

Nikolay K Kharchev

List of Publications by Year in descending order

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papers

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citations

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104
all docs

104
docs citations

104
times ranked

315
citing authors

#	ARTICLE	IF	CITATIONS
1	Heavy ion beam probing diagnostics to study potential and turbulence in toroidal plasmas. Nuclear Fusion, 2017, 57, 072004.	1.6	44
2	High power density electron cyclotron experiments in the L2M stellarator. Nuclear Fusion, 1997, 37, 233-239.	1.6	34
3	Backscattering of gyrotron radiation and short-wavelength turbulence during electron cyclotron resonance plasma heating in the L-2M stellarator. Plasma Physics Reports, 2013, 39, 444-455.	0.3	34
4	HIBP diagnostics on T-10. Review of Scientific Instruments, 1995, 66, 317-319.	0.6	33
5	Effect of vacuum chamber boronization on the plasma parameters in the L-2M stellarator. Plasma Physics Reports, 2005, 31, 452-461.	0.3	27
6	ECRH effect on the electric potential and turbulence in the TJ-II stellarator and T-10 tokamak plasmas. Plasma Physics and Controlled Fusion, 2018, 60, 084008.	0.9	23
7	Statistical properties and radial structure of plasma turbulence in the boundary region of the L2-M stellarator. Plasma Physics and Controlled Fusion, 1998, 40, 1241-1250.	0.9	22
8	A new MIG-3 gyrotron complex for creation and heating of plasma in the L-2M stellarator and the first experimental results. Plasma Physics Reports, 2013, 39, 1088-1095.	0.3	19
9	Heavy ion beam probe design and operation on the T-10 tokamak. Fusion Engineering and Design, 2019, 146, 850-853.	1.0	17
10	Density profile reconstruction using HIBP in ECRH plasmas in the TJ-II stellarator. Journal of Instrumentation, 2019, 14, C09033-C09033.	0.5	16
11	Plasma energy balance in the L-2M stellarator. Plasma Physics Reports, 2007, 33, 805-815.	0.3	15
12	Effect of ECRH regime on characteristics of short-wave turbulence in plasma of the L-2M stellarator. Plasma Physics and Controlled Fusion, 2010, 52, 055008.	0.9	15
13	Stability analysis of TJ-II stellarator NBI driven Alfvén eigenmodes in ECRH and ECCD experiments. Nuclear Fusion, 2021, 61, 066019.	1.6	15
14	Recent ECRH Experiments in the L-2 M Stellarator with the Use of a New High-Power Gyrotron. Plasma and Fusion Research, 2011, 6, 2402142-2402142.	0.3	15
15	Space and time evolution of plasma potential in T-10 under variation of main gas influx. IEEE Transactions on Plasma Science, 1994, 22, 363-368.	0.6	13
16	Response of a gyrotron to small-amplitude low-frequency-modulated microwaves reflected from a plasma. Technical Physics, 2001, 46, 595-600.	0.2	13
17	The use of Doppler reflectometry in the L-2M stellarator. Plasma Physics Reports, 2005, 31, 554-561.	0.3	13
18	Optimization of operation of a three-electrode gyrotron with the use of a flow-type calorimeter. Review of Scientific Instruments, 2013, 84, 013507.	0.6	12

