Mikhail Benilov

List of Publications by Year
in descending order

170 papers	3,176 citations	147801 31 h-index	197818 49 g-index
171 all docs	171 docs citations	171 times ranked	1070 citing authors

#	Article	IF	Citations
1	A model of the cathode region of atmospheric pressure arcs. Journal Physics D: Applied Physics, 1995, 28, 1869-1882.	2.8	230
2	Understanding and modelling plasmaâ€“electrode interaction in high-pressure arc discharges: a review. Journal Physics D: Applied Physics, 2008, 41, 144001.	2.8	225
3	Heating of refractory cathodes by high-pressure arc plasmas: I. Journal Physics D: Applied Physics, 2002, 35, 1736-1750.	2.8	92
4	The Childâ€“Langmuir law and analytical theory of collisionless to collision-dominated sheaths. Plasma Sources Science and Technology, 2009, 18, 014005.	3.1	90
5	Modelling of low-current discharges in atmospheric-pressure air taking account of non-equilibrium effects. Journal Physics D: Applied Physics, 2003, 36, 1834-1841.	2.8	79
6	Novel non-equilibrium modelling of a DC electric arc in argon. Journal Physics D: Applied Physics, 2016, 49, 245205.	2.8	75
7	Detailed numerical simulation of cathode spots in vacuum arcs: Interplay of different mechanisms and ejection of droplets. Journal of Applied Physics, 2017, 122, .	2.5	70
8	Effect of a near-cathode sheath on heat transfer in high-pressure arc plasmas. Journal Physics D: Applied Physics, 2007, 40, 2010-2017.	2.8	65
9	Unified modelling of near-cathode plasma layers in high-pressure arc discharges. Journal Physics D: Applied Physics, 2008, 41, 245201.	2.8	60
10	Determination of HID electrode falls in a model lamp II: Langmuir-probe measurements. Journal Physics D: Applied Physics, 2002, 35, 1631-1638.	2.8	56
11	Heating of refractory cathodes by high-pressure arc plasmas: II. Journal Physics D: Applied Physics, 2003, 36, 603-614.	2.8	54
12	Nonlinear surface heating of a plane sample and modes of current transfer to hot arc cathodes. Physical Review E, 1998, 58, 6480-6494.	2.1	51
13	Ionization layer at the edge of a fully ionized plasma. Physical Review E, 1998, 57, 2230-2241.	2.1	51
14	The ion flux from a thermal plasma to a surface. Journal Physics D: Applied Physics, 1995, 28, 286-294.	2.8	48
15	Modeling of hydrogen-rich gas production by plasma reforming of hydrocarbon fuels. International Journal of Hydrogen Energy, 2006, 31, 769-774.	7.1	47
16	3D modelling of heating of thermionic cathodes by high-pressure arc plasmas. Journal Physics D: Applied Physics, 2006, 39, 2124-2134.	2.8	46
17	Nonlinear heat structures and arc-discharge electrode spots. Physical Review E, 1993, 48, 506-515.	2.1	45
18	Account of near-cathode sheath in numerical models of high-pressure arc discharges. Journal Physics D: Applied Physics, 2016, 49, 215201.	2.8	44

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19	Multifluid equations of a plasma with various species of positive ions and the Bohm criterion. Journal Physics D: Applied Physics, 1996, 29, 364-368.	2.8	42
20	Steady rimming flows with surface tension. Journal of Fluid Mechanics, 2008, 597, 91-118.	3.4	40
21	Modelling interaction of multispecies plasmas with thermionic cathodes. Plasma Sources Science and Technology, 2005, 14, 517-524.	3.1	39
22	Multiple solutions in the theory of dc glow discharges and cathodic part of arc discharges. Application of these solutions to the modeling of cathode spots and patterns: a review. Plasma Sources Science and Technology, 2014, 23, 054019.	3.1	39
23	Near-Cathode Plasma Layer on CuCr Contacts of Vacuum Arcs. IEEE Transactions on Plasma Science, 2013, 41, 1938-1949.	1.3	37
