

Alexander A Andreev

List of Publications by Year in descending order

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107
papers

1,167
citations

471509

17
h-index

414414

32
g-index

111
all docs

111
docs citations

111
times ranked

1030
citing authors

#	ARTICLE	IF	CITATIONS
1	Generation of high-quality GeV-class electron beams utilizing attosecond ionization injection. <i>New Journal of Physics</i> , 2021, 23, 043016.	2.9	1
2	Sliding-wave acceleration of ions in high-density gas jet targets. <i>Physical Review E</i> , 2021, 103, 053210.	2.1	2
3	Towards optimization of femtosecond laser pulse nanostructuring of targets for high-intensity laser experiments in vacuum. <i>Applied Physics A: Materials Science and Processing</i> , 2021, 127, 1.	2.3	3
4	Generation and collective interaction of giant magnetic dipoles in laser cluster plasma. <i>Scientific Reports</i> , 2021, 11, 15971.	3.3	2
5	Substantial enhancement of betatron radiation in cluster targets. <i>Physical Review E</i> , 2020, 102, 053205.	2.1	5
6	Diagnostics of peak laser intensity by pair production from thin foil target. <i>Laser Physics Letters</i> , 2020, 17, 056101.	1.4	4
7	Thickness of natural contaminant layers on metal surfaces and its effects on laser-driven ion acceleration. <i>Physics of Plasmas</i> , 2020, 27, .	1.9	13
8	Magnetic dipole moment generated in nano-droplets irradiated by circularly polarized laser pulse. <i>Physical Review Research</i> , 2020, 2, .	3.6	8
9	Enhancing laser beam performance by interfering intense laser beamlets. <i>Nature Communications</i> , 2019, 10, 2995.	12.8	16
10	Proton acceleration through a charged cavity created by ultraintense laser pulse. <i>Physics of Plasmas</i> , 2019, 26, .	1.9	4
11	Attosecond bunches of gamma photons and positrons generated in nanostructure targets. <i>Physical Review E</i> , 2019, 99, 013202.	2.1	4
12	Minimum requirements for electron-positron pair creation in the interaction of ultra-short laser pulses with thin foils. <i>Plasma Physics and Controlled Fusion</i> , 2019, 61, 045005.	2.1	9
13	Ultra-intense X-Ray Radiation Photopumping of Exotic States of Matter by Relativistic Laser-Plasma in the Radiation-Dominated Kinetic Regime (RDKR). <i>Springer Proceedings in Physics</i> , 2018, , 149-158.	0.2	0
14	Laser-induced extreme magnetic field in nanorod targets. <i>New Journal of Physics</i> , 2018, 20, 033010.	2.9	7
15	Dynamic stabilization of filamentation instability. <i>Physics of Plasmas</i> , 2018, 25, .	1.9	11
16	Scaling for ultrashort pulse amplification in plasma via backward Raman amplification scheme operating in the short wavelength regime. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2018, 35, A56.	2.1	1
17	Pair creation via reflection of an ultra-intense laser pulse from plasma surfaces. , 2018, , .		0
18	Reflection of chirped pulse from an overdense plasma. , 2018, , .		0

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19	Trains of electron micro-bunches in plasma wake-field acceleration. Plasma Physics and Controlled Fusion, 2018, 60, 075012.	2.1	5
20	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
21	Bright synchrotron radiation from nano-forest targets. Physics of Plasmas, 2017, 24, .	1.9	13
22	Prospects of target nanostructuring for laser proton acceleration. Scientific Reports, 2017, 7, 44030.	3.3	41
23	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
24	Highly Nuclear-Spin-Polarized Deuterium Atoms from the UV Photodissociation of Deuterium Iodide. Physical Review Letters, 2017, 118, 233401.	7.8	25
25	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
26	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
27	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
28	Reflection of few cycle laser pulses from an inhomogeneous overdense plasma. Optics Express, 2017, 25, 11637.	3.4	12
29	Bright synchrotron radiation from nano-forest targets. , 2017, , .		0
30	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
31	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
32	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
33	GigaGauss solenoidal magnetic field inside bubbles excited in under-dense plasma. Scientific Reports, 2016, 6, 36139.	3.3	16
34	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
35	Amplification of ultra-short laser pulses via resonant backward Raman amplification in plasma. Physics of Plasmas, 2016, 23, 083108.	1.9	4
36	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

