Valerij Ya Nikulin

List of Publications by Year
in descending order

64	308	1040056 9	940533 16
papers	citations	h-index	g-index

65	65	65	80
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A Powerful Soft X-ray Source for X-ray Lithography Based on Plasma Focusing. Physica Scripta, 1998, 57, 488-494.	2.5	68
2	Study of a cumulative jet in a plasma focus discharge by the method of shearing interferometry. Plasma Physics Reports, 2012, 38, 751-760.	0.9	22
3	Laser-optical measurements of the velocities of the plasma jets formed from different gases in a kilojoule-range plasma focus facility. Plasma Physics Reports, 2016, 42, 1127-1133.	0.9	16
4	A simple criterion for the snowplowing efficiency of the working gas in a kJ plasma focus. Plasma Physics Reports, 2005, 31, 591-595.	0.9	15
5	The shockâ€wave application for increasing of a critical current in composite HTSC. Physica Status Solidi C: Current Topics in Solid State Physics, 2013, 10, 689-692.	0.8	15
6	Progress in plasma focus research at the Kurchatov Institute. Physica Scripta, 2014, T161, 014036.	2.5	15
7	Influence of the radiation of the plasma-focus current sheath on the implosion dynamics of condensed targets. Plasma Physics Reports, 2008, 34, 43-51.	0.9	14
8	Effect of shock waves on the current-carrying properties of HTSC YBCO(123) tape. Doklady Physics, 2009, 54, 463-465.	0.7	13
9	Compact activation detectors for measuring of absolute neutron yield generated by powerful pulsed plasma installations. European Physical Journal D, 2004, 54, C359-C364.	0.4	12
10	Effect of Pulsed Nitrogen Plasma and Nitrogen Ion Fluxes on the Structure and Mechanical Properties of Vanadium. Russian Metallurgy (Metally), 2018, 2018, 266-275.	0.5	10
11	Studying How Plasma Jets are Generated in a Plasma Focus. Plasma Physics Reports, 2020, 46, 127-137.	0.9	10
12	Application of shock waves for the improvement of current-carrying properties of YBCO(123) and Bi(2223) HTSC tapes in magnetic fields. Physics of Metals and Metallography, 2011, 111, 158-164.	1.0	9
13	Superdeep hydrogen and deuterium penetration into metals upon exposure to high-temperature hydrogen and deuterium plasma. Doklady Physics, 2012, 57, 7-9.	0.7	9
14	Magnetic and neutron measurements on the PF-400 plasma focus facility. Plasma Physics Reports, 2010, 36, 1013-1022.	0.9	6
15	Influence of shock-wave action on the critical current of bismuth (2223) first-generation HTSC ribbons. Doklady Physics, 2012, 57, 61-63.	0.7	6
16	A simple model of Davydov-Zakharov class for plasmas in magnetic field: discontinuous solutions. Physica Scripta, 1997, 55, 90-92.	2.5	5
17	Study of axial plasma flows in the PF-4 plasma focus-type setup. Bulletin of the Lebedev Physics Institute, 2015, 42, 193-200.	0.6	5
18	Observation of the ionization wave and the shock wave ahead of the plasma jet generated in the plasma focus discharge. Bulletin of the Lebedev Physics Institute, 2017, 44, 173-176.	0.6	5

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19	Laser, X-ray and optical diagnostics on the â€œTyulpanâ€•installation. European Physical Journal D, 2006, 56, B315-B323.	0.4	4
20	Impact of shock waves on the conductive properties and structure of MgB2 tapes. EPJ Applied Physics, 2017, 80, 20601.	0.7	4
21	Plasma focus source of x-ray emission. , 2002, , .		3
22	Recent results of the Filippov-type PF experiments at Kurchatov Institute. AIP Conference Proceedings, 2006, , .	0.4	3
23	Change in critical parameters of Bi-2223 high temperature superconductors under action of shock waves. Inorganic Materials: Applied Research, 2012, 3, 120-123.	0.5	3
24	Deuterium accumulation in an assembly of nickel foils irradiated by high-temperature deuterium plasma. Journal of Surface Investigation, 2013, 7, 18-22.	0.5	3
25	Influence of conditions of shock-wave effect of plasma on the structure and current-carrying capacity of multilayer high-temperature superconducting tapes. Inorganic Materials: Applied Research, 2014, 5, 179-183.	0.5	3
26	Supersonic, subsonic and stationary filaments in the plasma focus. Journal of Physics: Conference Series, 2017, 907, 012024.	0.4	3
27	Application of plasma focus installations for a study of the influence of deuterium cumulative flows on materials. Pramana - Journal of Physics, 2003, 61, 1179-1185.	1.8	2
28	The effect of pulse high-density plasma on superconducting properties of Bi-2223 multilayered tape. Inorganic Materials: Applied Research, 2010, 1, 92-94.	0.5	2
29	The structure and current-voltage characteristics of copper-tungsten electric contacts prepared using a Plasma Focus installation. Inorganic Materials: Applied Research, 2011, 2, 167-171.	0.5	2
30	Hydrogen transport in a niobium-foil assembly under the action of high-temperature hydrogen plasma on a plasma focus setup. Journal of Surface Investigation, 2013, 7, 707-710.	0.5	2
31	Stationary cylindrical structures in pinch discharges. Bulletin of the Lebedev Physics Institute, 2015, 42, 133-137.	0.6	2
32	Determination of the element distribution in films deposited using the plasma focus facility by Rutherford backscattering. Journal of Surface Investigation, 2017, 11, 63-68.	0.5	2
33	Studying the Generation Stage of a Plasma Jet in a Plasma Focus Discharge. Physics of Atomic Nuclei, 2017, 80, 1701-1703.	0.4	2
34	DYNAMICS OF PLASMA PHENOMENA IN "PLASMA FOCUS" UNDER THE ACTION OF POWERFUL LASER RADIATION. Journal De Physique Colloque, 1979, 40, C7-763-C7-764.	0.2	2
35	Changes of internal properties of vanadium and structure of its surface under the effect of pulsed high-temperature deuterium plasma. European Physical Journal D, 2004, 54, C303-C308.	0.4	1
36	Measurement of soft X-ray radiation using the PF-4 plasma focus setup with semiconductor X-ray detectors. Bulletin of the Lebedev Physics Institute, 2009, 36, 1-7.	0.6	1

