

Laxminarayan L Raja

List of Publications by Year in descending order

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87
papers

1,353
citations

394421

19
h-index

395702

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87
all docs

87
docs citations

87
times ranked

812
citing authors

#	ARTICLE	IF	CITATIONS
1	Dynamics of subnormal regime in a direct-current nitrogen micro-discharge. <i>Physics of Plasmas</i> , 2022, 29, 023503.	1.9	5
2	Plasma kinetics of c-C4F8 inductively coupled plasma revisited. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2022, 40, 022203.	1.2	3
3	Influence of electron energy distribution on fluid models of a low-pressure inductively coupled plasma discharge. <i>Physics of Plasmas</i> , 2022, 29, .	1.9	5
4	Optimization of silicon etch rate in a CF4/Ar/O2 inductively coupled plasma. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2022, 40, .	1.2	2
5	Influence of the electron kinetics on Ar/NF ₃ inductively coupled plasma. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2022, 40, 042202.	1.2	0
6	Computational study of a novel microwave excited plasma sensor for aerodynamic flows. <i>Journal of Applied Physics</i> , 2021, 129, 084503.	2.5	1
7	Self-pulsing of direct-current discharge in planar and curved geometries. <i>Journal Physics D: Applied Physics</i> , 2021, 54, 235201.	2.8	7
8	Particle-in-cell Monte Carlo-collision modeling of non-ideal effects in wave-heated dense microplasmas. <i>Physics of Plasmas</i> , 2021, 28, .	1.9	2
9	VizGrain: a new computational tool for particle simulations of reactive plasma discharges and rarefied flow physics. <i>Plasma Sources Science and Technology</i> , 2021, 30, 055012.	3.1	3
10	Operating modes of a magnetized direct-current discharge in helium at pressures $\hat{\sim} 10^{-4}$ Pa. <i>Journal of Applied Physics</i> , 2021, 129, 183307.	2.5	2
11	Cyclic Self-Limiting Etching of Organic Polymers. <i>ACS Applied Polymer Materials</i> , 2021, 3, 3636-3648.	4.4	0
12	Computational study of plasma dynamics and reactive chemistry in a low-pressure inductively coupled CF4/O2 plasma. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2021, 39, .	1.2	7
13	Modeling of atmospheric gas-stream processing using a microwave excited all-dielectric resonant plasma discharge. <i>Journal Physics D: Applied Physics</i> , 2021, 54, 434005.	2.8	1
14	Direct-simulation Monte Carlo modeling of reactor-scale gas-dynamic phenomena in a multiwafer atomic-layer deposition batch reactor. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2021, 39, .	2.1	3
15	Modeling the effect of stochastic heating and surface chemistry in a pure CF4 inductively coupled plasma. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2021, 39, .	1.2	3
16	Fluid modeling of inductively coupled iodine plasma for electric propulsion conditions. <i>Journal of Applied Physics</i> , 2021, 130, .	2.5	9
17	Spoof plasmonic Brewster angle transmission for broadband electromagnetic energy squeezing in the microwave regime. <i>Journal of Applied Physics</i> , 2020, 128, .	2.5	1
18	Surface kinetics and feature scale particle model of Si _x N _y atomic layer deposition using Si ₂ Cl ₆ precursor. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2020, 38, .	2.1	5

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19	The effect of strong oscillating magnetic fields on electron transport properties in high-frequency discharges. Journal Physics D: Applied Physics, 2020, 53, 265203.	2.8	1
20	Modeling of plasma combustion ignition on an electromagnetic wave driven metasurface. Journal Physics D: Applied Physics, 2020, 53, 245202.	2.8	3
21	Computational analysis of gas breakdown modes in direct current micro-plasmas at elevated pressures. Journal of Applied Physics, 2020, 128, 233301.	2.5	10
22	Experimentally validated computations of simultaneous ion and fast neutral energy and angular distributions in a capacitively coupled plasma reactor. Journal Physics D: Applied Physics, 2020, 53, 435209.	2.8	8
23	Multidimensional modeling of non-equilibrium plasma generated by a radio-frequency corona discharge. Plasma Sources Science and Technology, 2020, 29, 115013.	3.1	9
24	Simulation of Chemically Reacting Flow in Plasma Native Oxide Cleaning Process. , 2019, , .		0
25	Microwave microplasma parameters at extremely high driving frequencies. Physics of Plasmas, 2019, 26, .	1.9	10
26	Modeling of a Dielectric-Barrier Discharge-Based Cold Plasma Combustion Ignition System. IEEE Transactions on Plasma Science, 2019, 47, 410-418.	1.3	19
27	Modeling of microwave surface plasmas on the meta-surface at atmospheric pressure. , 2019, , .		2
28	Modeling Gas Breakdown in High Quality Factor Resonators at GHz to THz Frequencies. , 2019, , .		1
29	Fully coupled modeling of nanosecond pulsed plasma assisted combustion ignition. Journal Physics D: Applied Physics, 2019, 52, 095204.	2.8	32
30	Modeling of thermalization phenomena in coaxial plasma accelerators. Journal Physics D: Applied Physics, 2018, 51, 215203.	2.8	12
31	Kinetic modeling of streamer penetration into de-ionized water. Physics of Plasmas, 2018, 25, 033515.	1.9	5
32	Measurements and modeling of the impact of radical recombination on silicon nitride growth in microwave plasma assisted atomic layer deposition. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2018, 36, .	2.1	14
33	High-voltage microdischarge as a source of extreme density plasma. Physics of Plasmas, 2018, 25, .	1.9	21
34	Modeling non-equilibrium discharge and validating transient plasma characteristics at above-atmospheric pressure. Plasma Sources Science and Technology, 2018, 27, 124006.	3.1	26
35	Static stall alleviation using a rail plasma actuator. Journal Physics D: Applied Physics, 2018, 51, 265201.	2.8	4
36	Nonlinear hydrodynamic effects in dense microplasmas interacting with microwaves. Journal of Applied Physics, 2018, 124, .	2.5	5

