Markus Roth

List of Publications by Year
in descending order

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203	12,737	44069	23533
papers	citations	48 h-index	111 g-index

204	204	204	4006
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Demonstration of non-destructive and isotope-sensitive material analysis using a short-pulsed laser-driven epi-thermal neutron source. Nature Communications, 2022, 13, 1173.	12.8	18
2	Transport of an intense proton beam from a cone-structured target through plastic foam with unique proton source modeling. Physical Review E, 2022, 105, .	2.1	1
3	Absolute calibration of Fujifilm BAS-TR image plate response to laser driven protons up to 40 MeV. Review of Scientific Instruments, 2022, 93, .	1.3	3
4	Targets with cone-shaped microstructures from various materials for enhanced high-intensity laserâ€“matter interaction. High Power Laser Science and Engineering, 2021, 9, .	4.6	32
5	Spatially resolved online particle detector using scintillators for laser-driven particle sources. Review of Scientific Instruments, 2021, 92, 093302.	1.3	7
6	Analysis of laser-proton acceleration experiments for development of empirical scaling laws. Physical Review E, 2021, 104, 045210.	2.1	12
7	Towards High-Repetition-Rate Fast Neutron Sources Using Novel Enabling Technologies. Instruments, 2021, 5, 38.	1.8	7
8	Microstructured layered targets for improved laser-induced x-ray backlighters. Physical Review E, 2021, 104, 065207.	2.1	4
9	Advanced Postirradiation Characterization of Nuclear Fuels Using Pulsed Neutrons. Jom, 2020, 72, 187-196.	1.9	5
10	Demonstration of X-ray Thomson scattering as diagnostics for miscibility in warm dense matter. Nature Communications, 2020, 11, 2620.	12.8	27
11	Spaceâ€“charge effect of laser accelerated protons on beam profile and permanent magnet quadrupole focal line. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2020, 981, 164523.	1.6	0
12	Development of a Setup for Material Identification Based on Laser-Driven Neutron Resonance Spectroscopy. EPJ Web of Conferences, 2020, 231, 01006.	0.3	3
13	Short-Pulse Laser-Driven Moderated Neutron Source. EPJ Web of Conferences, 2020, 231, 01008.	0.3	4
14	High-energy-density-science capabilities at the Facility for Antiproton and Ion Research. Physics of Plasmas, 2020, 27, .	1.9	16
15	Enhanced brightness of a laser-driven x-ray and particle source by microstructured surfaces of silicon targets. Physics of Plasmas, 2020, 27, .	1.9	22
16	Laser-induced acceleration of Helium ions from unpolarized gas jets. Plasma Physics and Controlled Fusion, 2019, 61, 115012.	2.1	7
17	A study on the effects and visibility of low-order aberrations on laser beams with orbital angular momentum. Applied Physics B: Lasers and Optics, 2019, 125, 1.	2.2	15
18	Investigation of the temperature in dense carbon near the solid-liquid phase transition between 100ÂGPa and 200ÂGPa with spectrally resolved X-ray scattering. High Energy Density Physics, 2019, 32, 56-62.	1.5	5

