

Alexander G Shalashov

List of Publications by Year in descending order

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87
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docs citations

87
times ranked

380
citing authors

#	ARTICLE	IF	CITATIONS
1	Threefold Increase of the Bulk Electron Temperature of Plasma Discharges in a Magnetic Mirror Device. <i>Physical Review Letters</i> , 2015, 114, 205001.	7.8	103
2	Overview of ECR plasma heating experiment in the GDT magnetic mirror. <i>Nuclear Fusion</i> , 2015, 55, 053009.	3.5	76
3	On the influence of 2D inhomogeneity on electromagnetic mode conversion near the cut-off surfaces in magnetized plasmas. <i>Plasma Physics and Controlled Fusion</i> , 2006, 48, 869-883.	2.1	36
4	Auxiliary ECR heating system for the gas dynamic trap. <i>Physics of Plasmas</i> , 2012, 19, 052503.	1.9	35
5	Kinetic instabilities in a mirror-confined plasma sustained by high-power microwave radiation. <i>Physics of Plasmas</i> , 2017, 24, 032111.	1.9	32
6	Extreme-Ultraviolet Light Source for Lithography Based on an Expanding Jet of Dense Xenon Plasma Supported by Microwaves. <i>Physical Review Applied</i> , 2018, 10, .	3.8	31
7	NBI-driven ion cyclotron instabilities at the W7-AS stellarator. <i>Plasma Physics and Controlled Fusion</i> , 2003, 45, 395-412.	2.1	27
8	Overview of the FTU results. <i>Nuclear Fusion</i> , 2007, 47, S608-S621.	3.5	27
9	Observation of pulsed fast electron precipitations and the cyclotron generation mechanism of burst activity in a decaying ECR discharge plasma. <i>Journal of Experimental and Theoretical Physics</i> , 2007, 104, 296-306.	0.9	27
10	Cyclotron-Resonance Maser Driven by Magnetic Compression of Rarefied Plasma. <i>Physical Review Letters</i> , 2007, 99, 205002.	7.8	26
11	Critical issues highlighted by collective Thomson scattering below electron cyclotron resonance in FTU. <i>Nuclear Fusion</i> , 2006, 46, 928-940.	3.5	25
12	Observation of extreme ultraviolet light emission from an expanding plasma jet with multiply charged argon or xenon ions. <i>Applied Physics Letters</i> , 2018, 113, .	3.3	25
13	Electron-cyclotron heating and kinetic instabilities of a mirror-confined plasma: the quasilinear theory revised. <i>Plasma Physics and Controlled Fusion</i> , 2020, 62, 065005.	2.1	25
14	Simple Approach to Electromagnetic Scattering by Small Radially Inhomogeneous Spheres. <i>IEEE Transactions on Antennas and Propagation</i> , 2016, 64, 3960-3971.	5.1	24
15	On the possibility of terahertz wave generation upon dense gas optical breakdown. <i>JETP Letters</i> , 2004, 79, 361-364.	1.4	22
16	Maser based on cyclotron resonance in a decaying plasma. <i>JETP Letters</i> , 2006, 84, 314-319.	1.4	22
17	Interpretation of complex patterns observed in the electron-cyclotron instability of a mirror confined plasma produced by an ECR discharge. <i>Plasma Physics and Controlled Fusion</i> , 2012, 54, 085023.	2.1	20
18	On the structure of wave fields in the region of linear interaction between ordinary and extraordinary waves in two-dimensionally inhomogeneous magnetoactive plasmas. <i>Journal of Experimental and Theoretical Physics</i> , 2006, 103, 480-496.	0.9	16

