Sergei V Bulanov

List of Publications by Year
in descending order

286 papers	16,836 citations	18436 62 h-index	15683 125 g-index
288 all docs	288 docs citations	288 times ranked	3905 citing authors

#	Article	IF	Citations
1	Optics in the relativistic regime. Reviews of Modern Physics, 2006, 78, 309-371.	16.4	1,551
2	Fast Ignition by Intense Laser-Accelerated Proton Beams. Physical Review Letters, 2001, 86, 436-439.	2.9	1,154
3	Highly Efficient Relativistic-Ion Generation in the Laser-Piston Regime. Physical Review Letters, 2004, 92, 175003.	2.9	902
4	Multi-GeV Electron Beams from Capillary-Discharge-Guided Subpetawatt Laser Pulses in the Self-Trapping Regime. Physical Review Letters, 2014, 113, 245002.	2.9	767
5	Petawatt Laser Guiding and Electron Beam Acceleration to 8ÂGeV in a Laser-Heated Capillary Discharge Waveguide. Physical Review Letters, 2019, 122, 084801.	2.9	557
6	Feasibility of using laser ion accelerators in proton therapy. Plasma Physics Reports, 2002, 28, 453-456.	0.3	459
7	Oncological hadrontherapy with laser ion accelerators. Physics Letters, Section A: General, Atomic and Solid State Physics, 2002, 299, 240-247.	0.9	456
8	Interaction of an ultrashort, relativistically strong laser pulse with an overdense plasma. Physics of Plasmas, 1994, 1, 745-757.	0.7	438
9	Fast Ion Generation by High-Intensity Laser Irradiation of Solid Targets and Applications. Fusion Science and Technology, 2006, 49, 412-439.	0.6	388
10	Light Intensification towards the Schwinger Limit. Physical Review Letters, 2003, 91, 085001.	2.9	314
11	Nonlinear electrodynamics of the interaction of ultra-intense laser pulses with a thin foil. Physics of Plasmas, 1998, 5, 2727-2741.	0.7	280
12	Proposed Double-Layer Target for the Generation of High-Quality Laser-Accelerated Ion Beams. Physical Review Letters, 2002, 89, 175003.	2.9	275
13	Transverse-Wake Wave Breaking. Physical Review Letters, 1997, 78, 4205-4208.	2.9	260
14	Photon Bubbles and Ion Acceleration in a Plasma Dominated by the Radiation Pressure of an Electromagnetic Pulse. Physical Review Letters, 2007, 99, 065002.	2.9	250
15	Multiple Colliding Electromagnetic Pulses: A Way to Lower the Threshold of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msup><mml:mi>e</mml:mi><mml:mo>+</mml:mo></mml:msup><mml:msup><mml:mi>e</mml:mi><mml:mo Production from Vacuum. Physical Review Letters, 2010, 104, 220404.	2.9	219
16	Nonlinear depletion of ultrashort and relativistically strong laser pulses in an underdense plasma. Physics of Fluids B, 1992, 4, 1935-1942.	1.7	217
17	Snapshots of laser wakefields. Nature Physics, 2006, 2, 749-753.	6.5	196
18	High-Power<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>Î³</mml:mi></mml:math>-Ray Flash Generation in Ultraintense Laser-Plasma Interactions. Physical Review Letters, 2012, 108, 195001.	2.9	175