24	Bifurcations of current transfer through a collisional sheath with ionization and self-organization on glow cathodes. Physical Review E, 2008, 77, 036408.	2.1	36
25	Field to thermo-field to thermionic electron emission: A practical guide to evaluation and electron emission from arc cathodes. Journal of Applied Physics, 2013, 114, .	2.5	36
26	Comparing two non-equilibrium approaches to modelling of a free-burning arc. Plasma Sources Science and Technology, 2013, 22, 065017.	3.1	36
27	Analysis of ionization non-equilibrium in the near-cathode region of atmospheric-pressure arcs. Journal Physics D: Applied Physics, 1999, 32, 257-262.	2.8	34
28	Can the temperature of electrons in a high-pressure plasma be determined by means of an electrostatic probe?. Journal Physics D: Applied Physics, 2000, 33, 1683-1696.	2.8	34
29	Bifurcation points in the theory of axially symmetric arc cathodes. Physical Review E, 2003, 68, 056407.	2.1	34
30	Sheath and arc-column voltages in high-pressure arc discharges. Journal Physics D: Applied Physics, 2012, 45, 355201.	2.8	34
31	Simulation of the layer of non-equilibrium ionization in a high-pressure argon plasma with multiply-charged ions. Journal Physics D: Applied Physics, 2000, 33, 960-967.	2.8	33
32	Modeling the physics of interaction of high-pressure arcs with their electrodes: advances and challenges. Journal Physics D: Applied Physics, 2020, 53, 013002.	2.8	33
33	Theory of structures in near-electrode plasma regions. Physical Review A, 1992, 45, 5901-5912.	2.5	32
34	The double sheath on cathodes of discharges burning in cathode vapour. Journal Physics D: Applied Physics, 2010, 43, 345204.	2.8	31
35	Boundary conditions for the Child-Langmuir sheath model. IEEE Transactions on Plasma Science, 2000, 28, 2207-2213.	1.3	30
36	Stability of direct current transfer to thermionic cathodes: I. Analytical theory. Journal Physics D: Applied Physics, 2007, 40, 1376-1393.	2.8	30

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37	Detailed Numerical Simulation of Cathode Spots in Vacuum Arcsâ€”I. IEEE Transactions on Plasma Science, 2017, 45, 2060-2069.	1.3	28
38	Multiple solutions in the theory of dc glow discharges. Plasma Sources Science and Technology, 2010, 19, 025019.	3.1	27
39	Space-Resolved Modeling of Stationary Spots on Copper Vacuum Arc Cathodes and on Composite CuCr Cathodes With Large Grains. IEEE Transactions on Plasma Science, 2013, 41, 1950-1958.	1.3	27
40	Energy conservation and <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>H</mml:mi></mml:math> theorem for the Enskog-Vlasov equation. Physical Review E, 2018, 97, 062115.	2.1	27
41	Stability of direct current transfer to thermionic cathodes: II. Numerical simulation. Journal Physics D: Applied Physics, 2007, 40, 5083-5097.	2.8	26
42	Investigating near-anode plasma layers of very high-pressure arc discharges. Journal Physics D: Applied Physics, 2009, 42, 045210.	2.8	25
43	Three-Dimensional Modeling of Self-Organization in DC Glow Microdischarges. IEEE Transactions on Plasma Science, 2011, 39, 2190-2191.	1.3	24
44	Joining sheath to plasma in electronegative gases at low pressures using matched asymptotic approximations. Journal of Plasma Physics, 1999, 62, 541-559.	2.1	23
45	Vaporization of a solid surface in an ambient gas. Journal Physics D: Applied Physics, 2001, 34, 1993-1999.	2.8	23
46	Ion saturation currents to spherical and cylindrical electrostatic probes in collisional plasmas. Journal of Applied Physics, 1991, 70, 6726-6731.	2.5	22
47	A kinetic derivation of multifluid equations for multispecies nonequilibrium mixtures of reacting gases. Physics of Plasmas, 1997, 4, 521-528.	1.9	22
