Julien Fuchs

List of Publications by Year
in descending order

231 papers	8,721 citations	44069 48 h-index	51608 86 g-index
231 all docs	231 docs citations	231 times ranked	2978 citing authors

#	Article	IF	Citations
1	Laser-driven proton scaling laws and new paths towards energy increase. Nature Physics, 2006, 2, 48-54.	16.7	669
2	Ultralow Emittance, Multi-MeV Proton Beams from a Laser Virtual-Cathode Plasma Accelerator. Physical Review Letters, 2004, 92, 204801.	7.8	494
3	MeV Ion Jets from Short-Pulse-Laser Interaction with Thin Foils. Physical Review Letters, 2002, 89, 085002.	7.8	389
4	Fast Ion Generation by High-Intensity Laser Irradiation of Solid Targets and Applications. Fusion Science and Technology, 2006, 49, 412-439.	1.1	388
5	Ultrafast Laser-Driven Microlens to Focus and Energy-Select Mega-Electron Volt Protons. Science, 2006, 312, 410-413.	12.6	284
6	Dynamics of Electric Fields Driving the Laser Acceleration of Multi-MeV Protons. Physical Review Letters, 2005, 95, 195001.	7.8	248
7	Energetic ions generated by laser pulses: A detailed study on target properties. Physical Review Special Topics: Accelerators and Beams, 2002, 5, .	1.8	205
8	Laboratory formation of a scaled protostellar jet by coaligned poloidal magnetic field. Science, 2014, 346, 325-328.	12.6	173
9	Plasma devices to guide and collimate a high density of MeV electrons. Nature, 2004, 432, 1005-1008.	27.8	170
10	Spatial Uniformity of Laser-Accelerated Ultrahigh-Current MeV Electron Propagation in Metals and Insulators. Physical Review Letters, 2003, 91, 255002.	7.8	166
11	Analytical Model for Ion Acceleration by High-Intensity Laser Pulses. Physical Review Letters, 2006, 97, 045005.	7.8	166
12	Dynamics of Subpicosecond Relativistic Laser Pulse Self-Channeling in an Underdense Preformed Plasma. Physical Review Letters, 1998, 80, 1658-1661.	7.8	123
13	Comparison of Laser Ion Acceleration from the Front and Rear Surfaces of Thin Foils. Physical Review Letters, 2005, 94, 045004.	7.8	119
14	Proton spectra from ultraintense laserâ€“plasma interaction with thin foils: Experiments, theory, and simulation. Physics of Plasmas, 2003, 10, 3283-3289.	1.9	110
15	Targets for high repetition rate laser facilities: needs, challenges and perspectives. High Power Laser Science and Engineering, 2017, 5, .	4.6	106
16	Evidence of Resonant Surface-Wave Excitation in the Relativistic Regime through Measurements of Proton Acceleration from Grating Targets. Physical Review Letters, 2013, 111, 185001.	7.8	100
17	Hot Electrons Transverse Refluxing in Ultraintense Laser-Solid Interactions. Physical Review Letters, 2010, 105, 015005.	7.8	97
18	Suprathermal Electron Generation and Channel Formation by an Ultrarelativistic Laser Pulse in an Underdense Preformed Plasma. Physical Review Letters, 1997, 79, 2053-2056.	7.8	95