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19	Energy Increase in Multi-MeV Ion Acceleration in the Interaction of a Short Pulse Laser with a Cluster-Gas Target. Physical Review Letters, 2009, 103, 165002.	2.9	170
20	Simulations of a hydrogen-filled capillary discharge waveguide. Physical Review E, 2001, 65, 016407.	0.8	163
21	Accelerating monoenergetic protons from ultrathin foils by flat-top laser pulses in the directed-Coulomb-explosion regime. Physical Review E, 2008, 78, 026412.	0.8	160
22	High-Energy Ions from Near-Critical Density Plasmas via Magnetic Vortex Acceleration. Physical Review Letters, 2010, 105, 135002.	2.9	158
23	Solitonlike Electromagnetic Waves behind a Superintense Laser Pulse in a Plasma. Physical Review Letters, 1999, 82, 3440-3443.	2.9	154
24	Schwinger Limit Attainability with Extreme Power Lasers. Physical Review Letters, 2010, 105, 220407.	2.9	154
25	Active Plasma Lensing for Relativistic Laser-Plasma-Accelerated Electron Beams. Physical Review Letters, 2015, 115, 184802.	2.9	147
26	Unlimited Ion Acceleration by Radiation Pressure. Physical Review Letters, 2010, 104, 135003.	2.9	140
27	Energetic Protons from a Few-Micron Metallic Foil Evaporated by an Intense Laser Pulse. Physical Review Letters, 2003, 91, 215001.	2.9	138
28	Relativistic Electromagnetic Solitons in the Electron-Ion Plasma. Physical Review Letters, 2001, 86, 5289-5292.	2.9	127
29	Interaction of electromagnetic waves with plasma in the radiation-dominated regime. Plasma Physics Reports, 2004, 30, 196-213.	0.3	121
30	Low-frequency relativistic electromagnetic solitons in collisionless plasmas. JETP Letters, 1998, 68, 36-41.	0.4	120
31	Demonstration of Laser-Frequency Upshift by Electron-Density Modulations in a Plasma Wakefield. Physical Review Letters, 2007, 99, 135001.	2.9	117
32	Electron Vortices Produced by Ultraintense Laser Pulses. Physical Review Letters, 1996, 76, 3562-3565.	2.9	115
33	Relativistic mirrors in plasmas. Novel results and perspectives. Physics-Uspekhi, 2013, 56, 429-464.	0.8	112
34	Electromagnetic cascade in high-energy electron, positron, and photon interactions with intense laser pulses. Physical Review A, 2013, 87, .	1.0	110
35	Relativistic laser-matter interaction and relativistic laboratory astrophysics. European Physical Journal D, 2009, 55, 483-507.	0.6	109
36	Nonlinear Thomson scattering in the strong radiation damping regime. Physics of Plasmas, 2005, 12, 093106.	0.7	108

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37	Laser ion acceleration via control of the near-critical density target. Physical Review E, 2008, 77, 016401.	0.8	107
38	On the problems of relativistic laboratory astrophysics and fundamental physics with super powerful lasers. Plasma Physics Reports, 2015, 41, 1-51.	0.3	106
39	Two-Dimensional Regimes of Self-Focusing, Wake Field Generation, and Induced Focusing of a Short Intense Laser Pulse in an Underdense Plasma. Physical Review Letters, 1995, 74, 710-713.	2.9	105
40	Formation of Electromagnetic Postsolitons in Plasmas. Physical Review Letters, 2001, 87, .	2.9	105
41	Laser ion acceleration for hadron therapy. Physics-Uspekhi, 2014, 57, 1149-1179.	0.8	105
42	Bursts of Superreflected Laser Light from Inhomogeneous Plasmas due to the Generation of Relativistic Solitary Waves. Physical Review Letters, 1999, 83, 3434-3437.	2.9	101
43	Enhancement of Photon Number Reflected by the Relativistic Flying Mirror. Physical Review Letters, 2009, 103, 235003.	2.9	101
44	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.	1.7	100
45	Three-Dimensional Relativistic Electromagnetic Subcycle Solitons. Physical Review Letters, 2002, 89, 275002.	2.9	96
46	Controlled electron injection into the wake wave using plasma density inhomogeneity. Physics of Plasmas, 2008, 15, .	0.7	88
47	Strong Radiation-Damping Effects in a Gamma-Ray Source Generated by the Interaction of a High-Intensity Laser with a Wakefield-Accelerated Electron Beam. Physical Review X, 2012, 2, .	2.8	88
48	Computer Simulation of the Three-Dimensional Regime of Proton Acceleration in the Interaction of Laser Radiation with a Thin Spherical Target. Plasma Physics Reports, 2001, 27, 363-371.	0.3	86
49	Frequency multiplication of light back-reflected from a relativistic wake wave. Physics of Plasmas, 2007, 14, 123106.	0.7	85
50	Ion acceleration by superintense laser pulses in plasmas. JETP Letters, 1999, 70, 82-89.	0.4	83
51	Lorentz-Abraham-Dirac versus Landau-Lifshitz radiation friction force in the ultrarelativistic electron interaction with electromagnetic wave (exact solutions). Physical Review E, 2011, 84, 056605.	0.8	83
52	Attosecond pulse generation in the relativistic regime of the laser-foil interaction: The sliding mirror model. Physics of Plasmas, 2006, 13, 013107.	0.7	82
53	Generation of collimated beams of relativistic ions in laser-plasma interactions. JETP Letters, 2000, 71, 407-411.	0.4	81
54	Relativistic plasma physics in supercritical fields. Physics of Plasmas, 2020, 27, .	0.7	81

