

Mikhail Benilov

List of Publications by Year in descending order

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170
papers

3,176
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147801

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49
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171
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171
docs citations

171
times ranked

1070
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 1 | Numerical investigation of regimes of current transfer to anodes of high-pressure arc discharges. <i>Physics of Plasmas</i> , 2022, 29, . | 1.9 | 2 |
| 2 | Modelling and experimental evidence of the cathode erosion in a plasma spray torch. <i>Journal Physics D: Applied Physics</i> , 2022, 55, 365202. | 2.8 | 5 |
| 3 | Numerical investigation of AC arc ignition on cold electrodes in atmospheric-pressure argon. <i>Journal Physics D: Applied Physics</i> , 2021, 54, 195202. | 2.8 | 9 |
| 4 | Simulation of pre-breakdown discharges in high-pressure air: II. Effect of surface protrusions. <i>Journal Physics D: Applied Physics</i> , 2021, 54, 255203. | 2.8 | 3 |
| 5 | A practical guide to modeling low-current quasi-stationary gas discharges: Eigenvalue, stationary, and time-dependent solvers. <i>Journal of Applied Physics</i> , 2021, 130, . | 2.5 | 10 |
| 6 | Modeling the physics of interaction of high-pressure arcs with their electrodes: advances and challenges. <i>Journal Physics D: Applied Physics</i> , 2020, 53, 013002. | 2.8 | 33 |
| 7 | Comment on "Electric field measurements under DC corona discharges in ambient air by electric field induced second harmonic generation" [Appl. Phys. Lett. 115, 244101 (2019)]. <i>Applied Physics Letters</i> , 2020, 117, 026101. | 3.3 | 4 |
| 8 | Computational and Experimental Study of Time-Averaged Characteristics of Positive and Negative DC Corona Discharges in Point-Plane Gaps in Atmospheric Air. <i>IEEE Transactions on Plasma Science</i> , 2020, 48, 4080-4088. | 1.3 | 16 |
| 9 | Simple computation of ignition voltage of self-sustaining gas discharges. <i>Plasma Sources Science and Technology</i> , 2020, 29, 125005. | 3.1 | 7 |
| 10 | Numerical simulation of the initial stage of unipolar arcing in fusion-relevant conditions. <i>Plasma Physics and Controlled Fusion</i> , 2019, 61, 095001. | 2.1 | 11 |
| 11 | A Simple Model of Distribution of Current Over Cathodes of Vacuum Circuit Breakers. <i>IEEE Transactions on Plasma Science</i> , 2019, 47, 3462-3469. | 1.3 | 1 |
| 12 | Account of diffusion in local thermodynamic equilibrium and two-temperature plasma models. <i>Journal Physics D: Applied Physics</i> , 2019, 52, 454003. | 2.8 | 3 |
| 13 | Simulating changes in shape of thermionic cathodes during operation of high-pressure arc discharges. <i>Journal Physics D: Applied Physics</i> , 2019, 52, 504004. | 2.8 | 7 |
| 14 | The Enskog-Vlasov equation: a kinetic model describing gas, liquid, and solid. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2019, 2019, 103205. | 2.3 | 11 |
| 15 | Simulation of pre-breakdown discharges in high-pressure air. I: The model and its application to corona inception. <i>Journal Physics D: Applied Physics</i> , 2019, 52, 355206. | 2.8 | 20 |
| 16 | Revisiting Theoretical Description of the Retrograde Motion of Cathode Spots of Vacuum Arcs. <i>IEEE Transactions on Plasma Science</i> , 2019, 47, 3434-3441. | 1.3 | 8 |
| 17 | Comment on "Information hidden in the velocity distribution of ions and the exact kinetic Bohm criterion"™. <i>Plasma Sources Science and Technology</i> , 2019, 28, 078001. | 3.1 | 3 |
| 18 | Peculiar property of noble gases and its explanation through the Enskog-Vlasov model. <i>Physical Review E</i> , 2019, 99, 012144. | 2.1 | 9 |

