Alexander A Andreev

List of Publications by Year
in descending order

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107	1,167	471509	414414
papers	citations	17 h-index	32 g-index

111	111	111	1030
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Quasimonoenergetic Deuteron Bursts Produced by Ultraintense Laser Pulses. Physical Review Letters, 2006, 96, 145006.	7.8	140
2	Hot Electrons Transverse Refluxing in Ultraintense Laser-Solid Interactions. Physical Review Letters, 2010, 105, 015005.	7.8	97
3	Enhanced Proton Acceleration by an Ultrashort Laser Interaction with Structured Dynamic Plasma Targets. Physical Review Letters, 2013, 110, 215004.	7.8	69
4	Efficient generation of fast ions from surface modulated nanostructure targets irradiated by high intensity short-pulse lasers. Physics of Plasmas, 2011, 18, .	1.9	52
5	Reliable stimulated Brillouin scattering compression of Nd:YAG laser pulses with liquid fluorocarbon for long-time operation at 10 Hz. Applied Optics, 1998, 37, 7085.	2.1	51
6	Calibration of one-dimensional boosted kinetic codes for modeling high-intensity laserâ€“solid interactions. Physics of Plasmas, 1999, 6, 947-953.	1.9	51
7	Coulomb-Driven Energy Boost of Heavy Ions for Laser-Plasma Acceleration. Physical Review Letters, 2015, 114, 124801.	7.8	46
8	Review of ultrafast ion acceleration experiments in laser plasma at Max Born Institute. Laser and Particle Beams, 2007, 25, 347-363.	1.0	44
9	Prospects of target nanostructuring for laser proton acceleration. Scientific Reports, 2017, 7, 44030.	3.3	41
10	Fast-Ion Energy-Flux Enhancement from Ultrathin Foils Irradiated by Intense and High-Contrast Short Laser Pulses. Physical Review Letters, 2008, 101, 155002.	7.8	40
11	Laser-driven ion acceleration using isolated mass-limited spheres. New Journal of Physics, 2010, 12, 113013.	2.9	30
12	Diagnostics of peak laser intensity based on the measurement of energy of electrons emitted from laser focal region. Laser and Particle Beams, 2015, 33, 361-366.	1.0	29
13	Highly Nuclear-Spin-Polarized Deuterium Atoms from the UV Photodissociation of Deuterium Iodide. Physical Review Letters, 2017, 118, 233401.	7.8	25
14	MeV negative ion generation from ultra-intense laser interaction with a water spray. Applied Physics Letters, 2011, 99, .	3.3	23
15	Relativistic laser nano-plasmonics for effective fast particle production. Plasma Physics and Controlled Fusion, 2016, 58, 014038.	2.1	22
16	Divergence of fast ions generated by interaction of intense ultra-high contrast laser pulses with thin foils. New Journal of Physics, 2010, 12, 045007.	2.9	19
17	Shock wave acceleration of protons in inhomogeneous plasma interacting with ultrashort intense laser pulses. Physics of Plasmas, 2015, 22, .	1.9	18
18	GigaGauss solenoidal magnetic field inside bubbles excited in under-dense plasma. Scientific Reports, 2016, 6, 36139.	3.3	16