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19	Energetic protons generated by ultrahigh contrast laser pulses interacting with ultrathin targets. Physics of Plasmas, 2007, 14, 030701.	1.9	92
20	Absolute calibration of photostimulable image plate detectors used as (0.5â€“20MeV) high-energy proton detectors. Review of Scientific Instruments, 2008, 79, 073301.	1.3	91
21	Experimental Evidence of Short Light Pulse Amplification Using Strong-Coupling Stimulated Brillouin Scattering in the Pump Depletion Regime. Physical Review Letters, 2010, 104, 025001.	7.8	91
22	Laser-Driven Ultrafast Field Propagation on Solid Surfaces. Physical Review Letters, 2009, 102, 194801.	7.8	87
23	Inhibition of fast electron energy deposition due to preplasma filling of cone-attached targets. Physics of Plasmas, 2008, 15, .	1.9	85
24	Laser-Foil Acceleration of High-Energy Protons in Small-Scale Plasma Gradients. Physical Review Letters, 2007, 99, 015002.	7.8	84
25	Amplification of Ultrashort Laser Pulses by Brillouin Backscattering in Plasmas. Physical Review Letters, 2013, 111, 055004.	7.8	81
26	Instrumentation for diagnostics and control of laser-accelerated proton (ion) beams. Physica Medica, 2014, 30, 255-270.	0.7	76
27	Picosecond Short-Range Disordering in Isochorically Heated Aluminum at Solid Density. Physical Review Letters, 2010, 104, 035002.	7.8	75
28	Transmission through Highly Overdense Plasma Slabs with a Subpicosecond Relativistic Laser Pulse. Physical Review Letters, 1998, 80, 2326-2329.	7.8	74
29	Dynamics of Self-Generated, Large Amplitude Magnetic Fields Following High-Intensity Laser Matter Interaction. Physical Review Letters, 2012, 109, 205002.	7.8	70
30	Fast focusing of short-pulse lasers by innovative plasma optics toward extreme intensity. Optics Letters, 2010, 35, 2314.	3.3	68
31	Study of saturation of CR39 nuclear track detectors at high ion fluence and of associated artifact patterns. Review of Scientific Instruments, 2007, 78, 013304.	1.3	67
32	Spectral properties of laser-accelerated mid-Z MeVâˆ•u ion beams. Physics of Plasmas, 2005, 12, 056314.	1.9	66
33	Laser accelerated ions and electron transport in ultra-intense laser matter interaction. Laser and Particle Beams, 2005, 23, .	1.0	65
34	Laser-driven proton acceleration: source optimization and radiographic applications. Plasma Physics and Controlled Fusion, 2008, 50, 124040.	2.1	63
35	Comparative spectra and efficiencies of ions laser-accelerated forward from the front and rear surfaces of thin solid foils. Physics of Plasmas, 2007, 14, 053105.	1.9	62
36	Astrophysics of Magnetically Collimated Jets Generated from Laser-Produced Plasmas. Physical Review Letters, 2013, 110, 025002.	7.8	61

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37	Signatures of the Self-Similar Regime of Strongly Coupled Stimulated Brillouin Scattering for Efficient Short Laser Pulse Amplification. Physical Review Letters, 2016, 116, 075001.	7.8	60
38	Multibeam Stimulated Brillouin Scattering from Hot, Solid-Target Plasmas. Physical Review Letters, 2002, 89, 175002.	7.8	59
39	Magnetic field measurements in laser-produced plasmas via proton deflectometry. Physics of Plasmas, 2009, 16, .	1.9	58
40	Production of large volume, strongly magnetized laser-produced plasmas by use of pulsed external magnetic fields. Review of Scientific Instruments, 2013, 84, 043505.	1.3	57
41	Isochoric heating of solids by laser-accelerated protons: Experimental characterization and self-consistent hydrodynamic modeling. High Energy Density Physics, 2010, 6, 21-28.	1.5	56
42	Self-generated surface magnetic fields inhibit laser-driven sheath acceleration of high-energy protons. Nature Communications, 2018, 9, 280.	12.8	54
43	Dynamic Control over Mega-Ampere Electron Currents in Metals Using Ionization-Driven Resistive Magnetic Fields. Physical Review Letters, 2011, 107, 135005.	7.8	53
44	First Observation of Ion Acoustic Waves Produced by the Langmuir Decay Instability. Physical Review Letters, 2000, 84, 2869-2872.	7.8	52
45	Source-size measurements and charge distributions of ions accelerated from thin foils irradiated by high-intensity laser pulses. Applied Physics B: Lasers and Optics, 2004, 79, 1041-1045.	2.2	52
46	Langmuir Decay Instability Cascade in Laser-Plasma Experiments. Physical Review Letters, 2002, 89, 045001.	7.8	51
47	Weibel-Induced Filamentation during an Ultrafast Laser-Driven Plasma Expansion. Physical Review Letters, 2012, 108, 135001.	7.8	51
48	Transverse Characteristics of Short-Pulse Laser-Produced Ion Beams: A Study of the Acceleration Dynamics. Physical Review Letters, 2006, 96, 154801.	7.8	49
49	Stimulated Brillouin and Raman scattering from a randomized laser beam in large inhomogeneous collisional plasmas. I. Experiment. Physics of Plasmas, 2000, 7, 4659-4668.	1.9	48
50	Hot and Cold Electron Dynamics Following High-Intensity Laser Matter Interaction. Physical Review Letters, 2008, 101, 105004.	7.8	48
51	Laserâ€“plasma interaction studies in the context of megajoule lasers for inertial fusion. Plasma Physics and Controlled Fusion, 2002, 44, B53-B67.	2.1	47
52	Impulsive electric fields driven by high-intensity laser matter interactions. Laser and Particle Beams, 2007, 25, 161-167.	1.0	46
53	Generation of Laser-Driven Higher Harmonics from Grating Targets. Physical Review Letters, 2013, 110, 065003.	7.8	45
54	The creation of large-volume, gradient-free warm dense matter with an x-ray free-electron laser. Physics of Plasmas, 2015, 22, .	1.9	45

