Dmitry Sorokin

List of Publications by Year
in descending order

96	829	471509 17	610901 24
papers	citations	h-index	g-index

96	96	96	280
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Positive column dynamics of a low-current atmospheric pressure discharge in flowing argon. Plasma Sources Science and Technology, 2022, 31, 015009.	3.1	3
2	Enhancement of hydrogen radical density in atmospheric pressure plasma jet by a burst of nanosecond pulses at 1 MHz. Plasma Sources Science and Technology, 2022, 31, 025019.	3.1	16
3	Influence of Nanoparticles and Metal Vapors on the Color of Laboratory and Atmospheric Discharges. Nanomaterials, 2022, 12, 652.	4.1	6
4	Gas lasers pumped by runaway electrons preionized diffuse discharge. Progress in Quantum Electronics, 2021, 76, 100314.	7.0	11
5	Generation of runaway electrons in plasma after a breakdown of a gap with a sharply non-uniform electric field strength distribution. Journal Physics D: Applied Physics, 2021, 54, 304001.	2.8	15
6	Main modes of runaway electron generation during a breakdown of high-pressure gases in an inhomogeneous electric field. Applied Physics Letters, 2021, 118, .	3.3	8
7	Wide Emission Bands of Plasma of a Sub-Nanosecond Discharge in Xenon and Inaccuracies in Their Measurements. IEEE Transactions on Plasma Science, 2021, 49, 1614-1620.	1.3	4
8	Experimental Study and Numerical Simulation of Breakdown of a Gap with a Sharply Inhomogeneous Electric Field Distribution. Russian Physics Journal, 2021, 64, 340.	0.4	2
9	On the Mechanism of the Generation of Runaway Electrons after a Breakdown of a Gap. JETP Letters, 2021, 113, 129-134.	1.4	8
10	Different modes of runaway electron beams generated in high-pressure gases. Journal of Physics: Conference Series, 2021, 2064, 012001.	0.4	1
11	Measurement of the duration of runaway current pulses using measuring equipment with bandwidths up to 50 GHz. Journal of Physics: Conference Series, 2021, 2064, 012009.	0.4	2
12	Time behavior of an electron beam current pulse in the axial and peripheral zones of an anode in vacuum and gas-filled diodes. Journal of Physics: Conference Series, 2021, 2064, 012031.	0.4	0
13	Generation of Two Pulses of Runaway Electron Beam Current. Technical Physics, 2021, 66, 548-559.	0.7	3
14	High-Voltage Nanosecond Discharge as a Means of Fast Energy Switching. Energies, 2021, 14, 8449.	3.1	1
15	Generation mode of runaway electron beams with high amplitude in atmospheric pressure air. , 2021, , .		0
16	Water Treatment with the Cold Plasma of a Diffuse Nanosecond Discharge in Air at Atmospheric Pressure. Russian Physics Journal, 2020, 63, 818-823.	0.4	0
17	Measuring and Modeling Streamer Velocity at an Air Discharge in a Highly Inhomogeneous Electric Field. Plasma Physics Reports, 2020, 46, 320-327.	0.9	9
18	Formation of a Negative Streamer in a Sharply Nonuniform Electric Field and the Time of Generation of Runaway Electrons. Russian Physics Journal, 2020, 62, 1967-1975.	0.4	4

