

# 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	Observation of Laser Radiation Scattering Effects in Explosion Products of Thin Molybdenum Wires. Plasma Physics Reports, 2022, 48, 121-130.	0.9	2
2	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
3	Study of the structure of exploding flat foils at superhigh current density. Journal of Applied Physics, 2020, 128, 205902.	2.5	10
4	A Study of the Ultraviolet Radiation of Hybrid X-Pinches. Plasma Physics Reports, 2020, 46, 10-19.	0.9	9
5	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
6	Early Stage of the Explosion of Thin Flat Foils in a High-Current Diode at a Current of 40â€“80 kA. Journal of Experimental and Theoretical Physics, 2019, 128, 946-951.	0.9	6
7	Core structure and secondary breakdown of an exploding wire in the current-pause regime. Matter and Radiation at Extremes, 2019, 4, .	3.9	16
8	On the phase state of thin silver wire cores during a fast electric explosion. Physics of Plasmas, 2018, 25, .	1.9	20
9	The Hybrid X-Pinch as a Source of XUV Radiation. IEEE Transactions on Plasma Science, 2018, 46, 3837-3841.	1.3	8
10	Study of Hybrid X-pinch in the XUV and SXR Spectral Ranges. Journal of Physics: Conference Series, 2018, 1094, 012022.	0.4	2
11	A Study of Thin Foil Explosion. IEEE Transactions on Plasma Science, 2018, 46, 3741-3745.	1.3	17
12	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
13	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
14	A source of hard X-ray radiation based on hybrid X pinches. Physics of Plasmas, 2016, 23, .	1.9	16
15	Dynamics of hybrid X-pinches. Plasma Physics Reports, 2015, 41, 52-70.	0.9	26
16	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
17	Electric explosion of fine wires: Three groups of materials. Plasma Physics Reports, 2015, 41, 617-636.	0.9	62
18	Stratification dynamics and the development of electrothermal instability at the wire explosion. Technical Physics, 2013, 58, 1129-1137.	0.7	43

#	ARTICLE	IF	CITATIONS
19	Transverse irregularities in the core of wire electrically exploded in air. , 2013, , .		1
20	Study of the core-corona structure formed during the explosion of an aluminum wire in vacuum. Plasma Physics Reports, 2012, 38, 1-11.	0.9	31
21	Study of the core gaps formed accidentally during wire explosion. Plasma Physics Reports, 2012, 38, 100-109.	0.9	5
22	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
23	Distribution of Dense and Current-Conducting Matter in the Discharge Channel upon Electrical Explosion of Wires in Vacuum. , 2009, , .		0
24	Transport and Measurements of High-Current Electron Beams from X pinches. , 2009, , .		4
25	Study of plasma parameterâ€™s distribution upon electrical wire explosion. European Physical Journal D, 2009, 54, 335-341.	1.3	18
26	Distribution of matter in the current-carrying plasma and dense core of the discharge channel formed upon electrical wire explosion. Plasma Physics Reports, 2009, 35, 734-753.	0.9	61
27	Development of a Discharge Channel upon Electric Explosion of a Wire in Interrupted- and Uninterrupted-Current Regimes. , 2009, , .		1
28	Accelerated electrons and hard X-ray emission from X-pinches. Plasma Physics Reports, 2008, 34, 754-770.	0.9	37
29	Investigations of the mega-ampere multiwire X pinch. JETP Letters, 2008, 87, 364-370.	1.4	13
30	Hard X-rays and high-current electron beams from X-pinches. , 2008, , .		0
31	Distribution of plasma parameters upon electrical wire explosion. , 2008, , .		0
32	Laser Imaging of Secondary Breakdown Upon Nanosecond Electrical Explosion of Wire. IEEE Transactions on Plasma Science, 2008, 36, 1292-1293.	1.3	14
33	Measurements of high-current electron beams from X pinches and wire array Z pinches. Review of Scientific Instruments, 2008, 79, 10E316.	1.3	6
34	Overvoltage pulse development upon electrical explosion of thin wires. Journal Physics D: Applied Physics, 2007, 40, 1742-1750.	2.8	20
35	Analysis of the discharge channel structure upon nanosecond electrical explosion of wires. Physics of Plasmas, 2007, 14, .	1.9	57
36	Interpreting experimental data on the electric explosion of thin wires in air. Technical Physics Letters, 2007, 33, 651-654.	0.7	8