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37	Effective laser driven proton acceleration from near critical density hydrogen plasma. Laser and Particle Beams, 2016, 34, 219-229.	1.0	12
38	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
39	Plasma rotation with circularly polarized laser pulse. Laser and Particle Beams, 2016, 34, 31-42.	1.0	10
40	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
41	Attospiral generation upon interaction of circularly polarized intense laser pulses with conelike targets. Physical Review E, 2016, 93, 013207.	2.1	11
42	Controllable Laser Ion Acceleration. Journal of Physics: Conference Series, 2016, 691, 012021.	0.4	4
43	Relativistic laser nano-plasmonics for effective fast particle production. Plasma Physics and Controlled Fusion, 2016, 58, 014038.	2.1	22
44	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
45	Ion acceleration in shell cylinders irradiated by a short intense laser pulse. Physics of Plasmas, 2015, 22, 093106.	1.9	1
46	PROTON STOPPING POWER OF DIFFERENT DENSITY PROFILE PLASMAS. Acta Polytechnica, 2015, 55, 76-80.	0.6	0
47	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
48	Ion acceleration by intense, few-cycle laser pulses with nanodroplets. Physics of Plasmas, 2015, 22, 053114.	1.9	11
49	Shock wave acceleration of protons in inhomogeneous plasma interacting with ultrashort intense laser pulses. Physics of Plasmas, 2015, 22, .	1.9	18
50	Coulomb-Driven Energy Boost of Heavy Ions for Laser-Plasma Acceleration. Physical Review Letters, 2015, 114, 124801.	7.8	46
51	Laser plasma ionography. Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2015, 119, 789-798.	0.6	0
52	Sub-structure of laser generated harmonics reveals plasma dynamics of a relativistically oscillating mirror. Physics of Plasmas, 2013, 20, .	1.9	4
53	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
54	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

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55	Microstructured snow targets for high energy quasi-monoenergetic proton acceleration. , 2013, , .		0
56	Charge steering of laser plasma accelerated fast ions in a liquid spray " creation of MeV negative ion and neutral atom beams. Physics of Plasmas, 2013, 20, .	1.9	9
57	Energetic beams of negative and neutral hydrogen from intense laser plasma interaction. Applied Physics Letters, 2013, 103, .	3.3	9
58	Enhanced Proton Acceleration by an Ultrashort Laser Interaction with Structured Dynamic Plasma Targets. Physical Review Letters, 2013, 110, 215004.	7.8	69
59	Effective interaction of intense ultra-short laser pulse with nano-structured targets. , 2013, , .		0
60	Double Relativistic Electron Accelerating Mirror. Applied Sciences (Switzerland), 2013, 3, 94-106.	2.5	4
61	Efficient generation of monochromatic x-ray emission from laser plasma by repetition rate sub-relativistic laser pulses. , 2013, , .		0
62	MeV negative ion generation from ultra-intense laser interaction with a water spray. Applied Physics Letters, 2011, 99, .	3.3	23
63	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
64	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
65	Limiting Characteristics of Temporal Contrast for High Aperture CPA Lasers. , 2010, , .		1
66	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
67	Laser-driven ion acceleration using isolated mass-limited spheres. New Journal of Physics, 2010, 12, 113013.	2.9	30
68	Hot Electrons Transverse Refluxing in Ultraintense Laser-Solid Interactions. Physical Review Letters, 2010, 105, 015005.	7.8	97
69	Efficient laser ion acceleration in an intense-short-pulse-laser foil interaction. , 2009, , .		0
70	Ion acceleration by short high intensity laser pulse in small target sets. Laser and Particle Beams, 2009, 27, 449-457.	1.0	13
71	Generation and manipulation of proton beams by ultra-short laser pulses. , 2009, , .		1
72	Limits of the temporal contrast for CPA lasers with beams of high aperture. Proceedings of SPIE, 2009, , .	0.8	11