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19	Laser based neutron spectroscopy. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2019, 932, 27-30.	1.6	11
20	High dynamic range, large temporal domain laser pulse measurement. Applied Physics B: Lasers and Optics, 2019, 125, 1.	2.2	13
21	Characterizing laser-plasma ion accelerators driving an intense neutron beam via nuclear signatures. Scientific Reports, 2019, 9, 2004.	3.3	11
22	Reflection of intense laser light from microstructured targets as a potential diagnostic of laser focus and plasma temperature. High Power Laser Science and Engineering, 2019, 7, .	4.6	6
23	Focusing of multi-MeV, subnanosecond proton bunches from a laser-driven source. Physical Review Accelerators and Beams, 2019, 22, .	1.6	9
24	Picosecond contrast degradation by surface imperfections in chirped-pulse-amplification stretchers. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2019, 36, 1735.	1.5	7
25	Simulation studies on generation, handling and transport of laser-accelerated carbon ions. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2018, 909, 168-172.	1.6	2
26	First application studies at the laser-driven LIGHT beamline: Improving proton beam homogeneity and imaging of a solid target. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2018, 909, 173-176.	1.6	12
27	Guiding of relativistic electron beams in dense matter by laser-driven magnetostatic fields. Nature Communications, 2018, 9, 102.	12.8	86
28	Combining two-photon-polymerization with UV-lithography for laser particle acceleration targets. Journal of Physics: Conference Series, 2018, 1079, 012012.	0.4	2
29	Design and implementation of a Thomson parabola for fluence dependent energy-loss measurements at the Neutralized Drift Compression eXperiment. Review of Scientific Instruments, 2018, 89, 103302.	1.3	4
30	Chemical-vapor deposited ultra-fast diamond detectors for temporal measurements of ion bunches. Review of Scientific Instruments, 2018, 89, 093304.	1.3	3
31	Dual Ion Species Plasma Expansion from Isotopically Layered Cryogenic Targets. Physical Review Letters, 2018, 120, 204801.	7.8	11
32	Laser-driven strong magnetostatic fields with applications to charged beam transport and magnetized high energy-density physics. Physics of Plasmas, 2018, 25, .	1.9	58
33	Intense, directed neutron beams from a laser-driven neutron source at PHELIX. Physics of Plasmas, 2018, 25, .	1.9	40
34	Experimental verification of high energy laser-generated impulse for remote laser control of space debris. Scientific Reports, 2018, 8, 8453.	3.3	18
35	Experimental discrimination of ion stopping models near the Bragg peak in highly ionized matter. Nature Communications, 2017, 8, 15693.	12.8	67
36	Laser-plasmas in the relativistic-transparency regime: Science and applications. Physics of Plasmas, 2017, 24, 056702.	1.9	44

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37	Laser-based fast-neutron spectroscopy (Conference Presentation). , 2017, , .		0
38	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
39	Backreflection diagnostics for ultra-intense laser plasma experiments based on frequency resolved optical gating. Review of Scientific Instruments, 2017, 88, 023503.	1.3	1
40	Creation and characterization of free-standing cryogenic targets for laser-driven ion acceleration. Review of Scientific Instruments, 2017, 88, 093512.	1.3	5
41	Studying the Dynamics of Relativistic Laser-Plasma Interaction on Thin Foils by Means of Fourier-Transform Spectral Interferometry. Physical Review Letters, 2017, 118, 255003.	7.8	17
42	Temperature measurement of hohlraum radiation for energy loss experiments in indirectly laser heated carbon plasma. Physical Review E, 2017, 96, 043210.	2.1	2
43	Laser-induced microstructures on silicon for laser-driven acceleration experiments. High Power Laser Science and Engineering, 2017, 5, .	4.6	9
44	Stellar magnetic activity and variability of oscillation parameters: An investigation of 24 solar-like stars observed byKepler. Astronomy and Astrophysics, 2017, 598, A77.	5.1	50
45	Noise reduction in third order cross-correlation by angle optimization of the interacting beams. Optics Express, 2017, 25, 9252.	3.4	9
46	Formation of diamonds in laser-compressed hydrocarbons at planetary interior conditions. Nature Astronomy, 2017, 1, 606-611.	10.1	152
47	In-situ formation of solidified hydrogen thin-membrane targets using a pulse tube cryocooler. Journal of Physics: Conference Series, 2016, 713, 012006.	0.4	5
48	Simulations of the energy loss of ions at the stopping-power maximum in a laser-induced plasma. Journal of Physics: Conference Series, 2016, 688, 012009.	0.4	1
49	A bright neutron source driven by relativistic transparency of solids. Journal of Physics: Conference Series, 2016, 688, 012094.	0.4	2
50	Fabrication and characterization of thin polymer targets for laser-driven ion acceleration. Journal of Physics: Conference Series, 2016, 713, 012005.	0.4	2
51	Neutron imaging with the short-pulse laser driven neutron source at the Trident laser facility. Journal of Applied Physics, 2016, 120, .	2.5	32
52	High resolution Thomson Parabola Spectrometer for full spectral capture of multi-species ion beams. Review of Scientific Instruments, 2016, 87, 083304.	1.3	11
53	A novel experimental setup for energy loss and charge state measurements in dense moderately coupled plasma using laser-heated hohlraum targets. Journal of Physics: Conference Series, 2016, 688, 012081.	0.4	2
54	Maximum Proton Energy above 85ÂMeV from the Relativistic Interaction of Laser Pulses with Micrometer Thick<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>CH</mml:mi></mml:mrow><mml:mrow><mml:mn>2</mml:mn></mml:mr Physical Review Letters, 2016, 116, 205002.	7.8	234

