

Phillip A. Sprangle

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264
papers

13,219
citations

60
h-index

108
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304
ext. papers

14,292
ext. citations

2.8
avg, IF

5.94
L-index

#	Paper	IF	Citations
264	Overview of plasma-based accelerator concepts. <i>IEEE Transactions on Plasma Science</i> , 1996 , 24, 252-288	1.3	994
263	Laser wakefield acceleration and relativistic optical guiding. <i>Applied Physics Letters</i> , 1988 , 53, 2146-2148	3.4	422
262	Nonlinear theory of intense laser-plasma interactions. <i>Physical Review Letters</i> , 1990 , 64, 2011-2014	7.4	402
261	Electron Injection into Plasma Wakefields by Colliding Laser Pulses. <i>Physical Review Letters</i> , 1997 , 79, 2682-2685	7.4	370
260	Propagation and guiding of intense laser pulses in plasmas. <i>Physical Review Letters</i> , 1992 , 69, 2200-2203	7.4	363
259	Self-focusing and guiding of short laser pulses in ionizing gases and plasmas. <i>IEEE Journal of Quantum Electronics</i> , 1997 , 33, 1879-1914	2	362
258	Nonlinear Thomson scattering of intense laser pulses from beams and plasmas. <i>Physical Review E</i> , 1993 , 48, 3003-3021	2.4	327
257	Nonlinear interaction of intense laser pulses in plasmas. <i>Physical Review A</i> , 1990 , 41, 4463-4469	2.6	272
256	Guiding of High Intensity Laser Pulses in Straight and Curved Plasma Channel Experiments. <i>Physical Review Letters</i> , 1996 , 77, 4186-4189	7.4	257
255	Relativistic Self-Focusing of Short-Pulse Radiation Beams in Plasmas. <i>IEEE Transactions on Plasma Science</i> , 1987 , 15, 145-153	1.3	246
254	Laser acceleration of electrons in vacuum. <i>Physical Review E</i> , 1995 , 52, 5443-5453	2.4	240
253	A review of free-electron lasers. <i>Physics of Fluids B</i> , 1989 , 1, 3-42		217
252	The Linear and Self-Consistent Nonlinear Theory of the Electron Cyclotron Maser Instability. <i>IEEE Transactions on Microwave Theory and Techniques</i> , 1977 , 25, 528-544	4.1	209
251	Propagation of intense short laser pulses in the atmosphere. <i>Physical Review E</i> , 2002 , 66, 046418	2.4	198
250	Nonlinear theory of free-electron lasers and efficiency enhancement. <i>Physical Review A</i> , 1980 , 21, 302-318	1.86	184
249	Plasma Channel Formation and Guiding during High Intensity Short Pulse Laser Plasma Experiments. <i>Physical Review Letters</i> , 1997 , 78, 4047-4050	7.4	177
248	Envelope analysis of intense laser pulse self-modulation in plasmas. <i>Physical Review Letters</i> , 1994 , 72, 2887-2890	7.4	172

