

Sergey Golubev

List of Publications by Year in descending order

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471061

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93
times ranked

362
citing authors

#	ARTICLE	IF	CITATIONS
1	A point-like source of extreme ultraviolet radiation based on a discharge in a non-uniform gas flow, sustained by powerful gyrotron radiation of terahertz frequency band. Applied Physics Letters, 2014, 105, .	1.5	66
2	Formation of multi-charged ions and plasma stability at quasigasdynamic plasma confinement in a mirror magnetic trap. Review of Scientific Instruments, 2000, 71, 669-671.	0.6	39
3	Multiple ionization of metal ions by ECR heating of electrons in vacuum arc plasmas. Review of Scientific Instruments, 2004, 75, 1888-1890.	0.6	35
4	Kinetic instabilities in a mirror-confined plasma sustained by high-power microwave radiation. Physics of Plasmas, 2017, 24, 032111.	0.7	32
5	Observation of pulsed fast electron precipitations and the cyclotron generation mechanism of burst activity in a decaying ECR discharge plasma. Journal of Experimental and Theoretical Physics, 2007, 104, 296-306.	0.2	27
6	Cyclotron-Resonance Maser Driven by Magnetic Compression of Rarefied Plasma. Physical Review Letters, 2007, 99, 205002.	2.9	26
7	Observation of extreme ultraviolet light emission from an expanding plasma jet with multiply charged argon or xenon ions. Applied Physics Letters, 2018, 113, .	1.5	25
8	Experimental investigations of silicon tetrafluoride decomposition in ECR discharge plasma. Review of Scientific Instruments, 2011, 82, 063503.	0.6	23
9	Generating High-Energy Highly Charged Ion Beams from Petawatt-Class Laser Interactions with Compound Targets. Physical Review Letters, 2012, 109, 245008.	2.9	23
10	On the possibility of terahertz wave generation upon dense gas optical breakdown. JETP Letters, 2004, 79, 361-364.	0.4	22
11	Maser based on cyclotron resonance in a decaying plasma. JETP Letters, 2006, 84, 314-319.	0.4	22
12	Measurement of plasma density in the discharge maintained in a nonuniform gas flow by a high-power terahertz-wave gyrotron. Physics of Plasmas, 2016, 23, .	0.7	22
13	Plasma parameters of an electron cyclotron resonance discharge in a magnetic mirror in a quasi-gasdynamic confinement regime. Technical Physics Letters, 1999, 25, 588-589.	0.2	21
14	Laboratory modeling of nonstationary processes in space cyclotron masers: First results and prospects. Plasma Physics Reports, 2005, 31, 927-937.	0.3	21
15	Interpretation of complex patterns observed in the electron-cyclotron instability of a mirror confined plasma produced by an ECR discharge. Plasma Physics and Controlled Fusion, 2012, 54, 085023.	0.9	20
16	Features of plasma glow in low pressure terahertz gas discharge. Physics of Plasmas, 2013, 20, .	0.7	19
17	The Discharge Maintained by High-Power Terahertz Radiation in a Nonuniform Gas Flow. Radiophysics and Quantum Electronics, 2014, 56, 561-565.	0.1	18
18	Gas discharge powered by the focused beam of the high-intensive electromagnetic waves of the terahertz frequency band. Journal Physics D: Applied Physics, 2018, 51, 464002.	1.3	17