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| 19 | Kinetic Bohm criterion in the Tonks-Langmuir model: Assumption or theorem?. Physics of Plasmas, 2019, 26, . | 1.9 | 0 |
| 20 | 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 |
| 21 | On the Mechanism of Retrograde Motion of Cathode Spots of Vacuum Arcs. , 2018, , . | | 1 |
| 22 | Advanced Modeling of Plasma-Cathode Interaction in Vacuum and Low-Pressure Arcs. , 2018, , . | | 5 |
| 23 | Simulating Propagation of Spots over Cathodes of High-Power Vacuum Circuit Breakers. , 2018, , . | | 1 |
| 24 | Modelling spark-plug discharge in dry air. Combustion and Flame, 2018, 198, 81-88. | 5.2 | 8 |
| 25 | 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 |
| 26 | Energy conservation and $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"> \langle \text{mml:mi>H</mml:mi> \langle \text{mml:math> theorem for the Enskog-Vlasov equation. Physical Review E, 2018, 97, 062115.$ | 2.1 | 27 |
| 27 | 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 |
| 28 | Detailed Numerical Simulation of Cathode Spots in Vacuum Arcs. IEEE Transactions on Plasma Science, 2017, 45, 2060-2069. | 1.3 | 28 |
| 29 | 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 |
| 30 | Kinetic approach to condensation: Diatomic gases with dipolar molecules. Physical Review E, 2017, 96, 042125. | 2.1 | 2 |
| 31 | 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 |
| 32 | Computing Different Modes on Cathodes of DC Glow and High-Pressure Arc Discharges: Time-Dependent Versus Stationary Solvers. Plasma Processes and Polymers, 2017, 14, 1600122. | 3.0 | 7 |
| 33 | Effects of Nonthermal Atmospheric-Pressure Plasma on Drosophila Development. Plasma Medicine, 2016, 6, 115-124. | 0.6 | 5 |
| 34 | Detailed numerical simulation of cathode spots in high-current vacuum arcs. , 2016, , . | | 3 |
| 35 | Modelling cathode spots in glow discharges in the cathode boundary layer geometry. Journal Physics D: Applied Physics, 2016, 49, 105201. | 2.8 | 13 |
| 36 | Semiphenomenological model for gas-liquid phase transitions. Physical Review E, 2016, 93, 032148. | 2.1 | 8 |

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|----|--|-----|-----------|
| 37 | Simulation of thermal instability in non-uniformities on the surface of cathodes of vacuum arcs. , 2016, , . | | 0 |
| 38 | Phenomenological approach to simulation of propagation of spots over cathodes of high-power vacuum circuit breakers. , 2016, , . | | 3 |
| 39 | Novel non-equilibrium modelling of a DC electric arc in argon. Journal Physics D: Applied Physics, 2016, 49, 245205. | 2.8 | 75 |
| 40 | Account of near-cathode sheath in numerical models of high-pressure arc discharges. Journal Physics D: Applied Physics, 2016, 49, 215201. | 2.8 | 44 |
| 41 | A thin drop sliding down an inclined plate. Journal of Fluid Mechanics, 2015, 773, 75-102. | 3.4 | 19 |
| 42 | Simulation of spots on Cu-Cr cathodes of vacuum arcs and of their stability. , 2015, , . | | 0 |
| 43 | Modeling Spots on Composite Copper-Chromium Contacts of Vacuum Arcs and their Stability. IEEE Transactions on Plasma Science, 2015, 43, 2253-2260. | 1.3 | 8 |
| 44 | Three-dimensional modelling of self-organization phenomena in cathode boundary layer discharges using comsol multiphysics. , 2015, , . | | 0 |
| 45 | 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 |
| 46 | 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 |
| 47 | Analyzing spotless mode of current transfer to cathodes of metal-vapor arcs. , 2014, , . | | 1 |
| 48 | Stability of stationary solutions in the theory of cathode spots in arcs in vacuum and ambient gas. , 2014, , . | | 0 |
| 49 | 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 |
| 50 | Self-organization in dc glow microdischarges in krypton: modelling and experiments. Plasma Sources Science and Technology, 2014, 23, 054012. | 3.1 | 15 |
| 51 | 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 |
| 52 | Cluster issue â€˜Spots and patterns on electrodes of gas dischargesâ€™. Plasma Sources Science and Technology, 2014, 23, 050201. | 3.1 | 2 |
| 53 | Near-Cathode Plasma Layer on CuCr Contacts of Vacuum Arcs. IEEE Transactions on Plasma Science, 2013, 41, 1938-1949. | 1.3 | 37 |
| 54 | 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 |