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37	Laser Probing of Nanosecond Wire Explosions. AIP Conference Proceedings, 2006, , .	0.4	1
38	Current-Driven Explosion of Micron Size Wires in Different External Media. AIP Conference Proceedings, 2006, , .	0.4	5
39	Nanosecond electrical explosion of micron diameter wire. European Physical Journal D, 2006, 56, B349-B356.	0.4	6
40	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
41	Nanosecond electric explosion of a tungsten wire in different media. Plasma Physics Reports, 2005, 31, 919-926.	0.9	37
42	Electron-beam-generated x rays from X pinches. Physics of Plasmas, 2005, 12, 033102.	1.9	49
43	<title>The X pinch as an x-ray source for point-projection radiography</title>. , 2005, , .		8
44	X-pinch source characteristics for x-rays above 10 keV. , 2004, 5196, 36.		8
45	X-ray and Neutron Emission from PF-1000 Facility. AIP Conference Proceedings, 2002, , .	0.4	1
46	Emission Produced at Compression of Deuterium Current-Sheath with Wire in Plasma Focus Discharge. AIP Conference Proceedings, 2002, , .	0.4	1
47	<title>Point x-ray source driven by laser</title>. , 2001, , .		0
48	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
49	A simple air wedge shearing interferometer for studying exploding wires. Review of Scientific Instruments, 2001, 72, 1098-1100.	1.3	50
50	Monochromatic x-ray radiation from a vacuum diode with a laser-irradiated cathode. , 2000, , .		0
51	Dielectronic Structure of $2l\hat{a}e^{-1}s$ Transitions of Multicharged Ions of Argon with Nuclear Charges $Z=10-17$ . Physica Scripta, 2000, 61, 555-566.	2.5	22
52	The effect of insulating coatings on exploding wire plasma formation. Physics of Plasmas, 2000, 7, 429-432.	1.9	97
53	Dynamics of thin exploded-wire plasma with a cold dense core. Journal of Experimental and Theoretical Physics, 1998, 87, 663-671.	0.9	18
54	Flat and Spherically Bent Muscovite (Mica) Crystals for X-ray Spectroscopy. Physica Scripta, 1998, 57, 301-309.	2.5	47

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55	Ray-tracing for a monochromatic x-ray backlighting scheme based on spherically bent crystal. Physica Scripta, 1997, 55, 735-740.	2.5	17
56	High-luminosity monochromatic x-ray backlighting using an incoherent plasma source to study extremely dense plasmas (invited). Review of Scientific Instruments, 1997, 68, 740-744.	1.3	81
57	Modeling a dense Z-pinch plasma with a cold, dense core using a 2D 2-temperature MHD code. , 1997, , .		3
58	Studies of X-pinch plasma fine structure using high resolution optical and imaging spectroscopy methods. , 1997, , .		4
59	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
60	Soft x-ray spectroscopic investigations in experiments on Z-pinch stabilization. Physica Scripta, 1996, 53, 508-512.	2.5	0
61	High-luminosity monochromatic x-ray backlighting using an incoherent plasma source to study extremely dense plasmas. , 1995, 2520, 330.		8
62	Microplasma object imaging spectroscopy by using zone plate surface structure on mica crystal. Review of Scientific Instruments, 1995, 66, 1047-1049.	1.3	7
63	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
64	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
65	Spectroscopic investigations of the short wavelength x-ray spectra from X-pinch plasmas. Physica Scripta, 1995, 51, 517-521.	2.5	30
66	High-performance x-ray spectroscopic devices for plasma microsources investigations. Physica Scripta, 1994, 50, 333-338.	2.5	172
67	X-Pinch in High-Current Diode. , 1994, , .		2
68	<title>High-performance x-ray spectroscopy of plasma microsources</title>. , 1994, 2015, 64.		4
69	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