Dmitri Kaganovich

List of Publications by Year
in descending order

77	895	516710 16	501196 28
papers	citations	h-index	g-index

81	81	81	662
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Nonlinear self-channeling of high-power lasers through controlled atmospheric turbulence. Journal of the Optical Society of America B: Optical Physics, 2020, 37, 797.	2.1	7
2	Vortex dynamics and applications to gaseous optical elements. Journal of the Optical Society of America B: Optical Physics, 2020, 37, 2104.	2.1	1
3	Nonlinear underwater propagation of picosecond ultraviolet laser beams. Optics Letters, 2020, 45, 4344.	3.3	5
4	Benchmarking background oriented schlieren against interferometric measurement using open source tools. Applied Optics, 2020, 59, 9553.	1.8	5
5	Pair Creation with Strong Laser Fields, Compton Scale X Rays, and Heavy Nuclei. Physical Review Letters, 2019, 122, 233201.	7.8	5
6	Beating Optical-Turbulence Limits Using High-Peak-Power Lasers. Physical Review Applied, 2019, 12, .	3.8	6
7	Modeling of a compact gas vortex lens for high-power lasers. Journal of the Optical Society of America B: Optical Physics, 2019, 36, 1376.	2.1	1
8	Compression of Terawatt Long-Wavelength Laser Pulses Through Backward Raman Amplification. , 2018, , .		1
9	Ideal form of optical plasma lenses. Physics of Plasmas, 2018, 25, 063101.	1.9	6
10	Lensing properties of rotational gas flow. Applied Optics, 2018, 57, 9392.	1.8	4
11	Staging and laser acceleration of ions in underdense plasma. AIP Conference Proceedings, 2017, , .	0.4	1
12	Synchrotron radiation from a curved plasma channel laser wakefield accelerator. Physics of Plasmas, 2017, 24, 033119.	1.9	5
13	Summary report of working group 7: Radiation and advanced concepts. AIP Conference Proceedings, 2017, , .	0.4	0
14	Nonlinear Propagation of 100 ps, UV Laser Pulses in Water with Strong Stimulated Raman Stokes Coupling*. , 2017, , .		0
15	Nonlinear Propagation of 100 ps, UV Laser Pulses in Water with Strong Stimulated Raman Stokes Coupling. , 2017, , .		0
16	Stimulated Raman and Brillouin scattering, nonlinear focusing, thermal blooming, and optical breakdown of a laser beam propagating in water. Journal of the Optical Society of America B: Optical Physics, 2016, 33, 2062.	2.1	16
17	A nonlinear plasma retroreflector for single pulse Compton backscattering. AIP Conference Proceedings, 2016, , .	0.4	0
18	Prospects of coherent Compton backscattered X-rays from self-generated wiggler in a laser wakefield accelerator. AIP Conference Proceedings, 2016, , .	0.4	0

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19	Accelerated protons from near critical density gaseous targets. AIP Conference Proceedings, 2016, , .	0.4	1
20	Nonlinear frequency shift in Raman backscattering and its implications for plasma diagnostics. Physics of Plasmas, 2016, 23, .	1.9	11
21	Laser-Accelerated Ions from a Shock-Compressed Gas Foil. Physical Review Letters, 2016, 117, 165001.	7.8	38
22	Intense underwater laser propagation, ionization and heating for remote shaped plasma generation. , 2016, , .		0
23	Plasma lenses for ultrashort multi-petawatt laser pulses. Physics of Plasmas, 2015, 22, .	1.9	17
24	Enhanced betatron X-rays from axially modulated plasma wakefields. Physics of Plasmas, 2015, 22, 063111.	1.9	6
25	Laser accelerated ions from near critical gaseous targets. Proceedings of SPIE, 2015, , .	0.8	4
26	Simulation of free-space optical guiding structure based on colliding gas flows. Applied Optics, 2015, 54, F144.	2.1	7
27	A nonlinear plasma retroreflector for single pulse Compton backscattering. New Journal of Physics, 2015, 17, 023072.	2.9	5
28	Stimulated Raman scattering and nonlinear focusing of high-power laser beams propagating in water. Optics Letters, 2015, 40, 1556.	3.3	17
29	Shaping gas jet plasma density profile by laser generated shock waves. Journal of Applied Physics, 2014, 116, .	2.5	25
30	Time-resolved spectroscopy and modeling of underwater laser ionization and filamentation for electrical discharge guiding. , 2014, , .		0
31	Formation and propagation of meter-scale laser filaments in water. Applied Physics Letters, 2013, 103, 121101.	3.3	34
32	Origin and control of the subpicosecond pedestal in femtosecond laser systems. Optics Letters, 2013, 38, 3635.	3.3	15
33	Laser acceleration and injection of particles in optically shaped gas targets. Proceedings of SPIE, 2013, , .	0.8	2
34	High-resolution femtosecond measurements of underwater laser ionization and filamentation for electrical discharge guiding. , 2013, , .		0
35	Extending electro-optic detection to ultrashort electron beams. Physical Review Special Topics: Accelerators and Beams, 2012, 15, .	1.8	8
36	Radiation signatures of laser driven wakes in plasmas. , 2011, , .		0