48	Modeling of a nonequilibrium cylindrical column of a low-current arc discharge. IEEE Transactions on Plasma Science, 1999, 27, 1458-1463.	1.3	22
49	Numerical modelling of high-pressure arc discharges: matching the LTE arc core with the electrodes. Journal Physics D: Applied Physics, 2017, 50, 315203.	2.8	22
50	Modeling a collision-dominated space-charge sheath in high-pressure arc discharges. Physics of Plasmas, 2001, 8, 4227-4233.	1.9	21
51	A self-consistent analytical model of arc spots on electrodes. IEEE Transactions on Plasma Science, 1994, 22, 73-77.	1.3	20
52	Theory and modelling of arc cathodes. Plasma Sources Science and Technology, 2002, 11, A49-A54.	3.1	20
53	Self-Consistent Model of HID Lamp for Design Applications. IEEE Transactions on Plasma Science, 2006, 34, 1536-1547.	1.3	20
54	Simulation of pre-breakdown discharges in high-pressure air. I: The model and its application to corona inception. Journal Physics D: Applied Physics, 2019, 52, 355206.	2.8	20

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55	A thin drop sliding down an inclined plate. Journal of Fluid Mechanics, 2015, 773, 75-102.	3.4	19
56	Analysing bifurcations encountered in numerical modelling of current transfer to cathodes of dc glow and arc discharges. Journal Physics D: Applied Physics, 2009, 42, 194010.	2.8	16
57	Computational and Experimental Study of Time-Averaged Characteristics of Positive and Negative DC Corona Discharges in Point-Plane Gaps in Atmospheric Air. IEEE Transactions on Plasma Science, 2020, 48, 4080-4088.	1.3	16
58	Nonequilibrium boundary layer of potassium-seeded combustion products. Combustion and Flame, 1994, 98, 313-325.	5.2	15
59	Method of matched asymptotic expansions versus intuitive approaches: calculation of space-charge sheaths. IEEE Transactions on Plasma Science, 2003, 31, 678-690.	1.3	15
60	Modelling current transfer to cathodes in metal halide plasmas. Journal Physics D: Applied Physics, 2005, 38, 3155-3162.	2.8	15
61	Self-organization in dc glow microdischarges in krypton: modelling and experiments. Plasma Sources Science and Technology, 2014, 23, 054012.	3.1	15
62	Asymptotic theory of a collision-dominated space-charge sheath with a velocity-dependent ion mobility. Journal of Plasma Physics, 2002, 67, 163-173.	2.1	14
63	Comment on â€˜Self-organization in cathode boundary layer discharges in xenonâ€™ and â€˜Self-organization in cathode boundary layer microdischargesâ€™. Plasma Sources Science and Technology, 2007, 16, 422-425.	3.1	14
64	Existence and stability of regularized shock solutions, with applications to rimming flows. Journal of Engineering Mathematics, 2009, 63, 197-212.	1.2	14
65	What is the mathematical meaning of Steenbeck's principle of minimum power in gas discharge physics?. Journal Physics D: Applied Physics, 2010, 43, 175204.	2.8	14
66	Multiple solutions in the theory of direct current glow discharges: Effect of plasma chemistry and nonlocality, different plasma-producing gases, and 3D modelling. Physics of Plasmas, 2013, 20, 101613.	1.9	14
67	Near-cathode phenomena in HID lamps. IEEE Transactions on Industry Applications, 2001, 37, 986-993.	4.9	13
68	Calculation of ion mobilities by means of the two-temperature displaced-distribution theory. Journal Physics D: Applied Physics, 2002, 35, 1577-1584.	2.8	13
69	Asymptotic calculation of escape factor in atomic plasmas. Journal Physics D: Applied Physics, 2005, 38, 3599-3608.	2.8	13
70	Modelling cathode spots in glow discharges in the cathode boundary layer geometry. Journal Physics D: Applied Physics, 2016, 49, 105201.	2.8	13