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19	Using X-ray spectroscopy of relativistic laser plasma interaction to reveal parametric decay instabilities: a modeling tool for astrophysics. Optics Express, 2017, 25, 1958.	3.4	16
20	Enhancing laser beam performance by interfering intense laser beamlets. Nature Communications, 2019, 10, 2995.	12.8	16
21	Laser proton acceleration in a water spray target. Physics of Plasmas, 2008, 15, 083106.	1.9	14
22	Ion acceleration by short high intensity laser pulse in small target sets. Laser and Particle Beams, 2009, 27, 449-457.	1.0	13
23	Bright synchrotron radiation from nano-forest targets. Physics of Plasmas, 2017, 24, .	1.9	13
24	Thickness of natural contaminant layers on metal surfaces and its effects on laser-driven ion acceleration. Physics of Plasmas, 2020, 27, .	1.9	13
25	Effective laser driven proton acceleration from near critical density hydrogen plasma. Laser and Particle Beams, 2016, 34, 219-229.	1.0	12
26	Evidence of high-n hollow-ion emission from Si ions pumped by ultraintense x-rays from relativistic laser plasma. Europhysics Letters, 2016, 114, 35001.	2.0	12
27	Reflection of few cycle laser pulses from an inhomogeneous overdense plasma. Optics Express, 2017, 25, 11637.	3.4	12
28	Limits of the temporal contrast for CPA lasers with beams of high aperture. Proceedings of SPIE, 2009, , .	0.8	11
29	Ion acceleration by intense, few-cycle laser pulses with nanodroplets. Physics of Plasmas, 2015, 22, 053114.	1.9	11
30	Attospiral generation upon interaction of circularly polarized intense laser pulses with conelike targets. Physical Review E, 2016, 93, 013207.	2.1	11
31	Dynamic stabilization of filamentation instability. Physics of Plasmas, 2018, 25, .	1.9	11
32	X-ray spectral diagnostics of laser harmonic generation in the interaction of relativistic femtosecond laser pulses with clusters. Quantum Electronics, 2016, 46, 338-341.	1.0	10
33	Plasma rotation with circularly polarized laser pulse. Laser and Particle Beams, 2016, 34, 31-42.	1.0	10
34	Charge steering of laser plasma accelerated fast ions in a liquid spray â€" creation of MeV negative ion and neutral atom beams. Physics of Plasmas, 2013, 20, .	1.9	9
35	Energetic beams of negative and neutral hydrogen from intense laser plasma interaction. Applied Physics Letters, 2013, 103, .	3.3	9
36	Minimum requirements for electronâ€"positron pair creation in the interaction of ultra-short laser pulses with thin foils. Plasma Physics and Controlled Fusion, 2019, 61, 045005.	2.1	9

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37	X-ray generation by fast electrons propagating in nanofibres irradiated by a laser pulse of relativistic intensity. Quantum Electronics, 2016, 46, 109-118.	1.0	8
38	Magnetic dipole moment generated in nano-droplets irradiated by circularly polarized laser pulse. Physical Review Research, 2020, 2, .	3.6	8
39	Revealing the second harmonic generation in a femtosecond laser-driven cluster-based plasma by analyzing shapes of Ar XVII spectral lines. Optics Express, 2015, 23, 31991.	3.4	7
40	Laser-induced extreme magnetic field in nanorod targets. New Journal of Physics, 2018, 20, 033010.	2.9	7
41	Ultrafast laser-driven proton sources and dynamic proton imaging. Journal of the Optical Society of America B: Optical Physics, 2008, 25, B155.	2.1	6
42	Highly periodic laser-induced nanostructures on thin Ti and Cu foils for potential application in laser ion acceleration. Journal of Applied Physics, 2016, 119, 113101.	2.5	6
43	The effect of laser contrast on generation of highly charged Fe ions by ultra-intense femtosecond laser pulses. Applied Physics B: Lasers and Optics, 2017, 123, 1.	2.2	5
44	Trains of electron micro-bunches in plasma wake-field acceleration. Plasma Physics and Controlled Fusion, 2018, 60, 075012.	2.1	5
45	Substantial enhancement of betatron radiation in cluster targets. Physical Review E, 2020, 102, 053205.	2.1	5
46	Enhancement of high harmonic generation by multiple reflection of ultrashort pulses. Journal of the Optical Society of America B: Optical Physics, 2018, 35, A49.	2.1	5
47	Fast Ion Bunch Generation by Ultraintense Laser Pulse on Plasma Foil Target. Japanese Journal of Applied Physics, 2005, 44, 1431-1435.	1.5	4
48	New method for laser driven ion acceleration with isolated, mass-limited targets. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2011, 653, 30-34.	1.6	4
49	Sub-structure of laser generated harmonics reveals plasma dynamics of a relativistically oscillating mirror. Physics of Plasmas, 2013, 20, .	1.9	4
50	Double Relativistic Electron Accelerating Mirror. Applied Sciences (Switzerland), 2013, 3, 94-106.	2.5	4
51	Amplification of ultra-short laser pulses via resonant backward Raman amplification in plasma. Physics of Plasmas, 2016, 23, 083108.	1.9	4
52	Controllable Laser Ion Acceleration. Journal of Physics: Conference Series, 2016, 691, 012021.	0.4	4
53	Proton acceleration through a charged cavity created by ultraintense laser pulse. Physics of Plasmas, 2019, 26, .	1.9	4
54	Attosecond bunches of gamma photons and positrons generated in nanostructure targets. Physical Review E, 2019, 99, 013202.	2.1	4

