Alexander S Pirozhkov

List of Publications by Year
in descending order

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49 papers	1,853 citations	471509 17 h-index	276875 41 g-index
49 all docs	49 docs citations	49 times ranked	1408 citing authors

#	Article	IF	Citations
1	Review of laser-driven ion sources and their applications. Reports on Progress in Physics, 2012, 75, 056401.	20.1	783
2	Relativistic mirrors in plasmas. Novel results and perspectives. Physics-Uspekhi, 2013, 56, 429-464.	2.2	112
3	High-contrast high-intensity repetitive petawatt laser. Optics Letters, 2018, 43, 2595.	3.3	104
4	Proton acceleration to 40ÂMeV using a high intensity, high contrast optical parametric chirped-pulse amplification/Ti:sapphire hybrid laser system. Optics Letters, 2012, 37, 2868.	3.3	100
5	Attosecond pulse generation in the relativistic regime of the laser-foil interaction: The sliding mirror model. Physics of Plasmas, 2006, 13, 013107.	1.9	82
6	Approaching the diffraction-limited, bandwidth-limited Petawatt. Optics Express, 2017, 25, 20486.	3.4	78
7	Laser prepulse dependency of proton-energy distributions in ultraintense laser-foil interactions with an online time-of-flight technique. Physics of Plasmas, 2007, 14, 043104.	1.9	65
8	High-Contrast, High-Intensity Petawatt-Class Laser and Applications. IEEE Journal of Selected Topics in Quantum Electronics, 2015, 21, 232-249.	2.9	60
9	Prepulse and amplified spontaneous emission effects on the interaction of a petawatt class laser with thin solid targets. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2014, 745, 150-163.	1.6	46
10	Temporal contrast enhancement of petawatt-class laser pulses. Optics Letters, 2012, 37, 3363.	3.3	44
11	Generation of high-energy attosecond pulses by the relativistic-irradiance short laser pulse interacting with a thin foil. Physics Letters, Section A: General, Atomic and Solid State Physics, 2006, 349, 256-263.	2.1	35
12	Ultrahigh-contrast kilojoule-class petawatt LFEX laser using a plasma mirror. Applied Optics, 2016, 55, 6850.	2.1	30
13	Possibility of measuring photon-photon scattering via relativistic mirrors. Physical Review A, 2012, 86, .	2.5	29
14	High order harmonics from relativistic electron spikes. New Journal of Physics, 2014, 16, 093003.	2.9	26
15	Efficient generation of Xe K-shell x rays by high-contrast interaction with submicrometer clusters. Optics Letters, 2011, 36, 1614.	3.3	22
16	On the breaking of a plasma wave in a thermal plasma. I. The structure of the density singularity. Physics of Plasmas, 2012, 19, .	1.9	22
17	High-Quality Laser-Produced Proton Beam Realized by the Application of a Synchronous RF Electric Field. Japanese Journal of Applied Physics, 2007, 46, L717-L720.	1.5	20
18	On the breaking of a plasma wave in a thermal plasma. II. Electromagnetic wave interaction with the breaking plasma wave. Physics of Plasmas, 2012, 19, 113103.	1.9	17