71	Self-consistent modeling of self-organized patterns of spots on anodes of DC glow discharges. Plasma Sources Science and Technology, 2018, 27, 05LT03.	3.1	13
72	Bohm criterion for a plasma composed of electrons and positive dust grains. Physical Review E, 2000, 63, 016410.	2.1	12

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73	Escape factors for thermionic cathodes in atomic gases in a wide electric field range. Journal Physics D: Applied Physics, 2006, 39, 2959-2963.	2.8	12
74	Space-charge sheath with ions accelerated into the plasma. Journal Physics D: Applied Physics, 2010, 43, 175203.	2.8	12
75	Physics of Spotless Mode of Current Transfer to Cathodes of Metal Vapor Arcs. IEEE Transactions on Plasma Science, 2015, 43, 2247-2252.	1.3	12
76	Modelling of discharges in a flow of preheated air. Plasma Sources Science and Technology, 2005, 14, 129-133.	3.1	11
77	Physics of the intermediate layer between a plasma and a collisionless sheath and mathematical meaning of the Bohm criterion. Physics of Plasmas, 2012, 19, .	1.9	11
78	Joule heat generation in thermionic cathodes of high-pressure arc discharges. Journal of Applied Physics, 2013, 113, .	2.5	11
79	Numerical simulation of the initial stage of unipolar arcing in fusion-relevant conditions. Plasma Physics and Controlled Fusion, 2019, 61, 095001.	2.1	11
80	The Enskogâ€“Vlasov equation: a kinetic model describing gas, liquid, and solid. Journal of Statistical Mechanics: Theory and Experiment, 2019, 2019, 103205.	2.3	11
81	Analysis of thermal non-equilibrium in the near-cathode region of atmospheric-pressure arcs. Journal Physics D: Applied Physics, 1997, 30, 3353-3359.	2.8	10
82	Maxwellâ€™s Construction for Non-linear Heat Structures and Determination of Radius of Arc Spots on Cathodes. Physica Scripta, 1998, 58, 383-386.	2.5	10
83	Theory of plasmaâ€“wall transition with account of variable ion temperature. Physics of Plasmas, 2000, 7, 135-143.	1.9	10
84	Transition from a fully ionized plasma to an absorbing surface. Journal Physics D: Applied Physics, 2004, 37, 3107-3116.	2.8	10
85	Simulating different modes of current transfer to thermionic cathodes in a wide range of conditions. Journal Physics D: Applied Physics, 2009, 42, 145205.	2.8	10
86	Study of stability of dc glow discharges with the use of Comsol Multiphysics software. Journal Physics D: Applied Physics, 2011, 44, 415203.	2.8	10
87	A practical guide to modeling low-current quasi-stationary gas discharges: Eigenvalue, stationary, and time-dependent solvers. Journal of Applied Physics, 2021, 130, .	2.5	10
88	Simulation of discharges in atmospheric-pressure air sustained by traveling electromagnetic waves. IEEE Transactions on Plasma Science, 2003, 31, 488-494.	1.3	9
89	Comment on â€œOn the consistency of the collisionless sheath modelâ€•[Phys. Plasmas 9, 4427 (2002)]. Physics of Plasmas, 2003, 10, 4584-4586.	1.9	9
90	Peculiar property of noble gases and its explanation through the Enskog-Vlasov model. Physical Review E, 2019, 99, 012144.	2.1	9

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91	Numerical investigation of AC arc ignition on cold electrodes in atmospheric-pressure argon. Journal Physics D: Applied Physics, 2021, 54, 195202.	2.8	9
92	Modeling of diffuse current transfer in a near-electrode layer of the high-pressure molecular plasma. IEEE Transactions on Plasma Science, 1995, 23, 742-749.	1.3	8
93	Momentum and energy exchange between species of a multicomponent gas mixture due to inelastic and reactive collisions. Physics of Plasmas, 1996, 3, 2805-2812.	1.9	8