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55	Proton probing measurement of electric and magnetic fields generated by ns and ps laser-matter interactions. Laser and Particle Beams, 2008, 26, 241-248.	1.0	44
56	The generation of high-quality, intense ion beams by ultra-intense lasers. Plasma Physics and Controlled Fusion, 2002, 44, B99-B108.	2.1	43
57	Spectral characteristics of ultra-short laser pulses in plasma amplifiers. Physics of Plasmas, 2013, 20, 083115.	1.9	41
58	Numerical study of a linear accelerator using laser-generated proton beams as a source. Journal of Applied Physics, 2008, 104, .	2.5	40
59	Repetition rate increase and diffraction-limited focal spots for a nonthermal-equilibrium 100-TW Nd:glass laser chain by use of adaptive optics. Optics Letters, 2004, 29, 2494.	3.3	37
60	Ultraintense proton beams from laser-induced skin-layer ponderomotive acceleration. Journal of Applied Physics, 2008, 104, 063310.	2.5	37
61	Laser acceleration of low emittance, high energy ions and applications. Comptes Rendus Physique, 2009, 10, 176-187.	0.9	37
62	Collimated protons accelerated from an overdense gas jet irradiated by a 1â€‰Âµm wavelength high-intensity short-pulse laser. Scientific Reports, 2017, 7, 13505.	3.3	37
63	Relativistic electron transport and confinement within charge-insulated, mass-limited targets. High Energy Density Physics, 2007, 3, 358-364.	1.5	36
64	Topology of Megagauss Magnetic Fields and of Heat-Carrying Electrons Produced in a High-Power Laser-Solid Interaction. Physical Review Letters, 2014, 113, 235001.	7.8	36
65	Laboratory unraveling of matter accretion in young stars. Science Advances, 2017, 3, e1700982.	10.3	35
66	Strong absorption, intense forward-Raman scattering and relativistic electrons driven by a short, high intensity laser pulse through moderately underdense plasmas. Physics of Plasmas, 2002, 9, 4261-4269.	1.9	34
67	Characterisation of deuterium spectra from laser driven multi-species sources by employing differentially filtered image plate detectors in Thomson spectrometers. Review of Scientific Instruments, 2014, 85, 093303.	1.3	34
68	Absolute dosimetric characterization of Gafchromic EBT3 and HDv2 films using commercial flat-bed scanners and evaluation of the scanner response function variability. Review of Scientific Instruments, 2016, 87, 073301.	1.3	34
69	Investigation of laser-driven proton acceleration using ultra-short, ultra-intense laser pulses. Physics of Plasmas, 2013, 20, .	1.9	32
70	The generation of micro-fiducials in laser-accelerated proton flows, their imaging property of surface structures and application for the characterization of the flow. Physics of Plasmas, 2004, 11, L17-L20.	1.9	31
71	Emittance growth mechanisms for laser-accelerated proton beams. Physical Review E, 2007, 75, 056401.	2.1	31
72	Density and temperature characterization of long-scale length, near-critical density controlled plasma produced from ultra-low density plastic foam. Scientific Reports, 2016, 6, 21495.	3.3	31