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19	High current density production of multicharged ions with ECR plasma heated by gyrotron transmitter. Review of Scientific Instruments, 2002, 73, 528-530.	0.6	16
20	Generation of multiply charged refractory metals in an electron-cyclotron resonant discharge in a direct magnetic trap. Technical Physics, 2005, 50, 1207-1211.	0.2	16
21	Cyclotron-resonance maser with adiabatic magnetic pumping in a low-density plasma. JETP Letters, 2007, 86, 91-97.	0.4	16
22	Experimental electron energy distribution function investigation at initial stage of electron cyclotron resonance discharge. Review of Scientific Instruments, 2012, 83, 02B504.	0.6	16
23	On the Mechanism of Energetic Electron Losses from the Magnetic Mirror Trap at the ECR Discharge Startup. Radiophysics and Quantum Electronics, 2013, 56, 216-227.	0.1	16
24	Microwave discharge on a dielectric surface in vacuum. Journal of Experimental and Theoretical Physics, 2001, 92, 986-990.	0.2	14
25	Study of hydrogen ECR plasma in a simple mirror magnetic trap heated by 75 GHz pulsed gyrotron radiation. Review of Scientific Instruments, 2017, 88, 033503.	0.6	14
26	Extreme-ultraviolet source based on the electron-cyclotron-resonance discharge. JETP Letters, 2008, 88, 95-98.	0.4	12
27	Status of the gasdynamic ion source for multipurpose operation (GISMO) development at IAP RAS. Review of Scientific Instruments, 2019, 90, 123308.	0.6	12
28	Generation of Electromagnetic Bursts in the Plasma Cyclotron Maser. Radiophysics and Quantum Electronics, 2013, 56, 12-19.	0.1	11
29	Pulse-Periodic Regime of Kinetic Instability of the ECR Discharge Plasma Under the Conditions of Double Plasma Resonance. Radiophysics and Quantum Electronics, 2015, 57, 849-856.	0.1	11
30	Plasma density in discharge sustained in inhomogeneous gas flow by high-power radiation in the terahertz frequency range. Technical Physics Letters, 2017, 43, 186-189.	0.2	11
31	Multiple ionization of vacuum-arc-generated metal ions in a magnetic trap heated by high-power microwave radiation. Technical Physics Letters, 2007, 33, 872-874.	0.2	10
32	A study of silicon tetrafluoride reduction with hydrogen in radiofrequency discharge. High Energy Chemistry, 2014, 48, 49-53.	0.2	10
33	Observation of quasi-periodic frequency sweeping in electron cyclotron emission of nonequilibrium mirror-confined plasma. Europhysics Letters, 2016, 116, 55001.	0.7	10
34	Zebra-like patterns in whistler wave emission spectra from nonequilibrium mirror-confined laboratory plasma. Physics of Plasmas, 2020, 27, .	0.7	10
35	Ion charge state distribution in plasma of electron cyclotron resonance discharge sustained by powerful millimeter wave radiation. Review of Scientific Instruments, 1998, 69, 634-636.	0.6	9
36	Soft X-rays generated by the electron-cyclotron resonance discharge in heavy gases sustained by a high-power microwave beam in a magnetic trap. Technical Physics Letters, 2000, 26, 1075-1077.	0.2	9