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| 55 | 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 |
| 56 | 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 |
| 57 | Comparing two non-equilibrium approaches to modelling of a free-burning arc. Plasma Sources Science and Technology, 2013, 22, 065017. | 3.1 | 36 |
| 58 | Plasmas generated by ultra-violet light rather than electron impact. Physics of Plasmas, 2013, 20, 123508. | 1.9 | 5 |
| 59 | Quenching thermal instability in the body of a thermionic arc cathode. Plasma Sources Science and Technology, 2013, 22, 012002. | 3.1 | 1 |
| 60 | Modeling near-cathode plasma layer on contacts of vacuum arcs. , 2013, , . | | 0 |
| 61 | Joule heat generation in thermionic cathodes of high-pressure arc discharges. Journal of Applied Physics, 2013, 113, . | 2.5 | 11 |
| 62 | Computing DC glow and arc discharges by means of COMSOL MultiPhysics: Time-dependent vs. stationary solvers. , 2013, , . | | 0 |
| 63 | Modeling spots on copper and copper-chromium cathodes of vacuum arcs. , 2013, , . | | 0 |
| 64 | Sheath and arc-column voltages in high-pressure arc discharges. Journal Physics D: Applied Physics, 2012, 45, 355201. | 2.8 | 34 |
| 65 | Stability of very-high pressure arc discharges against perturbations of the electron temperature. Journal of Applied Physics, 2012, 111, 073305. | 2.5 | 4 |
| 66 | Joule heat generation in thermionic cathodes of high-pressure ARCS. , 2012, , . | | 0 |
| 67 | Real-time prevention of spots on thermionic cathodes in high-pressure ARC discharges. , 2012, , . | | 0 |
| 68 | Stability of arc discharges in very-high pressure xenon lamps against electron temperature perturbations. , 2012, , . | | 0 |
| 69 | Predicting self-organization in DC glow microdischarges in different gases with the use of COMSOL Multiphysics. , 2012, , . | | 0 |
| 70 | Modeling cathode spots in vacuum arcs burning on multi-component contacts. , 2012, , . | | 2 |
| 71 | 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 |
| 72 | 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 |