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55	Comment on â€œCollimated Multi-MeV Ion Beams from High-Intensity Laser Interactions with Underdense Plasmaâ€. Physical Review Letters, 2007, 98, 049503; discussion 049504.	2.9	75
56	Efficiency of ion acceleration by a relativistically strong laser pulse in an underdense plasma. Plasma Physics Reports, 2001, 27, 211-220.	0.3	73
57	On the design of experiments for the study of extreme field limits in the interaction of laser with ultrarelativistic electron beam. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2011, 660, 31-42.	0.7	72
58	Boosting laser-ion acceleration with multi-picosecond pulses. Scientific Reports, 2017, 7, 42451.	1.6	71
59	Simultaneous generation of a proton beam and terahertz radiation in high-intensity laser and thin-foil interaction. Applied Physics B: Lasers and Optics, 2008, 90, 373-377.	1.1	68
60	Relativistic Interaction of Laser Pulses with Plasmas. Reviews of Plasma Physics, 2001, , 227-335.	1.0	67
61	Soft-X-Ray Harmonic Comb from Relativistic Electron Spikes. Physical Review Letters, 2012, 108, 135004.	2.9	66
62	Polarization, hosing and long time evolution of relativistic laser pulses. Physics of Plasmas, 2001, 8, 4149-4155.	0.7	63
63	Electron, Positron, and Photon Wakefield Acceleration: Trapping, Wake Overtaking, and Ponderomotive Acceleration. Physical Review Letters, 2006, 96, 014803.	2.9	63
64	Ion Acceleration in a Dipole Vortex in a Laser Plasma Corona. Plasma Physics Reports, 2005, 31, 369.	0.3	61
65	High-Contrast, High-Intensity Petawatt-Class Laser and Applications. IEEE Journal of Selected Topics in Quantum Electronics, 2015, 21, 232-249.	1.9	60
66	Electron Optical Injection with Head-On and Countercrossing Colliding Laser Pulses. Physical Review Letters, 2009, 103, 194803.	2.9	59
67	On the design of experiments for the study of relativistic nonlinear optics in the limit of single-cycle pulse duration and single-wavelength spot size. Plasma Physics Reports, 2002, 28, 12-27.	0.3	55
68	Attractors and chaos of electron dynamics in electromagnetic standing waves. Physics Letters, Section A: General, Atomic and Solid State Physics, 2015, 379, 2044-2054.	0.9	54
69	Generation of high-quality charged particle beams during the acceleration of ions by high-power laser radiation. Plasma Physics Reports, 2002, 28, 975-991.	0.3	53
70	Relativistic electromagnetic solitons in a warm quasineutral electronâ€“ion plasma. Physics of Plasmas, 2003, 10, 639-649.	0.7	53
71	Boosted High-Harmonics Pulse from a Double-Sided Relativistic Mirror. Physical Review Letters, 2009, 103, 025002.	2.9	53
72	Soft x-ray source for nanostructure imaging using femtosecond-laser-irradiated clusters. Applied Physics Letters, 2008, 92, 121110.	1.5	52