94	Collision-dominated to collisionless electron-free space-charge sheath in a plasma with variable ion temperature. Physics of Plasmas, 2000, 7, 4403-4411.	1.9	8
95	Model for arc cathode region in a wide pressure range. Journal Physics D: Applied Physics, 2001, 34, 2016-2021.	2.8	8
96	Method of Matched Asymptotic Expansions Versus Intuitive Approaches: Calculation of Arc Cathode Spots. IEEE Transactions on Plasma Science, 2004, 32, 249-255.	1.3	8
97	Transient Spots on Cathodes of High-Pressure Arc Discharges. IEEE Transactions on Plasma Science, 2008, 36, 1032-1033.	1.3	8
98	Numerical investigation of the stability of stationary solutions in the theory of cathode spots in arcs in vacuum and ambient gas. Plasma Sources Science and Technology, 2014, 23, 054007.	3.1	8
99	Modeling Spots on Composite Copperâ€"Chromium Contacts of Vacuum Arcs and their Stability. IEEE Transactions on Plasma Science, 2015, 43, 2253-2260.	1.3	8
100	Semiphenomenological model for gas-liquid phase transitions. Physical Review E, 2016, 93, 032148.	2.1	8
101	Computing anode heating voltage in high-pressure arc discharges and modelling rod electrodes in dc and ac regimes. Journal Physics D: Applied Physics, 2017, 50, 385203.	2.8	8
102	Modelling spark-plug discharge in dry air. Combustion and Flame, 2018, 198, 81-88.	5.2	8
103	Revisiting Theoretical Description of the Retrograde Motion of Cathode Spots of Vacuum Arcs. IEEE Transactions on Plasma Science, 2019, 47, 3434-3441.	1.3	8
104	Saturation ion current to an electric probe in a slowly moving plasma. Journal of Applied Mechanics and Technical Physics, 1982, 23, 319-326.	0.5	7
105	The high-current-density phase of the discharge in low-pressure high-power switches as a mode of the vacuum discharge. IEEE Transactions on Plasma Science, 1992, 20, 1047-1052.	1.3	7
106	Computing Different Modes on Cathodes of DC Glow and Highâ€Pressure Arc Discharges: Timeâ€Dependent Versus Stationary Solvers. Plasma Processes and Polymers, 2017, 14, 1600122.	3.0	7
107	Simulating changes in shape of thermionic cathodes during operation of high-pressure arc discharges. Journal Physics D: Applied Physics, 2019, 52, 504004.	2.8	7
108	Simple computation of ignition voltage of self-sustaining gas discharges. Plasma Sources Science and Technology, 2020, 29, 125005.	3.1	7

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109	Saturation currents into a probe in a dense plasma. Journal of Applied Mechanics and Technical Physics, 1980, 20, 667-674.	0.5	6
110	Electrode region of a weakly ionized plasma in chemical equilibrium. Fluid Dynamics, 1982, 17, 117-127.	0.9	6
111	Theory of a spherical electric probe in a weakly ionized plasma at rest. Fluid Dynamics, 1983, 17, 773-779.	0.9	6
112	Chemically nonequilibrium multicomponent boundary layer for a plasma of molecular gases with addition of alkali. Journal of Applied Mechanics and Technical Physics, 1987, 27, 653-663.	0.5	5
113	Formation of stationary and transient spots on thermionic cathodes and its prevention. Journal Physics D: Applied Physics, 2008, 41, 144004.	2.8	5
114	Plasmas generated by ultra-violet light rather than electron impact. Physics of Plasmas, 2013, 20, 123508.	1.9	5
115	Effects of Nonthermal Atmospheric-Pressure Plasma on Drosophila Development. Plasma Medicine, 2016, 6, 115-124.	0.6	5
116	Advanced Modeling of Plasma-Cathode Interaction in Vacuum and Low-Pressure Arcs. , 2018, , .		5
117	Modelling and experimental evidence of the cathode erosion in a plasma spray torch. Journal Physics D: Applied Physics, 2022, 55, 365202.	2.8	5