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19	Correlation properties of Geodesic Acoustic Modes in the T-10 tokamak. Journal of Physics: Conference Series, 2015, 591, 012003.	0.3	12
20	Influence of Controlled Reflected Power on Gyrotron Performance. Journal of Infrared, Millimeter, and Terahertz Waves, 2015, 36, 1145-1156.	1.2	12
21	Boron Nitride and Titanium Diboride Synthesis Initiated by Microwave Discharge in Ti-B Powder Mixture in Nitrogen Atmosphere. Journal of Nanoelectronics and Optoelectronics, 2013, 8, 58-66.	0.1	12
22	Effect of the transverse magnetic field on turbulence and parameters of a plasma column in the L-2M stellarator. Plasma Physics Reports, 2000, 26, 1-9.	0.3	11
23	Application of microwave discharge for the synthesis of TiB ₂ and BN nano- and microcrystals in a mixture of Ti-B powders in a nitrogen atmosphere. Plasma Physics Reports, 2013, 39, 843-848.	0.3	11
24	Influence of the plasma density and heating power on the intensity of electron cyclotron emission in the L-2M stellarator. Plasma Physics Reports, 2003, 29, 1028-1033.	0.3	10
25	Low-frequency structural plasma turbulence in the L-2M stellarator. JETP Letters, 2003, 78, 502-510.	0.4	10
26	Reaction of turbulence at the edge and in the center of the plasma column to pulsed impurity injection caused by the sputtering of the wall coating in L-2M stellarator. Plasma Physics Reports, 2017, 43, 818-823.	0.3	10
27	Heavy ion beam probe diagnostics on TJ-1 tokamak and the measurements of the plasma potential and density profiles. Review of Scientific Instruments, 1997, 68, 312-315.	0.6	9
28	Effect of microwave reflection from the region of electron cyclotron resonance heating in the L-2M stellarator. Plasma Physics Reports, 2013, 39, 882-887.	0.3	9
29	Discharge in a Subthreshold Microwave Beam as an Unusual Type of Ionization Wave. Plasma Physics Reports, 2018, 44, 1146-1153.	0.3	9
30	Evolution of statistical properties of microturbulence during transient process under electron cyclotron resonance heating of the L-2M stellarator plasma. Plasma Physics and Controlled Fusion, 2019, 61, 075006.	0.9	9
31	3D structure of density fluctuations in the T-10 tokamak and new approach for current profile estimation. Nuclear Fusion, 2019, 59, 066021.	1.6	9
32	Measurements of 2D poloidal plasma profiles and fluctuations in ECRH plasmas using the heavy ion beam probe system in the TJ-II stellarator. Physics of Plasmas, 2020, 27, .	0.7	9
33	Experimental observation of the geodesic acoustic frequency limit for the NBI-driven Alfvén eigenmodes in TJ-II. Physics of Plasmas, 2021, 28, 072510.	0.7	9
34	Title is missing!. Journal of Mathematical Sciences, 2001, 106, 2691-2703.	0.1	8
35	Statistical analysis and modelling of turbulent fluxes in the plasma of the L-2M stellarator and the FT-2 tokamak. Plasma Physics and Controlled Fusion, 2006, 48, A393-A399.	0.9	8
36	Detection and investigation of chirping Alfvén eigenmodes with heavy ion beam probe in the TJ-II stellarator. Nuclear Fusion, 2018, 58, 082019.	1.6	8

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37	Synthesis of Nitrogen Oxides in a Subthreshold Microwave Discharge in Air and in Air Mixtures with Methane. Plasma Physics Reports, 2020, 46, 311-319.	0.3	8
38	2D distributions of potential and density mean-values and oscillations in the ECRH and NBI plasmas at the TJ-II stellarator. Plasma Physics and Controlled Fusion, 2022, 64, 054009.	0.9	8
39	Calibration of the heavy ion beam probe parallel plate analyzer using the gas target and reference beam. Review of Scientific Instruments, 1997, 68, 308-311.	0.6	7
40	New approach to the probabilistic-statistical analysis of turbulent transport processes in plasma. Plasma Physics Reports, 2002, 28, 111-124.	0.3	7
41	Stability and variations of plasma parameters in the L-2M stellarator during excitation of the induction current in the regime of ECR plasma heating. Plasma Physics Reports, 2008, 34, 979-990.	0.3	7
42	Relief Creation on Molybdenum Plates in Discharges Initiated by Gyrotron Radiation in Metal Dielectric Powder Mixtures. Radiophysics and Quantum Electronics, 2016, 58, 701-709.	0.1	7
43	Initiation of dusty structures in chain reactions under the action of gyrotron radiation on a mixture of metal and dielectric powders with an open boundary. JETP Letters, 2017, 106, 262-267.	0.4	7
44	Plasma confinement during ECR heating with a volume power density of 3 mW/m^3 at the L-2M stellarator. Journal of Physics: Conference Series, 2017, 907, 012016.	0.3	7
45	Discharge in a Subthreshold Microwave Beam as an Effective Means for Mercaptan Decomposition. Plasma Physics Reports, 2019, 45, 523-526.	0.3	7
46	Studies of fluctuations in the high-temperature plasma of modern stellarators by the microwave scattering technique. Plasma Physics Reports, 2003, 29, 363-379.	0.3	6
47	New possibilities for the mathematical modeling of turbulent transport processes in plasma. Plasma Physics Reports, 2005, 31, 57-74.	0.3	6
48	Detection of high k turbulence using two dimensional phase contrast imaging on LHD. Review of Scientific Instruments, 2008, 79, 10E724.	0.6	6
49	Subthreshold self-sustained discharge initiated by a microwave beam in a large volume of high-pressure gas. Journal of Physics: Conference Series, 2017, 907, 012022.	0.3	6
50	Discharge in the Atmosphere in a Gaussian Beam of Subthreshold Millimeter Waves. JETP Letters, 2018, 107, 219-222.	0.4	6
51	Location of the Front of a Subthreshold Microwave Discharge and Some Specificities of Its Propagation. Plasma Physics Reports, 2019, 45, 965-972.	0.3	6
52	Conceptual design of the heavy ion beam probe diagnostic for the T-15MD tokamak. Journal of Instrumentation, 2019, 14, C11027-C11027.	0.5	6
53	Radial structure of quasi-coherent mode in ohmic plasma of the T-10 tokamak. Journal of Physics: Conference Series, 2019, 1383, 012004.	0.3	6
54	Subthreshold Discharge Excited by a Microwave Beam in High-Pressure Gas as a System of a Multitude of Plasma Microexplosions. Plasma Physics Reports, 2021, 47, 86-91.	0.3	6

