Dmitry Levko

List of Publications by Year
in descending order

78	810	471509 17	610901 24
papers	citations	h-index	g-index

78	78	78	540
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Dynamics of subnormal regime in a direct-current nitrogen micro-discharge. Physics of Plasmas, 2022, 29, 023503.	1.9	5
2	Plasma kinetics of c-C4F8 inductively coupled plasma revisited. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2022, 40, 022203.	1.2	3
3	Influence of electron energy distribution on fluid models of a low-pressure inductively coupled plasma discharge. Physics of Plasmas, 2022, 29, .	1.9	5
4	Optimization of silicon etch rate in a CF4/Ar/O2 inductively coupled plasma. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2022, 40, .	1.2	2
5	Influence of the electron kinetics on Ar/NF₃ inductively coupled plasma. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2022, 40, 042202.	1.2	0
6	Self-pulsing of direct-current discharge in planar and curved geometries. Journal Physics D: Applied Physics, 2021, 54, 235201.	2.8	7
7	Particle-in-cell Monte Carlo-collision modeling of non-ideal effects in wave-heated dense microplasmas. Physics of Plasmas, 2021, 28, .	1.9	2
8	VizGrain: a new computational tool for particle simulations of reactive plasma discharges and rarefied flow physics. Plasma Sources Science and Technology, 2021, 30, 055012.	3.1	3
9	Operating modes of a magnetized direct-current discharge in helium at pressures âˆ¼10â€‰Pa. Journal of Applied Physics, 2021, 129, 183307.	2.5	2
10	Computational study of plasma dynamics and reactive chemistry in a low-pressure inductively coupled CF4/O2 plasma. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2021, 39, .	1.2	7
11	Electron kinetics in standing and moving striations in argon gas. Physics of Plasmas, 2021, 28, .	1.9	7
12	Modeling the effect of stochastic heating and surface chemistry in a pure CF4 inductively coupled plasma. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2021, 39, .	1.2	3
13	Fluid modeling of inductively coupled iodine plasma for electric propulsion conditions. Journal of Applied Physics, 2021, 130, .	2.5	9
14	On the expansion of non-ideal copper plasma into vacuum. Physics of Plasmas, 2020, 27, 083519.	1.9	2
15	Plasma stratification in radio-frequency discharges in argon gas. Journal Physics D: Applied Physics, 2020, 53, 25LT01.	2.8	25
16	Initial stage of beam-generated plasma with evaporating electrode. Physics of Plasmas, 2020, 27, .	1.9	4
17	Multi-scale dynamics of atmospheric-pressure discharges ignited over liquid electrodes. Journal of Applied Physics, 2020, 127, .	2.5	15
18	Computational analysis of gas breakdown modes in direct current micro-plasmas at elevated pressures. Journal of Applied Physics, 2020, 128, 233301.	2.5	10