118	The perturbed region of a weakly ionized plasma near a cold electrode. Fluid Dynamics, 1983, 18, 226-234.	0.9	4
119	Perturbation region near a biased body in a flowing collision-dominated plasma with low ionization density. Currentâ€“voltage chracteristics of a langmuir probe. Journal of Plasma Physics, 1993, 50, 293-308.	2.1	4
120	Effect of Protrusions on Cathodic-Arc-Attachment Mode in High-Pressure Arc Discharges. IEEE Transactions on Plasma Science, 2008, 36, 1034-1035.	1.3	4
121	Stability of very-high pressure arc discharges against perturbations of the electron temperature. Journal of Applied Physics, 2012, 111, 073305.	2.5	4
122	Bifurcations in the theory of current transfer to cathodes of DC discharges and observations of transitions between different modes. Physics of Plasmas, 2018, 25, .	1.9	4
123	Comment on â€œElectric field measurements under DC corona discharges in ambient air by electric field induced second harmonic generationâ€•[Appl. Phys. Lett. 115, 244101 (2019)]. Applied Physics Letters, 2020, 117, 026101.	3.3	4
124	Asymptotic theory of double layer and shielding of electric field at the edge of illuminated plasma. Physics of Plasmas, 2014, 21, 043501.	1.9	3
125	Detailed numerical simulation of cathode spots in high-current vacuum arcs. , 2016, , .		3
126	Phenomenological approach to simulation of propagation of spots over cathodes of high-power vacuum circuit breakers. , 2016, , .		3

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127	Account of diffusion in local thermodynamic equilibrium and two-temperature plasma models. Journal Physics D: Applied Physics, 2019, 52, 454003.	2.8	3
128	Comment on â€˜Information hidden in the velocity distribution of ions and the exact kinetic Bohm criterionâ€™. Plasma Sources Science and Technology, 2019, 28, 078001.	3.1	3
129	Simulation of pre-breakdown discharges in high-pressure air: II. Effect of surface protrusions. Journal Physics D: Applied Physics, 2021, 54, 255203.	2.8	3
130	Electric characteristics of a probe in a subsonic plasma flow. Fluid Dynamics, 1983, 18, 124-134.	0.9	2
131	Influence of high-field effects on the characteristics of the near-cathode layer in a molecular gas plasma. Journal of Applied Mechanics and Technical Physics, 1984, 25, 15-20.	0.5	2
132	Theory of a collision-dominated space-charge sheath on an emitting cathode. Journal Physics D: Applied Physics, 1997, 30, 1115-1119.	2.8	2
133	Theory of Nonlinear Surface Heating. Physica Scripta, 2000, T84, 22.	2.5	2
134	Modeling cathode spots in vacuum arcs burning on multi-component contacts. , 2012, , .		2
135	Cluster issue â€˜Spots and patterns on electrodes of gas dischargesâ€™. Plasma Sources Science and Technology, 2014, 23, 050201.	3.1	2
136	Kinetic approach to condensation: Diatomic gases with dipolar molecules. Physical Review E, 2017, 96, 042125.	2.1	2
137	Numerical investigation of regimes of current transfer to anodes of high-pressure arc discharges. Physics of Plasmas, 2022, 29, .	1.9	2
138	Near-wall layer of a positive dustâ€“electron plasma in the presence of a nonequilibrium charging process. Physics of Plasmas, 2001, 8, 3879-3883.	1.9	1
139	Effect of cathode geometry on modes of current transfer to cathodes of high pressure arc discharges. , 2008, , .		1
140	Quenching thermal instability in the body of a thermionic arc cathode. Plasma Sources Science and Technology, 2013, 22, 012002.	3.1	1
141	Analyzing spotless mode of current transfer to cathodes of metal-vapor arcs. , 2014, , .		1
142	On the Mechanism of Retrograde Motion of Cathode Spots of Vacuum Arcs. , 2018, , .		1
143	Simulating Propagation of Spots over Cathodes of High-Power Vacuum Circuit Breakers. , 2018, , .		1
