Andrey A Shoshin

List of Publications by Year
in descending order

59	621	567281 15	677142 22
papers	citations	h-index	g-index

59	59	59	281
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Investigation of the impact of transient heat loads applied by laser irradiation on ITER-grade tungsten. Physica Scripta, 2014, T159, 014005.	2.5	65
2	Progress on the Multimirror Trap GOL-3. Fusion Science and Technology, 2005, 47, 35-42.	1.1	31
3	Surface modification and droplet formation of tungsten under hot plasma irradiation at the GOL-3. Journal of Nuclear Materials, 2013, 438, S677-S680.	2.7	28
4	Theoretical investigation of crack formation in tungsten after heat loads. Journal of Nuclear Materials, 2015, 463, 246-249.	2.7	28
5	Study of the mechanism for fast ion heating in the GOL-3 multimirror magnetic confinement system. Plasma Physics Reports, 2005, 31, 462-475.	0.9	26
6	Calculation of cracking under pulsed heat loads in tungsten manufactured according to ITER specifications. Journal of Nuclear Materials, 2015, 467, 165-171.	2.7	24
7	Investigation of the Impact on Tungsten of Transient Heat Loads Induced by Laser Irradiation, Electron Beams and Plasma Guns. Fusion Science and Technology, 2013, 63, 197-200.	1.1	23
8	Plasma-Surface Interaction during ITER Type 1 ELMs: Comparison of Simulation with QSPA KH-50 and the GOL-3 Facilities. Fusion Science and Technology, 2011, 59, 57-60.	1.1	21
9	Development of Extended Heating Pulse Operation Mode at GOL-3. Fusion Science and Technology, 2013, 63, 29-34.	1.1	21
10	Novel electron beam based test facility for observation of dynamics of tungsten erosion under intense ELM-like heat loads. AIP Conference Proceedings, 2016, , .	0.4	19
11	Heating of tungsten target by intense pulse electron beam. AIP Conference Proceedings, 2016, , .	0.4	17
12	Combined impact of transient heat loads and steady-state plasma exposure on tungsten. Fusion Engineering and Design, 2015, 98-99, 1328-1332.	1.9	16
13	In-situ imaging of tungsten surface modification under ITER-like transient heat loads. Nuclear Materials and Energy, 2017, 12, 553-558.	1.3	16
14	Qualification of Boron Carbide Ceramics for Use in ITER Ports. IEEE Transactions on Plasma Science, 2020, 48, 1474-1478.	1.3	16
15	Multimirror open Trap Gol-3: Recent Results. Fusion Science and Technology, 2003, 43, 30-36.	1.1	15
16	Experiments with â€œThinâ€•Electron Beam at GOL-3. Fusion Science and Technology, 2011, 59, 144-149.	1.1	15
17	Diagnostics of the dynamics of material damage by thermal shocks with the intensity possible in the ITER divertor. Physica Scripta, 2018, 93, 035602.	2.5	13
18	Spectral Diagnostics for Plasma Research at the GOL-3 Facility. Instruments and Experimental Techniques, 2004, 47, 224-229.	0.5	12

#	Article	IF	Citations
19	First Experiments on Neutral Injection in Multimirror Trap GOL-3. Fusion Science and Technology, 2009, 55, 153-156.	1.1	11
20	Dynamics of Electron Distribution Function in Multiple Mirror TRAP GOL-3. Fusion Science and Technology, 2009, 55, 144-146.	1.1	10
21	Study of the impurity composition and effective plasma charge in the GOL-3 facility. Plasma Physics Reports, 2015, 41, 529-534.	0.9	10
22	Properties of boron carbide ceramics made by various methods for use in ITER. Fusion Engineering and Design, 2019, 146, 2007-2010.	1.9	10
23	Structure Modification of Different Graphite and Glassy Carbon Surfaces under High Power Action by Hydrogen Plasma. Fusion Science and Technology, 2011, 59, 268-270.	1.1	9
24	Impact on the deuterium retention of simultaneous exposure of tungsten to a steady state plasma and transient heat cycling loads. Physica Scripta, 2016, T167, 014046.	2.5	9
25	Study of plasma-surface interaction at the GOL-3 facility. Fusion Engineering and Design, 2017, 114, 157-179.	1.9	9
26	Experiments with Large-Mirror-Ratio Corrugation at Multiple Mirror Trap GOL-3. Fusion Science and Technology, 2009, 55, 147-152.	1.1	8
27	Stabilization of Relativistic Electron Beam by Dense Plasma Cloud in GOL-3 Expander. Fusion Science and Technology, 2011, 59, 196-198.	1.1	8
28	In-situ study of the processes of damage to the tungsten surface under transient heat loads possible in ITER. Journal of Nuclear Materials, 2021, 544, 152669.	2.7	8
29	Spectroscopic studies of the interaction of a high-power plasma stream with a solid on the GOL-3 facility. Instruments and Experimental Techniques, 2008, 51, 251-257.	0.5	7
30	Status of Dynamic Diagnostics of Plasma Material Interaction Based on Synchrotron Radiation Scattering at the VEPP-4 Beamline 8. Physics Procedia, 2016, 84, 184-188.	1.2	7
31	Modification of preheated tungsten surface after irradiation at the GOL-3 facility. Fusion Engineering and Design, 2016, 113, 66-70.	1.9	7
32	Observation of the tungsten surface damage under ITER-relevant transient heat loads during and after electron beam pulse. AIP Conference Proceedings, 2016, , .	0.4	7
33	Modeling of plasma interaction with first wall in fusion reactorâ€“measuring residual mechanical stresses in tungsten after irradiation at GOL-3 facility. Journal of Structural Chemistry, 2016, 57, 1314-1320.	1.0	7
34	Dynamic observation of X-ray Laue diffraction on single-crystal tungsten during pulsed heat load. Journal of Synchrotron Radiation, 2019, 26, 1644-1649.	2.4	7
35	Engineering Calculations and Preparation for Manufacturing of ITER Equatorial Port #11. IEEE Transactions on Plasma Science, 2020, 48, 1631-1636.	1.3	7
36	Study of Charge-Exchange Neutrals Emission from Hot Plasma at the Multimirror Trap GOL-3. Fusion Science and Technology, 2005, 47, 324-326.	1.1	6