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19	On the optimal conditions necessary for the ion transit time oscillations. Plasma Research Express, 2019, 1, 035005.	0.9	2
20	Mechanism of sub-nanosecond pulsed breakdown of pressurized nitrogen. Journal of Applied Physics, 2019, 126, .	2.5	23
21	Boltzmann-Fokker-Planck kinetic solver with adaptive mesh in phase space. AIP Conference Proceedings, 2019, , .	0.4	1
22	Kinetic Solvers with Adaptive Mesh in Phase Space for Low-Temperature Plasmas. Journal of Physics: Conference Series, 2019, 1225, 012016.	0.4	4
23	Modified Paschen curves for pulsed breakdown. Physics of Plasmas, 2019, 26, .	1.9	31
24	Computational analysis of the electron beam source with hollow anode. Physics of Plasmas, 2019, 26, 013517.	1.9	2
25	Microwave microplasma parameters at extremely high driving frequencies. Physics of Plasmas, 2019, 26, .	1.9	10
26	Kinetic modeling of streamer penetration into de-ionized water. Physics of Plasmas, 2018, 25, 033515.	1.9	5
27	Particle-in-cell modeling of the nanosecond field emission driven discharge in pressurized hydrogen. Journal of Applied Physics, 2018, 123, .	2.5	27
28	High-voltage microdischarge as a source of extreme density plasma. Physics of Plasmas, 2018, 25, .	1.9	21
29	Comparison of mechanisms of the plasma generation by nanosecond discharge at extremely high overvoltage. Journal of Applied Physics, 2018, 124, .	2.5	7
30	Influence of the emission current on a beam-generated plasma. Physics of Plasmas, 2018, 25, .	1.9	1
31	Kinetic effects during the interaction between high density microplasma and electromagnetic wave. Physics of Plasmas, 2017, 24, 043509.	1.9	4
32	Unmagnetized fireballs in the hollow cathode geometry. Physics of Plasmas, 2017, 24, .	1.9	7
33	Magnetized direct current microdischarge. II. Effect of magnetic field amplitude on the plasma. Journal of Applied Physics, 2017, 121, .	2.5	4
34	Magnetized direct current microdischarge I. Effect of the gas pressure. Journal of Applied Physics, 2017, 121, 093302.	2.5	7
35	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
36	The effect of electron processes on metal walls in magnetized microdischarges. Journal of Applied Physics, 2017, 122, .	2.5	2

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37	On the energy deposition into the plasma for an inverted fireball geometry. Physics of Plasmas, 2017, 24, .	1.9	6
38	Population of vibrational levels of carbon dioxide by cylindrical fast ionization wave. Physics of Plasmas, 2017, 24, 093513.	1.9	0
39	Current self-limitation of the nanosecond hollow cathode discharge. Journal Physics D: Applied Physics, 2017, 50, 325203.	2.8	5
40	On the production of energetic electrons at the negative streamer head at moderate overvoltage. Physics of Plasmas, 2017, 24, 124503.	1.9	18
41	Particle-in-cell modeling of streamer branching in CO₂gas. Journal Physics D: Applied Physics, 2017, 50, 354004.	2.8	17
42	Heating of heavy plasma species by damping electron beam in beam-generated plasma. Physics of Plasmas, 2017, 24, 113508.	1.9	1
43	Response to â€œComment on â€˜Early stage time evolution of a dense nanosecond microdischarge used in fast optical switching applicationsâ€™â€•[Phys. Plasmas 23, 034705 (2016)]. Physics of Plasmas, 2016, 23, 034706.	1.9	1
44	Particle-in-cell modeling of gas-confined barrier discharge. Physics of Plasmas, 2016, 23, .	1.9	4
45	Fluid modeling of a high-voltage nanosecond pulsed xenon microdischarge. Physics of Plasmas, 2016, 23, 073513.	1.9	17
46	Influence of field emission on the propagation of cylindrical fast ionization wave in atmospheric-pressure nitrogen. Journal of Applied Physics, 2016, 119, 153301.	2.5	18
47	Electron kinetics in atmospheric-pressure argon and nitrogen microwave microdischarges. Journal of Applied Physics, 2016, 119, .	2.5	18
48	Effect of oxygen impurities on atmospheric-pressure surface streamer discharge in argon for large gap arc breakdown. Physics of Plasmas, 2016, 23, 103501.	1.9	5
49	Influence of emitter temperature on the energy deposition in a low-pressure plasma. Physics of Plasmas, 2016, 23, 032107.	1.9	5
50	Microwave plasmas generated in bubbles immersed in liquids for hydrocarbons reforming. Journal Physics D: Applied Physics, 2016, 49, 22LT01.	2.8	15
51	Kinetics and dynamics of nanosecond streamer discharge in atmospheric-pressure gas bubble suspended in distilled water under saturated vapor pressure conditions. Journal Physics D: Applied Physics, 2016, 49, 395205.	2.8	18
52	Influence of field emission on microwave microdischarges. High Voltage, 2016, 1, 57-59.	4.7	7
53	Plasmas generated in bubbles immersed in liquids: direct current streamers versus microwave plasma. Journal Physics D: Applied Physics, 2016, 49, 285205.	2.8	32
54	Early stage time evolution of a dense nanosecond microdischarge used in fast optical switching applications. Physics of Plasmas, 2015, 22, .	1.9	29