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37	Numerical investigation of nanosecond pulsed discharge in air at above-atmospheric pressures. Journal Physics D: Applied Physics, 2018, 51, 345201.	2.8	14
38	Experimental and Numerical Investigations of a Pulsed Nanosecond Streamer Discharge in CO ₂ . , 2017, , .		1
39	Measurement of Velocity Induced by a Propagating Arc Magneto-hydrodynamic Plasma Actuator. , 2017, , .		7
40	Kinetic effects during the interaction between high density microplasma and electromagnetic wave. Physics of Plasmas, 2017, 24, 043509.	1.9	4
41	Dynamics of Surface Streamer Plasmas at Atmospheric Pressure: Mixtures of Argon and Methane. IEEE Transactions on Plasma Science, 2017, 45, 1776-1787.	1.3	6
42	Magnetized direct current microdischarge. II. Effect of magnetic field amplitude on the plasma. Journal of Applied Physics, 2017, 121, .	2.5	4
43	Magnetized direct current microdischarge I. Effect of the gas pressure. Journal of Applied Physics, 2017, 121, 093302.	2.5	7
44	Fluid versus global model approach for the modeling of active species production by streamer discharge. Plasma Sources Science and Technology, 2017, 26, 035003.	3.1	23
45	The effect of electron processes on metal walls in magnetized microdischarges. Journal of Applied Physics, 2017, 122, .	2.5	2
46	Modeling of gas breakdown and early transients of plasma evolution in cylindrical all-dielectric resonators. Journal Physics D: Applied Physics, 2017, 50, 474003.	2.8	11
47	Population of vibrational levels of carbon dioxide by cylindrical fast ionization wave. Physics of Plasmas, 2017, 24, 093513.	1.9	0
48	On the production of energetic electrons at the negative streamer head at moderate overvoltage. Physics of Plasmas, 2017, 24, 124503.	1.9	18
49	Limitations of the effective field approximation for fluid modeling of high frequency discharges in atmospheric pressure air: Application in resonant structures. Physics of Plasmas, 2017, 24, 112105.	1.9	11
50	Response to "Comment on "Early stage time evolution of a dense nanosecond microdischarge used in fast optical switching applications" [Phys. Plasmas 23, 034705 (2016)]. Physics of Plasmas, 2016, 23, 034706.	1.9	1
51	Particle-in-cell modeling of gas-confined barrier discharge. Physics of Plasmas, 2016, 23, .	1.9	4
52	Fluid modeling of a high-voltage nanosecond pulsed xenon microdischarge. Physics of Plasmas, 2016, 23, 073513.	1.9	17
53	Computational modeling of a single microdischarge and its interactions with high frequency electromagnetic waves. Journal Physics D: Applied Physics, 2016, 49, 345501.	2.8	14
54	Electromagnetic wave energy flow control with a tunable and reconfigurable coupled plasma split-ring resonator metamaterial: A study of basic conditions and configurations. Journal of Applied Physics, 2016, 119, .	2.5	30