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73	Laser-Produced Magnetic-Rayleigh-Taylor Unstable Plasma Slabs in a 20ÂT Magnetic Field. Physical Review Letters, 2019, 123, 205001.	7.8	31
74	Temporal Narrowing of Neutrons Produced by High-Intensity Short-Pulse Lasers. Physical Review Letters, 2015, 115, 054802.	7.8	30
75	Buffered high charge spectrally-peaked proton beams in the relativistic-transparency regime. New Journal of Physics, 2016, 18, 013038.	2.9	30
76	Effect of self-generated magnetic fields on fast-electron beam divergence in solid targets. New Journal of Physics, 2010, 12, 063018.	2.9	29
77	Stimulated Brillouin and Raman scattering from a randomized laser beam in large inhomogeneous collisional plasmas. II. Model description and comparison with experiments. Physics of Plasmas, 2001, 8, 1636-1649.	1.9	28
78	High-intensity laser-plasma interaction studies employing laser-driven proton probes. Laser and Particle Beams, 2005, 23, .	1.0	28
79	Experimental Evidence of Plasma-Induced Incoherence of an Intense Laser Beam Propagating in an Underdense Plasma. Physical Review Letters, 2001, 86, 432-435.	7.8	27
80	Modification of Spatial and Temporal Gains of Stimulated Brillouin and Raman Scattering by Polarization Smoothing. Physical Review Letters, 2000, 84, 3089-3092.	7.8	26
81	Generation of a single hot spot by use of a deformable mirror and study of its propagation in an underdense plasma. Journal of the Optical Society of America B: Optical Physics, 2003, 20, 1632.	2.1	26
82	Laser accelerated ions in ICF research prospects and experiments. Plasma Physics and Controlled Fusion, 2005, 47, B841-B850.	2.1	26
83	Laser acceleration of high-energy protons in variable density plasmas. New Journal of Physics, 2009, 11, 023038.	2.9	26
84	X-ray absorption for the study of warm dense matter. Plasma Physics and Controlled Fusion, 2009, 51, 124021.	2.1	26
85	High flux, beamed neutron sources employing deuteron-rich ion beams from D₂O-ice layered targets. Plasma Physics and Controlled Fusion, 2017, 59, 064004.	2.1	26
86	Laser triggered micro-lens for focusing and energy selection of MeV protons. Laser and Particle Beams, 2007, 25, 71-77.	1.0	25
87	Detailed characterization of laser-produced astrophysically-relevant jets formed via a poloidal magnetic nozzle. High Energy Density Physics, 2017, 23, 48-59.	1.5	25
88	Joule-Level High-Efficiency Energy Transfer to Subpicosecond Laser Pulses by a Plasma-Based Amplifier. Physical Review X, 2019, 9, .	8.9	25
89	High-power short-pulse laser repetition rate improvement by adaptive wave front correction. Review of Scientific Instruments, 2004, 75, 5186-5192.	1.3	24
90	Focusing Dynamics of High-Energy Density, Laser-Driven Ion Beams. Physical Review Letters, 2012, 108, 055001.	7.8	24

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91	Experimental evidence for short-pulse laser heating of solid-density target to high bulk temperatures. Scientific Reports, 2017, 7, 12144.	3.3	24
92	Experimental study of laser penetration in overdense plasmas at relativistic intensities. I: Hole boring through preformed plasmas layers. Physics of Plasmas, 1999, 6, 2563-2568.	1.9	23
93	Enhanced hot-electron localization and heating in high-contrast ultraintense laser irradiation of microcone targets. Physical Review E, 2009, 79, 036408.	2.1	23
94	Plasma-based creation of short light pulses: analysis and simulation of amplification and focusing. Plasma Physics and Controlled Fusion, 2015, 57, 014002.	2.1	23
95	Calibration of time of flight detectors using laser-driven neutron source. Review of Scientific Instruments, 2015, 86, 073308.	1.3	23
96	Acceleration of collimated 45â€‰MeV protons by collisionless shocks driven in low-density, large-scale gradient plasmas by a 1020â€‰W/cm2, 1â€‰Âµm laser. Scientific Reports, 2017, 7, 16463.	3.3	23
97	Extreme brightness laser-based neutron pulses as a pathway for investigating nucleosynthesis in the laboratory. Matter and Radiation at Extremes, 2019, 4, .	3.9	23
98	Reduction of the Coherence Time of an Intense Laser Pulse Propagating through a Plasma. Physical Review Letters, 2002, 88, 195003.	7.8	22
99	Optimization of interaction conditions for efficient short laser pulse amplification by stimulated Brillouin scattering in the strongly coupled regime. Physics of Plasmas, 2016, 23, .	1.9	22
100	Characterization and performance of the Apollon short-focal-area facility following its commissioning at 1 PW level. Matter and Radiation at Extremes, 2021, 6, .	3.9	21
101	Growth of concomitant laser-driven collisionless and resistive electron filamentation instabilities over large spatiotemporal scales. Nature Physics, 2020, 16, 983-988.	16.7	20
102	Experimental study of laser penetration in overdense plasmas at relativistic intensities. II: Explosion of thin foils by laser driven fast electrons. Physics of Plasmas, 1999, 6, 2569-2578.	1.9	19
103	Investigation of laser ion acceleration in low-density targets using exploded foils. Plasma Physics and Controlled Fusion, 2013, 55, 124025.	2.1	19
104	Selective deuterium ion acceleration using the Vulcan petawatt laser. Physics of Plasmas, 2015, 22, 053102.	1.9	19
105	Isochoric heating of matter by laser-accelerated high-energy protons. European Physical Journal Special Topics, 2006, 133, 1077-1079.	0.2	19
106	Anomalous inhibition of electron transport in laserâ€“matter interaction at subrelativistic intensities. Physics of Plasmas, 2004, 11, L69-L72.	1.9	18
107	Optimizing laser-accelerated ion beams for a collimated neutron source. Physics of Plasmas, 2010, 17, 113105.	1.9	18
108	Investigation of longitudinal proton acceleration in exploded targets irradiated by intense short-pulse laser. Physics of Plasmas, 2014, 21, .	1.9	18