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73	Dynamics of relativistic solitons. Plasma Physics and Controlled Fusion, 2005, 47, A73-A80.	0.9	50
74	Low-threshold ablation of dielectrics irradiated by picosecond soft x-ray laser pulses. Applied Physics Letters, 2009, 94, 231107.	1.5	50
75	Relativistic solitons in magnetized plasmas. Physical Review E, 2000, 62, 4146-4151.	0.8	48
76	Bow Wave from Ultraintense Electromagnetic Pulses in Plasmas. Physical Review Letters, 2008, 101, 265001.	2.9	48
77	Radiation pressure acceleration: The factors limiting maximum attainable ion energy. Physics of Plasmas, 2016, 23, .	0.7	48
78	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.	0.7	46
79	Depletion of Intense Fields. Physical Review Letters, 2017, 118, 154803.	2.9	46
80	Interaction of electromagnetic waves with caustics in plasma flows. Physical Review E, 2008, 78, 056402.	0.8	45
81	Temporal contrast enhancement of petawatt-class laser pulses. Optics Letters, 2012, 37, 3363.	1.7	44
82	Dark solitons in electron-positron plasmas. Physical Review E, 2001, 64, 066401.	0.8	42
83	Laser-heater assisted plasma channel formation in capillary discharge waveguides. Physics of Plasmas, 2013, 20, 020703.	0.7	42
84	A kinetic model for the one-dimensional electromagnetic solitons in an isothermal plasma. Physics of Plasmas, 2002, 9, 2562-2568.	0.7	40
85	Interaction of high contrast laser pulse with foam-attached target. Physics of Plasmas, 2010, 17, .	0.7	40
86	Brilliant gamma-ray beam and electronâ€“positron pair production by enhanced attosecond pulses. Communications Physics, 2018, 1, .	2.0	40
87	Observation of Magnetized Soliton Remnants in the Wake of Intense Laser Pulse Propagation through Plasmas. Physical Review Letters, 2010, 105, 175002.	2.9	37
88	Single-cycle high-intensity electromagnetic pulse generation in the interaction of a plasma wakefield with regular nonlinear structures. Physical Review E, 2006, 73, 036408.	0.8	36
89	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.	0.9	35
90	Studies of laser wakefield structures and electron acceleration in underdense plasmas. Physics of Plasmas, 2008, 15, 056703.	0.7	35

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91	On some theoretical problems of laser wake-field accelerators. Journal of Plasma Physics, 2016, 82, .	0.7	35
92	Laser-Particle Collider for Multi-GeV Photon Production. Physical Review Letters, 2019, 122, 254801.	2.9	35
93	Spallative ablation of dielectrics by X-ray laser. Applied Physics A: Materials Science and Processing, 2010, 101, 87-96.	1.1	34
94	Ion acceleration, magnetic field line reconnection, and multiple current filament coalescence of a relativistic electron beam in a plasma. Physics of Plasmas, 2002, 9, 2959-2970.	0.7	33
95	Self-guiding of 100TW femtosecond laser pulses in centimeter-scale underdense plasma. Physics of Plasmas, 2007, 14, 040703.	0.7	33
96	Diagnostic of laser contrast using target reflectivity. Applied Physics Letters, 2009, 94, .	1.5	33
97	Strong field electrodynamics of a thin foil. Physics of Plasmas, 2013, 20, 123114.	0.7	33
98	Tunable High-Energy Ion Source via Oblique Laser Pulse Incident on a Double-Layer Target. Physical Review Letters, 2008, 100, 145001.	2.9	32
99	Ion acceleration from thin foil and extended plasma targets by slow electromagnetic wave and related ion-ion beam instability. Physics of Plasmas, 2012, 19, .	0.7	32
100	High-efficiency<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>Î³</mml:mi></mml:math>-ray flash generation via multiple-laser scattering in ponderomotive potential well. Physical Review E, 2017, 95, 013210.	0.8	32
101	Ion acceleration in laser generated megatesla magnetic vortex. Physics of Plasmas, 2019, 26, .	0.7	32
102	Soliton Synchrotron Afterglow in a Laser Plasma. Physical Review Letters, 2004, 92, 255001.	2.9	31
103	Spallative Ablation of Metals and Dielectrics. Contributions To Plasma Physics, 2009, 49, 455-466.	0.5	31
104	Slow electromagnetic solitons in electron-ion plasmas. Plasma Physics Reports, 2001, 27, 641-651.	0.3	30
105	Feasibility of Using Laser Ion Accelerators in Proton Therapy. AIP Conference Proceedings, 2004, , .	0.3	29
106	Laser pulse guiding and electron acceleration in the ablative capillary discharge plasma. Physics of Plasmas, 2009, 16, .	0.7	29
107	Possibility of measuring photon-photon scattering via relativistic mirrors. Physical Review A, 2012, 86, .	1.0	29
108	Generation of stable and low-divergence 10-MeV quasimonoenergetic electron bunch using argon gas jet. Physical Review Special Topics: Accelerators and Beams, 2009, 12, .	1.8	28

