A S Boldarev

List of Publications by Year
in descending order

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56 papers	881 citations	516710 16 h-index	477307 29 g-index
57 all docs	57 docs citations	57 times ranked	730 citing authors

#	Article	IF	Citations
1	Energy Increase in Multi-MeV Ion Acceleration in the Interaction of a Short Pulse Laser with a Cluster-Gas Target. Physical Review Letters, 2009, 103, 165002.	7.8	170
2	Spatial distribution of cluster size and density in supersonic jets as targets for intense laser pulses. Physical Review A, 2003, 68, .	2.5	129
3	Gas-cluster targets for femtosecond laser interaction: Modeling and optimization. Review of Scientific Instruments, 2006, 77, 083112.	1.3	71
4	Generation of X rays and energetic ions from superintense laser irradiation of micron-sized Ar clusters. Laser and Particle Beams, 2004, 22, 215-220.	1.0	42
5	Spatially resolved x-ray spectroscopy investigation of femtosecond laser irradiated Ar clusters. Physical Review E, 2002, 65, 036410.	2.1	35
6	Submicron ionography of nanostructures using a femtosecond-laser-driven-cluster-based source. Applied Physics Letters, 2009, 95, .	3.3	34
7	Enhanced K_Î± output of Ar and Kr using size optimized cluster target irradiated by high-contrast laser pulses. Optics Express, 2011, 19, 25812.	3.4	32
8	X-ray study of microdroplet plasma formation under the action of superintense laser radiation. JETP Letters, 2003, 78, 115-118.	1.4	29
9	X-ray spectroscopy diagnostic of a plasma produced by femtosecond laser pulses irradiating a cluster target. Journal of Experimental and Theoretical Physics, 2002, 94, 966-976.	0.9	27
10	On the generation of large clusters in forming gas-jet targets for lasers. Technical Physics, 2004, 49, 388-395.	0.7	26
11	Characterization of submicron-sized CO2 clusters formed with a supersonic expansion of a mixed-gas using a three-staged nozzle. Applied Physics Letters, 2013, 102, 164103.	3.3	26
12	Laser beam coupling with capillary discharge plasma for laser wakefield acceleration applications. Physics of Plasmas, 2017, 24, .	1.9	24
13	Mie scattering from submicron-sized CO_2 clusters formed in a supersonic expansion of a gas mixture. Optics Express, 2013, 21, 20656.	3.4	23
14	Modeling cluster jets as targets for high-power ultrashort laser pulses. JETP Letters, 2001, 73, 514-518.	1.4	22
15	On the interaction of femtosecond laser pulses with cluster targets. Journal of Experimental and Theoretical Physics, 2002, 94, 73-83.	0.9	21
16	Non-adiabatic cluster expansion after ultrashort laser interaction. Laser and Particle Beams, 2008, 26, 69-82.	1.0	16
17	Plasma equilibrium inside various cross-section capillary discharges. Physics of Plasmas, 2017, 24, .	1.9	14
18	Measurements of the xenon density in a pulsed jet from absorption of monochromatic soft X-rays. Quantum Electronics, 2004, 34, 679-684.	1.0	13

#	Article	IF	Citations
19	Diagnostics of the early stage of the heating of clusters by a femtosecond laser pulse from the spectra of hollow ions. JETP Letters, 2011, 94, 171.	1.4	13
20	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
21	<title>X-ray radiation properties of clusters heated by fs laser pulses</title>. , 2001, , .		12
22	Characterization of argon cluster jets for laser interaction studies. Nuclear Instruments & Methods in Physics Research B, 2003, 205, 324-328.	1.4	11
23	Ionography of nanostructures with the use of a laser plasma of cluster targets. JETP Letters, 2009, 89, 485-491.	1.4	9
24	The radial dimension of a supersonic jet expansion from conical nozzle. AIP Advances, 2016, 6, .	1.3	6
25	On production and asymmetric focusing of flat electron beams using rectangular capillary discharge plasmas. Physics of Plasmas, 2017, 24, 123120.	1.9	6
26	Experimental and numerical studies of structure of cluster targets for femtosecond laser pulses. , 2003, , .		5
27	X-ray radiation of clusters irradiated by ultrafast high-intensity laser pulses. , 2004, 5196, 234.		4
28	Conventional and Propagationâ€based Phase Contrast Imaging of Nanostructures Using Femtosecond Laser Driven Cluster Plasma Source and LiF Crystal Soft Xâ€ray Detectors. Contributions To Plasma Physics, 2009, 49, 488-495.	1.1	4
29	Enhancement of soft X-ray emission from fs laser plasma by using mixture of molecule and atomic gases as cluster jet targets and its application for nanostructure imaging. Journal of Physics: Conference Series, 2009, 163, 012106.	0.4	4
30	Study of Interaction of Plasma Flows with Magnetic Field During Implosion of Cone-Cylindrical Nested Arrays. Plasma Physics Reports, 2021, 47, 235-250.	0.9	4
31	Short laser pulse interaction with large clusters. Journal of the Korean Physical Society, 2010, 56, 279-286.	0.7	4
32	Ionography of Submicron Foils and Nanostructures Using Ion Flow Generated in FSâ€Laser Cluster Plasma. Contributions To Plasma Physics, 2009, 49, 507-516.	1.1	3
33	Soft X-ray point source based on a gas pinch. JETP Letters, 2009, 88, 582-585.	1.4	3
34	Investigation of the on-axis atom number density in the supersonic gas jet under high gas backing pressure by simulation. AIP Advances, 2015, 5, .	1.3	3
35	X-ray spectroscopic diagnostics of ultrashort laser-cluster interaction at the stage of the nonadiabatic scattering of clusters. JETP Letters, 2007, 86, 178-183.	1.4	2
36	Ion acceleration in the interaction of short pulse laser radiation with the cluster-gas target. , 2009, , .		2