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19	Experimental Determination of the Generation Moment of Runaway Electrons. IEEE Transactions on Plasma Science, 2019, 47, 4521-4524.	1.3	10
20	Spectral and amplitude-time characteristics of crystals excited by a runaway electron beam. Matter and Radiation at Extremes, 2019, 4, .	3.9	6
21	Features of streamer formation in a sharply non-uniform electric field. Journal of Applied Physics, 2019, 125, .	2.5	29
22	Generators of Atmospheric Pressure Diffuse Discharge Plasma and Their Use for Surface Modification. Plasma, 2019, 2, 27-38.	1.8	7
23	E-beam generation in discharges initiated by voltage pulses with a rise time of 200 ns at an air pressure of 12.5â€“100 kPa. Plasma Science and Technology, 2019, 21, 044007.	1.5	7
24	Generation of direct and reverse runaway electron beams in atmospheric air using anodes made of different metals. Journal of Physics: Conference Series, 2019, 1393, 012031.	0.4	0
25	Streamer Breakdown with Runaway Electrons Forming Diffuse Discharges in an Inhomogeneous Electric Field. Russian Physics Journal, 2019, 62, 1171-1180.	0.4	3
26	A Compact Setup Based on a Gas Diode for Studying of Cathodoluminescence. Instruments and Experimental Techniques, 2018, 61, 262-267.	0.5	5
27	Excitation of Diamonds by a Subnanosecond Runaway Electron Beam with an Electron Energy of Up to 200 keV Generated in a Nanosecond Gas Discharge. , 2018, , .		0
28	Subnanosecond Breakdown in the Strongly Overvoltaged Gap: Simulation and Experiment. , 2018, , .		0
29	Light Emission from Crystals Excited by a 110-ps Pulsed Electron Beam. Russian Physics Journal, 2018, 61, 1361-1362.	0.4	3
30	Streamer Breakdown of Atmospheric-Pressure Air in a Non-Uniform Electric Field at High Overvoltages. Russian Physics Journal, 2018, 61, 1135-1142.	0.4	3
31	Positive streamers in a point-to-plane gap filled with air and nitrogen at low and high voltages. Journal of Physics: Conference Series, 2018, 1094, 012025.	0.4	1
32	Simulation of the Subnanosecond Runaway Electron Source for Low-Dose Industrial Radiography. , 2018, , .		0
33	X-ray radiation and runaway electron beams generated during discharges in atmospheric-pressure air at rise times of voltage pulse of 500 and 50 ns. Laser and Particle Beams, 2018, 36, 186-194.	1.0	12
34	Streamers at the Subnanosecond Breakdown of Argon and Nitrogen in Nonuniform Electric Field at Both Polarities. Technical Physics, 2018, 63, 793-800.	0.7	3
35	Measurement of the Dynamic Displacement Current as a New Method of Study of the Dynamics of Formation of a Streamer at a Breakdown of Gases at a High Pressure. JETP Letters, 2018, 107, 606-611.	1.4	22
36	Displacement current during the formation of positive streamers in atmospheric pressure air with a highly inhomogeneous electric field. Physics of Plasmas, 2018, 25, .	1.9	22

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37	Generation and registration of runaway electron beams during the breakdown of highly overvoltaged gaps filled with dense gases. Journal Physics D: Applied Physics, 2018, 51, 424001.	2.8	11
38	Laser action in the IR, UV and VUV in runaway electron preionized discharges. , 2017, , .		0
39	Luminescence of crystals excited by a runaway electron beam and by excilamp radiation with a peak wavelength of 222â€‰nm. Journal of Applied Physics, 2017, 122, 154902.	2.5	29
40	Influence of electrode spacing and gas pressure on parameters of a runaway electron beam generating during the nanosecond breakdown in SF ₆ and nitrogen. High Voltage, 2017, 2, 49-55.	4.7	10
41	Parameters of runaway electron beam generated during excitation by nanosecond voltage pulses in short gaps filled with nitrogen. Journal of Physics: Conference Series, 2017, 830, 012007.	0.4	0
42	Ionization Waves During the Subnanosecond Breakdown Initiated by Runaway Electrons in High-Pressure Nitrogen and Air. Russian Physics Journal, 2017, 60, 1308-1313.	0.4	13
43	ICCD-imaging of a plasma glow during the prebreakdown stage of nanosecond discharges at both polarities in nitrogen, air, and argon. Journal of Physics: Conference Series, 2017, 927, 012010.	0.4	2
44	Formation of ball streamers at a subnanosecond breakdown of gases at a high pressure in a nonuniform electric field. JETP Letters, 2017, 106, 653-658.	1.4	28
45	The physical nature of electrons with â€œanomalousâ€•energies in fast atmospheric discharges. , 2017, , .		0
46	Luminescence of Ga2O3 Crystals Excited with a Runaway Electron Beam. Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2017, 123, 867-870.	0.6	2
47	VUV radiation in the plasma of nanosecond discharges initiated by runaway electrons. Proceedings of SPIE, 2017, , .	0.8	0
48	Theoretical simulation of the picosecond runaway-electron beam in coaxial diode filled with SF ₆ at atmospheric pressure. Europhysics Letters, 2016, 114, 45001.	2.0	27
49	Generation of runaway electrons and X rays in an inhomogeneous electric field at high gas pressures. Laser and Particle Beams, 2016, 34, 748-763.	1.0	12
50	Spectral and amplitudeâ€“time characteristics of radiation of plasma of a repetitively pulsed discharge initiated by runaway electrons. Optics and Spectroscopy (English Translation of Optika I) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 217 Td (S	0.6	0
51	Radiative Characteristics of the Pulse-Periodic Discharge Plasma Initiated by Runaway Electrons. Russian Physics Journal, 2016, 59, 374-379.	0.4	0
52	Neutrons in a nanosecond low-pressure discharge in deuterium. Matter and Radiation at Extremes, 2016, 1, 207-212.	3.9	1
53	Runaway electrons during subnanosecond breakdowns in highâ€pressure gases. High Voltage, 2016, 1, 181-191.	4.7	16
54	VUV radiation of heteronuclear dimers and its amplification in the plasma of high-voltage nanosecond discharges initiated by runaway electrons in Arâ€“Xe mixture. Atmospheric and Oceanic Optics, 2016, 29, 471-476.	1.3	1