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19	Cyclotron-resonance maser with adiabatic magnetic pumping in a low-density plasma. JETP Letters, 2007, 86, 91-97.	1.4	16
20	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.	0.5	16
21	ECR Heating System for the Gas Dynamic Trap. Fusion Science and Technology, 2013, 63, 40-45.	1.1	16
22	Electron Cyclotron Resonance Heating Experiment in the GDT Magnetic Mirror: Recent Experiments and Future Plans. Fusion Science and Technology, 2015, 68, 87-91.	1.1	16
23	On perfect O \leftrightarrow X mode conversion near the cut-off surfaces in magnetized plasmas. Plasma Physics and Controlled Fusion, 2008, 50, 045005.	2.1	15
24	Effects of Two-Dimensional Inhomogeneity in O-X Mode Conversion in Tokamak Plasmas. Fusion Science and Technology, 2008, 53, 261-278.	1.1	15
25	Quasi-optical theory of microwave plasma heating in open magnetic trap. Physics of Plasmas, 2016, 23, 112504.	1.9	14
26	Quasi-optical simulation of the electron cyclotron plasma heating in a mirror magnetic trap. Journal of Experimental and Theoretical Physics, 2017, 124, 325-340.	0.9	14
27	Evolution of the millimeter-wave collective Thomson scattering system of the high-field tokamak Frascati Tokamak Upgrade. Review of Scientific Instruments, 2007, 78, 043506.	1.3	13
28	Mode-impedance technique for modeling of electromagnetic wave propagation in plasmas. Plasma Physics and Controlled Fusion, 2010, 52, 025007.	2.1	13
29	The role of radio frequency scattering in high-energy electron losses from minimum-B ECR ion source. Plasma Physics and Controlled Fusion, 2021, 63, 045007.	2.1	13
30	On O \leftrightarrow X mode conversion near the cut-off surfaces in 3D sheared magnetic field. Plasma Physics and Controlled Fusion, 2010, 52, 115001.	2.1	12
31	Observation of Poincaré-Andronov-Hopf Bifurcation in Cyclotron Maser Emission from a Magnetic Plasma Trap. Physical Review Letters, 2018, 120, 155001.	7.8	12
32	Impact of poloidal curvature on linear mode conversion of quasi-optical wave beams in tokamak plasmas. Plasma Physics and Controlled Fusion, 2012, 54, 045009.	2.1	11
33	Observation of quasi-periodic frequency sweeping in electron cyclotron emission of nonequilibrium mirror-confined plasma. Europhysics Letters, 2016, 116, 55001.	2.0	10
34	Zebra-like patterns in whistler wave emission spectra from nonequilibrium mirror-confined laboratory plasma. Physics of Plasmas, 2020, 27, .	1.9	10
35	Linear coupling of electromagnetic waves in gyrotropic media. Physical Review E, 2008, 78, 065602.	2.1	9
36	Structure of the Maxwell equations in the region of linear coupling of electromagnetic waves in weakly inhomogeneous anisotropic and gyrotropic media. Physics-Uspexhi, 2012, 55, 147-160.	2.2	9