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37	Numerical modelling of the cluster targets for their optimization in femtosecond-laser-cluster-driven experiments. Laser and Particle Beams, 2017, 35, 397-408.	1.0	2
38	Simulations of a polar molecule (sulfur dioxide) in a supersonic jet. Journal of Applied Physics, 2018, 124, 035902.	2.5	2
39	Clean source of soft X-ray radiation formed in supersonic Ar gas jets by high-contrast femtosecond laser pulses of relativistic intensity. High Power Laser Science and Engineering, 2020, 8, .	4.6	2
40	Evolution of average cluster size in supsonic cluster jet under high gas backing pressure. Wuli Xuebao/Acta Physica Sinica, 2015, 64, 013601.	0.5	2
41	The Technique of Solving Magnetohydrodynamic Problems in Quasi-Lagrangian Variables. Mathematical Models and Computer Simulations, 2022, 14, 10-18.	0.5	2
42	Diagnostics of plasma produced by femtosecond laser pulse impact upon a target with an internal nanostructure. Plasma Physics Reports, 2010, 36, 1261-1268.	0.9	1
43	Gas X-pinch: The progress, technology and results. EPJ Web of Conferences, 2013, 59, 10001.	0.3	1
44	Thermodynamic models of gas mixtures for computational fluid dynamics. Keldysh Institute Preprints, 2021, , 1-18.	0.2	1
45	Simulations of plasma channel formation by knife-like nanosecond laser beam. Keldysh Institute Preprints, 2018, , 1-39.	0.2	1
46	CaractÃ©risation de jets d'agrÃ©gats d'argon pour l'Ã©tude de l'interaction laser-agrÃ©gats. European Physical Journal Special Topics, 2003, 108, 199-202.	0.2	0
47	Femtosecond-Laser-Driven Cluster-Based Plasma Source for High-Resolution Ionography. , 2009, , .		0
48	Contact and Phase-Contrast Imaging of Nanostructures by Femtosecond-Laser-Driven-Cluster-Based Debris-Free Soft X-Ray Source. , 2009, , .		0
49	The spectra of the multicharged argon hollow ions: Observation, modeling and using for diagnostics of the early stage of the heating of clusters by a super high contrast femtosecond laser pulses. , 2012, , .		0
50	Radiative power and x-ray spectrum numerical estimations for wire array Z-pinches. Journal of Physics: Conference Series, 2015, 653, 012148.	0.4	0
51	3D MHD simulation of capillary discharge for the BELLA project. , 2015, , .		0
52	Different Average Size Evolution of Gaseous Water Cluster in an Expanding Gas Flow. Journal of Cluster Science, 2021, 32, 1223-1228.	3.3	0
53	Schuster â€“ Schwarzschild model for cylindrically symmetric flows of the radiating gas. Keldysh Institute Preprints, 2021, , 1-19.	0.2	0
54	Ion Acceleration in Subcritical Density Plasma via Interaction of Intense Laser Pulse with Cluster-Gas Target. Springer Series in Chemical Physics, 2011, , 225-240.	0.2	0

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55	Mathematical modelling of the cluster targets for femtosecondlaser-cluster-driven experiments. Keldysh Institute Preprints, 2018, , 1-22.	0.2	0
56	Numerical Analysis of the Magnetomechanical Effect in Heating Pipes. Mathematical Models and Computer Simulations, 2020, 12, 926-932.	0.5	0