247	Ultrashort laser pulses and electromagnetic pulse generation in air and on dielectric surfaces. <i>Physical Review E</i> , 2004 , 69, 066415	2.4	165
246	Theory of free-electron lasers. <i>Physical Review A</i> , 1980 , 21, 293-301	2.6	164
245	Interaction of ultrahigh laser fields with beams and plasmas. <i>Physics of Fluids B</i> , 1992 , 4, 2241-2248		163
244	Plasma wakefield generation and electron acceleration in a self-modulated laser wakefield accelerator experiment. <i>Physics of Plasmas</i> , 1997 , 4, 1889-1899	2.1	151
243	Tunable, short pulse hard x-rays from a compact laser synchrotron source. <i>Journal of Applied Physics</i> , 1992 , 72, 5032-5038	2.5	148
242	Laser driven electron acceleration in vacuum, gases, and plasmas. <i>Physics of Plasmas</i> , 1996 , 3, 2183-2190	2.1	141
241	Enhanced acceleration in a self-modulated-laser wake-field accelerator. <i>Physical Review E</i> , 1993 , 48, 2157-2161	2.1	130
240	. <i>IEEE Transactions on Plasma Science</i> , 1993 , 21, 95-104	1.3	127
239	Relativistic focusing and ponderomotive channeling of intense laser beams. <i>Physical Review E</i> , 2000 , 62, 4120-5	2.4	121
238	Analysis of radiation focusing and steering in the free-electron laser by use of a source-dependent expansion technique. <i>Physical Review A</i> , 1987 , 36, 2773-2781	2.6	118
237	Electron Trapping in Self-Modulated Laser Wakefields by Raman Backscatter. <i>Physical Review Letters</i> , 1997 , 79, 3909-3912	7.4	116
236	A unified theory of magnetic bremsstrahlung, electrostatic bremsstrahlung, Compton-Raman scattering, and Cerenkov-Smith-Purcell free-electron lasers. <i>IEEE Journal of Quantum Electronics</i> , 1981 , 17, 1196-1215	2	115
235	Standoff spectroscopy via remote generation of a backward-propagating laser beam. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011 , 108, 3130-4	11.5	113
234	A Laser-Accelerator Injector Based on Laser Ionization and Ponderomotive Acceleration of Electrons. <i>Physical Review Letters</i> , 1999 , 82, 1688-1691	7.4	105
233	Radiation focusing and guiding with application to the free electron laser. <i>Physical Review Letters</i> , 1987 , 59, 202-205	7.4	101
232	Optically guided laser wake-field acceleration*. <i>Physics of Fluids B</i> , 1993 , 5, 2690-2697		100
231	Nonlinear Formulation and Efficiency Enhancement of Free-Electron Lasers. <i>Physical Review Letters</i> , 1979 , 43, 1932-1936	7.4	96
230	Wakefield generation and GeV acceleration in tapered plasma channels. <i>Physical Review E</i> , 2001 , 63, 056405	2.4	95

229	Hose-Modulation Instability of Laser Pulses in Plasmas. <i>Physical Review Letters</i> , 1994 , 73, 3544-3547	7.4	92
228	Nonlinear wake-field generation and relativistic focusing of intense laser pulses in plasmas. <i>Physics of Fluids B</i> , 1990 , 2, 1390-1394		91
227	High-Power Microwaves from a Nonisochronic Reflecting Electron System. <i>Physical Review Letters</i> , 1977 , 39, 843-846	7.4	89
226	Laser-driven acceleration with Bessel beams. <i>Physical Review E</i> , 1997 , 55, 3539-3545	2.4	88
225	Stimulated collective scattering from a magnetized relativistic electron beam. <i>Physical Review A</i> , 1975 , 12, 1697-1701	2.6	84
224	Self-guiding and stability of intense optical beams in gases undergoing ionization. <i>Physical Review E</i> , 1996 , 54, 4211-4232	2.4	81
223	Frequency shifts induced in laser pulses by plasma waves. <i>Physical Review A</i> , 1990 , 42, 3526-3531	2.6	80
222	Three-dimensional nonlinear theory of the free electron laser. <i>Applied Physics Letters</i> , 1981 , 39, 677-679	3.4	80
221	. <i>IEEE Journal of Quantum Electronics</i> , 2009 , 45, 138-148	2	78
220	Stimulated backscattered harmonic generation from intense laser interactions with beams and plasmas. <i>Physical Review Letters</i> , 1991 , 67, 2021-2024	7.4	78
219	Collective effects on the operation of free-electron lasers with an axial guide field. <i>Physical Review A</i> , 1982 , 26, 2004-2015	2.6	78
218	Laser pulse modulation instabilities in plasma channels. <i>Physical Review E</i> , 2000 , 61, 4381-93	2.4	73
217	High-power lasers for directed-energy applications. <i>Applied Optics</i> , 2015 , 54, F201-9	0.2	71
216	Asymmetric self-phase modulation and compression of short laser pulses in plasma channels. <i>Physical Review Letters</i> , 2003 , 90, 215001	7.4	68
215	Dynamics of space-charge waves in the laser beat wave accelerator. <i>Physics of Fluids</i> , 1985 , 28, 1974		68
214	Frequency up-shifting of laser pulses by copropagating ionization fronts. <i>Physical Review A</i> , 1991 , 44, 3908-3911	2.6	67
213	Theory and group velocity of ultrashort, tightly focused laser pulses. <i>Journal of the Optical Society of America B: Optical Physics</i> , 1995 , 12, 1695	1.7	66
212	Optical guiding of high-intensity laser pulses in a long plasma channel formed by a slow capillary discharge. <i>Journal of the Optical Society of America B: Optical Physics</i> , 1996 , 13, 68	1.7	66