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55	Nanosecond formation of diamond and lonsdaleite by shock compression of graphite. Nature Communications, 2016, 7, 10970.	12.8	167
56	Accelerating ions with high-energy short laser pulses from submicrometer thick targets. High Power Laser Science and Engineering, 2016, 4, .	4.6	26
57	Towards a Laser-driven polarized ^{3}He Ion Beam Source. , 2016, , .		1
58	Scaling of ion energies in the relativistic-induced transparency regime. Laser and Particle Beams, 2015, 33, 695-703.	1.0	15
59	Interaction of annular-focused laser beams with solid targets. Laser and Particle Beams, 2015, 33, 541-550.	1.0	36
60	Predictions for the energy loss of light ions in laser-generated plasmas at low and medium velocities. Physical Review E, 2015, 92, 053109.	2.1	25
61	Laser-driven platform for generation and characterization of strong quasi-static magnetic fields. New Journal of Physics, 2015, 17, 083051.	2.9	130
62	Advanced space power and propulsion based on lasers. European Physical Journal: Special Topics, 2015, 224, 2657-2663.	2.6	2
63	A novel double hohlraum target to create a moderately coupled plasma for ion stopping experiments. Nuclear Instruments & Methods in Physics Research B, 2015, 343, 123-131.	1.4	5
64	Role of charge transfer in heavy-ion-beamâ€“plasma interactions at intermediate energies. Physical Review E, 2015, 91, 023104.	2.1	15
65	Towards highest peak intensities for ultra-short MeV-range ion bunches. Scientific Reports, 2015, 5, 12459.	3.3	42
66	Selective deuterium ion acceleration using the Vulcan petawatt laser. Physics of Plasmas, 2015, 22, 053102.	1.9	19
67	Laser-driven ion acceleration with hollow laser beams. Physics of Plasmas, 2015, 22, .	1.9	60
68	Investigation of the solidâ€“liquid phase transition of carbon at 150ÂGPa with spectrally resolved X-ray scattering. High Energy Density Physics, 2015, 14, 38-43.	1.5	4
69	Physics of Plasmas, 2015, 22, 056307.	1.9	14
70	Calibration of time of flight detectors using laser-driven neutron source. Review of Scientific Instruments, 2015, 86, 073308.	1.3	23
71	Simultaneous observation of angularly separated laser-driven proton beams accelerated via two different mechanisms. Physics of Plasmas, 2015, 22, .	1.9	24
72	Image plate characterization and absolute calibration to low kilo-electron-volt electrons. Review of Scientific Instruments, 2014, 85, 113306.	1.3	1