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55	Diagnostics of peak laser intensity by pair production from thin foil target. Laser Physics Letters, 2020, 17, 056101.	1.4	4
56	<title>Hot electrons and hard x-ray emission from relativistically strong laser pulses in underdense plasma</title>. , 1996, , .		3
57	Sub-femtosecond hard X-ray radiation generated by electron bunches ejected from water jet. Laser and Particle Beams, 2013, 31, 635-642.	1.0	3
58	A Proposed 100-kHz fs Laser Plasma Hard X-Ray Source at the ELI-ALPS Facility. IEEE Transactions on Plasma Science, 2016, 44, 2382-2392.	1.3	3
59	Ultra-bright keV X-ray source generated by relativistic femtosecond laser pulse interaction with thin foils and its possible application for HEDS investigations. Laser and Particle Beams, 2017, 35, 450-457.	1.0	3
60	X-ray spectroscopy of super-intense laser-produced plasmas for the study of nonlinear processes. Comparison with PIC simulations. Journal of Physics: Conference Series, 2017, 810, 012004.	0.4	3
61	Towards optimization of femtosecond laser pulse nanostructuring of targets for high-intensity laser experiments in vacuum. Applied Physics A: Materials Science and Processing, 2021, 127, 1.	2.3	3
62	<title>Efficiency of thermonuclear burning in laser targets with spark ignition</title>. , 1998, , .		2
63	Suprathermal Electron Generation by an Ultraintensive Laser Pulse in Foil Plasmas. Japanese Journal of Applied Physics, 2001, 40, 952-954.	1.5	2
64	Enhancement of laser/EUV conversion by shaped laser pulse interacting with Li-contained targets for EUV lithography. , 2004, 5196, 128.		2
65	Surface modulation and back reflection from foil targets irradiated by a Petawatt femtosecond laser pulse at oblique incidence. Optics Express, 2016, 24, 28104.	3.4	2
66	Sliding-wave acceleration of ions in high-density gas jet targets. Physical Review E, 2021, 103, 053210.	2.1	2
67	Generation and collective interaction of giant magnetic dipoles in laser cluster plasma. Scientific Reports, 2021, 11, 15971.	3.3	2
68	<title>Absorption of ultrashort laser pulses, x-ray and fast-particle generation in superdense plasma</title>. , 1996, , .		2
69	Interaction of intense intersecting laser beams with electron bunch. , 1994, , .		1
70	<title>Computer simulation of new schemes for generation of superintensive laser pulses</title>. , 1996, , .		1
71	<title>Optical breakdown of transparent dielectrics by picosecond and subnanosecond laser pulses</title>. , 1997, 3093, 75.		1
72	<title>Laser plasma radiation from small solid particle in gas atmosphere</title>. , 2000, 3935, 139.		1