211	Relativistic focusing and beat wave phase velocity control in the plasma beat wave accelerator. <i>Applied Physics Letters</i> , 1988 , 53, 1266-1268	3.4	66
210	Coherent nonlinear theory of a cyclotron instability. <i>Physics of Fluids</i> , 1975 , 18, 224		63
209	High efficiency guiding of terawatt subpicosecond laser pulses in a capillary discharge plasma channel. <i>Physical Review E</i> , 1999 , 59, R4769-72	2.4	62
208	Temporal Evolution of Self-Modulated Laser Wakefields Measured by Coherent Thomson Scattering. <i>Physical Review Letters</i> , 1996 , 77, 5377-5380	7.4	62
207	Generation of stimulated backscattered harmonic radiation from intense-laser interactions with beams and plasmas. <i>Physical Review A</i> , 1992 , 45, 5872-5882	2.6	62
206	Gigawatt microwave from an intense relativistic electron beam. <i>Plasma Physics</i> , 1975 , 17, 23-28		62
205	Enhanced proton acceleration by an ultrashort laser interaction with structured dynamic plasma targets. <i>Physical Review Letters</i> , 2013 , 110, 215004	7.4	60
204	Transmission of intense femtosecond laser pulses into dielectrics. <i>Physical Review E</i> , 2005 , 72, 036412	2.4	60
203	Coherent and incoherent radiation from free-electron lasers with an axial guide field. <i>Physical Review A</i> , 1981 , 24, 1965-1979	2.6	59
202	Theory of the quasioptical electron cyclotron maser. <i>Physical Review A</i> , 1981 , 23, 3127-3138	2.6	59
201	Constant radius magnetic acceleration of a strong non-neutral proton ring. <i>Journal of Applied Physics</i> , 1978 , 49, 1-6	2.5	59
200	Unstable electrostatic beam modes in free-electron-laser systems. <i>Physical Review A</i> , 1983 , 28, 1835-1837	2.6	58
199	Vacuum beat wave acceleration. <i>Physical Review E</i> , 1997 , 55, 5924-5933	2.4	56
198	Propagation of ultra-short, intense laser pulses in air. <i>Physics of Plasmas</i> , 2004 , 11, 2865-2874	2.1	56
197	Stimulated cyclotron resonance scattering and production of powerful submillimeter radiation. <i>Applied Physics Letters</i> , 1974 , 25, 377-379	3.4	56
196	Propagation of Bessel and Airy beams through atmospheric turbulence. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 2014 , 31, 603-9	1.8	54
195	Intense Laser Pulse Propagation and Stability in Partially Stripped Plasmas. <i>Physical Review Letters</i> , 1997 , 79, 1046-1049	7.4	54
194	The electron cyclotron maser as a high-power traveling wave amplifier of millimeter waves. <i>IEEE Journal of Quantum Electronics</i> , 1979 , 15, 848-853	2	54