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73	Diagnostics for studies of novel laser ion acceleration mechanisms. Review of Scientific Instruments, 2014, 85, 113302.	1.3	3
74	High energy ion acceleration and neutron production using relativistic transparency in solids. , 2014, , .		0
75	Pre-plasma formation in experiments using petawatt lasers. Optics Express, 2014, 22, 29505.	3.4	32
76	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
77	Commissioning of a compact laser-based proton beam line for high intensity bunches around 10ÂMeV. Physical Review Special Topics: Accelerators and Beams, 2014, 17, .	1.8	24
78	High energy conversion efficiency in laser-proton acceleration by controlling laser-energy deposition onto thin foil targets. Applied Physics Letters, 2014, 104, 081123.	3.3	55
79	Shaping laser accelerated ions for future applications â€“ The LIGHT collaboration. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2014, 740, 94-98.	1.6	37
80	Temporal contrast control at the PHELIX petawatt laser facility by means of tunable sub-picosecond optical parametric amplification. Applied Physics B: Lasers and Optics, 2014, 116, 429-435.	2.2	50
81	Fast ignition with laser-driven proton and ion beams. Nuclear Fusion, 2014, 54, 054006.	3.5	119
82	Identification of X-ray spectra in the Na-like to O-like rubidium ions in the range of 3.8â€“7.3Ã…. Journal of Quantitative Spectroscopy and Radiative Transfer, 2014, 148, 70-89.	2.3	7
83	Instrumentation for diagnostics and control of laser-accelerated proton (ion) beams. Physica Medica, 2014, 30, 255-270.	0.7	76
84	Multiframe Interferometry Diagnostic for Time and Space Resolved Free Electron Density Determination in Laser Heated Plasma. The Open Plasma Physics Journal, 2014, 3, 116-121.	0.7	1
85	Initial experimental evidence of self-collimation of target-normal-sheath-accelerated proton beam in a stack of conducting foils. Physics of Plasmas, 2013, 20, .	1.9	3
86	Beam profiles of proton and carbon ions in the relativistic transparency regime. New Journal of Physics, 2013, 15, 123035.	2.9	43
87	Probing the Complex Ion Structure in Liquid Carbon at 100ÂGPa. Physical Review Letters, 2013, 111, 255501.	7.8	49
88	Influence of fs-laser desorption on target normal sheath accelerated ions. Physical Review Special Topics: Accelerators and Beams, 2013, 16, .	1.8	9
89	Focusing and transport of high-intensity multi-MeV proton bunches from a compact laser-driven source. Physical Review Special Topics: Accelerators and Beams, 2013, 16, .	1.8	31
90	2D radiation-hydrodynamics modeling of laser-plasma targets for ion stopping measurements. High Energy Density Physics, 2013, 9, 158-166.	1.5	20

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91	Energy Loss and Charge Transfer of Argon in a Laser-Generated Carbon Plasma. Physical Review Letters, 2013, 110, 115001.	7.8	55
92	Bright Laser-Driven Neutron Source Based on the Relativistic Transparency of Solids. Physical Review Letters, 2013, 110, 044802.	7.8	271
93	Ion Acceleration: TNSA. , 2013, , 303-350.		5
94	Characterization of a novel, short pulse laser-driven neutron source. Physics of Plasmas, 2013, 20, .	1.9	43
95	X-ray scattering from warm dense iron. High Energy Density Physics, 2013, 9, 573-577.	1.5	13
96	A spectrometer on chemical vapour deposition-diamond basis for the measurement of the charge-state distribution of heavy ions in a laser-generated plasma. Review of Scientific Instruments, 2013, 84, 043301.	1.3	7
97	NAIS: Nuclear activation-based imaging spectroscopy. Review of Scientific Instruments, 2013, 84, 073305.	1.3	13
98	Contrast improvement at petawatt-class lasers using ultrafast optical-parametric amplification. , 2013, , .		0
99	Feasibility study of the magnetic beam self-focusing phenomenon in a stack of conducting foils: Application to TNSA proton beams. Laser and Particle Beams, 2013, 31, 81-88.	1.0	7
100	Fast Ignition With Laser-Driven Ion Beams: Progress On Ignitor Beam Development Based On A New Relativistic Laser-Plasma Regime. , 2013, , .		0
101	Effects of fs-laser desorption on the target normal sheath acceleration (TNSA). , 2012, , .		0
102	Development of a Nomarski-type multi-frame interferometer as a time and space resolving diagnostics for the free electron density of laser-generated plasma. Review of Scientific Instruments, 2012, 83, 043501.	1.3	25
103	Development of High-Power Laser Based Nuclear Applications. Fusion Science and Technology, 2012, 61, 231-236.	1.1	5
104	Multi-pulse enhanced laser ion acceleration using plasma half cavity targets. Applied Physics Letters, 2012, 101, .	3.3	20
105	X-ray Thomson scattering on shocked graphite. High Energy Density Physics, 2012, 8, 46-49.	1.5	8
106	Focusing of short-pulse high-intensity laser-accelerated proton beams. Nature Physics, 2012, 8, 139-142.	16.7	110
107	Surface transport of energetic electrons in intense picosecond laser-foil interactions. Applied Physics Letters, 2011, 99, .	3.3	30
108	Reactions with polarized electrons and photons at low momentum transfers at the superconducting Darmstadt electron linear accelerator Sâ€“DALINAC. Journal of Physics: Conference Series, 2011, 295, 012152.	0.4	3