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55	Bispectral analysis of broadband turbulence and geodesic acoustic modes in the T-10 tokamak. Journal of Plasma Physics, 2021, 87, .	0.7	6
56	Turbulent transport processes in a plasma as a diffusion process with random time. JETP Letters, 2001, 73, 126-130.	0.4	5
57	Testing of the spectroscopic method for location of water microleakages in ITER at the L-2M stellarator. Plasma Physics Reports, 2012, 38, 708-717.	0.3	5
58	Effect of unstable MHD modes on the confinement of a stellarator plasma. JETP Letters, 1999, 69, 441-447.	0.4	4
59	Structural ion-sound plasma turbulence as a self-similar random process. JETP Letters, 1999, 70, 201-207.	0.4	4
60	Second harmonic of gyrotron radiation: New potentialities of plasma diagnostics. Plasma Physics Reports, 2003, 29, 1019-1027.	0.3	4
61	Displacement of the electron cyclotron resonance heating region and time evolution of the characteristics of short-wavelength turbulence in the 3D magnetic configuration of the L-2M stellarator. Plasma Physics Reports, 2014, 40, 769-780.	0.3	4
62	Reflection and backscattering of microwaves under doubling of the plasma density and displacement of the gyroresonance region during electron cyclotron resonance heating of plasma in the L-2M stellarator. Plasma Physics Reports, 2016, 42, 734-742.	0.3	4
63	Synthesis of micro- and nanostructures with controllable composition in the chain plasma-chemical reactions initiated by the radiation of a powerful gyrotron in the mixtures of metal-dielectric powders. EPJ Web of Conferences, 2017, 149, 02016.	0.1	4
64	Measurements of Microwave Power Absorbed during ECR Plasma Heating at the L-2M Stellarator. Plasma Physics Reports, 2019, 45, 1059-1065.	0.3	4
65	Parameters of a Subthreshold Microwave Discharge in Air and Carbon Dioxide as a Function of Microwave Field at Different Gas Pressures. Plasma Physics Reports, 2020, 46, 927-935.	0.3	4
66	Features of a Supersonic Ionization Wave in Argon at Atmospheric Pressure in a Sub-Threshold Microwave Field. Plasma Physics Reports, 2020, 46, 1220-1226.	0.3	4
67	Observation of nonlinear coupling between drift and ion-acoustic oscillations in low-frequency plasma turbulence. Plasma Physics Reports, 2001, 27, 56-61.	0.3	3
68	Measurements of the microwave power absorbed by a plasma during second harmonic ECR heating in the L-2M stellarator. Plasma Physics Reports, 2002, 28, 7-11.	0.3	3
69	Collective backscattering of gyrotron radiation by small-scale plasma density fluctuations in large helical device. Review of Scientific Instruments, 2008, 79, 10E721.	0.6	3
70	Effect of turbulence in a transient process of electron-cyclotron heating in the L-2M stellarator. JETP Letters, 2015, 102, 217-221.	0.4	3
71	ECRH effect on the electric potential in toroidal plasmas (Overview of recent T-10 tokamak and TJ-II) Tj ETQq1 1 0.784314 rgBT /Overbo 0.1 3	0.1	3
72	A Subthreshold High-Pressure Discharge Excited by a Microwave Beam: Physical Basics and Applications. Plasma Physics Reports, 2018, 44, 615-625.	0.3	3