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109	Amplification of ultra-short light pulses by ion collective modes in plasmas. European Physical Journal: Special Topics, 2014, 223, 1153-1156.	2.6	18
110	Dynamics and structure of self-generated magnetics fields on solids following high contrast, high intensity laser irradiation. Physics of Plasmas, 2015, 22, .	1.9	18
111	Enhancement of Quasistationary Shocks and Heating via Temporal Staging in a Magnetized Laser-Plasma Jet. Physical Review Letters, 2017, 119, 255002.	7.8	18
112	First demonstration of multi-MeV proton acceleration from a cryogenic hydrogen ribbon target. Plasma Physics and Controlled Fusion, 2018, 60, 044010.	2.1	18
113	Ion acceleration using high-contrast ultra-intense lasers. European Physical Journal Special Topics, 2006, 133, 1151-1153.	0.2	18
114	Application of solid-state nuclear track detectors of the CR-39/PM-355 type for measurements of energetic protons emitted from plasma produced by an ultra-intense laser. Radiation Measurements, 2009, 44, 881-884.	1.4	17
115	Enhanced Propagation for Relativistic Laser Pulses in Inhomogeneous Plasmas Using Hollow Channels. Physical Review Letters, 2010, 105, 225001.	7.8	17
116	Charge Equilibrium of a Laser-Generated Carbon-Ion Beam in Warm Dense Matter. Physical Review Letters, 2013, 110, 135003.	7.8	17
117	Focussing Protons from a Kilojoule Laser for Intense Beam Heating using Proximal Target Structures. Scientific Reports, 2020, 10, 9415.	3.3	17
118	Plasma devices for focusing extreme light pulses. European Physical Journal: Special Topics, 2014, 223, 1169-1173.	2.6	15
119	Time and space resolved interferometry for laser-generated fast electron measurements. Review of Scientific Instruments, 2010, 81, 113302.	1.3	14
120	An imaging proton spectrometer for short-pulse laser plasma experiments. Review of Scientific Instruments, 2010, 81, 10D314.	1.3	14
121	A novel platform to study magnetized high-velocity collisionless shocks. High Energy Density Physics, 2015, 17, 190-197.	1.5	14
122	Laboratory investigation of particle acceleration and magnetic field compression in collisionless colliding fast plasma flows. Communications Physics, 2019, 2, .	5.3	14
123	Enhanced X-ray emission arising from laser-plasma confinement by a strong transverse magnetic field. Scientific Reports, 2021, 11, 8180.	3.3	14
124	Laboratory disruption of scaled astrophysical outflows by a misaligned magnetic field. Nature Communications, 2021, 12, 762.	12.8	14
125	Recent experiments on electron transport in high-intensity laser matter interaction. Plasma Physics and Controlled Fusion, 2005, 47, B777-B789.	2.1	13
126	Modeling target bulk heating resulting from ultra-intense short pulse laser irradiation of solid density targets. Physics of Plasmas, 2013, 20, .	1.9	13