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37	Electro-optic detection of ultrashort electron beams: moving beyond the transverse optical phonon resonance. , 2011, , .		0
38	Measurements and simulations of shock wave generated plasma-vacuum interface. Physics of Plasmas, 2011, 18, .	1.9	12
39	Plasma Density Tapering for Laser Wakefield Acceleration of Electrons and Protons. , 2010, , .		2
40	Extending Electro-Optic Detection of Short Particle Beams Beyond the Transverse Phonon Resonance. , 2010, , .		2
41	Electro-Optic and Terahertz Diagnostics. , 2010, , .		3
42	Electro-optic shocks from blowout laser wakefields. New Journal of Physics, 2010, 12, 045026.	2.9	1
43	Measurements of colliding shock wave and supersonic gas flow. Applied Physics Letters, 2010, 97, 191501.	3.3	5
44	Measurement of Electro-Optic Shock and Electron Acceleration in a Strongly Cavitated Laser Wakefield Accelerator. Physical Review Letters, 2010, 105, 105001.	7.8	15
45	Summary of Working Group 1: Laser Plasma Wakefield Accelerators. , 2009, , .		0
46	Second harmonic generation and off-axis electrons in the blowout regime of a Laser Wakefield Accelerator. , 2009, , .		0
47	Electro-Optic Shocks from Ultraintense Laser-Plasma Interactions. Physical Review Letters, 2008, 101, 045004.	7.8	18
48	Observation of Large-Angle Quasimonoenergetic Electrons from a Laser Wakefield. Physical Review Letters, 2008, 100, 215002.	7.8	19
49	GUIDING OF HIGH LASER INTENSITIES IN LONG PLASMA CHANNELS. International Journal of Modern Physics B, 2007, 21, 361-371.	2.0	1
50	Laser plasma acceleration experiment at the naval research laboratory. , 2007, , .		0
51	Electron density in low density capillary plasma channel. Applied Physics Letters, 2007, 90, 061501.	3.3	12
52	All optical electron injector using an intense ultrashort pulse laser and a solid wire target. Applied Physics B: Lasers and Optics, 2006, 83, 219-223.	2.2	2
53	Long plasma channels in segmented capillary discharges. Physics of Plasmas, 2006, 13, 083108.	1.9	13
54	Generation and measurements of high energy injection electrons from the high density laser ionization and ponderomotive acceleration. Physics of Plasmas, 2005, 12, 010701-010701-4.	1.9	7

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55	First demonstration of a staged all-optical laser wakefield acceleration. Physics of Plasmas, 2005, 12, 100702.	1.9	27
56	Longitudinal profiles of plasma parameters in a laser-ignited capillary discharge and implications for laser wakefield accelerator applications. Applied Physics Letters, 2005, 87, 261501.	3.3	15
57	Trapping and acceleration of nonideal injected electron bunches in laser Wakefield accelerators. IEEE Transactions on Plasma Science, 2005, 33, 712-722.	1.3	14
58	Generation of high-energy electrons in a double gas jet and laser wakefield acceleration. IEEE Transactions on Plasma Science, 2005, 33, 735-738.	1.3	3
59	Measurements of intense femtosecond laser pulse propagation in air. Physics of Plasmas, 2005, 12, 056705.	1.9	21
60	STUDY OF LASER COMPTON SCATTERING IN A PLASMA CHANNEL. , 2004, , .		0
61	Transmission of high-power CO2 laser pulses through a plasma channel. Applied Physics Letters, 2003, 83, 3459-3461.	3.3	10
62	Spatially resolved interferometric measurement of a discharge capillary plasma channel. Physics of Plasmas, 2003, 10, 4504-4512.	1.9	10
63	Counter-Propagation of Electron and CO2 Laser Beams in a Plasma Channel. AIP Conference Proceedings, 2003, , .	0.4	1
64	Temporally resolved Raman backscattering diagnostic of high intensity laser channeling. Review of Scientific Instruments, 2002, 73, 2259-2265.	1.3	9
65	High intensity focusing of laser pulses using a short plasma channel lens. Physics of Plasmas, 2002, 9, 1431-1442.	1.9	21
66	Velocity control and staging in laser wakefield accelerators using segmented capillary discharges. Applied Physics Letters, 2001, 78, 3175-3177.	3.3	24
67	Wakefield generation and GeV acceleration in tapered plasma channels. Physical Review E, 2001, 63, 056405.	2.1	113
68	Simulation and design of stable channel-guided laser wakefield accelerators. Physical Review E, 2001, 63, 036502.	2.1	31
69	High efficiency guiding of terawatt subpicosecond laser pulses in a capillary discharge plasma channel. Physical Review E, 1999, 59, R4769-R4772.	2.1	71
70	Variable profile capillary discharge for improved phase matching in a laser wakefield accelerator. Applied Physics Letters, 1999, 75, 772-774.	3.3	57
71	Guiding and damping of high-intensity laser pulses in long plasma channels. Journal of the Optical Society of America B: Optical Physics, 1998, 15, 2416.	2.1	47
72	Investigations of double capillary discharge scheme for production of wave guide in plasma. Applied Physics Letters, 1997, 71, 2925-2927.	3.3	45

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73	On the cooling of the plasma fireball produced by a laser spark in front of liquids and solids. Physics of Plasmas, 1996, 3, 631-638.	1.9	6
74	Simulation of density channel guiding in capillary discharge experiments and laser wakefield accelerators. , 0, , .		1
75	Focusing of laser pulses using a plasma channel lens. , 0, , .		0
76	Simulation of accelerated electron spectra in laser wakefield accelerators. , 0, , .		3
77	Optical injection in a laser wake field accelerator. , 0, , .		0