193	Remotely induced atmospheric lasing. <i>Applied Physics Letters</i> , 2011 , 98, 211102	3.4	53
192	Three-dimensional theory of free electron lasers with an axial guide field. <i>IEEE Journal of Quantum Electronics</i> , 1983 , 19, 322-327	2	53
191	Stable laser-pulse propagation in plasma channels for GeV electron acceleration. <i>Physical Review Letters</i> , 2000 , 85, 5110-3	7.4	51
190	Propagation and stability of intense laser pulses in partially stripped plasmas. <i>Physical Review E</i> , 1997 , 56, 5894-5907	2.4	49
189	Microwave amplification with an intense relativistic electron beam. <i>Journal of Applied Physics</i> , 1975 , 46, 3800-3805	2.5	49
188	Relativistic effects on intense laser beam propagation in plasma channels. <i>Physics of Plasmas</i> , 2003 , 10, 1483-1492	2.1	48
187	A classical electron cyclotron quasioptical maser. <i>Applied Physics Letters</i> , 1981 , 38, 310-313	3.4	48
186	Stimulated backscattering from relativistic unmagnetized electron beams. <i>Journal of Applied Physics</i> , 1979 , 50, 2652-2661	2.5	48
185	Enhanced Microwave Emission Due to the Transverse Energy of a Relativistic Electron Beam. <i>Physical Review Letters</i> , 1973 , 31, 752-755	7.4	48
184	Excitation of the plasma waves in the laser beat wave accelerator. <i>Applied Physics Letters</i> , 1984 , 45, 375-377	3.4	47
183	Excitation of electromagnetic waves from a rotating annular relativistic e-beam. <i>Journal of Applied Physics</i> , 1976 , 47, 2935-2940	2.5	47
182	Vacuum laser acceleration. <i>Optics Communications</i> , 1996 , 124, 69-73	2	45
181	Collective Ion Acceleration in a Converging Wave Guide. <i>Physical Review Letters</i> , 1976 , 36, 1180-1183	7.4	45
180	An electron synchrotron maser based on an intense relativistic electron beam. <i>Journal of Applied Physics</i> , 1975 , 46, 2021-2028	2.5	43
179	Terahertz generation in plasmas using two-color laser pulses. <i>Physical Review E</i> , 2010 , 81, 026407	2.4	41
178	Comment on nondiffracting beams. <i>Physical Review Letters</i> , 1991 , 66, 837	7.4	41
177	Realization of a relativistic mirror: Electromagnetic backscattering from the front of a magnetized relativistic electron beam. <i>Physical Review A</i> , 1976 , 14, 1194-1201	2.6	41
176	Guiding and damping of high-intensity laser pulses in long plasma channels. <i>Journal of the Optical Society of America B: Optical Physics</i> , 1998 , 15, 2416	1.7	40

175	Evolution of spontaneous and coherent radiation in the free-electron-laser oscillator. <i>Physical Review A</i> , 1983 , 28, 2300-2309	2.6	40
174	Remote lasing in air by recombination and electron impact excitation of molecular nitrogen. <i>Journal of Applied Physics</i> , 2012 , 111, 033105	2.5	38
173	Quasimonoenergetic electrons from unphased injection into channel guided laser wakefield accelerators. <i>Physical Review E</i> , 2005 , 71, 026404	2.4	38
172	Diffraction effects in directed radiation beams. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 1991 , 8, 705	1.8	38
171	(3+1)-dimensional numerical simulations of femtosecond laser filaments in air: toward a quantitative agreement with experiments. <i>Physical Review E</i> , 2008 , 77, 036406	2.4	37
170	Propagation of radius-tailored laser pulses over extended distances in a uniform plasma*. <i>Physics of Plasmas</i> , 1994 , 1, 1738-1743	2.1	37
169	Laser-pumped coherent x-ray free-electron laser. <i>Physical Review Special Topics: Accelerators and Beams</i> , 2009 , 12,		36
168	Measurements of energetic electrons from the high-intensity laser ionization of gases. <i>Physics of Plasmas</i> , 2001 , 8, 2481-2487	2.1	36
167	The nonlinear theory of efficiency enhancement in the electron cyclotron maser (gyrotron). <i>Journal of Applied Physics</i> , 1980 , 51, 3001-3007	2.5	35
166	GeV acceleration in tapered plasma channels. <i>Physics of Plasmas</i> , 2002 , 9, 2364-2370	2.1	34
165	Equilibrium of a high-current electron ring in a modified-betatron accelerator. <i>Physics of Fluids</i> , 1983 , 26, 1634		34
164	On the sensitivity of terahertz gyrotron based systems for remote detection of concealed radioactive materials. <i>Journal of Applied Physics</i> , 2012 , 111, 124912	2.5	33
163	5.5-7.5 MeV proton generation by a moderate-intensity ultrashort-pulse laser interaction with H ₂ O nanowire targets. <i>Physical Review Letters</i> , 2011 , 106, 134801	7.4	33
162	Review of quasi-optical gyrotron development. <i>Journal of Fusion Energy</i> , 1990 , 9, 31-58	1.6	33
161	Analysis of Gaussian beam and Bessel beam driven laser accelerators. <i>Physical Review E</i> , 1999 , 60, 4779-924		32
160	Extended lifetime of high density plasma filament generated by a dual femtosecond/fanosecond laser pulse in air. <i>New Journal of Physics</i> , 2014 , 16, 123046	2.9	31
159	Observation of 20 eV x-ray generation in a proof-of-principle laser synchrotron source experiment. <i>Journal of Applied Physics</i> , 1995 , 78, 575-577	2.5	31
158	Limitation in growth time of stimulated Compton scattering in x-ray regime. <i>Applied Physics Letters</i> , 1976 , 29, 542-544	3.4	31