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127	Experimental evidence for the enhanced and reduced stopping regimes for protons propagating through hot plasmas. Scientific Reports, 2018, 8, 14586.	3.3	13
128	Proton acceleration by moderately relativistic laser pulses interacting with solid density targets. New Journal of Physics, 2010, 12, 045017.	2.9	12
129	Properties of a plasma-based laser-triggered micro-lens. AIP Advances, 2011, 1, 022142.	1.3	12
130	On the investigation of fast electron beam filamentation in laser-irradiated solid targets using multi-MeV proton emission. Plasma Physics and Controlled Fusion, 2011, 53, 124012.	2.1	12
131	The PETAL+ project: X-ray and charged particle diagnostics for plasma experiments at LMJ-PETAL. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2013, 720, 141-143.	1.6	12
132	Monochromatic short pulse laser produced ion beam using a compact passive magnetic device. Review of Scientific Instruments, 2014, 85, 043504.	1.3	12
133	Dynamics of the Electromagnetic Fields Induced by Fast Electron Propagation in Near-Solid-Density Media. Physical Review Letters, 2019, 122, 025001.	7.8	12
134	Comment on â€œMeasurements of Energetic Proton Transport through Magnetized Plasma from Intense Laser Interactions with Solidsâ€• Physical Review Letters, 2006, 96, 249201; author reply 249202.	7.8	11
135	Stopping power modeling in warm and hot dense matter. High Energy Density Physics, 2013, 9, 488-495.	1.5	11
136	Collimated fast electron beam generation in critical density plasma. Physics of Plasmas, 2014, 21, .	1.9	11
137	Proton stopping power measurements using high intensity short pulse lasers produced proton beams. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2014, 740, 105-106.	1.6	11
138	Formation of a plasma with the determining role of radiative processes in thin foils irradiated by a pulse of the PEARL subpetawatt laser. JETP Letters, 2017, 105, 13-17.	1.4	11
139	Highly-collimated, high-charge and broadband MeV electron beams produced by magnetizing solids irradiated by high-intensity lasers. Matter and Radiation at Extremes, 2019, 4, .	3.9	11
140	Detailed characterization of a laboratory magnetized supercritical collisionless shock and of the associated proton energization. Matter and Radiation at Extremes, 2022, 7, .	3.9	11
141	Improvement of the LULI high-energy CPA laser system focusability and repetition rate using an adaptive optical system. , 2003, 5137, 188.		10
142	Ultra-low emittance, high current proton beams produced with a laser-virtual cathode sheath accelerator. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2005, 544, 277-284.	1.6	10
143	Self-modulation and anomalous collective scattering of laser produced intense ion beam in plasmas. Matter and Radiation at Extremes, 2018, 3, 127-134.	3.9	10
144	The response function of Fujifilm BAS-TR imaging plates to laser-accelerated titanium ions. Review of Scientific Instruments, 2019, 90, 083302.	1.3	10

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145	X-ray spectroscopy evidence for plasma shell formation in experiments modeling accretion columns in young stars. Matter and Radiation at Extremes, 2019, 4, .	3.9	10
146	Inferring possible magnetic field strength of accreting inflows in EXor-type objects from scaled laboratory experiments. Astronomy and Astrophysics, 2021, 648, A81.	5.1	10
147	Laboratory evidence for proton energization by collisionless shock surfing. Nature Physics, 2021, 17, 1177-1182.	16.7	10
148	Laser accelerated heavy particles â€“ Tailoring of ion beams on a nano-scale. Optics Communications, 2006, 264, 519-524.	2.1	9
149	Laser-driven proton acceleration and applications: Recent results. European Physical Journal: Special Topics, 2009, 175, 105-110.	2.6	9
150	Geometrical optimization of an ellipsoidal plasma mirror toward tight focusing of ultra-intense laser pulse. Journal of Physics: Conference Series, 2010, 244, 032008.	0.4	9
151	Production of high-intensity proton fluxes by a 2Ï‰ Nd:glass laser beam. Laser and Particle Beams, 2010, 28, 575-583.	1.0	9
152	Diagnostics of laser-produced plasmas based on the analysis of intensity ratios of He-like ions X-ray emission. Physics of Plasmas, 2016, 23, .	1.9	9
153	Modelling energy deposition in TR image plate detectors for various ion types. Journal of Instrumentation, 2020, 15, P04002-P04002.	1.2	9
154	Numerical investigation of spallation neutrons generated from petawatt-scale laser-driven proton beams. Matter and Radiation at Extremes, 2022, 7, .	3.9	9
155	Application of Thomson scattering to identify ion acoustic waves stimulated by the Langmuir decay instability. Review of Scientific Instruments, 2000, 71, 3391-3401.	1.3	8
156	Heating of solid target in electron refluxing dominated regime with ultra-intense laser. Journal of Physics: Conference Series, 2008, 112, 022063.	0.4	8
157	Observation of the transient charging of a laser-irradiated solid. European Physical Journal D, 2009, 55, 293-297.	1.3	8
158	Measuring hot electron distributions in intense laser interaction with dense matter. New Journal of Physics, 2012, 14, 063023.	2.9	8
159	Passive tailoring of laser-accelerated ion beam cut-off energy by using double foil assembly. Physics of Plasmas, 2014, 21, .	1.9	8
160	Experimental Study of the Interaction of a Laser Plasma Flow with a Transverse Magnetic Field. Radiophysics and Quantum Electronics, 2021, 63, 876-886.	0.5	8
161	Laboratory modelling of equatorial â€˜tongueâ€™ accretion channels in young stellar objects caused by the Rayleigh-Taylor instability. Astronomy and Astrophysics, 2022, 657, A112.	5.1	8
162	Anomalous self-generated electrostatic fields in nanosecond laser-plasma interaction. Physics of Plasmas, 2011, 18, 030705.	1.9	7

