

V R Romanova

List of Publications by Year in descending order

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69
papers

1,281
citations

430874

18
h-index

377865

34
g-index

69
all docs

69
docs citations

69
times ranked

627
citing authors

#	ARTICLE	IF	CITATIONS
1	High-performance x-ray spectroscopic devices for plasma microsources investigations. <i>Physica Scripta</i> , 1994, 50, 333-338.	2.5	172
2	The effect of insulating coatings on exploding wire plasma formation. <i>Physics of Plasmas</i> , 2000, 7, 429-432.	1.9	97
3	High-luminosity monochromatic x-ray backlighting using an incoherent plasma source to study extremely dense plasmas (invited). <i>Review of Scientific Instruments</i> , 1997, 68, 740-744.	1.3	81
4	Electric explosion of fine wires: Three groups of materials. <i>Plasma Physics Reports</i> , 2015, 41, 617-636.	0.9	62
5	Distribution of matter in the current-carrying plasma and dense core of the discharge channel formed upon electrical wire explosion. <i>Plasma Physics Reports</i> , 2009, 35, 734-753.	0.9	61
6	Analysis of the discharge channel structure upon nanosecond electrical explosion of wires. <i>Physics of Plasmas</i> , 2007, 14, .	1.9	57
7	A simple air wedge shearing interferometer for studying exploding wires. <i>Review of Scientific Instruments</i> , 2001, 72, 1098-1100.	1.3	50
8	Electron-beam-generated x rays from X pinches. <i>Physics of Plasmas</i> , 2005, 12, 033102.	1.9	49
9	Flat and Spherically Bent Muscovite (Mica) Crystals for X-ray Spectroscopy. <i>Physica Scripta</i> , 1998, 57, 301-309.	2.5	47
10	Stratification dynamics and the development of electrothermal instability at the wire explosion. <i>Technical Physics</i> , 2013, 58, 1129-1137.	0.7	43
11	Nanosecond electric explosion of a tungsten wire in different media. <i>Plasma Physics Reports</i> , 2005, 31, 919-926.	0.9	37
12	Accelerated electrons and hard X-ray emission from X-pinch. <i>Plasma Physics Reports</i> , 2008, 34, 754-770.	0.9	37
13	Study of the core-corona structure formed during the explosion of an aluminum wire in vacuum. <i>Plasma Physics Reports</i> , 2012, 38, 1-11.	0.9	31
14	Spectroscopic investigations of the short wavelength x-ray spectra from X-pinch plasmas. <i>Physica Scripta</i> , 1995, 51, 517-521.	2.5	30
15	Dynamics of hybrid X-pinch. <i>Plasma Physics Reports</i> , 2015, 41, 52-70.	0.9	26
16	Dielectronic Structure of $2l \rightarrow 1s$ Transitions of Multicharged Ions of Argon with Nuclear Charges $Z=10-17$. <i>Physica Scripta</i> , 2000, 61, 555-566.	2.5	22
17	Overvoltage pulse development upon electrical explosion of thin wires. <i>Journal Physics D: Applied Physics</i> , 2007, 40, 1742-1750.	2.8	20
18	On the phase state of thin silver wire cores during a fast electric explosion. <i>Physics of Plasmas</i> , 2018, 25, .	1.9	20

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19	Dynamics of thin exploded-wire plasma with a cold dense core. Journal of Experimental and Theoretical Physics, 1998, 87, 663-671.	0.9	18
20	Study of plasma parameter's distribution upon electrical wire explosion. European Physical Journal D, 2009, 54, 335-341.	1.3	18
21	Ray-tracing for a monochromatic x-ray backlighting scheme based on spherically bent crystal. Physica Scripta, 1997, 55, 735-740.	2.5	17
22	Study of the prebreakdown stage of a gas discharge in a diode with point cathode by laser probing. Journal of Experimental and Theoretical Physics, 2017, 124, 531-539.	0.9	17
23	A Study of Thin Foil Explosion. IEEE Transactions on Plasma Science, 2018, 46, 3741-3745.	1.3	17
24	A source of hard X-ray radiation based on hybrid X pinches. Physics of Plasmas, 2016, 23, .	1.9	16
25	Core structure and secondary breakdown of an exploding wire in the current-pause regime. Matter and Radiation at Extremes, 2019, 4, .	3.9	16
26	Laser Imaging of Secondary Breakdown Upon Nanosecond Electrical Explosion of Wire. IEEE Transactions on Plasma Science, 2008, 36, 1292-1293.	1.3	14
27	Investigations of the mega-ampere multiwire X pinch. JETP Letters, 2008, 87, 364-370.	1.4	13
28	Measurements of the ground-state ionization energy and wavelengths for the $1s21S0 \rightarrow 1snp1P1 (n=6 \rightarrow 12)$ lines of Al XII. Physical Review A, 1996, 54, 3971-3976.	2.5	12
29	Experimental Studies of Hollow Structure Formed in the Dense Core of Exploded Wires. IEEE Transactions on Plasma Science, 2015, 43, 2520-2526.	1.3	12
30	Study of the structure of exploding flat foils at superhigh current density. Journal of Applied Physics, 2020, 128, 205902.	2.5	10
31	Laser scattering by submicron droplets formed during the electrical explosion of thin metal wires. Journal Physics D: Applied Physics, 2021, 54, 175201.	2.8	10
32	Transitions from Na-like and Mg-like autoionizing levels of multicharged molybdenum ions in an X-pinch plasma. Physica Scripta, 1995, 51, 454-458.	2.5	9
33	A Study of the Ultraviolet Radiation of Hybrid X-Pinches. Plasma Physics Reports, 2020, 46, 10-19.	0.9	9
34	High-luminosity monochromatic x-ray backlighting using an incoherent plasma source to study extremely dense plasmas. , 1995, 2520, 330.		8
35	X-pinch source characteristics for x-rays above 10 keV. , 2004, 5196, 36.		8
36	<title>The X pinch as an x-ray source for point-projection radiography</title>. , 2005, , .		8

