

# Alexander S Zhigalin

## List of Publications by Year in descending order

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54  
papers

402  
citations

759233

12  
h-index

839539

18  
g-index

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54  
docs citations

54  
times ranked

171  
citing authors

#	ARTICLE	IF	CITATIONS
1	Effect of tailored density profiles on the stability of imploding Z-pinchs at microsecond rise time megaampere currents. Plasma Physics and Controlled Fusion, 2022, 64, 015011.	2.1	7
2	Studies on the implosion of pinchs with tailored density profiles. Plasma Physics and Controlled Fusion, 2021, 63, 045022.	2.1	6
3	A study of the foil explosion in vacuum using spectral streak camera diagnostics. Physics of Plasmas, 2021, 28, .	1.9	4
4	Investigation of the aluminum electrodes erosion of a plasma gun during the operation of a high-current vacuum arc discharge. Journal of Physics: Conference Series, 2021, 2064, 012016.	0.4	0
5	Determination of the voltage drop on a high-current vacuum arc discharge under conditions of a limited cross-section of the plasma flow. Journal of Physics: Conference Series, 2021, 2064, 012019.	0.4	1
6	Study of foil explosion using the soft x-ray radiography. Journal of Physics: Conference Series, 2020, 1556, 012055.	0.4	1
7	Comparative Analysis of the Rayleigh-Taylor Instability Suppression During Compression of Metallic Gas-Puff Z Pinch at the MIG and GIT-12 Facilities. , 2020, , .		0
8	“Zippering” Effect at Aluminum Metal-Puff Liner Implosions on the GIT-12 Pulse Power Generator. , 2020, , .		0
9	Formation of double shell during implosion of plasma metal puff Z-pinchs. Physics of Plasmas, 2020, 27, .	1.9	7
10	Expansion velocity of plasma corona surrounding exploding aluminum foil. Physics of Plasmas, 2020, 27, 033505.	1.9	4
11	Thermal filamentation instabilities developing in imploding plasma liners. Plasma Physics and Controlled Fusion, 2020, 62, 035016.	2.1	10
12	Filamentation of Current-Carrying Plasma Shells. Russian Physics Journal, 2020, 62, 2063-2068.	0.4	1
13	Experimental studies of the shunting discharge developing during a foil explosion in vacuum. Physics of Plasmas, 2020, 27, 043510.	1.9	4
14	On Double Shell Formation Mechanism During Implosion of Plasma Puff Z-Pinchs. , 2020, , .		0
15	Estimation of the Al Metal-Puff Density Profile on the Generator GIT-12. , 2020, , .		3
16	Foil explosion and decay of metastable state. Physics of Plasmas, 2019, 26, .	1.9	5
17	X-ray radiography of aluminum cathodes eroded in high-current vacuum arcs. Current Applied Physics, 2019, 19, 704-708.	2.4	6
18	Energy balance in a Z pinch with suppressed Rayleigh-Taylor instability. Plasma Physics and Controlled Fusion, 2018, 60, 035015.	2.1	16