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55	Influence of field emission on the propagation of cylindrical fast ionization wave in atmospheric-pressure nitrogen. <i>Journal of Applied Physics</i> , 2016, 119, 153301.	2.5	18
56	Electron kinetics in atmospheric-pressure argon and nitrogen microwave microdischarges. <i>Journal of Applied Physics</i> , 2016, 119, .	2.5	18
57	Effect of oxygen impurities on atmospheric-pressure surface streamer discharge in argon for large gap arc breakdown. <i>Physics of Plasmas</i> , 2016, 23, 103501.	1.9	5
58	Influence of emitter temperature on the energy deposition in a low-pressure plasma. <i>Physics of Plasmas</i> , 2016, 23, 032107.	1.9	5
59	Microwave plasmas generated in bubbles immersed in liquids for hydrocarbons reforming. <i>Journal Physics D: Applied Physics</i> , 2016, 49, 22LT01.	2.8	15
60	Influence of field emission on microwave microdischarges. <i>High Voltage</i> , 2016, 1, 57-59.	4.7	7
61	Early stage time evolution of a dense nanosecond microdischarge used in fast optical switching applications. <i>Physics of Plasmas</i> , 2015, 22, .	1.9	29
62	Computational modeling of the effect of external electron injection into a direct-current microdischarge. <i>Journal of Applied Physics</i> , 2015, 118, .	2.5	11
63	Effect of frequency on microplasmas driven by microwave excitation. <i>Journal of Applied Physics</i> , 2015, 118, 043303.	2.5	16
64	Dynamics of a wire-to-cylinder atmospheric pressure high-voltage nanosecond discharge. <i>Physics of Plasmas</i> , 2015, 22, .	1.9	9
65	Breakdown of atmospheric pressure microgaps at high excitation frequencies. <i>Journal of Applied Physics</i> , 2015, 117, .	2.5	32
66	Magneto-hydrodynamics simulation study of deflagration mode in co-axial plasma accelerators. <i>Physics of Plasmas</i> , 2014, 21, 012104.	1.9	12
67	Computational modeling study of the radial line slot antenna microwave plasma source with comparisons to experiments. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2013, 31, .	2.1	30
68	A numerical study of high-pressure non-equilibrium streamers for combustion ignition application. <i>Journal of Applied Physics</i> , 2013, 114, .	2.5	53
69	Simulations of Nanosecond Pulsed Plasmas in Supersonic Flows for Combustion Applications. <i>AIAA Journal</i> , 2012, 50, 647-658.	2.6	24
70	Control of unsteadiness of a shock wave/turbulent boundary layer interaction by using a pulsed-plasma-jet actuator. <i>Physics of Fluids</i> , 2012, 24, .	4.0	153
71	Cathode-sheath driven low-speed aerodynamic flow actuation using direct-current surface glow discharges. <i>Journal of Electrostatics</i> , 2010, 68, 453-457.	1.9	3
72	Power balance and wall erosion measurements in a helicon plasma. <i>Physics of Plasmas</i> , 2010, 17, 033503.	1.9	15

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73	Simulations of direct-current air glow discharge at pressures $\hat{\sim}1/41\hat{\epsilon}$ Torr: Discharge model validation. Journal of Applied Physics, 2010, 107, .	2.5	44
74	Modeling of Mode Transition Behavior in Argon Microhollow Cathode Discharges. Plasma Processes and Polymers, 2009, 6, 335-346.	3.0	62
75	Simulation of a Direct-Current Microdischarge for the Micro Plasma Thruster. IEEE Transactions on Plasma Science, 2008, 36, 1200-1201.	1.3	8
76	Schlieren Imaging of Flow Actuation Produced by Direct-Current Surface Glow Discharge in Supersonic Flows. IEEE Transactions on Plasma Science, 2008, 36, 1316-1317.	1.3	6
77	Simulation of Direct-Current Surface Plasma Discharge Phenomena in High-Speed Flow Actuation. IEEE Transactions on Plasma Science, 2007, 35, 1301-1311.	1.3	17
78	Run-to-run variations, asymmetric pulses, and long time-scale transient phenomena in dielectric-barrier atmospheric pressure glow discharges. Journal Physics D: Applied Physics, 2007, 40, 3145-3154.	2.8	27
79	Two-dimensional simulation of a direct-current microhollow cathode discharge. Journal of Applied Physics, 2005, 97, 043305.	2.5	74
80	Fluid modeling of electron heating in low-pressure, high-frequency capacitively coupled plasma discharges. Journal of Applied Physics, 2004, 96, 6073-6081.	2.5	71
81	Structure of direct-current microdischarge plasmas in helium. Applied Physics Letters, 2003, 82, 529-531.	3.3	33
82	Dynamics of pulse phenomena in helium dielectric-barrier atmospheric-pressure glow discharges. Journal of Applied Physics, 2003, 94, 7408.	2.5	55
83	Approach for control of high-density plasma reactors through optimal pulse shaping. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2002, 20, 1722-1732.	2.1	2
84	Role of trace impurities in large-volume noble gas atmospheric-pressure glow discharges. Applied Physics Letters, 2002, 81, 814-816.	3.3	49
85	The influence of pressure, fluid flow, and chemistry on the combustion-based oxidation of silicon. Proceedings of the Combustion Institute, 2000, 28, 1381-1388.	3.9	20
86	Multi-dimensional Modeling of Non-equilibrium Plasma for Automotive Applications. , 0, , .		13
87	Transient phenomena during dense argon micro-plasma formation. Journal Physics D: Applied Physics, 0, , .	2.8	2