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37	Interpreting experimental data on the electric explosion of thin wires in air. Technical Physics Letters, 2007, 33, 651-654.	0.7	8
38	High-resolution X-ray projection radiography of a pin cathode in a high-current vacuum diode using X-pinch radiation. JETP Letters, 2016, 103, 357-361.	1.4	8
39	The Hybrid X-Pinch as a Source of XUV Radiation. IEEE Transactions on Plasma Science, 2018, 46, 3837-3841.	1.3	8
40	Microplasma object imaging spectroscopy by using zone plate surface structure on mica crystal. Review of Scientific Instruments, 1995, 66, 1047-1049.	1.3	7
41	Measurements and calculations of flat and spherically bent mica crystals' reflectivity and using them for different applications in the spectral range 1-19 Å. , 1995, , .		6
42	Nanosecond electrical explosion of micron diameter wire. European Physical Journal D, 2006, 56, B349-B356.	0.4	6
43	Measurements of high-current electron beams from X pinches and wire array Z pinches. Review of Scientific Instruments, 2008, 79, 10E316.	1.3	6
44	Early Stage of the Explosion of Thin Flat Foils in a High-Current Diode at a Current of 40–80 kA. Journal of Experimental and Theoretical Physics, 2019, 128, 946-951.	0.9	6
45	Current-Driven Explosion of Micron Size Wires in Different External Media. AIP Conference Proceedings, 2006, , .	0.4	5
46	Study of the core gaps formed accidentally during wire explosion. Plasma Physics Reports, 2012, 38, 100-109.	0.9	5
47	<title>High-performance x-ray spectroscopy of plasma microsources</title>. , 1994, 2015, 64.		4
48	Studies of X-pinch plasma fine structure using high resolution optical and imaging spectroscopy methods. , 1997, , .		4
49	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
50	Transport and Measurements of High-Current Electron Beams from X pinches. , 2009, , .		4
51	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
52	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
53	Modeling a dense Z-pinch plasma with a cold, dense core using a 2D 2-temperature MHD code. , 1997, , .		3
54	X-Pinch in High-Current Diode. , 1994, , .		2

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55	Study of X-ray and Neutron Emission in Experiments with Al Wires in an MA Plasma Focus. Plasma Physics Reports, 2005, 31, 382.	0.9	2
56	Study of Hybrid X-pinch in the XUV and SXR Spectral Ranges. Journal of Physics: Conference Series, 2018, 1094, 012022.	0.4	2
57	Distribution of Conducting and Nonconducting Matter in the Discharge Channel upon Wire Explosion. Journal of the Korean Physical Society, 2011, 59, 3472-3475.	0.7	2
58	Observation of Laser Radiation Scattering Effects in Explosion Products of Thin Molybdenum Wires. Plasma Physics Reports, 2022, 48, 121-130.	0.9	2
59	X-ray and Neutron Emission from PF-1000 Facility. AIP Conference Proceedings, 2002, , .	0.4	1
60	Emission Produced at Compression of Deuterium Current-Sheath with Wire in Plasma Focus Discharge. AIP Conference Proceedings, 2002, , .	0.4	1
61	Laser Probing of Nanosecond Wire Explosions. AIP Conference Proceedings, 2006, , .	0.4	1
62	Development of a Discharge Channel upon Electric Explosion of a Wire in Interrupted- and Uninterrupted-Current Regimes. , 2009, , .		1
63	Transverse irregularities in the core of wire electrically exploded in air. , 2013, , .		1
64	Soft x-ray spectroscopic investigations in experiments on Z-pinch stabilization. Physica Scripta, 1996, 53, 508-512.	2.5	0
65	Monochromatic x-ray radiation from a vacuum diode with a laser-irradiated cathode. , 2000, , .		0
66	<title>Point x-ray source driven by laser</title>. , 2001, , .		0
67	Hard X-rays and high-current electron beams from X-pinches. , 2008, , .		0
68	Distribution of plasma parameters upon electrical wire explosion. , 2008, , .		0
69	Distribution of Dense and Current-Conducting Matter in the Discharge Channel upon Electrical Explosion of Wires in Vacuum. , 2009, , .		0