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55	Rarefaction solitons initiated by sheath instability. Physics of Plasmas, 2015, 22, 092119.	1.9	1
56	Effect of frequency on microplasmas driven by microwave excitation. Journal of Applied Physics, 2015, 118, 043303.	2.5	16
57	Dynamics of a wire-to-cylinder atmospheric pressure high-voltage nanosecond discharge. Physics of Plasmas, 2015, 22, .	1.9	9
58	Ethanol conversion in a barrier discharge. Technical Physics Letters, 2015, 41, 228-230.	0.7	3
59	Breakdown of atmospheric pressure microgaps at high excitation frequencies. Journal of Applied Physics, 2015, 117, .	2.5	32
60	Influence of the anode processes on discharges driven by thermionic emission. Physics of Plasmas, 2015, 22, .	1.9	6
61	Ion boundary conditions in semi-infinite fluid models of electron beam-plasma interaction. Physics of Plasmas, 2014, 21, 104501.	1.9	5
62	Decay of a low-pressure oxygen magnetized and unmagnetized plasma. Journal of Applied Physics, 2014, 116, 103304.	2.5	1
63	Use of a low pressure helium/water vapor discharge as a mercury-free source of ultraviolet emission. Journal of Applied Physics, 2014, 116, 113303.	2.5	2
64	Analysis of possibilities for the development of ultraviolet emitters based on ethanol molecules. Technical Physics Letters, 2013, 39, 271-273.	0.7	3
65	Temporal and spatial structure of a runaway electron beam in air at atmospheric pressure. Journal of Applied Physics, 2013, 113, 196101.	2.5	18
66	Influence of the gas mixture temperature on the efficiency of synthesis gas production from ethanol in a nonequilibrium plasma. Technical Physics, 2013, 58, 1138-1143.	0.7	14
67	Numerical simulation of the plasma generated by the interaction high-current electron beam with Al target. Journal of Applied Physics, 2013, 113, 123302.	2.5	6
68	Electron kinetics in a microdischarge in nitrogen at atmospheric pressure. Journal of Applied Physics, 2013, 114, .	2.5	23
69	Diffusion of low-pressure electronegative plasma in magnetic field. Europhysics Letters, 2013, 102, 55004.	2.0	9
70	Plasma kinetics of ethanol conversion in a glow discharge. Plasma Physics Reports, 2012, 38, 913-921.	0.9	25
71	Particle-in-cell simulations of the runaway breakdown of nitrogen. Journal of Applied Physics, 2012, 112, .	2.5	11
72	Conductivity of nanosecond discharges in nitrogen and sulfur hexafluoride studied by particle-in-cell simulations. Journal of Applied Physics, 2012, 111, 123303.	2.5	11

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73	Plasma kinetics in ethanol/water/air mixture in a â€˜tornadoâ€™-type electrical discharge. Journal Physics D: Applied Physics, 2011, 44, 145206.	2.8	34
74	Time-resolved investigation of nanosecond discharge in dense gas sustained by short and long high-voltage pulse. Europhysics Letters, 2011, 96, 65001.	2.0	19
75	Obtaining molecular hydrogen in electric discharge of the tornado type in air mixture with ethanol and water vapors. Technical Physics Letters, 2010, 36, 998-1000.	0.7	2
76	Conversion of air mixture with ethanol and water vapors in nonequilibrium gas-discharge plasma. Technical Physics Letters, 2009, 35, 449-451.	0.7	5
77	Plasma-Assisted Reforming of Ethanol in Dynamic Plasma-Liquid System: Experiments and Modeling. IEEE Transactions on Plasma Science, 2008, 36, 2933-2939.	1.3	45
78	Transient phenomena during dense argon micro-plasma formation. Journal Physics D: Applied Physics, 0, , .	2.8	2