Alexander A Rupasov

List of Publications by Year
in descending order

108	866	567281 15	552781 26
papers	citations	h-index	g-index

109	109	109	529
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Emission of anomalously hard x-ray radiation by a target upon exposition with an electron beam, ejected by a low-energy vacuum discharge with laser ignition. Physics of Plasmas, 2022, 29, .	1.9	2
2	Time-dependent measurement of high-power laser light reflection by low-Z foam plasma. High Power Laser Science and Engineering, 2021, 9, .	4.6	10
3	Beams of Abnormally Accelerated Electrons Emitted by a Vacuum Discharge Plasma with Laser Ignition. Technical Physics Letters, 2021, 47, 677-680.	0.7	0
4	Generation of a Beam of Fast Electrons, Plasma Bremsstrahlung, and Characteristic Radiation in a High-Current Z-Pinch. Plasma Physics Reports, 2020, 46, 552-562.	0.9	2
5	A Study of the Ultraviolet Radiation of Hybrid X-Pinches. Plasma Physics Reports, 2020, 46, 10-19.	0.9	9
6	Study of VUV radiation of hybrid and standard X-pinches on KING electric discharge facility. Plasma Sources Science and Technology, 2020, 29, 025009.	3.1	4
7	Hydrodynamics and transport processes in porous materials under terawatt laser irradiation. Journal of Instrumentation, 2020, 15, C10003-C10003.	1.2	0
8	Three-channel polaro-interferometer for laser-produced plasma diagnostics with femtosecond time resolution. Quantum Electronics, 2019, 49, 577-580.	1.0	0
9	Plasma Production during Implosion of Quasi-Spherical Wire Arrays. Plasma Physics Reports, 2019, 45, 657-661.	0.9	1
10	The Diagnostic Probing of Laser Plasma with a Femtosecond Time Resolution Using a Three-Channel Polarization Interferometer. Physics of Atomic Nuclei, 2019, 82, 1419-1423.	0.4	0
11	In memory of Vladislav Borisovich Rozanov (11 December 1932 â€“ 5 September 2019). Quantum Electronics, 2019, 49, 988-988.	1.0	0
12	Emission of a low-power laser-induced vacuum discharge plasma in the EUV and SXR spectral ranges. EPJ Web of Conferences, 2018, 167, 03010.	0.3	0
13	Laser-supported hydrothermal wave in low-dense porous substance. Laser and Particle Beams, 2018, 36, 121-128.	1.0	18
14	X-ray spectra of plasma radiation from laser induced low-power vacuum discharge. Plasma Physics and Controlled Fusion, 2018, 60, 025004.	2.1	3
15	Method for recovering soft X-ray emission spectra of plasmas from spectrograms recorded with a transmission diffraction grating. Journal of Physics: Conference Series, 2018, 1094, 012023.	0.4	0
16	Laser Irradiated Foam Targets: Absorption and Radiative Properties. EPJ Web of Conferences, 2018, 167, 05003.	0.3	1
17	Study of Hybrid X-pinch in the XUV and SXR Spectral Ranges. Journal of Physics: Conference Series, 2018, 1094, 012022.	0.4	2
18	Laser-driven hydrothermal wave speed in low-Z foam of overcritical density. Physics of Plasmas, 2018, 25, .	1.9	15