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37	An experimental setup for studying the interaction of dense supersonic plasma flows with an arched magnetic field. <i>Technical Physics Letters</i> , 2015, 41, 901-904.	0.2	8
38	Theory of a stationary microwave discharge with multiply charged ions in an expanding gas jet. <i>Journal of Experimental and Theoretical Physics</i> , 2016, 123, 219-230.	0.2	8
39	Generation of high charge state platinum ions on vacuum arc plasma heated by gyrotron radiation. <i>Review of Scientific Instruments</i> , 2014, 85, 02B902.	0.6	7
40	PECVD preparation of silicon and germanium with different isotopic composition via their tetrafluorides. <i>Journal of Physics: Conference Series</i> , 2014, 514, 012002.	0.3	7
41	Observation of plasma microwave emission during the injection of supersonic plasma flows into magnetic arch. <i>Plasma Physics and Controlled Fusion</i> , 2017, 59, 075001.	0.9	6
42	Gasdynamic electron cyclotron ion sources: Basic physics, applications, and diagnostic techniques. <i>Review of Scientific Instruments</i> , 2022, 93, 033502.	0.6	6
43	An extreme ultraviolet radiation source based on plasma heated by millimeter range radiation. <i>Bulletin of the Russian Academy of Sciences: Physics</i> , 2011, 75, 64-66.	0.1	5
44	A powerful pulsed "point-like" neutron source based on the high-current ECR ion source. <i>Review of Scientific Instruments</i> , 2020, 91, 013331.	0.6	5
45	High current multicharged metal ion source using high power gyrotron heating of vacuum arc plasma. <i>Review of Scientific Instruments</i> , 2008, 79, 02B304.	0.6	4
46	Fabrication of nanocrystalline silicon layers by plasma enhanced chemical vapor deposition from silicon tetrafluoride. <i>Semiconductors</i> , 2009, 43, 968-972.	0.2	4
47	Excitation of electromagnetic waves in dense plasma during the injection of supersonic plasma flows into magnetic arch. <i>AIP Conference Proceedings</i> , 2016, , .	0.3	4
48	A point-like plasma, sustained by powerful radiation of terahertz gyrotrons, as a source of ultraviolet light. , 2017, , .		4
49	High-Current Pulsed ECR Ion Sources. <i>Plasma Physics Reports</i> , 2019, 45, 984-989.	0.3	4
50	Wide-aperture dense plasma fluxes production based on ECR discharge in a single solenoid magnetic field. <i>Review of Scientific Instruments</i> , 2019, 90, 123511.	0.6	4
51	Experiments on intense ion beam formation with an inhomogeneous electric field. <i>Plasma Sources Science and Technology</i> , 2021, 30, 125008.	1.3	4
52	Emittance Measurements of a Gasdynamic Electron Cyclotron Resonant Ion Source. <i>Technical Physics Letters</i> , 2021, 47, 485-489.	0.2	4
53	Glow plasma trigger for electron cyclotron resonance ion sources. <i>Review of Scientific Instruments</i> , 2010, 81, 02A305.	0.6	3
54	Monocrystalline InN Films Grown at High Rate by Organometallic Vapor Phase Epitaxy with Nitrogen Plasma Activation Supported by Gyrotron Radiation. <i>Japanese Journal of Applied Physics</i> , 2013, 52, 110201.	0.8	3

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55	Formation of UV-radiating strongly non-equilibrium plasma with multiply charged ions in the expanding high-pressure gas jet. AIP Conference Proceedings, 2016, , .	0.3	3
56	On the Possibility of Creating a Point-Like Neutron Source. Radiophysics and Quantum Electronics, 2018, 60, 779-785.	0.1	3
57	The dynamics of supersonic plasma flow interaction with the magnetic arch. Plasma Physics and Controlled Fusion, 2019, 61, 035001.	0.9	3
58	Ion charge-state distribution in a high-power pulsed electron cyclotron resonance discharge sustained by millimeter-wavelength radiation. Technical Physics Letters, 1997, 23, 319-320.	0.2	2
59	Resonant increase of x-ray emission in a microwave discharge at half-gyrofrequency. Physics of Plasmas, 2002, 9, 2781-2785.	0.7	2
60	Effect of Vacuum-Chamber Wall Gassing on the Evolution of an ECR Discharge in a Magnetic Trap. Radiophysics and Quantum Electronics, 2003, 46, 744-748.	0.1	2
61	Production of nanocrystalline silicon layers using the plasma enhanced chemical vapor deposition from the gas phase of silicon tetrafluoride. JETP Letters, 2009, 89, 73-75.	0.4	2
62	Growing InN films by plasma-assisted metalorganic vapor-phase epitaxy on Al ₂ O ₃ and YSZ substrates in plasma generated by gyrotron radiation under electron cyclotron resonance conditions. Technical Physics Letters, 2013, 39, 51-54.	0.2	2
63	Experimental investigation of powerful THz gyrotrons for initiation of localized gas discharge. , 2015, , .		2
64	Kinetic instabilities in a mirror-confined plasma sustained by high-power microwave radiation. AIP Conference Proceedings, 2016, , .	0.3	2
65	Gas breakdown by a focused CW 263 GHz beam. , 2016, , .		2
66	A Compact Neutron Source for Boron Neutron Capture Therapy. Radiophysics and Quantum Electronics, 2017, 59, 682-689.	0.1	2
67	Applications of the gas discharge sustained by the powerful radiation of THz gyrotrons. Journal of Physics: Conference Series, 2019, 1400, 077032.	0.3	2
68	High power vacuum ultraviolet source based on gasdynamic ECR plasma. Journal of Applied Physics, 2022, 131, 093301.	1.1	2
69	Multiple Ionization Of Metal Ions By ECR Heating Of Electrons In Vacuum Arc Plasmas. AIP Conference Proceedings, 2005, , .	0.3	1
70	Short-pulse ECR: A source of multiply charged ions. Technical Physics, 2010, 55, 1797-1801.	0.2	1
71	He ²⁺ source based on Penning-type discharge with electron cyclotron resonant heating by millimeter waves. Plasma Sources Science and Technology, 2011, 20, 035014.	1.3	1
72	On the Possibility of ECR-Discharge with Overcritical Plasma Density in Axisymmetrical Magnetic Trap. Fusion Science and Technology, 2011, 59, 223-225.	0.6	1

