

Alexander A Soloviev

List of Publications by Year in descending order

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Version: 2024-02-01

37
papers

535
citations

759233

12
h-index

642732

23
g-index

37
all docs

37
docs citations

37
times ranked

619
citing authors

#	ARTICLE	IF	CITATIONS
1	Laboratory formation of a scaled protostellar jet by coaligned poloidal magnetic field. <i>Science</i> , 2014, 346, 325-328.	12.6	173
2	Problems in the application of a null lens for precise measurements of aspheric mirrors. <i>Applied Optics</i> , 2016, 55, 619.	2.1	36
3	Laboratory unraveling of matter accretion in young stars. <i>Science Advances</i> , 2017, 3, e1700982.	10.3	35
4	Laser-Produced Magnetic-Rayleigh-Taylor Unstable Plasma Slabs in a 20ÂT Magnetic Field. <i>Physical Review Letters</i> , 2019, 123, 205001.	7.8	31
5	Experimental study of thermal lens features in laser ceramics. <i>Optics Express</i> , 2008, 16, 21012.	3.4	29
6	Detailed characterization of laser-produced astrophysically-relevant jets formed via a poloidal magnetic nozzle. <i>High Energy Density Physics</i> , 2017, 23, 48-59.	1.5	25
7	Experimental evidence for short-pulse laser heating of solid-density target to high bulk temperatures. <i>Scientific Reports</i> , 2017, 7, 12144.	3.3	24
8	Fast electron generation using PW-class PEARL facility. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2011, 653, 35-41.	1.6	20
9	Enhancement of Quasistationary Shocks and Heating via Temporal Staging in a Magnetized Laser-Plasma Jet. <i>Physical Review Letters</i> , 2017, 119, 255002.	7.8	18
10	Study of a thermal lens in thin laser-ceramics discs. <i>Quantum Electronics</i> , 2009, 39, 302-308.	1.0	16
11	Vortical Freak Waves in Water Under External Pressure Action. <i>Physical Review Letters</i> , 2013, 110, 014501.	7.8	16
12	Two-screen single-shot electron spectrometer for laser wakefield accelerated electron beams. <i>Review of Scientific Instruments</i> , 2011, 82, 043304.	1.3	15
13	Formation of a plasma with the determining role of radiative processes in thin foils irradiated by a pulse of the PEARL subpetawatt laser. <i>JETP Letters</i> , 2017, 105, 13-17.	1.4	11
14	Thermally induced distortions in neodymium glass rod amplifiers. <i>Quantum Electronics</i> , 2009, 39, 895-900.	1.0	9
15	Diagnostics of laser-produced plasmas based on the analysis of intensity ratios of He-like ions X-ray emission. <i>Physics of Plasmas</i> , 2016, 23, .	1.9	9
16	Experimental Study of the Interaction of a Laser Plasma Flow with a Transverse Magnetic Field. <i>Radiophysics and Quantum Electronics</i> , 2021, 63, 876-886.	0.5	8
17	Laser amplifier based on a neodymium glass rod 150 mm in diameter. <i>Quantum Electronics</i> , 2014, 44, 426-430.	1.0	6
18	Experimental stand for studying the impact of laser-accelerated protons on biological objects. <i>Quantum Electronics</i> , 2016, 46, 283-287.	1.0	6

#	ARTICLE	IF	CITATIONS
19	Alignment of solid targets under extreme tight focus conditions generated by an ellipsoidal plasma mirror. <i>Matter and Radiation at Extremes</i> , 2019, 4, 024402.	3.9	6
20	Experimental study of strongly mismatched regime of laser-driven wakefield acceleration. <i>Plasma Physics and Controlled Fusion</i> , 2020, 62, 094004.	2.1	6
21	Pulsed magnetic field generation system for laser-plasma research. <i>Review of Scientific Instruments</i> , 2021, 92, 123506.	1.3	6
22	Optical isolation in the LIGO gravitational wave laser detector in transient states. <i>Quantum Electronics</i> , 2012, 42, 367-371.	1.0	5
23	Fast electron beam measurements from relativistically intense, frequency-doubled laser-solids interactions. <i>New Journal of Physics</i> , 2013, 15, 093021.	2.9	5
24	Comparison of Dimensionless Parameters in Astrophysical MHD Systems and in Laboratory Experiments. <i>Astronomy Reports</i> , 2018, 62, 483-491.	0.9	5
25	Improvement of the focusability of petawatt laser pulses after nonlinear post-compression. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2022, 39, 1936.	2.1	5
26	Compensation for thermally induced aberrations in optical elements by means of additional heating by CO ₂ laser radiation. <i>Quantum Electronics</i> , 2006, 36, 939-945.	1.0	3
27	Application of point diffraction interferometry for measuring angular displacement to a sensitivity of 001 arcsec. <i>Applied Optics</i> , 2015, 54, 9315.	2.1	3
28	<title>Experimental study of Faraday isolator for kilowatt-level average powers</title>. , 2007, , .		1
29	<title>1 GeV/cm electron acceleration by a petawatt OPCPA laser</title>. , 2010, , .		1
30	Application of Petawatt pARAmetric Laser (PEARL) Laser Wakefield Acceleration. <i>AIP Conference Proceedings</i> , 2010, , .	0.4	1
31	150MM diameter Nd:glass rod laser amplifier: characterization and prospects. <i>Proceedings of SPIE</i> , 2014, , .	0.8	1
32	<title>New method for measurement of far IR beam intensity profile</title>. , 2007, , .		0
33	Interferometry based technique for intensity profile measurements of far IR beams. <i>Applied Optics</i> , 2007, 46, 3821.	2.1	0
34	200MeV electron bunch generated by PETawatt pARAmetric Laser (PEARL). , 2010, , .		0
35	Short spatial filters with spherical lenses for high-power pulsed lasers. <i>Quantum Electronics</i> , 2013, 43, 1082-1087.	1.0	0
36	Using a multimode laser in interferometry of ultrasmall phase inhomogeneities. <i>Technical Physics Letters</i> , 2016, 42, 317-320.	0.7	0

#	ARTICLE	IF	CITATIONS
37	240-mm bimorph deformable mirror for wavefront correction at the PEARL facility. , 2021, , .		0