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19	Influence of the laser plasma-expansion specific on a cathode jet formation and the current stability in a laser-ignited vacuum discharge. Physics of Plasmas, 2018, 25, 083107.	1.9	10
20	Postionisation of a spatially nonuniform plasma plume under high-intensity femtosecond laser irradiation. Quantum Electronics, 2017, 47, 42-47.	1.0	8
21	Ablation loading of solid target through foam absorber on ABC laser at ENEA-Frascati. Journal of Physics: Conference Series, 2016, 688, 012013.	0.4	0
22	Observation of micropinch formation in cathode jet of a low-power laser-induced vacuum discharge. Physics of Plasmas, 2016, 23, .	1.9	13
23	Numerical modeling of a pinch in a vacuum diode with laser ignition. Mathematical Models and Computer Simulations, 2016, 8, 595-605.	0.5	5
24	Formation of a cathode plasma jet in a laser-induced vacuum discharge. Technical Physics Letters, 2016, 42, 160-163.	0.7	4
25	Implosion dynamics of a megampere wire-array Z-pinch with an inner low-density foam shell at the Angara-5-1 facility. Plasma Physics Reports, 2016, 42, 1091-1100.	0.9	6
26	Laser-ablated loading of solid target through foams of overcritical density. Physics of Plasmas, 2015, 22, .	1.9	12
27	Absorption coefficient for nanosecond laser pulse in porous material. Plasma Physics and Controlled Fusion, 2015, 57, 125004.	2.1	21
28	Methods and results of studies of the radiation spectra of megampere Z-pinches at the angara-5-1 facility. Plasma Physics Reports, 2015, 41, 178-181.	0.9	13
29	Calculation of Self-Generated Magnetic Fields in Laser-Produced Plasmas. Journal of Russian Laser Research, 2015, 36, 395-402.	0.6	1
30	Formation and decay of micropinch in a laser initiated vacuum spark. , 2014, , .		0
31	Influence of laser pulse parameters on characteristics of a source of multicharged metal ions based on laser-induced medium-power spark discharge. Technical Physics Letters, 2013, 39, 388-392.	0.7	11
32	Study of the radiation spectra of fast Z-pinches formed during the implosion of wire arrays in the Angara-5-1 facility. Plasma Physics Reports, 2012, 38, 824-832.	0.9	7
33	Study of self-generated magnetic fields in laser produced plasmas using a three-channel polaro-interferometer. Review of Scientific Instruments, 2011, 82, 123506.	1.3	1
34	Laser radiation scattering from the wires and fibers of imploding arrays on the Angara-5-1 facility. Plasma Physics Reports, 2011, 37, 955-964.	0.9	2
35	Study of the generation of the 13.5-nm EUV radiation from Sn ions in a CO2 laser-produced plasma. Plasma Physics Reports, 2010, 36, 129-141.	0.9	0
36	Synthesis and luminescence properties of nanocrystalline LiF:Mg,Cu,P phosphor. Journal of Luminescence, 2010, 130, 258-265.	3.1	39

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37	Energy distributions of highly charged ions escaping from a plasma via a low-voltage laser-induced discharge. Journal Physics D: Applied Physics, 2010, 43, 465202.	2.8	13
38	Flux of multiple charged metal ions of high energy from plasma produced by a moderate energy laser pulse. Journal Physics D: Applied Physics, 2010, 43, 035201.	2.8	6
39	10.1007/s11452-008-2008-2. , 2010, 34, 162.		0
40	Control of parameters of micropinches formed in current-carrying plasma jet. Physics Letters, Section A: General, Atomic and Solid State Physics, 2008, 372, 1292-1296.	2.1	12
41	Energy transfer studies in binary dye solution mixtures: Acriflavine+Rhodamine 6G and Acriflavine+Rhodamine B. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2008, 69, 1257-1264.	3.9	34
42	Amplification of spontaneous emission of neon-like argon in a fast gas-filled capillary discharge. Plasma Physics Reports, 2008, 34, 162-168.	0.9	15
43	Nanorods of LiF:Mg,Cu,P as Detectors for Mixed Field Radiations. IEEE Nanotechnology Magazine, 2008, 7, 749-753.	2.0	26
44	Micropinches in laser induced moderate power vacuum discharge. Plasma Physics and Controlled Fusion, 2008, 50, 065002.	2.1	19
45	Thermoluminescence of BaSO₄â€‰:â€‰Eu irradiated with 48â€‰MeV Li³⁺and 150â€‰MeV Ag¹²⁺ions. Journal Physics D: Applied Physics, 2008, 41, 085408.	2.8	23
46	Nanocrystalline Ba0.97Ca0.03SO4:Eu for ion beams dosimetry. Journal of Applied Physics, 2008, 104, 033520.	2.5	42
47	Nanoparticles of K2Ca2(SO4)3:Eu as effective detectors for swift heavy ions. Journal of Applied Physics, 2007, 102, 064904.	2.5	34
48	Thermoluminescence of nanocrystalline LiF:Mg, Cu, P. Journal of Luminescence, 2007, 124, 357-364.	3.1	147
49	A three-channel polarointerferometer for diagnostics of magnetic fields in high-temperature plasma. Instruments and Experimental Techniques, 2007, 50, 379-382.	0.5	5
50	Ion acceleration in a high-current cathode plasma jet expanding in vacuum. Technical Physics Letters, 2007, 33, 941-944.	0.7	7
51	Cathode Plasma Jet Pinching and Intense X-Ray Emission in a Moderate-Current Laser-Triggered Vacuum Discharge. IEEE Transactions on Plasma Science, 2006, 34, 2419-2425.	1.3	4
52	Spectral measurements of radiation from a microsecond gas Z-pinch. Instruments and Experimental Techniques, 2006, 49, 244-246.	0.5	0
53	Interaction of a smoothed laser beam with supercritical-density porous targets on the ABC facility. Quantum Electronics, 2006, 36, 424-428.	1.0	7
54	Microsecond Z-pinch as ultrasoft X-ray radiation source. European Physical Journal Special Topics, 2006, 133, 783-785.	0.2	0