#	ARTICLE	IF	CITATIONS
19	Using of B-dot probe for z-pinch plasma diagnostics. Journal of Physics: Conference Series, 2018, 1115, 022012.	0.4	0
20	Delayed growth of large-scale instabilities on the surface of double-layer (Cu + Ti) conductors in strong magnetic fields. Journal of Physics: Conference Series, 2018, 1115, 022011.	0.4	0
21	Magnetic Field Effect on the Initial Parameters of an Imploding Z-Pinch. IEEE Transactions on Plasma Science, 2018, 46, 3849-3854.	1.3	4
22	Radiographic Investigation of Metal-Puff Plasma Jets Generated by Vacuum Arcs. IEEE Transactions on Plasma Science, 2018, 46, 3487-3492.	1.3	11
23	Measuring the compression velocity of a Z pinch in an axial magnetic field. Physics of Plasmas, 2017, 24, .	1.9	15
24	Study of thin metallic film explosion in vacuum. Journal of Physics: Conference Series, 2017, 830, 012033.	0.4	1
25	Metastable Fluid Decay During Electric Explosion of Metallic Foils. Russian Physics Journal, 2017, 60, 1400-1407.	0.4	6
26	Multiply charged metal ions in high current pulsed vacuum arcs. Physics of Plasmas, 2017, 24, .	1.9	16
27	Small-Size High-Current Generators for X-Ray Backlighting. Russian Physics Journal, 2017, 60, 1408-1412.	0.4	5
28	Radiographic research of the Bi plasma jet formed by the vacuum arc discharge. Journal of Physics: Conference Series, 2017, 830, 012038.	0.4	0
29	Radiographic research of the metal-puff plasma jets formed by the vacuum arc discharge. , 2017, , .		0
30	Effect of the axial magnetic field on a metallic gas-puff pinch implosion. Physics of Plasmas, 2016, 23, .	1.9	33
31	Use of a probing pulsed magnetic field for determining plasma parameters. Physics of Plasmas, 2016, 23, 113507.	1.9	5
32	Determination of plasma parameters with a probing magnetic field pulse. Technical Physics Letters, 2016, 42, 223-226.	0.7	3
33	Estimation of the initial density distribution in plasmaâ€œmetal liners. Technical Physics, 2016, 61, 676-682.	0.7	8
34	Metal-puff Z-pinch implosions on generator MIG with current level up to 2.3 MA. , 2015, , .		0
35	Stratification in Al and Cu foils exploded in vacuum. Physics of Plasmas, 2015, 22, .	1.9	30
36	Study of the strata formation during the explosion of foils in vacuum. Journal of Physics: Conference Series, 2015, 653, 012146.	0.4	3

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37	Capacitive energy stores with nanosecond energy transfer. , 2015, , .		0
38	Effect of the axial magnetic field on a radiating z-pinch plasma. , 2015, , .		0
39	Suppression of Rayleigh-Taylor instabilities in Z-pinches. Technical Physics Letters, 2015, 41, 554-556.	0.7	6
40	The research and application an X-pinch on compact pulsed power generators. , 2015, , .		0
41	X-pinch dynamics: Neck formation and implosion. Physics of Plasmas, 2014, 21, 102711.	1.9	13
42	Experimental study of the neck formation in an X pinch. Journal of Physics: Conference Series, 2014, 552, 012011.	0.4	2
43	Study of the stability of Z-pinch implosions with different initial density profiles. Physics of Plasmas, 2014, 21, 052701.	1.9	27
44	A synchronized X-pinch driver. Instruments and Experimental Techniques, 2014, 57, 461-474.	0.5	15
45	Experimental research of the fine foil explosion dynamics. Journal of Physics: Conference Series, 2014, 552, 012027.	0.4	8
46	Disintegration of metastable liquid during electrical explosion of aluminum foil. Journal of Engineering Thermophysics, 2013, 22, 288-297.	1.4	10
47	A double-frame nanosecond soft X-ray backlighting system based on X-pinches. Instruments and Experimental Techniques, 2013, 56, 66-71.	0.5	16
48	Metal double puff Z-pinch implosions. , 2013, , .		0
49	Multichannel vacuum arc discharge used for Z-pinch formation. Plasma Physics Reports, 2012, 38, 595-607.	0.9	14
50	Metastable states and their disintegration at pulse liquid heating and electrical explosion of conductors. Journal of Engineering Thermophysics, 2011, 20, 240-248.	1.4	17
51	Small-sized vacuum-arc-discharge x-ray radiograph. Plasma Sources Science and Technology, 2011, 20, 035011.	3.1	19
52	Use of vacuum arc plasma guns for a metal puff Z-pinch system. Physics of Plasmas, 2011, 18, .	1.9	32
53	Compact X-ray radiograph based on a plasma gun. Technical Physics, 2010, 55, 1619-1627.	0.7	8
54	Wire explosion in vacuum: velocity of current-carryng corona. , 2009, , .		0