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37	Control of electron-cyclotron instability driven by strong ECRH in open magnetic trap. Europhysics Letters, 2018, 124, 35001.	2.0	9
38	Modeling of O-X-B conversion of electromagnetic radiation in tokamak plasmas. Radiophysics and Quantum Electronics, 2006, 49, 617-632.	0.5	8
39	Theory of the ordinary and extraordinary mode coupling in fluctuating plasmas. Plasma Physics and Controlled Fusion, 2014, 56, 125011.	2.1	8
40	On the quasioptical approximation in dissipative media with spatial dispersion. JETP Letters, 2016, 104, 690-695.	1.4	8
41	Theory of a stationary microwave discharge with multiply charged ions in an expanding gas jet. Journal of Experimental and Theoretical Physics, 2016, 123, 219-230.	0.9	8
42	Electron cyclotron emission at the fundamental harmonic in GDT magnetic mirror. Physics of Plasmas, 2017, 24, 082506.	1.9	8
43	Prospects of extreme ultraviolet radiation sources based on microwave discharge for high-resolution lithography. Physics of Plasmas, 2017, 24, .	1.9	8
44	Interpretation of quasi-periodic frequency sweeping in electron cyclotron emission of nonequilibrium mirror-confined plasma sustained by high-power microwaves. Plasma Physics and Controlled Fusion, 2019, 61, 085020.	2.1	8
45	Formation of a Multi-Charged Plasma in the Directed Gas Flow. Radiophysics and Quantum Electronics, 2016, 58, 914-933.	0.5	7
46	Recent progress of plasma confinement and heating studies in the gas dynamic trap. AIP Conference Proceedings, 2016, , .	0.4	7
47	Controlled turbulence regime of electron cyclotron resonance ion source for improved multicharged ion performance. Journal Physics D: Applied Physics, 2021, 54, 385201.	2.8	7
48	Attenuation of Bragg backscattering of electromagnetic waves from density fluctuations near the region of polarization degeneracy in magnetoactive plasma. Plasma Physics Reports, 2016, 42, 723-733.	0.9	6
49	Studies of Plasma Confinement and Stability in a Gas Dynamic Trap: Results of 2016 - 2018. Plasma and Fusion Research, 2019, 14, 2402030-2402030.	0.7	6
50	Collective Thomson scattering diagnostic for the GDT open magnetic trap. Plasma Physics and Controlled Fusion, 2020, 62, 065010.	2.1	6
51	On cyclotron emission from toroidal plasmas near the ECR heating frequency. Plasma Physics and Controlled Fusion, 2003, 45, 1779-1789.	2.1	5
52	Effect of flux surface curvature on the linear coupling of electron cyclotron waves in tokamak plasmas. Plasma Physics Reports, 2012, 38, 83-92.	0.9	5
53	On the determination of the electromagnetic field upon scattering by a small inhomogeneous spherical object. Journal of Experimental and Theoretical Physics, 2016, 123, 587-600.	0.9	5
54	Addendum: Electron-cyclotron heating and kinetic instabilities of a mirror-confined plasma: the quasilinear theory revised (2020 Plasma Phys. Control. Fusion 62 065005). Plasma Physics and Controlled Fusion, 2020, 62, 119401.	2.1	5