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73	Energetic particle generation and transportation in interaction of ultra-intense laser with foil target. , 2003, , .		1
74	<title>Self-similar regime without quasi-neutral approximation of ion acceleration in expanding plasma</title>. , 2004, 5482, 93.		1
75	Generation and manipulation of proton beams by ultra-short laser pulses. , 2009, , .		1
76	Limiting Characteristics of Temporal Contrast for High Aperture CPA Lasers. , 2010, , .		1
77	Ion acceleration in shell cylinders irradiated by a short intense laser pulse. Physics of Plasmas, 2015, 22, 093106.	1.9	1
78	Scaling for ultrashort pulse amplification in plasma via backward Raman amplification scheme operating in the short wavelength regime. Journal of the Optical Society of America B: Optical Physics, 2018, 35, A56.	2.1	1
79	Generation of high-quality GeV-class electron beams utilizing attosecond ionization injection. New Journal of Physics, 2021, 23, 043016.	2.9	1
80	<title>Stimulated scattering of radiation at interaction of ultrashort laser pulses with dense plasma</title>. , 1996, 2770, 135.		0
81	<title>Computational model of short-pulse laser target interactions</title>. , 1998, 3683, 9.		0
82	<title>Start in vacuum of fast electrons generated at oblique incidence of an ultrashort intensive laser pulse on a flat target</title>. , 1998, , .		0
83	<title>Extremely intensive gamma source with high spectral brightness</title>. , 1998, , .		0
84	<title>Second-harmonics emission from short-pulse laser-irradiated solid targets</title>. , 1998, 3683, 63.		0
85	<title>Nonlinear optics and damage of a vacuum polarized by high-power laser radiation</title>. , 1999, , .		0
86	Laser-excited gamma source with high spectral brightness. , 2000, 3886, 353.		0
87	Laser detection of the parameters of small solid particles located in air. , 2001, 4350, 161.		0
88	Simulation of laser propulsion at space conditions. , 2002, 4760, 799.		0
89	<title>Fast ignition in system Dynamic Hohlraum with Monte-Carlo simulations of fusion kinetic and radiation processes</title>. , 2004, 5482, 145.		0
90	<title>High-energy particle acceleration by high-power laser</title>. , 2004, , .		0

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91	<title>Generation of fast ion beams from multiterawatt laser-irradiated targets</title>. , 2004, 5482, 46.		0
92	Femtosecond x-ray line emission from specially designed targets irradiated by short laser pulses. , 2004, 5196, 326.		0
93	Generation of MeV proton with 30 mJ laser energy by optimizing focusing spot using deformable mirror. , 2005, , .		0
94	Simulation of particle size measurement with LIBS. Industrial Electronics Society (IECON), Annual Conference of IEEE, 2006, , .	0.0	0
95	PIC Simulations Of Ion Acceleration By Linearly And Circularly Polarized Laser Pulses. AIP Conference Proceedings, 2008, , .	0.4	0
96	Efficient laser ion acceleration in an intense-short-pulse-laser foil interaction. , 2009, , .		0
97	Energetic negative ion and neutral atom beam generation at passage of laser accelerated high energy positive ions through a liquid spray. Proceedings of SPIE, 2013, , .	0.8	0
98	Microstructured snow targets for high energy quasi-monoenergetic proton acceleration. , 2013, , .		0
99	Effective interaction of intense ultra-short laser pulse with nano-structured targets. , 2013, , .		0
100	PROTON STOPPING POWER OF DIFFERENT DENSITY PROFILE PLASMAS. Acta Polytechnica, 2015, 55, 76-80.	0.6	0
101	Laser plasma ionography. Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2015, 119, 789-798.	0.6	0
102	Concept of a staged FEL enabled by fast synchrotron radiation cooling of laser-plasma accelerated beam by solenoidal magnetic fields in plasma bubble. AIP Conference Proceedings, 2017, , .	0.4	0
103	Bright synchrotron radiation from nano-forest targets. , 2017, , .		0
104	Ultra-intense X-Ray Radiation Photopumping of Exotic States of Matter by Relativistic Laserâ€“Plasma in the Radiation-Dominated Kinetic Regime (RDKR). Springer Proceedings in Physics, 2018, , 149-158.	0.2	0
105	Pair creation via reflection of an ultra-intense laser pulse from plasma surfaces. , 2018, , .		0
106	Reflection of chirped pulse from an overdense plasma. , 2018, , .		0
107	Efficient generation of monochromatic x-ray emission from laser plasma by repetition rate sub-relativistic laser pulses. , 2013, , .		0