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19	Coherent, Short-Pulse X-ray Generation via Relativistic Flying Mirrors. Quantum Beam Science, 2018, 2, 9.	1.2	17
20	Ultra-Intense, High Spatio-Temporal Quality Petawatt-Class Laser System and Applications. Applied Sciences (Switzerland), 2013, 3, 214-250.	2.5	15
21	Experimental investigation on the temporal contrast of pre-pulses by post-pulses in a petawatt laser facility. Optics Letters, 2020, 45, 1100.	3.3	15
22	Controlling the generation of high frequency electromagnetic pulses with relativistic flying mirrors using an inhomogeneous plasma. Physics Letters, Section A: General, Atomic and Solid State Physics, 2013, 377, 1114-1118.	2.1	13
23	Enhancement of pre-pulse and picosecond pedestal contrast of the petawatt J-KAREN-P laser. High Power Laser Science and Engineering, 2021, 9, .	4.6	13
24	Relativisitcally upshifted higher harmonic generation via relativistic flying mirrors. Plasma Physics and Controlled Fusion, 2018, 60, 074007.	2.1	12
25	Petawatt Femtosecond Laser Pulses from Titanium-Doped Sapphire Crystal. Crystals, 2020, 10, 783.	2.2	11
26	Radial focusing and energy compression of a laser-produced proton beam by a synchronous rf field. Physical Review Special Topics: Accelerators and Beams, 2009, 12, .	1.8	10
27	Status and progress of the J-KAREN-P high intensity laser system at QST. High Energy Density Physics, 2020, 36, 100771.	1.5	9
28	Optical probing of relativistic plasma singularities. Physics of Plasmas, 2020, 27, .	1.9	8
29	Extreme ultraviolet diagnostics of preformed plasma in laser-driven proton acceleration experiments. Review of Scientific Instruments, 2006, 77, 123302.	1.3	7
30	Characteristics of a laser-produced proton beam improved by a synchronous RF field. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2009, 599, 15-19.	1.6	7
31	Experimental and computational characterization of hydrodynamic expansion of a preformed plasma from thin-foil target for laser-driven proton acceleration. Journal of Plasma Physics, 2009, 75, 609-617.	2.1	6
32	Demonstration of Flying Mirror with Improved Efficiency. , 2009, , .		6
33	Laser Requirements for High-Order Harmonic Generation by Relativistic Plasma Singularities. Quantum Beam Science, 2018, 2, 7.	1.2	6
34	Simultaneous Generation of UV Harmonics and Protons From a Thin-Foil Target With a High-Intensity Laser. IEEE Transactions on Plasma Science, 2008, 36, 1812-1816.	1.3	4
35	Relativistic flying laser focus by a laser-produced parabolic plasma mirror. Physical Review A, 2021, 104, .	2.5	4
36	Development of Laser-driven Proton Source Toward Its Applications. Journal of the Optical Society of Korea, 2009, 13, 37-41.	0.6	3

#	Article	IF	Citations
37	Relativistic flying forcibly oscillating reflective diffraction grating. Physical Review E, 2020, 102, 053202.	2.1	3
38	High contrast high intensity petawatt J-KAREN-P laser facility at QST. Proceedings of SPIE, 2017, , .	0.8	2
39	Analysis of LyÎ± Dielectronic Satellites to Characterize Temporal Profile of Intense Femtosecond Laser Pulses. Crystals, 2021, 11, 130.	2.2	2
40	Intensity Scalings of Attosecond Pulse Generation by the Relativistic-irradiance Laser Pulses. Springer Series in Optical Sciences, 2007, , 265-272.	0.7	2
41	Method of Observing the Spot Where Full-Power Counter-Propagating Laser Pulses Collide in Plasma Media. Applied Physics Express, 2010, 3, 016101.	2.4	2
42	Characterization of Thin-Foil Preformed Plasmas for High-Intensity Laser Plasma Interactions. Acta Physica Hungarica A Heavy Ion Physics, 2006, 26, 327-333.	0.4	1
43	High-intensity laser-driven particle and electromagnetic wave sources for science, industry, and medicine. Frontiers of Optoelectronics in China, 2009, 2, 299-303.	0.2	0
44	High-order harmonics from relativistic laser plasmas. Proceedings of SPIE, 2015, , .	0.8	0
45	Recent Advances on the J-KAREN laser upgrade. , 2015, , .		0
46	Improvement of the temporal contrast of pre-pulses by post-pulses in a petawatt J-KAREN-P laser facility. , 2021, , .		0
47	Ultra-strong attosecond laser focus produced by a relativistic-flying parabolic mirror. , 2021, , .		0
48	Relativistic Flying Mirrors as a Compact Source of Coherent Short-Wavelength Radiation. , 2020, , .		0
49	Construction of a Magnetic Bottle Electron Spectrometer for Electron Energy Measurement in BISER X-Rays and Xe Interaction. Plasma and Fusion Research, 2022, 17, 2406020-2406020.	0.7	0