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109	A UNIFIED APPROACH TO THE HELIOSEISMIC INVERSION PROBLEM OF THE SOLAR MERIDIONAL FLOW FROM GLOBAL OSCILLATIONS. Astrophysical Journal, 2011, 734, 97.	4.5	33
110	Laser accelerated protons captured and transported by a pulse power solenoid. Physical Review Special Topics: Accelerators and Beams, 2011, 14, .	1.8	46
111	Time- and spectrally resolved measurements of laser-driven hohlraum radiation. Physical Review E, 2011, 84, 016412.	2.1	4
112	Controlling the properties of ultraintense laserâ€“proton sources using transverse refluxing of hot electrons in shaped mass-limited targets. Plasma Physics and Controlled Fusion, 2011, 53, 105008.	2.1	28
113	The diagnostics of ultra-short pulse laser-produced plasma. Journal of Instrumentation, 2011, 6, R09001-R09001.	1.2	9
114	An activation experiment with laser-accelerated high-energy protons to optimize the graded-z shield design for the IXO/ATHENA satellite missions. , 2011, , .		0
115	A novel nuclear pyrometry for the characterization of high-energy bremsstrahlung and electrons produced in relativistic laser-plasma interactions. Physics of Plasmas, 2011, 18, .	1.9	21
116	STATUS REPORT OF THE DARMSTADT POLARIZED ELECTRON INJECTOR. , 2011, , .		0
117	Warp simulations for capture and control of laser-accelerated proton beams. Journal of Physics: Conference Series, 2010, 244, 022052.	0.4	12
118	Transport of laser accelerated proton beams and isochoric heating of matter. Journal of Physics: Conference Series, 2010, 244, 012009.	0.4	5
119	Beam collimation and transport of laser-accelerated protons by a solenoid field. Journal of Physics: Conference Series, 2010, 244, 022036.	0.4	1
120	Prospects For and Progress Towards Laser-Driven Particle Therapy Accelerators. , 2010, , .		4
121	The HiPER Experimental Road Map. , 2010, , .		1
122	Gapfilling interrupted helioseismic data with the EM algorithm. Astronomy Letters, 2010, 36, 64-73.	1.0	2
123	Commissioning and early experiments of the PHELIX facility. Applied Physics B: Lasers and Optics, 2010, 100, 137-150.	2.2	174
124	Energy loss of argon in a laser-generated carbon plasma. Physical Review E, 2010, 81, 026401.	2.1	40
125	Ultrafast Melting of Carbon Induced by Intense Proton Beams. Physical Review Letters, 2010, 105, 265701.	7.8	93
126	Beam collimation and transport of quasineutral laser-accelerated protons by a solenoid field. Physics of Plasmas, 2010, 17, .	1.9	56