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163	On the relationship between quadrupolar magnetic field and collisionless reconnection. Physics of Plasmas, 2014, 21, 062111.	1.9	7
164	Laboratory evidence for an asymmetric accretion structure upon slanted matter impact in young stars. Astronomy and Astrophysics, 2020, 642, A38.	5.1	7
165	Laser-accelerated high-energy ions: state of-the-art and applications. Journal of Physics: Conference Series, 2007, 58, 74-80.	0.4	6
166	Experimental investigation of identical wavelength short light pulses crossing in underdense plasma. Proceedings of SPIE, 2009, , .	0.8	6
167	Optimization of flat-cone targets for enhanced laser-acceleration of protons. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2010, 620, 14-17.	1.6	6
168	Tests of proton laser-acceleration using circular laser polarization, foams and half gas-bag targets. Plasma Physics and Controlled Fusion, 2011, 53, 014002.	2.1	6
169	Plasmaâ€“wall interaction in laser inertial fusion reactors: novel proposals for radiation tests of first wall materials. Plasma Physics and Controlled Fusion, 2012, 54, 124051.	2.1	6
170	Experimental stand for studying the impact of laser-accelerated protons on biological objects. Quantum Electronics, 2016, 46, 283-287.	1.0	6
171	Alignment of solid targets under extreme tight focus conditions generated by an ellipsoidal plasma mirror. Matter and Radiation at Extremes, 2019, 4, 024402.	3.9	6
172	On the growth of the thermally modified non-resonant streaming instability. Monthly Notices of the Royal Astronomical Society, 2020, 500, 2302-2315.	4.4	6
173	Pulsed magnetic field generation system for laser-plasma research. Review of Scientific Instruments, 2021, 92, 123506.	1.3	6
174	Laser-Driven Proton Beams: Acceleration Mechanism, Beam Optimization, and Radiographic Applications. IEEE Transactions on Plasma Science, 2008, 36, 1833-1842.	1.3	5
175	Postacceleration of Laser-Generated High-Energy Protons Through Conventional Accelerator Linacs. IEEE Transactions on Plasma Science, 2008, 36, 1843-1846.	1.3	5
176	Modified proton radiography arrangement for the detection of ultrafast field fronts. Review of Scientific Instruments, 2009, 80, 113506.	1.3	5
177	High-power laser delocalization in plasmas leading to long-range beam merging. Nature Physics, 2010, 6, 1010-1016.	16.7	5
178	A compact broadband ion beam focusing device based on laser-driven megagauss thermoelectric magnetic fields. Review of Scientific Instruments, 2015, 86, 043502.	1.3	5
179	Comparison of Dimensionless Parameters in Astrophysical MHD Systems and in Laboratory Experiments. Astronomy Reports, 2018, 62, 483-491.	0.9	5
180	Forward scattering and filamentation of a spatially smoothed laser pulse in the hydrodynamic and kinetic frameworks. Physics of Plasmas, 2021, 28, 052701.	1.9	5

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181	Fuchset al.Reply:. Physical Review Letters, 1998, 81, 4275-4275.	7.8	4
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