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55	Hard X-ray emission in laser-induced vacuum discharge. Laser and Particle Beams, 2005, 23, .	1.0	14
56	Vacuum discharge instability at laser initiation of a cathode spot. Technical Physics, 2005, 50, 1139-1144.	0.7	12
57	X-ray radiation of Z-pinch source. Plasma Devices and Operations, 2005, 13, 123-128.	0.6	0
58	Characteristics of moderate current vacuum discharge triggered by multipicosecond and nanosecond duration laser pulses. Journal of Applied Physics, 2005, 97, 044303.	2.5	7
59	Crater formation in a target under the action of a high-power laser pulse. Plasma Physics Reports, 2004, 30, 183-186.	0.9	3
60	Feasibility of stabilizing a vacuum-diode X-ray source with a laser-plasma cathode. Plasma Physics Reports, 2004, 30, 235-240.	0.9	0
61	Application of CR-39 detectors for study of corpuscular emission from Prague capillary pinch. Radiation Measurements, 2003, 36, 321-325.	1.4	2
62	Properties of soft X-ray emission from a fast capillary discharge. Plasma Physics Reports, 2003, 29, 290-295.	0.9	7
63	Current passage in a vacuum diode with field-and laser-controlled ferroelectric cathode. Technical Physics Letters, 2003, 29, 320-322.	0.7	0
64	Features of electrical current in the x-ray source based on the vacuum diode with the laser-plasma cathode. , 2003, 5228, 637.		1
65	Interaction of ISI smoothed laser beams with low-density supercritical foam targets at AEEF ABC facility. , 2003, 5228, 1.		0
66	Features of crater formation on the target under the action of powerful laser pulse. , 2003, 5228, 96.		0
67	Spectroscopic study of the fast gas-filled-capillary discharge. , 2003, 5228, 613.		1
68	The Features of Craters Formation on the Target under the Action of Powerful Laser Pulse. AIP Conference Proceedings, 2003, , .	0.4	0
69	Laser-driven high-current-density pulsed electron emission from lead zirconium titanate ferroelectric ceramic. Applied Physics Letters, 2001, 79, 1163-1165.	3.3	7
70	<title>Sub-angstrom study of plasma x-ray emission by transmission grating spectrometer</title>. , 2001, 4424, 569.		0
71	<title>Point x-ray source driven by laser</title>. , 2001, , .		0
72	Analysis of characteristic X-ray generation induced by laser plasma electrons accelerated by an electric field. Journal of Experimental and Theoretical Physics, 2001, 92, 998-1003.	0.9	4