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109	Helium-3 and helium-4 acceleration by high power laser pulses for hadron therapy. Physical Review Special Topics: Accelerators and Beams, 2015, 18, .	1.8	28
110	Burst intensification by singularity emitting radiation in multi-stream flows. Scientific Reports, 2017, 7, 17968.	1.6	28
111	Spectral and dynamical features of the electron bunch accelerated by a short-pulse high intensity laser in an underdense plasma. Physics of Plasmas, 2005, 12, 073103.	0.7	27
112	High power gamma flare generation in multi-petawatt laser interaction with tailored targets. Physics of Plasmas, 2018, 25, .	0.7	27
113	Radiotherapy using a laser proton accelerator. AIP Conference Proceedings, 2008, , .	0.3	26
114	High order harmonics from relativistic electron spikes. New Journal of Physics, 2014, 16, 093003.	1.2	26
115	Magnetic reconnection: from MHD to QED. Plasma Physics and Controlled Fusion, 2017, 59, 014029.	0.9	26
116	Polarization effects and anisotropy in three-dimensional relativistic self-focusing. Physical Review E, 2002, 65, 045402.	0.8	24
117	Laser beam coupling with capillary discharge plasma for laser wakefield acceleration applications. Physics of Plasmas, 2017, 24, .	0.7	24
118	Relativistic spherical plasma waves. Physics of Plasmas, 2012, 19, 020702.	0.7	23
119	Efficient generation of Xe K-shell x rays by high-contrast interaction with submicrometer clusters. Optics Letters, 2011, 36, 1614.	1.7	22
120	On the breaking of a plasma wave in a thermal plasma. I. The structure of the density singularity. Physics of Plasmas, 2012, 19, .	0.7	22
121	Relativistic mirrors in laser plasmas (analytical methods). Plasma Sources Science and Technology, 2016, 25, 053001.	1.3	22
122	Wave-breaking injection of electrons to a laser wake field in plasma channels at the strong focusing regime. Physics of Plasmas, 2006, 13, 103101.	0.7	21
123	On the ion acceleration by high power electromagnetic waves in the radiation pressure dominated regime. Comptes Rendus Physique, 2009, 10, 216-226.	0.3	21
124	Nonlinear plasma wave in magnetized plasmas. Physics of Plasmas, 2013, 20, .	0.7	21
125	Fast magnetic-field annihilation in the relativistic collisionless regime driven by two ultrashort high-intensity laser pulses. Physical Review E, 2016, 93, 013203.	0.8	21
126	Laser-heated capillary discharge plasma waveguides for electron acceleration to 8 GeV. Physics of Plasmas, 2020, 27, 053102.	0.7	21