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37	Hydrogen and deuterium distribution in tungsten foils irradiated with high-temperature deuterium plasma in H2O- or D2O-filled hermetic chambers. Journal of Surface Investigation, 2015, 9, 859-867.	0.5	1
38	Dynamics of axial plasma jets in neon and argon plasma focus discharges. Journal of Physics: Conference Series, 2015, 653, 012160.	0.4	1
39	Moving cylindrical structures in pinch discharges. Bulletin of the Lebedev Physics Institute, 2016, 43, 345-347.	0.6	1
40	Study of deuterium and hydrogen distributions in Ta|CD2|Ta, Ta|Ta|CD2|Ta|Ta, and Nb|CD2|Nb assemblies after exposure to high-temperature argon plasma. Journal of Surface Investigation, 2017, 11, 557-561.	0.5	1
41	On the discharge in laser plasma in an external electric field. Bulletin of the Lebedev Physics Institute, 2017, 44, 163-167.	0.6	1
42	The influence of the shock treatment under heating on the structure and properties of HTS tapes. Journal of Physics: Conference Series, 2017, 941, 012073.	0.4	1
43	Action of the Pulses of Shock Waves on the Structure and Superconducting Parameters of MgB2 Tapes. Journal of Surface Investigation, 2018, 12, 1264-1269.	0.5	1
44	Impact of plasma and ion beams obtained in plasma focus installation on the surface of solids. Journal of Physics: Conference Series, 2018, 1134, 012026.	0.4	1
45	Measurements of energy absorbed in metal foils during their exposure to plasma jet at the Plasma Focus facility. Journal of Physics: Conference Series, 2020, 1647, 012017.	0.4	1
46	High-power 20-channel neodymium glass laser and combined laser and beam heating of a plasma. Journal of Soviet Laser Research, 1980, 1, 161-185.	0.2	0
47	Self-organization of high current-carrying plasmas: Toroidal plasmoid in neck of pinch discharge. European Physical Journal D, 2000, 50, 197-201.	0.4	0
48	About an Extreme Achievable Current in Plasma Focus Installation of Mather Type. AIP Conference Proceedings, 2006, , .	0.4	0
49	Application of high velocity streams of dense plasma for the creating of high adhesive compounds of chemically noninteracting metals. European Physical Journal D, 2009, 54, 149-152.	1.3	0
50	Integral and temporal characteristics of soft X-rays of the PF-4 plasma focus setup. Bulletin of the Lebedev Physics Institute, 2009, 36, 8-13.	0.6	0
51	Effect of the configuration of the discharge chamber of the plasma focus on the neutron yield. Bulletin of the Lebedev Physics Institute, 2012, 39, 289-294.	0.6	0
52	The effect of electron irradiation on the critical temperature and magnetoresistance of multiple-strand Ag/Bi2223 tapes. Inorganic Materials: Applied Research, 2013, 4, 155-159.	0.5	0
53	Study of the interaction of atomic particle fluxes with fine-grained media. Bulletin of the Lebedev Physics Institute, 2016, 43, 66-68.	0.6	0
54	Distribution of deuterium and hydrogen in Zr and Ti foil assemblies under the action of a pulsed deuterium high-temperature plasma. Russian Metallurgy (Metally), 2017, 2017, 735-740.	0.5	0

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55	Fixation of the stressed state of glass plates by coating them with thin films using a plasma focus installation. Journal of Physics: Conference Series, 2018, 959, 012011.	0.4	0
56	Plasma Shock: A Tool for Synthesis and Property Improvement of Superconductors. Physics of Atomic Nuclei, 2018, 81, 1573-1579.	0.4	0
57	Ionâ€"Plasma Beam Formation on the Plasma Focus Installation. Bulletin of the Lebedev Physics Institute, 2019, 46, 360-363.	0.6	0
58	The critical currents of MgB2 tapes after the shock-wave plasma influence through the protective screens with different thermal characteristics. Journal of Physics: Conference Series, 2019, 1347, 012038.	0.4	0
59	Deposition of Optically Transparent Copper Films on Dielectric Substrates Using the Plasma Focus Installation. , 2020, , .		0
60	Development of an attachment for continuous step-by-step shock-wave irradiation of long-length superconducting tapes in the Â«Plasma FocusÂ» setup. Journal of Physics: Conference Series, 2021, 1758, 012026.	0.4	0
61	Highly Combinatorial Reinforced Concrete Slab System. Lecture Notes in Civil Engineering, 2020, , 411-419.	0.4	0
62	Study of plasma jets in plasma focus using the snow-plough model. Journal of Physics: Conference Series, 2020, 1556, 012085.	0.4	0
63	Ejection of Refractory Metal Particles from the Foil Surface Exposed to Shock Waves Generated by High-Velocity Plasma Flows. Bulletin of the Lebedev Physics Institute, 2020, 47, 345-350.	0.6	0
64	Structures and Generation of Current Filaments in Plasma Focus. Acta Physica Polonica A, 2020, 138, 622-625.	0.5	0