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73	Observation of extended poloidal structures in the turbulent edge plasma of the L-2M stellarator. JETP Letters, 1998, 67, 662-667.	0.4	2
74	Observation of the coherence between the plasma density fluctuations in the core and at the edge of the plasma column in the L-2M stellarator. JETP Letters, 2000, 72, 174-177.	0.4	2
75	Effect of electron-cyclotron resonance heating conditions on the local parameters of short-wavelength plasma turbulence in the L-2M stellarator. Plasma Physics Reports, 2014, 40, 265-275.	0.3	2
76	Effect of electron-cyclotron resonance plasma heating conditions on the low-frequency modulation of the gyrotron power at the L-2M stellarator. Plasma Physics Reports, 2015, 41, 607-616.	0.3	2
77	Subthreshold Discharge in a Microwave Beam as the Basis of a Plasmachemical Reactor for Cleaning Urban Air from Excess Hydrogen Sulfide. Plasma Physics Reports, 2021, 47, 403-406.	0.3	2
78	Self-Action of a Gaussian Beam of Microwaves in the Subthreshold Field Generated by the Waves in Air. Plasma Physics Reports, 2021, 47, 598-602.	0.3	2
79	ECR Heating in L-2M Stellarator. Fusion Science and Technology, 1995, 27, 270-272.	0.6	2
80	Quasi-coherent mode evolution in discharges with positive radial electric field at the T-10 tokamak. Journal of Physics: Conference Series, 2021, 2055, 012001.	0.3	2
81	Electric Currents Induced upon Creation and Heating of Plasma by Means of Electron Cyclotron Resonance in L-2M Stellarator. Plasma Physics Reports, 2022, 48, 183-192.	0.3	2
82	Identification of Zonal Flows and Their Spatial Distribution in the TJ-II Stellarator Plasmas. JETP Letters, 2022, 116, 98-104.	0.4	2
83	Title is missing!. Journal of Mathematical Sciences, 2002, 111, 3846-3850.	0.1	1
84	A New Approach to the Probability-Statistical Analysis of Turbulent Transport Processes in Plasma. Journal of Mathematical Sciences, 2002, 112, 4205-4210.	0.1	1
85	The L-5 stellarator: A compact torsatron with a controlled structure of the magnetic configuration. Plasma Devices and Operations, 2003, 11, 161-184.	0.6	1
86	Study of plasma confinement in the L-2M stellarator during the formation of an edge transport barrier. Plasma Physics Reports, 2010, 36, 551-557.	0.3	1
87	Spectra of low-frequency modulation of gyrotron radiation during electron-cyclotron resonance heating of plasma in the L-2M stellarator. Plasma Physics Reports, 2011, 37, 381-390.	0.3	1
88	Toroidal inhomogeneity of plasma density fluctuations during ECR plasma heating in the L-2M stellarator. Plasma Physics Reports, 2017, 43, 1052-1064.	0.3	1
89	Energy Loss and Microturbulence under Multipulse ECR Plasma Heating at the L-2M Stellarator. Plasma Physics Reports, 2019, 45, 732-740.	0.3	1
90	Timeâ€‘Space Evolution of the Parameters of Turbulent Density Fluctuations During Pulsed EC Heating of the Plasma at the L-2M Stellarator. Plasma Physics Reports, 2020, 46, 955-966.	0.3	1

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91	Characteristics of a Subthreshold Microwave Discharge in a Wave Beam in Air and the Efficiency of the Plasma-Chemical Reactor. Plasma Physics Reports, 2021, 47, 498-502.	0.3	1
92	CHARACTERISTIC FEATURES OF THE BEHAVIOR OF ECRH-PRODUCED MODERATE- AND LOW-DENSITY PLASMAS IN THE L-2M STELLARATOR. , 2003, , .		1
93	Transport transitions at high electron cyclotron resonance heating powers at the L-2M stellarator. Journal of Physics: Conference Series, 2021, 2055, 012005.	0.3	1
94	Plasmoid Generation behind the Front of a Subthreshold Discharge in Air under the Self-Action of a Microwave Beam. Plasma Physics Reports, 2021, 47, 1042-1048.	0.3	1
95	New experimental data on the possibility of influencing fluctuational particle fluxes in a L-2M stellarator edge plasma. JETP Letters, 1998, 68, 585-591.	0.4	0
96	Resonant locking of gyrotron oscillations by wave reflection from fluctuating plasma. , 0, , .		0
97	Resonant locking of gyrotron oscillations by wave reflection from fluctuating plasma. , 2003, , .		0
98	Studies of short-waveturbulence in ECR heated plasma of the L-2M stellarator. , 2008, , .		0
99	Microwave Reflection from the Region of Electron Cyclotron Resonance Heating in the L-2M Stellarator. Plasma and Fusion Research, 2014, 9, 3402128-3402128.	0.3	0
100	Absorption of Microwaves in Different Regimes of Electron Cyclotron Plasma Heating at the L-2M Stellarator. Plasma Physics Reports, 2021, 47, 786-793.	0.3	0
101	Study of electric currents excitation in the plasma of the L-2M stellarator with its electronic cyclotronic creation and heating. Uspehi Prikladnoj Fiziki, 2021, 9, 310-324.	0.3	0
102	MEASUREMENTS OF THE MICROWAVE POWER ABSORBED BY A PLASMA DURING SECOND HARMONIC ECR HEATING IN THE L-2M STELLARATOR. , 2003, , .		0
103	Changes in Structure of Subthreshold Discharge in Air Occurring with Decreasing Microwave Radiation Intensity. Plasma Physics Reports, 2022, 48, 170-177.	0.3	0
104	Microwave Discharge in Gas above Regolith Surface. Plasma Physics Reports, 2022, 48, 408-414.	0.3	0