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73	On the feasibility of electron cyclotron heating of overcritical plasma in a magnetic mirror trap. Plasma Physics Reports, 2012, 38, 443-449.	0.3	1
74	Indium Nitride Film Growth by Metal Organic Chemical Vapor Deposition with Nitrogen Activation in Electron Cyclotron Resonance Discharge Sustained by 24 GHz Gyrotron Radiation. Japanese Journal of Applied Physics, 2013, 52, 08JD07.	0.8	1
75	Low pressure gas discharge in the quasioptical beams of the powerful terahertz radiation. , 2013, , .		1
76	High-rate growth of InN films on fianite and sapphire substrates by metalorganic vapor phase epitaxy with plasma-assisted nitrogen activation. Technical Physics Letters, 2015, 41, 266-269.	0.2	1
77	Gas breakdown by a focused beam of CW THz radiation. , 2017, , .		1
78	“Point-like” neutron source based on D-D fusion reaction. Journal of Physics: Conference Series, 2019, 1370, 012008.	0.3	1
79	ECR Discharge Sustained by Millimeter Waves as a Source of Dense Plasma Flux. Plasma Physics Reports, 2022, 48, 200-204.	0.3	1
80	Soft X-Ray Emission from Millimeter-Wave Electron Cyclotron Resonance Discharge. Journal of X-Ray Science and Technology, 1996, 6, 244-248.	0.7	0
81	PECVD Deposition of nc-Si, $\delta^{14}\text{C-Si}$, and a-Si of Different Isotopic Composition in Form of Films and Bulk Material from SiF ₄ Precursor. ECS Transactions, 2009, 25, 229-233.	0.3	0
82	Isotope-modified silicon layers obtained by plasma enhanced chemical vapor deposition from gaseous silicon tetrafluoride. Technical Physics Letters, 2009, 35, 948-950.	0.2	0
83	Plasma magneto-compressional cyclotron maser. , 2010, , .		0
84	Gyrotron heating of vacuum arc plasma for high charge state metal ion beam generation. , 2012, , .		0
85	Low pressure gas discharge in the quasioptical beams of the powerful terahertz radiation. , 2013, , .		0
86	Generation of powerful THz radiation by electron beams and its interaction with plasma and gases. , 2014, , .		0
87	Generation of electromagnetic radiation under double plasma resonance condition in a mirror-confined plasma produced by ECR discharge. , 2015, , .		0
88	Measurement of plasma density in the discharge maintained in a nonuniform gas flow by a powerful radiation of terahertz-band gyrotron. , 2016, , .		0
89	Point-like source of extreme ultraviolet radiation based on the plasma of THz gas discharge in a focused beam. , 2017, , .		0
90	Point-like neutron source based on high-current electron cyclotron resonance ion source with powerful millimeter wave plasma heating. Journal of Physics: Conference Series, 2018, 946, 012024.	0.3	0

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91	Supersonic plasma flow injection across the magnetic arch in a table-top laboratory setup. Journal of Physics: Conference Series, 2019, 1400, 077034.	0.3	0
92	Deuterium ion beam focusing for the point neutron source development. Journal of Physics: Conference Series, 2020, 1647, 012009.	0.3	0
93	A slit-based method of a high-current ion beam transversal distribution diagnostic. Journal of Physics: Conference Series, 2020, 1683, 032005.	0.3	0