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| 73 | Three-Dimensional Modeling of Self-Organization in DC Glow Microdischarges. IEEE Transactions on Plasma Science, 2011, 39, 2190-2191. | 1.3 | 24 |
| 74 | Reply to the Comment on "What is the mathematical meaning of Steenbeck's principle of minimum power in gas discharge physics?". Journal Physics D: Applied Physics, 2010, 43, 298002. | 2.8 | 0 |
| 75 | Space-charge sheath with ions accelerated into the plasma. Journal Physics D: Applied Physics, 2010, 43, 175203. | 2.8 | 12 |
| 76 | The double sheath on cathodes of discharges burning in cathode vapour. Journal Physics D: Applied Physics, 2010, 43, 345204. | 2.8 | 31 |
| 77 | 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 |
| 78 | Multiple solutions in the theory of dc glow discharges. Plasma Sources Science and Technology, 2010, 19, 025019. | 3.1 | 27 |
| 79 | Theory of space-charge sheaths on cathodes of vacuum arcs. , 2010, , . | | 0 |
| 80 | 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 |
| 81 | Investigating near-anode plasma layers of very high-pressure arc discharges. Journal Physics D: Applied Physics, 2009, 42, 045210. | 2.8 | 25 |
| 82 | Existence and stability of regularized shock solutions, with applications to rimming flows. Journal of Engineering Mathematics, 2009, 63, 197-212. | 1.2 | 14 |
| 83 | The Child-Langmuir law and analytical theory of collisionless to collision-dominated sheaths. Plasma Sources Science and Technology, 2009, 18, 014005. | 3.1 | 90 |
| 84 | 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 |
| 85 | 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 |
| 86 | Understanding and modelling plasma-electrode interaction in high-pressure arc discharges: a review. Journal Physics D: Applied Physics, 2008, 41, 144001. | 2.8 | 225 |
| 87 | Unified modelling of near-cathode plasma layers in high-pressure arc discharges. Journal Physics D: Applied Physics, 2008, 41, 245201. | 2.8 | 60 |
| 88 | Modern theory of plasma-cathode interaction in high-pressure arc discharges and perspectives of its application to cathode spots in vacuum arcs. , 2008, , . | | 0 |
| 89 | Effect of cathode geometry on modes of current transfer to cathodes of high pressure arc discharges. , 2008, , . | | 1 |
| 90 | Formation of stationary and transient spots on thermionic cathodes and its prevention. Journal Physics D: Applied Physics, 2008, 41, 144004. | 2.8 | 5 |

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| 91 | Transient Spots on Cathodes of High-Pressure Arc Discharges. IEEE Transactions on Plasma Science, 2008, 36, 1032-1033. | 1.3 | 8 |
| 92 | Multiple solutions in the theory of near-cathode layers and self-organization on DC glow cathodes. , 2008, , . | | 0 |
| 93 | Unified modelling of near-electrode non-equilibrium layers in high-pressure arc discharges. , 2008, , . | | 0 |
| 94 | 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 |
| 95 | Steady rimming flows with surface tension. Journal of Fluid Mechanics, 2008, 597, 91-118. | 3.4 | 40 |
| 96 | Comment on "Self-organization in cathode boundary layer discharges in xenon" and "Self-organization in cathode boundary layer microdischarges". Plasma Sources Science and Technology, 2007, 16, 422-425. | 3.1 | 14 |
| 97 | Stability of direct current transfer to thermionic cathodes: I. Analytical theory. Journal Physics D: Applied Physics, 2007, 40, 1376-1393. | 2.8 | 30 |
| 98 | Stability of direct current transfer to thermionic cathodes: II. Numerical simulation. Journal Physics D: Applied Physics, 2007, 40, 5083-5097. | 2.8 | 26 |
| 99 | 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 |
| 100 | Self-Consistent Model of HID Lamp for Design Applications. IEEE Transactions on Plasma Science, 2006, 34, 1536-1547. | 1.3 | 20 |
| 101 | 3D modelling of heating of thermionic cathodes by high-pressure arc plasmas. Journal Physics D: Applied Physics, 2006, 39, 2124-2134. | 2.8 | 46 |
| 102 | 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 |
| 103 | Modeling of hydrogen-rich gas production by plasma reforming of hydrocarbon fuels. International Journal of Hydrogen Energy, 2006, 31, 769-774. | 7.1 | 47 |
| 104 | Modelling interaction of multispecies plasmas with thermionic cathodes. Plasma Sources Science and Technology, 2005, 14, 517-524. | 3.1 | 39 |
| 105 | Modelling current transfer to cathodes in metal halide plasmas. Journal Physics D: Applied Physics, 2005, 38, 3155-3162. | 2.8 | 15 |
| 106 | Modelling of discharges in a flow of preheated air. Plasma Sources Science and Technology, 2005, 14, 129-133. | 3.1 | 11 |
| 107 | 3D Modeling of Thermionic Cathodes of High-Pressure Arcs. IEEE International Conference on Plasma Science, 2005, , . | 0.0 | 0 |
| 108 | Asymptotic calculation of escape factor in atomic plasmas. Journal Physics D: Applied Physics, 2005, 38, 3599-3608. | 2.8 | 13 |