157	Stimulated Raman scattering of intense laser pulses in air. <i>Physical Review E</i> , 2003 , 68, 056502	2.4	30
156	Development of sidebands in tapered and untapered free-electron lasers. <i>Physical Review A</i> , 1988 , 38, 197-203	2.6	30
155	Effect of an energy reservoir on the atmospheric propagation of laser-plasma filaments. <i>Physical Review Letters</i> , 2008 , 100, 155003	7.4	29
154	Optical gain, phase shift, and profile in free-electron lasers. <i>Physical Review A</i> , 1987 , 36, 1739-1746	2.6	29
153	A Cyclotron Resonance Laser Accelerator. <i>IEEE Transactions on Nuclear Science</i> , 1983 , 30, 3177-3179	1.7	29
152	Mechanisms for Coherent Scattering of Electromagnetic Waves from Relativistic Electron Beams. <i>IEEE Transactions on Microwave Theory and Techniques</i> , 1977 , 25, 545-550	4.1	29
151	Simulation and design of stable channel-guided laser wakefield accelerators. <i>Physical Review E</i> , 2001 , 63, 036502	2.4	28
150	Seeding of the forward Raman instability by ionization fronts and Raman backscatter. <i>Physical Review E</i> , 2001 , 64, 046404	2.4	28
149	Coherent synchrotron radiation from an intense relativistic electron beam. <i>IEEE Journal of Quantum Electronics</i> , 1974 , 10, 651-654	2	26
148	Conductivity Measurements of Femtosecond Laser Plasma Filaments. <i>IEEE Transactions on Plasma Science</i> , 2007 , 35, 1430-1436	1.3	25
147	Elimination of laser prepulse by relativistic guiding in a plasma. <i>Applied Physics Letters</i> , 1991 , 58, 346-348	3.4	25
146	Feasibility of dc to visible high-power conversion employing a stimulated Compton free electron laser with a waveguided CO2 laser pump wave and an axial electric field. <i>Journal of Applied Physics</i> , 1982 , 53, 124-129	2.5	25
145	Atmospheric propagation and combining of high-power lasers. <i>Applied Optics</i> , 2016 , 55, 1757-64	0.2	25
144	Longitudinal compression of short laser pulses in air. <i>Applied Physics Letters</i> , 2004 , 84, 4080-4082	3.4	24
143	Enhanced gain of a free-electron laser. <i>Physical Review A</i> , 1978 , 17, 1792-1793	2.6	24
142	Direct characterization of self-guided femtosecond laser filaments in air. <i>Applied Optics</i> , 2005 , 44, 1474-9	1.7	23
141	Range, resolution and power of THz systems for remote detection of concealed radioactive materials. <i>Journal of Applied Physics</i> , 2011 , 109, 083303	2.5	22
140	Microwave diagnostics of femtosecond laser-generated plasma filaments. <i>Applied Physics Letters</i> , 2011 , 99, 141503	3.4	22