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55	Influence of field ionization on the efficiency of neutron generation. Journal of Surface Investigation, 2016, 10, 375-380.	0.5	0
56	Generation of dual pulses of the runaway electron beam current during the subnanosecond breakdown of atomic and molecular gases. Technical Physics, 2016, 61, 1551-1560.	0.7	6
57	On the parameters of runaway electron beams and on electrons with an â€œanomalousâ€•energy at a subnanosecond breakdown of gases at atmospheric pressure. JETP Letters, 2015, 102, 350-354.	1.4	12
58	Effect of gas heating on the generation of an ultrashort avalanche electron beam in the pulse-periodic regime. Technical Physics, 2015, 60, 975-980.	0.7	1
59	The optical emission spectroscopy of pulsed and pulse- periodic discharges initiated with runaway electrons. Journal of Physics: Conference Series, 2015, 652, 012033.	0.4	1
60	Blue and green jets in laboratory discharges initiated by runaway electrons. Journal of Physics: Conference Series, 2015, 652, 012012.	0.4	12
61	Generation of neutrons in a nanosecond low-pressure discharge in deuterium. Technical Physics, 2015, 60, 628-630.	0.7	3
62	Parameters of REP DD's plasma formed during the pulse and pulse-periodic modes in dense gases. Proceedings of SPIE, 2015, , .	0.8	1
63	Bent paths of a positive streamer and a cathode-directed spark leader in diffuse discharges preionized by runaway electrons. Physics of Plasmas, 2015, 22, .	1.9	12
64	Inverted Polarity Effect at the Subnanosecond High-Voltage Breakdown of Air. IEEE Transactions on Plasma Science, 2015, 43, 3808-3814.	1.3	14
65	Breakdown features of a high-voltage nanosecond discharge initiated with runaway electrons at subnanosecond voltage pulse rise time. IEEE Transactions on Dielectrics and Electrical Insulation, 2015, 22, 1833-1840.	2.9	26
66	Corona discharge in atmospheric pressure air when using modulated voltage pulses. Atmospheric and Oceanic Optics, 2014, 27, 582-586.	1.3	6
67	Generation of super-short avalanche electron beams in SF6. Laser and Particle Beams, 2014, 32, 331-341.	1.0	20
68	Electrode material splashing during a high-voltage nanosecond discharge in low pressure deuterium, hydrogen, helium, and argon. Atmospheric and Oceanic Optics, 2014, 27, 454-457.	1.3	2
69	Abnormal polarity effect in nanosecond-pulse breakdown of SF6 and nitrogen. Physics Letters, Section A: General, Atomic and Solid State Physics, 2014, 378, 1828-1833.	2.1	17
70	Initial stage of breakdown of a point-plane gap filled with high-pressure nitrogen and SF6. Atmospheric and Oceanic Optics, 2014, 27, 324-328.	1.3	4
71	Determination of the electron concentration and temperature, as well as the reduced electric field strength, in the plasma of a high-voltage nanosecond discharge initiated in atmospheric-pressure nitrogen by a runaway electron beam. Technical Physics, 2014, 59, 1119-1126.	0.7	18
72	Spots on electrodes and images of a gap during pulsed discharges in an inhomogeneous electric field at elevated pressures of air, nitrogen and argon. Plasma Sources Science and Technology, 2014, 23, 054018.	3.1	21