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| 109 | Transition from a fully ionized plasma to an absorbing surface. <i>Journal Physics D: Applied Physics</i> , 2004, 37, 3107-3116. | 2.8 | 10 |
| 110 | Method of Matched Asymptotic Expansions Versus Intuitive Approaches: Calculation of Arc Cathode Spots. <i>IEEE Transactions on Plasma Science</i> , 2004, 32, 249-255. | 1.3 | 8 |
| 111 | Simulation of discharges in atmospheric-pressure air sustained by traveling electromagnetic waves. <i>IEEE Transactions on Plasma Science</i> , 2003, 31, 488-494. | 1.3 | 9 |
| 112 | Modelling of low-current discharges in atmospheric-pressure air taking account of non-equilibrium effects. <i>Journal Physics D: Applied Physics</i> , 2003, 36, 1834-1841. | 2.8 | 79 |
| 113 | Method of matched asymptotic expansions versus intuitive approaches: calculation of space-charge sheaths. <i>IEEE Transactions on Plasma Science</i> , 2003, 31, 678-690. | 1.3 | 15 |
| 114 | Bifurcation points in the theory of axially symmetric arc cathodes. <i>Physical Review E</i> , 2003, 68, 056407. | 2.1 | 34 |
| 115 | Comment on "On the consistency of the collisionless sheath model" [<i>Phys. Plasmas</i> 9, 4427 (2002)]. <i>Physics of Plasmas</i> , 2003, 10, 4584-4586. | 1.9 | 9 |
| 116 | Heating of refractory cathodes by high-pressure arc plasmas: II. <i>Journal Physics D: Applied Physics</i> , 2003, 36, 603-614. | 2.8 | 54 |
| 117 | Calculation of ion mobilities by means of the two-temperature displaced-distribution theory. <i>Journal Physics D: Applied Physics</i> , 2002, 35, 1577-1584. | 2.8 | 13 |
| 118 | Determination of HID electrode falls in a model lamp II: Langmuir-probe measurements. <i>Journal Physics D: Applied Physics</i> , 2002, 35, 1631-1638. | 2.8 | 56 |
| 119 | Asymptotic theory of a collision-dominated space-charge sheath with a velocity-dependent ion mobility. <i>Journal of Plasma Physics</i> , 2002, 67, 163-173. | 2.1 | 14 |
| 120 | Theory and modelling of arc cathodes. <i>Plasma Sources Science and Technology</i> , 2002, 11, A49-A54. | 3.1 | 20 |
| 121 | Heating of refractory cathodes by high-pressure arc plasmas: I. <i>Journal Physics D: Applied Physics</i> , 2002, 35, 1736-1750. | 2.8 | 92 |
| 122 | Near-cathode phenomena in HID lamps. <i>IEEE Transactions on Industry Applications</i> , 2001, 37, 986-993. | 4.9 | 13 |
| 123 | Model for arc cathode region in a wide pressure range. <i>Journal Physics D: Applied Physics</i> , 2001, 34, 2016-2021. | 2.8 | 8 |
| 124 | Vaporization of a solid surface in an ambient gas. <i>Journal Physics D: Applied Physics</i> , 2001, 34, 1993-1999. | 2.8 | 23 |
| 125 | Modeling a collision-dominated space-charge sheath in high-pressure arc discharges. <i>Physics of Plasmas</i> , 2001, 8, 4227-4233. | 1.9 | 21 |
| 126 | Near-wall layer of a positive dust-electron plasma in the presence of a nonequilibrium charging process. <i>Physics of Plasmas</i> , 2001, 8, 3879-3883. | 1.9 | 1 |