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127	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.	0.8	20
128	Electromagnetic shocks in the quantum vacuum. Physical Review D, 2019, 99, .	1.6	19
129	Observation of plasma density dependence of electromagnetic soliton excitation by an intense laser pulse. Physics of Plasmas, 2011, 18, 080704.	0.7	18
130	Interaction of Short Laser Pulses in Wavelength Range from Infrared to Xâ€ray with Metals, Semiconductors, and Dielectrics. Contributions To Plasma Physics, 2011, 51, 361-366.	0.5	18
131	Pion production under the action of intense ultrashort laser pulse on a solid target. JETP Letters, 2001, 74, 586-589.	0.4	17
132	Propagation-based phase-contrast enhancement of nanostructure images using a debris-free femtosecond-laser-driven cluster-based plasma soft x-ray source and an LiF crystal detector. Applied Optics, 2009, 48, 6271.	2.1	17
133	Dependence of the ion energy on the parameters of the laser pulse and target in the radiation-pressure-dominated regime of acceleration. Plasma Physics Reports, 2010, 36, 15-29.	0.3	17
134	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.	0.7	17
135	Coherent, Short-Pulse X-ray Generation via Relativistic Flying Mirrors. Quantum Beam Science, 2018, 2, 9.	0.6	17
136	Stability of a mass accreting shell expanding in a plasma. Physical Review E, 2002, 65, 066405.	0.8	15
137	On the production of flat electron bunches for laser wakefield acceleration. Journal of Experimental and Theoretical Physics, 2007, 105, 916-926.	0.2	15
138	Ultra-Intense, High Spatio-Temporal Quality Petawatt-Class Laser System and Applications. Applied Sciences (Switzerland), 2013, 3, 214-250.	1.3	15
139	Multiple colliding laser pulses as a basis for studying high-field high-energy physics. Physical Review A, 2019, 100, .	1.0	15
140	Experimental studies of the high and low frequency electromagnetic radiation produced from nonlinear laser-plasma interactions. European Physical Journal D, 2009, 55, 465-474.	0.6	14
141	Multi-charged heavy ion acceleration from the ultra-intense short pulse laser system interacting with the metal target. Review of Scientific Instruments, 2014, 85, 02B904.	0.6	14
142	Towards a novel laser-driven method of exotic nuclei extractionâ˘'acceleration for fundamental physics and technology. Plasma Physics Reports, 2016, 42, 327-337.	0.3	14
143	Synergic Cherenkov-Compton radiation. Physical Review D, 2019, 100, .	1.6	14
144	Electromagnetic Burst Generation during Annihilation of Magnetic Field in Relativistic Laser-Plasma Interaction. Scientific Reports, 2019, 9, 19462.	1.6	14

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145	Electromagnetic solitons in quantum vacuum. Physical Review D, 2020, 101, .	1.6	14
146	Plasma equilibrium inside various cross-section capillary discharges. Physics of Plasmas, 2017, 24, .	0.7	14
147	Analysis on the longitudinal field strength formed by tightly-focused radially-polarized femtosecond petawatt laser pulse. Optics Express, 2018, 26, 33091.	1.7	14
148	Effect of the magnetic field on the resonant particle acceleration. Plasma Physics Reports, 2000, 26, 1005-1014.	0.3	13
149	New Method to Measure the Rise Time of a Fast Pulse Slicer for Laser Ion Acceleration Research. IEEE Transactions on Plasma Science, 2008, 36, 1872-1877.	0.6	13
150	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.	0.9	13
151	Nonlinear Thomson scattering with strong radiation damping. Journal of Plasma Physics, 2006, 72, 1315.	0.7	12
152	Paradoxical stabilization of forced oscillations by strong nonlinear friction. Physics Letters, Section A: General, Atomic and Solid State Physics, 2017, 381, 2559-2564.	0.9	12
153	Relativisitcally upshifted higher harmonic generation via relativistic flying mirrors. Plasma Physics and Controlled Fusion, 2018, 60, 074007.	0.9	12
154	Preplasma effects on laser ion generation from thin foil targets. Physics of Plasmas, 2020, 27, 013107.	0.7	12
155	Capillary discharges for guiding of laser pulses. Plasma Physics Reports, 2000, 26, 10-20.	0.3	11
156	Generation of Quantum Beams in Large Clusters Irradiated by Superâ€Intense, High â€" Contrast Femtosecond Laser Pulses. Contributions To Plasma Physics, 2013, 53, 148-160.	0.5	11
157	Stochastic regimes in the driven oscillator with a step-like nonlinearity. Physics of Plasmas, 2015, 22, .	0.7	11
158	Explosion of relativistic electron vortices in laser plasmas. Physics of Plasmas, 2016, 23, 093116.	0.7	11
159	Magnetic-field generation and wave-breaking in collisionless plasmas. Journal of Plasma Physics, 1998, 60, 331-339.	0.7	10
160	On the motion of charged particles in a sheared force-free magnetic field. Journal of Plasma Physics, 2002, 67, 215-221.	0.7	10
161	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
162	Intense and Reproducible KÎ± Emissions from Micron-Sized Kr Cluster Target Irradiated with Intense Femtosecond Laser Pulses. Japanese Journal of Applied Physics, 2010, 49, 126401.	0.8	10

