, 2924-2930	2.9	57
16	Electron-beam probe measurements of electric fields in rf discharges. <i>Journal of Applied Physics</i> , 1990 , 68, 6117-6124	2.5	45
15	Kinetics of photoresist etching in an electron cyclotron resonance plasma. <i>Journal of Applied Physics</i> , 1990 , 68, 1859-1865	2.5	34

14	Spatial structure of a planar magnetron discharge. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 1990 , 8, 902-907	2.9	57
13	Cavity perturbation measurement of plasma density in complex geometry rf discharges. <i>Journal of Applied Physics</i> , 1989 , 66, 1618-1621	2.5	4
12	Spherical shell model of an asymmetric rf discharge. <i>Journal of Applied Physics</i> , 1989 , 65, 4186-4191	2.5	86
11	Model of plasma immersion ion implantation. <i>Journal of Applied Physics</i> , 1989 , 66, 2926-2929	2.5	249
10	Macroscopic modeling of radio-frequency plasma discharges. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 1989 , 7, 1007-1013	2.9	80
9	Plasma Immersion Ion Implantation for Impurity Gettering in Silicon. <i>Materials Research Society Symposia Proceedings</i> , 1989 , 147, 91		7
8	Axial distribution of optical emission in a planar magnetron discharge. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 1988 , 6, 2960-2964	2.9	64
7	Radial current distribution at a planar magnetron cathode. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 1988 , 6, 1827-1831	2.9	88
6	Electron beam time-of-flight plasma potential diagnostic. <i>Review of Scientific Instruments</i> , 1988 , 59, 128-131		31
5	Self-consistent stochastic electron heating in radio frequency discharges. <i>Journal of Applied Physics</i> , 1988 , 64, 4375-4383	2.5	71
4	Low impedance intense electron beam device. <i>Review of Scientific Instruments</i> , 1975 , 46, 1399-1401	1.7	1
3	Production of Alkali Plasmas by Photoionization. <i>Review of Scientific Instruments</i> , 1973 , 44, 35-37	1.7	3
2	Shielding of moving test particles in warm, isotropic plasma. <i>Journal of Plasma Physics</i> , 1973 , 9, 311-324	2.7	46
1	Benchmarked and upgraded particle-in-cell simulations of a capacitive argon discharge at intermediate pressure: the role of metastable atoms. <i>Plasma Sources Science and Technology</i> ,	3.5	5