139	First demonstration of a staged all-optical laser wakefield acceleration. <i>Physics of Plasmas</i> , 2005 , 12, 100702	2.1	22
138	Velocity control and staging in laser wakefield accelerators using segmented capillary discharges. <i>Applied Physics Letters</i> , 2001 , 78, 3175-3177	3.4	22
137	Dynamics of Short Laser Pulses Propagating in Plasma Channels. <i>Physical Review Letters</i> , 1999 , 82, 1173-1176	1.4	21
136	Guiding and stability of short laser pulses in partially stripped ionizing plasmas. <i>Physics of Plasmas</i> , 1999 , 6, 1683-1689	2.1	20
135	Electron beam quality in a cyclotron autoresonance accelerator. <i>Physical Review E</i> , 1994 , 50, 3077-3086	2.4	20
134	Laser synchrotron radiation as a compact source of tunable, short pulse hard X-rays. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 1993 , 331, 545-549	1.2	20
133	Ultra-High-Current Electron Induction Accelerators. <i>Physics Today</i> , 1985 , 38, 58-69	0.9	20
132	Saturation of the relativistic two-stream instability by electron trapping. <i>Physics of Fluids</i> , 1975 , 18, 475		20
131	Nonlinear analysis of a grating free-electron laser. <i>Physical Review A</i> , 1992 , 45, 8846-8853	2.6	19
130	New x-ray source for lithography. <i>Applied Physics Letters</i> , 1989 , 55, 2559-2560	3.4	19
129	Measurements of intense femtosecond laser pulse propagation in air. <i>Physics of Plasmas</i> , 2005 , 12, 056705	2.1	18
128	Initiation of a Pulsed-Beam Free-Electron-Laser Oscillator. <i>Physical Review Letters</i> , 1983 , 50, 1775-1778	7.4	18
127	Injection of a High-Current Beam into a Modified Betatron Accelerator. <i>Physical Review Letters</i> , 1982 , 49, 741-744	7.4	18
126	Active remote detection of radioactivity based on electromagnetic signatures. <i>Physics of Plasmas</i> , 2014 , 21, 013103	2.1	17
125	High average current electron guns for high-power free electron lasers. <i>Physical Review Special Topics: Accelerators and Beams</i> , 2011 , 14,		17
124	Optical quality of high-power laser beams in lenses. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2009 , 26, 503	1.7	17
123	High intensity focusing of laser pulses using a short plasma channel lens. <i>Physics of Plasmas</i> , 2002 , 9, 1431-1442	2.1	17
122	Propagation of finite length laser pulses in plasma channels. <i>Physical Review E</i> , 1999 , 59, 3614-3623	2.4	17