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73	Monochromatic x-ray radiation from a vacuum diode with a laser-irradiated cathode. , 2000, , .		0
74	Physical processes in a laser-greenhouse target: Experimental results, theoretical models, and numerical calculations. Journal of Russian Laser Research, 2000, 21, 335-369.	0.6	1
75	X-ray Source with Photon Energy 5 keV Pumped by Laser. Physica Scripta, 1999, 60, 76-80.	2.5	3
76	Scattering and transmission of laser radiation at the heating of low-density foam targets. Laser and Particle Beams, 1999, 17, 287-291.	1.0	5
77	A simple XUV transmission grating spectrograph with sub-Ã¥ngstrÃ¶m resolution for laser-plasma interaction studies. Measurement Science and Technology, 1998, 9, 1462-1468.	2.6	26
78	Plasma formation dynamics for laser interaction with near critical foam matter. , 1997, , .		0
79	Dynamics of high-temperature plasma formation during laser irradiation of three-dimensionally structured, low-density matter. JETP Letters, 1996, 64, 502-508.	1.4	5
80	Investigation of energy transfer in plane laser-irradiated targets with high X-ray conversion efficiency. Laser and Particle Beams, 1994, 12, 355-359.	1.0	4
81	High-speed diagnostics of magnetic fields in dense plasma. , 1994, , .		0
82	Experimental testing of thin-shell stable acceleration for ICF schemes with direct and indirect drive. Laser and Particle Beams, 1993, 11, 127-135.	1.0	1
83	Experimental study of X-ray emission from laser-irradiated planar targets on â€œMishenâ€•Facility. Laser and Particle Beams, 1992, 10, 753-758.	1.0	1
84	Tomographic diagnostics of radiating plasma objects. Journal of Soviet Laser Research, 1992, 13, 472-498.	0.2	1
85	Investigation of synchrotron-radiation beam turning using a cylindrical surface. Journal of Soviet Laser Research, 1992, 13, 400-416.	0.2	5
86	Grazing-incidence cylindric mirror with multiple reflection for the soft X-ray spectral range. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1991, 308, 340-342.	1.6	2
87	Investigation of sensitometric characteristics of X-ray photoemulsions in the spectral range of 15â€“80 Ã…. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1991, 308, 343-346.	1.6	15
88	Diagnostics of the temperature of a plasma created by a CO2 laser, from the UV radiation spectrum. Journal of Applied Spectroscopy, 1991, 54, 498-501.	0.7	0
89	X-ray transmission grating spectrometer with CCD detector for laser plasma studies. Laser and Particle Beams, 1991, 9, 579-591.	1.0	9
90	Faraday-rotation method for magnetic-field diagnostics in a laser plasma. Journal of Soviet Laser Research, 1990, 11, 1-32.	0.2	22

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91	Fourâ€channel xâ€ray spectrometer on a transmission grating with a combined system of detection. Review of Scientific Instruments, 1989, 60, 2247-2248.	1.3	2
92	Study of polarization properties of multilayer X-ray mirrors. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1989, 282, 551-552.	1.6	1
93	Four-channel spectrometer on a transmission grating with combined system of detection. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1989, 282, 725-727.	1.6	2
94	Thermal conductivity of laser-produced plasma corona. Journal of Soviet Laser Research, 1989, 10, 438-448.	0.2	1
95	Study of polarized properties of multilayer xâ€ray mirrors. Review of Scientific Instruments, 1989, 60, 2124-2125.	1.3	2
96	Investigation of the ï‰0 harmonic generation in plasma on the â€˜Delfin-1â€™ installation. Laser and Particle Beams, 1988, 6, 593-596.	1.0	1
97	X-ray spectrometer using a free-standing transmission grating and a microchannel plate as detector for laser plasma studies. Laser and Particle Beams, 1988, 6, 561-567.	1.0	25
98	Experimental study of laser-driven compression of spherical microshells. Laser and Particle Beams, 1986, 4, 515-519.	1.0	1
99	Measurement of the dynamics of the compression of high aspect-ratio shell targets in the â€œDelfin-1â€• installation. Physics Letters, Section A: General, Atomic and Solid State Physics, 1984, 105, 410-414.	2.1	3
100	Heating and compression of laser-irradiated spherical targets. Journal of Soviet Laser Research, 1983, 4, 453-536.	0.2	1
101	Dynamics of plasma corona of laser-irradiated spherical targets. Journal of Soviet Laser Research, 1983, 4, 248-286.	0.2	3
102	Laser plasma diagnostics in the critical density region by means of the method of combination scattering. Physics Letters, Section A: General, Atomic and Solid State Physics, 1982, 87, 353-356.	2.1	2
103	Combination scattering as a method for laser plasma diagnostics. Physics Letters, Section A: General, Atomic and Solid State Physics, 1980, 77, 163-166.	2.1	4
104	Second harmonic generation in a laser plasma (review). Soviet Journal of Quantum Electronics, 1979, 9, 1081-1102.	0.1	33
105	<title>High-Speed Photographic Methodsfor Coaression Dynamics Investigation Of Laser Irradiated Shell Target</title>. , 1979, , .		0
106	Compression of Laser-Irradiated Hollow Microspheres. , 1977, , 47-63.		2
107	Axial particle and soft X-ray emission from the fast capillary discharge. , 0, , .		1
108	Study of SXR/EUV radiation of exploded foils and wires with spectral, spatial and temporal resolution simultaneously on KING electric discharge facility.. Plasma Sources Science and Technology, 0, , .	3.1	4