144	A Simple Model of Distribution of Current Over Cathodes of Vacuum Circuit Breakers. IEEE Transactions on Plasma Science, 2019, 47, 3462-3469.	1.3	1

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145	A numerical investigation of the electrical characteristics of the electrode boundary layer of a slightly ionized plasma of molecular gases. Journal of Applied Mechanics and Technical Physics, 1984, 24, 291-297.	0.5	0
146	Nonlinear regimes of current flow through a weakly ionized boundary layer and their stability. Fluid Dynamics, 1987, 21, 638-647.	0.9	0
147	Asymptotic calculation of the cathode layer in a molecular-gas plasma. Journal of Applied Mechanics and Technical Physics, 1988, 29, 38-45.	0.5	0
148	MULTIFLUID DESCRIPTION AND THE BOHM CRITERION FOR MULTI-SPECIES PLASMAS. , 1996, , .		0
149	Asymptotic theory of boundary layers of weakly ionized thermal plasmas on emitting electrodes. IEEE Transactions on Plasma Science, 1997, 25, 919-924.	1.3	0
150	Maxwell's construction for non-linear heat structures and modelling of electrode spots in arc discharges. European Physical Journal D, 1998, 48, 245-250.	0.4	0
151	Non-linear surface heating and modes of current transfer to thermionic cathodes. European Physical Journal D, 1998, 48, 263-268.	0.4	0
152	3D Modeling of Thermionic Cathodes of High-Pressure Arcs. IEEE International Conference on Plasma Science, 2005, , .	0.0	0
153	Modern theory of plasma-cathode interaction in high-pressure arc discharges and perspectives of its application to cathode spots in vacuum arcs. , 2008, , .		0
154	Multiple solutions in the theory of near-cathode layers and self-organization on DC glow cathodes. , 2008, , .		0
155	Unified modelling of near-electrode non-equilibrium layers in high-pressure arc discharges. , 2008, , .		0
156	Reply to the Comment on â€˜What is the mathematical meaning of Steenbeck's principle of minimum power in gas discharge physics?â€™. Journal Physics D: Applied Physics, 2010, 43, 298002.	2.8	0
157	Theory of space-charge sheaths on cathodes of vacuum arcs. , 2010, , .		0
158	Joule heat generation in thermionic cathodes of high-pressure ARCS. , 2012, , .		0
159	Real-time prevention of spots on thermionic cathodes in high-pressure ARC discharges. , 2012, , .		0
160	Stability of arc discharges in very-high pressure xenon lamps against electron temperature perturbations. , 2012, , .		0
161	Predicting self-organization in DC glow microdischarges in different gases with the use of COMSOL Multiphysics. , 2012, , .		0
162	Modeling near-cathode plasma layer on contacts of vacuum arcs. , 2013, , .		0

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163	Computing DC glow and arc discharges by means of COMSOL MultiPhysics: Time-dependent vs. stationary solvers. , 2013, , .		0
164	Modeling spots on copper and copper-chromium cathodes of vacuum arcs. , 2013, , .		0
165	Stability of stationary solutions in the theory of cathode spots in arcs in vacuum and ambient gas. , 2014, , .		0
166	Simulation of spots on Cu-Cr cathodes of vacuum arcs and of their stability. , 2015, , .		0
167	Three-dimensional modelling of self-organization phenomena in cathode boundary layer discharges using comsol multiphysics. , 2015, , .		0
168	Simulation of thermal instability in non-uniformities on the surface of cathodes of vacuum arcs. , 2016, , .		0
169	Kinetic Bohm criterion in the Tonks-Langmuir model: Assumption or theorem?. Physics of Plasmas, 2019, 26, .	1.9	0
170	Near-Wall Space-Charge Sheaths in a Positive Dust-Electron Plasma. Physica Scripta, 2001, T98, 95.	2.5	0