121	Is efficiency of gain generation in Li III 13.5-nm laser with 0.25-/spl mu/m subpicosecond pulses the same as with 1 /spl mu/m?. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 1999 , 5, 1453-1459	3.8	17
120	A free-electron laser with a rotating quadrupole wiggler. <i>Physics of Fluids</i> , 1985 , 28, 2273		17
119	Electron cyclotron harmonic wave acceleration. <i>Astrophysical Journal</i> , 1987 , 316, 462	4.7	17
118	. <i>IEEE Transactions on Plasma Science</i> , 1992 , 20, 232-239	1.3	16
117	Efficiency enhancement and optical guiding in a tapered high-power finite-pulse free-electron laser. <i>Physical Review Letters</i> , 1990 , 64, 180-183	7.4	16
116	Induced Resonance Electron Cyclotron (IREC) quasi-optical maser. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 1986 , 250, 361-365	1.2	16
115	The free electron laser: conceptual history. <i>Physica Scripta</i> , 2016 , 91, 083003	2.6	16
114	Characterization of the third-harmonic radiation generated by intense laser self-formed filaments propagating in air. <i>Optics Letters</i> , 2005 , 30, 1503-5	3	15
113	Longitudinal profiles of plasma parameters in a laser-ignited capillary discharge and implications for laser wakefield accelerator applications. <i>Applied Physics Letters</i> , 2005 , 87, 261501	3.4	15
112	Raman forward scattering and self-modulation of laser pulses in tapered plasma channels. <i>Physical Review E</i> , 2002 , 66, 036402	2.4	15
111	Induced resonance electron cyclotron quasi-optical maser in an open resonator. <i>Applied Physics Letters</i> , 1986 , 49, 1154-1156	3.4	15
110	Collective effects in the free electron laser. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 1985 , 239, 1-18	1.2	15
109	Propagation of gamma rays and production of free electrons in air. <i>Journal of Applied Physics</i> , 2012 , 112, 083303	2.5	14
108	Trapping and acceleration of nonideal injected electron bunches in laser Wakefield accelerators. <i>IEEE Transactions on Plasma Science</i> , 2005 , 33, 712-722	1.3	14
107	Nonlinear analysis of the free-electron lasers utilizing a linear wiggler field. <i>Journal of Applied Physics</i> , 1981 , 52, 3148-3153	2.5	14
106	Linear and nonlinear electron cyclotron interaction in open resonators. <i>Physical Review A</i> , 1982 , 25, 931-946		14
105	Remote monostatic detection of radioactive material by laser-induced breakdown. <i>Physics of Plasmas</i> , 2016 , 23, 033507	2.1	14
104	Remote detection of radioactive material using mid-IR laser-driven electron avalanche. <i>Science Advances</i> , 2019 , 5, eaav6804	14.3	13

103	Temporal evolution of femtosecond laser induced plasma filament in air and N2. <i>Applied Physics Letters</i> , 2013 , 103, 244102	3.4	13
102	Apparent superluminal propagation of a laser pulse in a dispersive medium. <i>Physical Review E</i> , 2001 , 64, 026504	2.4	13
101	Generation of high-average-power ultrabroad-band infrared pulses. <i>IEEE Journal of Quantum Electronics</i> , 1999 , 35, 565-576	2	13
100	Remote atmospheric breakdown for standoff detection by using an intense short laser pulse. <i>Applied Optics</i> , 2005 , 44, 5315-20	1.7	12
99	High-power, high-intensity laser propagation and interactions). <i>Physics of Plasmas</i> , 2014 , 21, 055402	2.1	11
98	Long plasma channels in segmented capillary discharges. <i>Physics of Plasmas</i> , 2006 , 13, 083108	2.1	11
97	Electron density in low density capillary plasma channel. <i>Applied Physics Letters</i> , 2007 , 90, 061501	3.4	11
96	Electron distribution function in short-pulse photoionization. <i>Physical Review E</i> , 2003 , 67, 056407	2.4	11
95	Measurement of forward Raman scattering and electron acceleration from high-intensity laser-plasma interactions at 527 nm. <i>IEEE Transactions on Plasma Science</i> , 2000 , 28, 1122-1127	1.3	11
94	Convergence of the perturbation theory expansion for spin-spin coupling constants. <i>Theoretica Chimica Acta</i> , 1970 , 18, 385-388		11
93	Raman sidescatter in numerical models of short pulse laser plasma interactions. <i>Physics of Plasmas</i> , 2002 , 9, 1157-1163	2.1	10
92	Radiation generation by photoswitched, periodically biased semiconductors. <i>Physical Review E</i> , 1996 , 53, 6419-6426	2.4	10
91	Nonlinear analysis of a magnicon output cavity. <i>Physics of Fluids B</i> , 1993 , 5, 3045-3055		10
90	Electron beam quality limitations and beam conditioning in free electron lasers. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 1993 , 331, 6-11	1.2	10
89	Radiation guiding and efficiency enhancement in the cyclotron autoresonance maser. <i>Physics of Fluids B</i> , 1990 , 2, 185-192		10
88	Nonlinear analysis of a relativistic beam-plasma cyclotron instability. <i>Physical Review A</i> , 1986 , 33, 1261-1269		10
87	Multi variable control of filamentation of femtosecond laser pulses propagating in air. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2015 , 48, 094005	1.3	9
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