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55	Electron cyclotron resonance discharge for plasma startup in the gas dynamic trap. AIP Conference Proceedings, 2016, , .	0.4	4
56	First results of ECE measurements at the GDT mirror trap. AIP Conference Proceedings, 2016, , .	0.4	4
57	Plasma heating and coupling of electromagnetic waves near the upper-hybrid resonance in high- β^2 devices. Plasma Physics and Controlled Fusion, 2017, 59, 065003.	2.1	4
58	Linear Transformation of Electromagnetic Wave Beams of the Electron-Cyclotron Range in Toroidal Magnetic Configurations. Plasma Physics Reports, 2018, 44, 484-497.	0.9	4
59	Extreme Ultraviolet Radiation Source Based on a Discharge Sustained by a Radiation Pulse from a Terahertz Free-Electron Laser. Journal of Experimental and Theoretical Physics, 2021, 132, 223-232.	0.9	4
60	On estimating the role of diffraction in electron cyclotron absorption at the periphery of the plasma column. Plasma Physics Reports, 2007, 33, 659-671.	0.9	3
61	Formation of UV-radiating strongly non-equilibrium plasma with multiply charged ions in the expanding high-pressure gas jet. AIP Conference Proceedings, 2016, , .	0.4	3
62	Coupling electromagnetic and quasi-electrostatic waves in electron cyclotron frequency range in high- β^2 devices. AIP Conference Proceedings, 2016, , .	0.4	3
63	The effect of spectrum broadening on the O ω X mode coupling due scattering of a microwave beam on plasma density fluctuations. Plasma Physics and Controlled Fusion, 2018, 60, 105009.	2.1	3
64	Investigation of ion acceleration effect influence on formation of ambipolar potential profile in the expander region. Review of Scientific Instruments, 2020, 91, 013514.	1.3	3
65	A Set of Receiving Equipment for Detection of Collective Thomson Scattering Spectra at the Gas-Dynamic Trap (GDT) Facility. Radiophysics and Quantum Electronics, 2021, 64, 338.	0.5	3
66	On the Scattering of Finite-Aperture Microwave Beams on Density Fluctuations in Inhomogeneous Magnetized Plasma. Plasma Physics Reports, 2022, 48, 229-241.	0.9	3
67	Modeling of Coulomb collisions in a kinetic description of the electron cyclotron resonance plasma heating. Plasma Physics Reports, 2002, 28, 46-56.	0.9	2
68	On linear transformation of waves in a two-dimensional inhomogeneous magnetized plasma with collisional absorption. Radiophysics and Quantum Electronics, 2012, 55, 462-471.	0.5	2
69	Kinetic instabilities in a mirror-confined plasma sustained by high-power microwave radiation. AIP Conference Proceedings, 2016, , .	0.4	2
70	On the Effect of Small-Angle Scattering by Density Fluctuations on the Efficiency of Linear Transformation of Ordinary and Extraordinary Waves in a Toroidally Inhomogeneous Plasma. Journal of Experimental and Theoretical Physics, 2018, 126, 302-309.	0.9	2
71	On whistler-wave instability driven by butterfly-,y-like electron distribution in a mirror magnetic trap. Plasma Physics and Controlled Fusion, 0, , .	2.1	2
72	Quasilinear modification of the spectra of cyclotron emission from a toroidal plasma near the ECRH frequency. Plasma Physics Reports, 2003, 29, 845-859.	0.9	1

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73	On the theory of cyclotron absorption at the wing of the absorption line. Plasma Physics Reports, 2006, 32, 480-484.	0.9	1
74	Theory of electron cyclotron resonance startup in the gas dynamic trap. AIP Conference Proceedings, 2016, , .	0.4	1
75	Linear coupling of the fast extraordinary wave to electrostatic plasma oscillations: A revised theory. Physics of Plasmas, 2017, 24, 102133.	1.9	1
76	Status of ECRH experiments at GDT mirror trap. EPJ Web of Conferences, 2018, 187, 01017.	0.3	1
77	Nonlinear Interaction of Microwave Radiation with a Plasma Flow under Hybrid Resonance Conditions. Journal of Experimental and Theoretical Physics, 2019, 129, 444-454.	0.9	1
78	Recovery of the Two-Dimensional Ion Distribution Function in a Magnetic Mirror from Measurements of Collective Thomson Scattering Spectra. Plasma Physics Reports, 2021, 47, 503-517.	0.9	1
79	On Influence of 2D Inhomogeneity on Electromagnetic Mode Conversion Near the Cut_Off Surfaces in Magnetized Plasmas. , 2007, , .		0
80	Status of Collective Thomson Scattering Experiment at Frascati Tokamak Upgrade (FTU). , 2007, , .		0
81	LINEAR COUPLING OF ELECTRON CYCLOTRON WAVES IN MAGNETIZED PLASMAS: BEYOND THE RANGE OF ONE-DIMENSIONAL THEORY. , 2009, , .		0
82	Plasma magneto-compressional cyclotron maser. , 2010, , .		0
83	Electron-cyclotron waves in large-scale open traps: new questions highlighted by recent experiments. EPJ Web of Conferences, 2017, 149, 03005.	0.3	0
84	A Radiometer for Plasma Diagnostics in a Magnetic Mirror GDT. Instruments and Experimental Techniques, 2018, 61, 85-90.	0.5	0
85	Fast frequency sweeping events in the electron cyclotron emission of nonequilibrium plasma confined in a tabletop mirror trap. Journal of Physics: Conference Series, 2018, 1094, 012015.	0.4	0