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127	Spectral Enhancement in the Double Pulse Regime of Laser Proton Acceleration. Physical Review Letters, 2010, 105, 195008.	7.8	36
128	Using cosmic neutrinos to search for nonperturbative physics at the Pierre Auger Observatory. Physical Review D, 2010, 82, .	4.7	10
129	Recent advances in Proton acceleration and beam shaping. , 2010, , .		0
130	Effects of front surface plasma expansion on proton acceleration in ultraintense laser irradiation of foil targets. , 2009, , .		0
131	Dynamic control and enhancement of laser-accelerated protons using multiple laser pulses. Comptes Rendus Physique, 2009, 10, 188-196.	0.9	8
132	Review on the current status and prospects of fast ignition in fusion targets driven by intense, laser generated proton beams. Plasma Physics and Controlled Fusion, 2009, 51, 014004.	2.1	32
133	Radiochromic film imaging spectroscopy of laser-accelerated proton beams. Review of Scientific Instruments, 2009, 80, 033301.	1.3	182
134	Proton acceleration experiments and warm dense matter research using high power lasers. Plasma Physics and Controlled Fusion, 2009, 51, 124039.	2.1	26
135	Status Report of the New Darmstadt Polarized Electron Injector. , 2009, , .		3
136	Polarized Electrons in Darmstadt: Recent Developments. , 2009, , .		3
137	Probing warm dense lithium by inelastic X-ray scattering. Nature Physics, 2008, 4, 940-944.	16.7	148
138	Experimental characterization of picosecond laser interaction with solid targets. Physical Review E, 2008, 77, 056403.	2.1	5
139	Effects of front surface plasma expansion on proton acceleration in ultraintense laser irradiation of foil targets. Laser and Particle Beams, 2008, 26, 591-596.	1.0	98
140	Development and calibration of a Thomson parabola with microchannel plate for the detection of laser-accelerated MeV ions. Review of Scientific Instruments, 2008, 79, 093306.	1.3	88
141	Laser beam-profile impression and target thickness impact on laser-accelerated protons. Physics of Plasmas, 2008, 15, .	1.9	34
142	Increased efficiency of short-pulse laser-generated proton beams from novel flat-top cone targets. Physics of Plasmas, 2008, 15, .	1.9	61
143	Controlled Transport and Focusing of Laser-Accelerated Protons with Miniature Magnetic Devices. Physical Review Letters, 2008, 101, 055004.	7.8	152
144	Cross-spectral analysis of solar oscillation time series. Journal of Physics: Conference Series, 2008, 118, 012091.	0.4	0

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145	Plasma physics experiments at GSI. Journal of Physics: Conference Series, 2008, 112, 042068.	0.4	0
146	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
147	A MC approach to simulate up- and down-going neutrino showers including local topographic conditions. Astroparticle Physics, 2007, 26, 402-413.	4.3	12
148	The offline software framework of the Pierre Auger Observatory. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2007, 580, 1485-1496.	1.6	120
149	Laser ion acceleration with micro-grooved targets. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2007, 577, 186-190.	1.6	21
150	Particle accelerator physics and technology for high energy density physics research. European Physical Journal D, 2007, 44, 293-300.	1.3	8
151	Inertial fusion energy issues of intense heavy ion and laser beams interacting with ionized matter studied at GSI-Darmstadt. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2007, 577, 8-13.	1.6	27
152	Assessment of Potential for Ion-Driven Fast Ignition. Fusion Science and Technology, 2006, 49, 399-411.	1.1	30
153	Fast Ion Generation by High-Intensity Laser Irradiation of Solid Targets and Applications. Fusion Science and Technology, 2006, 49, 412-439.	1.1	388
154	Laser-produced proton beams as a tool for equation-of-state studies of warm dense matter. High Energy Density Physics, 2006, 2, 16-20.	1.5	6
155	Laser accelerated heavy particles â€“ Tailoring of ion beams on a nano-scale. Optics Communications, 2006, 264, 519-524.	2.1	9
156	Laser Accelerated, High Quality Ion Beams. Hyperfine Interactions, 2006, 162, 45-53.	0.5	1
157	Charge state of Zn projectile ions in partially ionized plasma: Simulations. Laser and Particle Beams, 2006, 24, 131-141.	1.0	13
158	Modeling of the electrostatic sheath shape on the rear target surface in short-pulse laser-driven proton acceleration. Laser and Particle Beams, 2006, 24, 163-168.	1.0	40
159	Transverse Characteristics of Short-Pulse Laser-Produced Ion Beams: A Study of the Acceleration Dynamics. Physical Review Letters, 2006, 96, 154801.	7.8	49
160	Laser Accelerated, High Quality Ion Beams. , 2006, , 45-53.		0
161	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
162	M.I-12: short pulse laser generated ion beams for fast ignition. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2005, 544, 55-60.	1.6	3