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| 127 | Near-Wall Space-Charge Sheaths in a Positive Dust-Electron Plasma. <i>Physica Scripta</i> , 2001, T98, 95. | 2.5 | 0 |
| 128 | Theory of Nonlinear Surface Heating. <i>Physica Scripta</i> , 2000, T84, 22. | 2.5 | 2 |
| 129 | Boundary conditions for the Child-Langmuir sheath model. <i>IEEE Transactions on Plasma Science</i> , 2000, 28, 2207-2213. | 1.3 | 30 |
| 130 | Theory of plasma-wall transition with account of variable ion temperature. <i>Physics of Plasmas</i> , 2000, 7, 135-143. | 1.9 | 10 |
| 131 | Collision-dominated to collisionless electron-free space-charge sheath in a plasma with variable ion temperature. <i>Physics of Plasmas</i> , 2000, 7, 4403-4411. | 1.9 | 8 |
| 132 | Simulation of the layer of non-equilibrium ionization in a high-pressure argon plasma with multiply-charged ions. <i>Journal Physics D: Applied Physics</i> , 2000, 33, 960-967. | 2.8 | 33 |
| 133 | Bohm criterion for a plasma composed of electrons and positive dust grains. <i>Physical Review E</i> , 2000, 63, 016410. | 2.1 | 12 |
| 134 | Can the temperature of electrons in a high-pressure plasma be determined by means of an electrostatic probe?. <i>Journal Physics D: Applied Physics</i> , 2000, 33, 1683-1696. | 2.8 | 34 |
| 135 | Analysis of ionization non-equilibrium in the near-cathode region of atmospheric-pressure arcs. <i>Journal Physics D: Applied Physics</i> , 1999, 32, 257-262. | 2.8 | 34 |
| 136 | Modeling of a nonequilibrium cylindrical column of a low-current arc discharge. <i>IEEE Transactions on Plasma Science</i> , 1999, 27, 1458-1463. | 1.3 | 22 |
| 137 | Joining sheath to plasma in electronegative gases at low pressures using matched asymptotic approximations. <i>Journal of Plasma Physics</i> , 1999, 62, 541-559. | 2.1 | 23 |
| 138 | Maxwell's construction for non-linear heat structures and modelling of electrode spots in arc discharges. <i>European Physical Journal D</i> , 1998, 48, 245-250. | 0.4 | 0 |
| 139 | Non-linear surface heating and modes of current transfer to thermionic cathodes. <i>European Physical Journal D</i> , 1998, 48, 263-268. | 0.4 | 0 |
| 140 | Maxwell's Construction for Non-linear Heat Structures and Determination of Radius of Arc Spots on Cathodes. <i>Physica Scripta</i> , 1998, 58, 383-386. | 2.5 | 10 |
| 141 | Nonlinear surface heating of a plane sample and modes of current transfer to hot arc cathodes. <i>Physical Review E</i> , 1998, 58, 6480-6494. | 2.1 | 51 |
| 142 | Ionization layer at the edge of a fully ionized plasma. <i>Physical Review E</i> , 1998, 57, 2230-2241. | 2.1 | 51 |
| 143 | Analysis of thermal non-equilibrium in the near-cathode region of atmospheric-pressure arcs. <i>Journal Physics D: Applied Physics</i> , 1997, 30, 3353-3359. | 2.8 | 10 |
| 144 | Theory of a collision-dominated space-charge sheath on an emitting cathode. <i>Journal Physics D: Applied Physics</i> , 1997, 30, 1115-1119. | 2.8 | 2 |