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37	Anomalous Fast Heating of Ions in GOL-3 Facility. Fusion Science and Technology, 2007, 51, 352-354.	1.1	6
38	Observation of dust particles ejected from the tungsten surface by transient heat flux with small-angle scattering of cw laser light. Nuclear Materials and Energy, 2017, 12, 494-498.	1.3	6
39	Test results of boron carbide ceramics for ITER port protection. Fusion Engineering and Design, 2021, 168, 112426.	1.9	6
40	Diagnostics of heavy impurities at GOL-3 facility. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2010, 623, 750-753.	1.6	5
41	Applications of synchrotron radiation scattering to studies of plasma facing components at Siberian Synchrotron and Terahertz Radiation Centre. AIP Conference Proceedings, 2016, , .	0.4	5
42	Observation of dust particles ejected from tungsten surface under impact of intense transient heat load. AIP Conference Proceedings, 2016, , .	0.4	5
43	GDMT-T: Superconducting Linear Device for PMI Studies. Fusion Science and Technology, 2013, 63, 184-187.	1.1	4
44	Continuous laser illumination for in situ investigation of tungsten erosion under transient thermal loads. Fusion Engineering and Design, 2019, 146, 2366-2370.	1.9	4
45	Preliminary Design of DSMs for ITER Upper Ports #02 and #08 Integration. IEEE Transactions on Plasma Science, 2020, 48, 1721-1725.	1.3	4
46	Plasma Spectroscopy at the Gol-3 Facility. Fusion Science and Technology, 2003, 43, 253-255.	1.1	3
47	Measurement of high pulsed pressures using the shift of ruby fluorescence lines. Instruments and Experimental Techniques, 2006, 49, 293-296.	0.5	3
48	Experiments Directed to Creation of Hot Plasma with Î²~1 at the GOL-3-II Facility. Fusion Science and Technology, 2001, 39, 135-138.	0.6	3
49	Integration of ITER diagnostic ports at the Budker institute. Fusion Engineering and Design, 2022, 178, 113114.	1.9	3
50	Use of Pellet Injection Technology at GOL-3 for Plasma Fueling and Plasma-Surface Interaction Research. Fusion Science and Technology, 2007, 51, 355-357.	1.1	2
51	Modeling of crack formation after pulse heat load in ITER-grade tungsten. AIP Conference Proceedings, 2016, , .	0.4	2
52	Comparison of tungsten modification after irradiation at different facilities for PSI studies. AIP Conference Proceedings, 2016, , .	0.4	2
53	Calculation of heat sink around cracks formed under pulsed heat load. Journal of Physics: Conference Series, 2017, 894, 012120.	0.4	2
54	Numerical model of high-power transient heating of tungsten with considering of various erosion effects. Journal of Physics: Conference Series, 2018, 1103, 012001.	0.4	1

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55	Shape evolution of surface molten by electron beam during cooling stage. Fusion Engineering and Design, 2018, 128, 154-157.	1.9	1
56	The Thermal Outgassing Rate of Materials Used in High-Vacuum Systems. Instruments and Experimental Techniques, 2022, 65, 519-523.	0.5	1
57	Application of high-power microsecond REB for inducing solid-state transformations under special pulse-pressure conditions. , 0, , .		0
58	Features of High-Power E-Beam Application for Plasma Heating in Long Open Trap GOL-3. AIP Conference Proceedings, 2002, , .	0.4	0
59	Department of Plasma Physics of the Physics Department at Novosibirsk State University. Siberian Journal of Physics, 2022, 17, 118-141.	0.3	0