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73	Anode and Cathode Spots in High-Voltage Nanosecond-Pulse Discharge Initiated by Runaway Electrons in Air. Chinese Physics Letters, 2014, 31, 085201.	3.3	4
74	Transition of a diffuse discharge to a spark at nanosecond breakdown of high-pressure nitrogen and air in a nonuniform electric field. Technical Physics, 2013, 58, 1115-1121.	0.7	17
75	Nanosecond discharges with runaway electrons and X-rays in atmospheric pressure air, nitrogen, CH<inf>4</inf>, SF<inf>6</inf>, xenon, krypton, argon and helium. , 2013, , .		0
76	Excilamps based on inert gases and their mixtures, excited by a volume discharge induced by a beam of runaway electrons. Journal of Optical Technology (A Translation of Opticheskii Zhurnal), 2012, 79, 494.	0.4	0
77	Spark discharge formation in an inhomogeneous electric field under conditions of runaway electron generation. Journal of Applied Physics, 2012, 111, .	2.5	60
78	Change of the e-beam generation mode at transition from the vacuum to the gas-filled diode. , 2012, , .		0
79	Two-component structure of the current pulse of a ranaway electron beam generated during electric breakdown of elevated-pressure nitrogen. Plasma Physics Reports, 2012, 38, 922-929.	0.9	13
80	Emission of cyan upon excitation of nitrogen, air, and N2-CH4 mixture by discharge pulses in an inhomogeneous electric field. Optics and Spectroscopy (English Translation of Optika I) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 2457 Td (S	0.4	
81	Neutron emission during a nanosecond discharge in deuterium in a nonuniform electric field. Technical Physics, 2012, 57, 124-130.	0.7	8
82	Generation of a supershort avalanche electron beam in a subnanosecond breakdown in different gases at pressures from 1 torr to 15 atm. , 2011, , .		0
83	High-Pressure Diffuse and Spark Discharge in Nitrogen and Air in a Spatially Nonuniform Electric Field of High Intensity. IEEE Transactions on Plasma Science, 2011, 39, 2088-2089.	1.3	4
84	Neutron generation during pulsed discharge in deuterium. Technical Physics Letters, 2011, 37, 646-649.	0.7	1
85	The neutrons emission during the nanosecond discharge in deuterium with inhomogeneous electric field distribution. , 2011, , .		0
86	Formation of superpower volume discharges and their applications. Guangxue Jingmi Gongcheng/Optics and Precision Engineering, 2011, 19, 273-283.	0.5	6
87	<title>Runaway electrons preionized diffuse discharges at high pressure</title>. Proceedings of SPIE, 2010, , .	0.8	1
88	On the initiation of a spark discharge upon the breakdown of nitrogen and air in a nonuniform electric field. Technical Physics, 2010, 55, 904-907.	0.7	12
89	Effective regimes of runaway electron beam generation in helium, hydrogen, and nitrogen. Technical Physics Letters, 2010, 36, 375-378.	0.7	21
90	Modes of generation of runaway electron beams in gases at a pressure of 1–760 Torr. , 2010, , .		0

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91	Modes of Generation of Runaway Electron Beams in He, $ hbox{H}_{2}$, Ne, and $hbox{N}_{2}$ at a Pressure of 1â€“760 Torr. IEEE Transactions on Plasma Science, 2010, 38, 2583-2587.	1.3	39
92	Radiative characteristics of nitrogen upon excitation by volume discharge initiated by runaway electron beam. Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2009, 107, 33-40.	0.6	33
93	High power UV and VUV pulsed excilamp. , 2009, , .		0
94	Nanosecond discharge in sulfur hexafluoride and the generation of an ultrashort avalanche electron beam. Laser Physics, 2008, 18, 732-737.	1.2	20
95	Effect of gas pressure on amplitude and duration of electron beam current in a gas-filled diode. Technical Physics, 2008, 53, 1560-1564.	0.7	24
96	Formation and Transition of Wide Streamer Into Diffuse Discharge During Breakdown in Argon and Nitrogen. Russian Physics Journal, 0, , .	0.4	0