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163	On extreme field limits in high power laser matter interactions: radiation dominant regimes in high intensity electromagnetic wave interaction with electrons. , 2013, , .		10
164	Evolution of laser induced electromagnetic postsolitons in multi-species plasma. Physics of Plasmas, 2015, 22, .	0.7	10
165	Electron-positron pair creation in the electric fields generated by micro-bubble implosions. Physics Letters, Section A: General, Atomic and Solid State Physics, 2020, 384, 126854.	0.9	10
166	Recoil effects on reflection from relativistic mirrors in laser plasmas. Physics of Plasmas, 2020, 27, 032109.	0.7	10
167	4Ï€-spherically focused electromagnetic wave: diffraction optics approach and high-power limits. Optics Express, 2020, 28, 13991.	1.7	10
168	Numerical simulation of melting and evaporation of a cold foil target irradiated by a pre-pulse. Applied Physics A: Materials Science and Processing, 2004, 79, 1185-1187.	1.1	9
169	Kinetic relativistic solitons in electronâ€“positronâ€“ion plasmas. Physics Letters, Section A: General, Atomic and Solid State Physics, 2004, 329, 464-474.	0.9	9
170	Ionography of nanostructures with the use of a laser plasma of cluster targets. JETP Letters, 2009, 89, 485-491.	0.4	9
171	Fast magnetic energy dissipation in relativistic plasma induced by high order laser modes. High Power Laser Science and Engineering, 2016, 4, .	2.0	9
172	Laser-heated capillary discharge waveguides as tunable structures for laser-plasma acceleration. Physics of Plasmas, 2020, 27, .	0.7	9
173	Two-color nonlinear resonances in betatron oscillations of laser accelerated relativistic electrons. Physical Review Research, 2021, 3, .	1.3	9
174	Gamma-ray flash generation in irradiating a thin foil target by a single-cycle tightly focused extreme power laser pulse. Physical Review E, 2021, 104, 015203.	0.8	9
175	Anisotropic Filamentation of Linearly Polarized Ultra Intense Laser in Overdense Plasmas. Journal of Plasma and Fusion Research, 1999, 75-CD, 219-233.	0.4	8
176	Evolution of an intense elliptically polarized electromagnetic wave in underdense plasmas. Physics Letters, Section A: General, Atomic and Solid State Physics, 2004, 320, 438-445.	0.9	8
177	High-power laser-driven source of ultra-short X-ray and gamma-ray pulses. European Physical Journal D, 2009, 55, 457-463.	0.6	8
178	Phase space dynamics after the breaking of a relativistic Langmuir wave in a thermal plasma. European Physical Journal D, 2014, 68, 1.	0.6	8
179	Optical probing of relativistic plasma singularities. Physics of Plasmas, 2020, 27, .	0.7	8
180	Radial density profile and stability of capillary discharge plasma waveguides of lengths up to 40 cm. High Power Laser Science and Engineering, 2021, 9, .	2.0	8

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181	Magnetic field annihilation and charged particle acceleration in ultra-relativistic laser plasmas. High Power Laser Science and Engineering, 2021, 9, .	2.0	8
182	Gamma-ray flash in the interaction of a tightly focused single-cycle ultra-intense laser pulse with a solid target. Journal of Plasma Physics, 2022, 88, .	0.7	8
183	Relaxation of an electron beam during the onset of the electromagnetic filamentation instability. Plasma Physics Reports, 2001, 27, 330-334.	0.3	7
184	Relativistic electron beam slicing by wakefield in plasmas. Physics Letters, Section A: General, Atomic and Solid State Physics, 2008, 372, 4813-4816.	0.9	7
185	Control of energy distribution of the proton beam with an oblique incidence of the laser pulse. Physics of Plasmas, 2009, 16, 033111.	0.7	7
186	The effect of laser pulse incidence angle on the proton acceleration from a double-layer target. Plasma Physics and Controlled Fusion, 2009, 51, 024002.	0.9	7
187	Ion acceleration and stability in the radiation pressure dominated regime. Laser Physics, 2009, 19, 222-227.	0.6	7
188	Condition of MeV Electron Bunch Generated from Argon Gas-Jet Target in the Self-Modulated Laser Wakefield Regime. Journal of the Physical Society of Japan, 2011, 80, 105001.	0.7	7
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