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163	Status of PHELIX laser and first experiments. Laser and Particle Beams, 2005, 23, .	1.0	61
164	Laser accelerated ions and electron transport in ultra-intense laser matter interaction. Laser and Particle Beams, 2005, 23, .	1.0	65
165	Laser accelerated ions in ICF research prospects and experiments. Plasma Physics and Controlled Fusion, 2005, 47, B841-B850.	2.1	26
166	Comparison of Laser Ion Acceleration from the Front and Rear Surfaces of Thin Foils. Physical Review Letters, 2005, 94, 045004.	7.8	119
167	High energy heavy ion jets emerging from laser plasma generated by long pulse laser beams from the NHELIX laser system at GSI. Laser and Particle Beams, 2005, 23, 503-512.	1.0	74
168	Present and future perspectives for high energy density physics with intense heavy ion and laser beams. Laser and Particle Beams, 2005, 23, .	1.0	196
169	Spectral properties of laser-accelerated mid-Z MeVâˆ•u ion beams. Physics of Plasmas, 2005, 12, 056314.	1.9	66
170	Ultra-Low Emittance Proton Beams From A Laser-Virtual Cathode Plasma Accelerator. AIP Conference Proceedings, 2004, , .	0.4	0
171	Ultralow Emittance, Multi-MeV Proton Beams from a Laser Virtual-Cathode Plasma Accelerator. Physical Review Letters, 2004, 92, 204801.	7.8	494
172	Femtosecond dynamics â€“ snapshots of the early ion-track evolution. Nuclear Instruments & Methods in Physics Research B, 2004, 225, 4-26.	1.4	34
173	Spatial Uniformity of Laser-Accelerated Ultrahigh-Current MeV Electron Propagation in Metals and Insulators. Physical Review Letters, 2003, 91, 255002.	7.8	166
174	Proton spectra from ultraintense laserâ€“plasma interaction with thin foils: Experiments, theory, and simulation. Physics of Plasmas, 2003, 10, 3283-3289.	1.9	110
175	Acceleration Dynamics of Laser-Driven MeV-Ion Jets. AIP Conference Proceedings, 2003, , .	0.4	0
176	Time-dependent coupling of solar oscillations. Astronomy and Astrophysics, 2003, 405, 779-786.	5.1	8
177	Methods of charge-state analysis of fast ions inside matter based on their X-ray spectral distribution. Laser and Particle Beams, 2002, 20, 479-483.	1.0	9
178	The generation of high-quality, intense ion beams by ultra-intense lasers. Plasma Physics and Controlled Fusion, 2002, 44, B99-B108.	2.1	43
179	Intense, High-Quality Ion Beams Generated by Ultra-Intense Lasers. AIP Conference Proceedings, 2002, , .	0.4	1
180	MeV Ion Jets from Short-Pulse-Laser Interaction with Thin Foils. Physical Review Letters, 2002, 89, 085002.	7.8	389

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181	Energetic ions generated by laser pulses: A detailed study on target properties. Physical Review Special Topics: Accelerators and Beams, 2002, 5, .	1.8	205
182	Short Pulse Laser Driven Ion Beams â€" Experiments and Applications. AIP Conference Proceedings, 2002, , .	0.4	0
183	Intense ion beams accelerated by ultra-intense laser pulses. AIP Conference Proceedings, 2002, , .	0.4	1
184	Detectability of large-scale flows in global helioseismic data â€" A numerical experiment. Astronomy and Astrophysics, 2002, 396, 243-253.	5.1	15
185	Fast Ignition by Intense Laser-Accelerated Proton Beams. Physical Review Letters, 2001, 86, 436-439.	7.8	1,154
186	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.	0.9	86
187	Energetic proton generation in ultra-intense laserâ€"solid interactions. Physics of Plasmas, 2001, 8, 542-549.	1.9	1,504
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