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73	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
74	PIC Simulations Of Ion Acceleration By Linearly And Circularly Polarized Laser Pulses. AIP Conference Proceedings, 2008, , .	0.4	0
75	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
76	Laser proton acceleration in a water spray target. Physics of Plasmas, 2008, 15, 083106.	1.9	14
77	Review of ultrafast ion acceleration experiments in laser plasma at Max Born Institute. Laser and Particle Beams, 2007, 25, 347-363.	1.0	44
78	Quasimonoenergetic Deuteron Bursts Produced by Ultraintense Laser Pulses. Physical Review Letters, 2006, 96, 145006.	7.8	140
79	Simulation of particle size measurement with LIBS. Industrial Electronics Society (IECON), Annual Conference of IEEE, 2006, , .	0.0	0
80	Generation of MeV proton with 30 mJ laser energy by optimizing focusing spot using deformable mirror. , 2005, , .		0
81	Fast Ion Bunch Generation by Ultraintense Laser Pulse on Plasma Foil Target. Japanese Journal of Applied Physics, 2005, 44, 1431-1435.	1.5	4
82	Enhancement of laser/EUV conversion by shaped laser pulse interacting with Li-contained targets for EUV lithography. , 2004, 5196, 128.		2
83	<title>Self-similar regime without quasi-neutral approximation of ion acceleration in expanding plasma</title>. , 2004, 5482, 93.		1
84	<title>Fast ignition in system Dynamic Hohlraum with Monte-Carlo simulations of fusion kinetic and radiation processes</title>. , 2004, 5482, 145.		0
85	<title>High-energy particle acceleration by high-power laser</title>. , 2004, , .		0
86	<title>Generation of fast ion beams from multiterawatt laser-irradiated targets</title>. , 2004, 5482, 46.		0
87	Femtosecond x-ray line emission from specially designed targets irradiated by short laser pulses. , 2004, 5196, 326.		0
88	Energetic particle generation and transportation in interaction of ultra-intense laser with foil target. , 2003, , .		1
89	Simulation of laser propulsion at space conditions. , 2002, 4760, 799.		0
90	Laser detection of the parameters of small solid particles located in air. , 2001, 4350, 161.		0

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91	Suprathermal Electron Generation by an Ultraintensive Laser Pulse in Foil Plasmas. Japanese Journal of Applied Physics, 2001, 40, 952-954.	1.5	2
92	Laser-excited gamma source with high spectral brightness. , 2000, 3886, 353.		0
93	<title>Laser plasma radiation from small solid particle in gas atmosphere</title>. , 2000, 3935, 139.		1
94	Calibration of one-dimensional boosted kinetic codes for modeling high-intensity laserâ€™solid interactions. Physics of Plasmas, 1999, 6, 947-953.	1.9	51
95	<title>Nonlinear optics and damage of a vacuum polarized by high-power laser radiation</title>. , 1999, , .		0
96	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
97	<title>Computational model of short-pulse laser target interactions</title>. , 1998, 3683, 9.		0
98	<title>Start in vacuum of fast electrons generated at oblique incidence of an ultrashort intensive laser pulse on a flat target</title>. , 1998, , .		0
99	<title>Extremely intensive gamma source with high spectral brightness</title>. , 1998, , .		0
100	<title>Second-harmonics emission from short-pulse laser-irradiated solid targets</title>. , 1998, 3683, 63.		0
101	<title>Efficiency of thermonuclear burning in laser targets with spark ignition</title>. , 1998, , .		2
102	<title>Optical breakdown of transparent dielectrics by picosecond and subnanosecond laser pulses</title>. , 1997, 3093, 75.		1
103	<title>Stimulated scattering of radiation at interaction of ultrashort laser pulses with dense plasma</title>. , 1996, 2770, 135.		0
104	<title>Hot electrons and hard x-ray emission from relativistically strong laser pulses in underdense plasma</title>. , 1996, , .		3
105	<title>Computer simulation of new schemes for generation of superintensive laser pulses</title>. , 1996, , .		1
106	<title>Absorption of ultrashort laser pulses, x-ray and fast-particle generation in superdense plasma</title>. , 1996, , .		2
107	Interaction of intense intersecting laser beams with electron bunch. , 1994, , .		1