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| 145 | A kinetic derivation of multifluid equations for multispecies nonequilibrium mixtures of reacting gases. <i>Physics of Plasmas</i> , 1997, 4, 521-528. | 1.9 | 22 |
| 146 | Asymptotic theory of boundary layers of weakly ionized thermal plasmas on emitting electrodes. <i>IEEE Transactions on Plasma Science</i> , 1997, 25, 919-924. | 1.3 | 0 |
| 147 | MULTIFLUID DESCRIPTION AND THE BOHM CRITERION FOR MULTI-SPECIES PLASMAS. , 1996, , . | | 0 |
| 148 | Momentum and energy exchange between species of a multicomponent gas mixture due to inelastic and reactive collisions. <i>Physics of Plasmas</i> , 1996, 3, 2805-2812. | 1.9 | 8 |
| 149 | Multifluid equations of a plasma with various species of positive ions and the Bohm criterion. <i>Journal Physics D: Applied Physics</i> , 1996, 29, 364-368. | 2.8 | 42 |
| 150 | A model of the cathode region of atmospheric pressure arcs. <i>Journal Physics D: Applied Physics</i> , 1995, 28, 1869-1882. | 2.8 | 230 |
| 151 | The ion flux from a thermal plasma to a surface. <i>Journal Physics D: Applied Physics</i> , 1995, 28, 286-294. | 2.8 | 48 |
| 152 | Modeling of diffuse current transfer in a near-electrode layer of the high-pressure molecular plasma. <i>IEEE Transactions on Plasma Science</i> , 1995, 23, 742-749. | 1.3 | 8 |
| 153 | Nonequilibrium boundary layer of potassium-seeded combustion products. <i>Combustion and Flame</i> , 1994, 98, 313-325. | 5.2 | 15 |
| 154 | A self-consistent analytical model of arc spots on electrodes. <i>IEEE Transactions on Plasma Science</i> , 1994, 22, 73-77. | 1.3 | 20 |
| 155 | Nonlinear heat structures and arc-discharge electrode spots. <i>Physical Review E</i> , 1993, 48, 506-515. | 2.1 | 45 |
| 156 | Perturbation region near a biased body in a flowing collision-dominated plasma with low ionization density. Currentâ€“voltage characteristics of a langmuir probe. <i>Journal of Plasma Physics</i> , 1993, 50, 293-308. | 2.1 | 4 |
| 157 | Theory of structures in near-electrode plasma regions. <i>Physical Review A</i> , 1992, 45, 5901-5912. | 2.5 | 32 |
| 158 | The high-current-density phase of the discharge in low-pressure high-power switches as a mode of the vacuum discharge. <i>IEEE Transactions on Plasma Science</i> , 1992, 20, 1047-1052. | 1.3 | 7 |
| 159 | Ion saturation currents to spherical and cylindrical electrostatic probes in collisional plasmas. <i>Journal of Applied Physics</i> , 1991, 70, 6726-6731. | 2.5 | 22 |
| 160 | Asymptotic calculation of the cathode layer in a molecular-gas plasma. <i>Journal of Applied Mechanics and Technical Physics</i> , 1988, 29, 38-45. | 0.5 | 0 |
| 161 | Chemically nonequilibrium multicomponent boundary layer for a plasma of molecular gases with addition of alkali. <i>Journal of Applied Mechanics and Technical Physics</i> , 1987, 27, 653-663. | 0.5 | 5 |
| 162 | Nonlinear regimes of current flow through a weakly ionized boundary layer and their stability. <i>Fluid Dynamics</i> , 1987, 21, 638-647. | 0.9 | 0 |

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| 163 | 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 |
| 164 | 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 |
| 165 | Theory of a spherical electric probe in a weakly ionized plasma at rest. Fluid Dynamics, 1983, 17, 773-779. | 0.9 | 6 |
| 166 | Electric characteristics of a probe in a subsonic plasma flow. Fluid Dynamics, 1983, 18, 124-134. | 0.9 | 2 |
| 167 | The perturbed region of a weakly ionized plasma near a cold electrode. Fluid Dynamics, 1983, 18, 226-234. | 0.9 | 4 |
| 168 | Electrode region of a weakly ionized plasma in chemical equilibrium. Fluid Dynamics, 1982, 17, 117-127. | 0.9 | 6 |
| 169 | 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 |
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