Xueqing Yan

List of Publications by Year
in descending order

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98	2,839	236925	182427
papers	citations	25 h-index	51 g-index

99	99	99	1371
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Radiation-Pressure Acceleration of Ion Beams Driven by Circularly Polarized Laser Pulses. Physical Review Letters, 2009, 103, 245003.	7.8	421
2	Generating High-Current Monoenergetic Proton Beams by a CircularlyPolarized Laser Pulse in the Phase-StableAcceleration Regime. Physical Review Letters, 2008, 100, 135003.	7.8	386
3	Ion Acceleration Using Relativistic Pulse Shaping in Near-Critical-Density Plasmas. Physical Review Letters, 2015, 115, 064801.	7.8	168
4	Self-Organizing GeV, Nanocoulomb, Collimated Proton Beam from Laser Foil Interaction at<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mn>7</mml:mn><mml:mo>Ã—</mml:mo><mml:msup><mml:mn>10</mml:mn><mml:mn>21</mml:mn></mml:msup><mml:mi mathvariant="bold">W</mml:mi><mml:mo>/</mml:mo><mml:msup><mml:mi>cm</mml:mi><mml:mn>2</mml:mn></mml:msup></mml: Physical Review Letters, 2009, 103, 135001.	7.8	111
5	Laser Shaping of a Relativistic Intense, Short Gaussian Pulse by a Plasma Lens. Physical Review Letters, 2011, 107, 265002.	7.8	111
6	Laser Acceleration of Ions for Radiation Therapy. Reviews of Accelerator Science and Technology, 2009, 02, 201-228.	0.5	93
7	Laser mode effects on the ion acceleration during circularly polarized laser pulse interaction with foil targets. Physics of Plasmas, 2008, 15, .	1.9	86
8	Laser Acceleration of Highly Energetic Carbon Ions Using a Double-Layer Target Composed of Slightly Underdense Plasma and Ultrathin Foil. Physical Review Letters, 2019, 122, 014803.	7.8	84
9	Generating Overcritical Dense Relativistic Electron Beams via Self-Matching Resonance Acceleration. Physical Review Letters, 2013, 110, 045002.	7.8	77
10	Monoenergetic Ion Beam Generation by Driving Ion Solitary Waves with Circularly Polarized Laser Light. Physical Review Letters, 2011, 107, 115002.	7.8	67
11	Creation of Electron-Positron Pairs in Photon-Photon Collisions Driven by 10-PW Laser Pulses. Physical Review Letters, 2019, 122, 014802.	7.8	43
12	Theory of laser ion acceleration from a foil target of nanometer thickness. Applied Physics B: Lasers and Optics, 2010, 98, 711-721.	2.2	42
13	Brilliant petawatt gamma-ray pulse generation in quantum electrodynamic laser-plasma interaction. Scientific Reports, 2017, 7, 45031.	3.3	40
14	Wakefield acceleration. Reviews of Modern Plasma Physics, 2020, 4, 1.	4.1	39
15	Collection and focusing of laser accelerated ion beams for therapy applications. Physical Review Special Topics: Accelerators and Beams, 2011, 14, .	1.8	37
16	Efficient and stable proton acceleration by irradiating a two-layer target with a linearly polarized laser pulse. Physics of Plasmas, 2013, 20, .	1.9	35
17	Generation of overdense and high-energy electron-positron-pair plasmas by irradiation of a thin foil with two ultraintense lasers. Physical Review E, 2015, 92, 053107.	2.1	35
18	Dense Helical Electron Bunch Generation in Near-Critical Density Plasmas with Ultrarelativistic Laser Intensities. Scientific Reports, 2015, 5, 15499.	3.3	34

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19	Cascaded generation of isolated sub-10 attosecond half-cycle pulses. New Journal of Physics, 2021, 23, 053003.	2.9	34
20	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.	2.1	32
21	Suppression of transverse ablative Rayleigh-Taylor-like instability in the hole-boring radiation pressure acceleration by using elliptically polarized laser pulses. Physical Review E, 2014, 90, 023101.	2.1	30
22	Proton acceleration by single-cycle laser pulses offers a novel monoenergetic and stable operating regime. Physics of Plasmas, 2016, 23, 043112.	1.9	29
23	Brilliant GeV gamma-ray flash from inverse Compton scattering in the QED regime. Plasma Physics and Controlled Fusion, 2018, 60, 044004.	2.1	28
24	Quasimonoenergetic electron beam and brilliant gamma-ray radiation generated from near critical density plasma due to relativistic resonant phase locking. Physics of Plasmas, 2015, 22, .	1.9	27
25	Direct laser acceleration of electrons assisted by strong laser-driven azimuthal plasma magnetic fields. Physical Review E, 2020, 102, 013206.	2.1	27
26	Self-induced magnetic focusing of proton beams by Weibel-like instability in the laser foil-plasma interactions. Physics of Plasmas, 2009, 16, .	1.9	26
27	Sub-TeV proton beam generation by ultra-intense laser irradiation of foil-and-gas target. Physics of Plasmas, 2012, 19, 023111.	1.9	26
28	Three-dimensional fast magnetic reconnection driven by relativistic ultraintense femtosecond lasers. Physical Review E, 2014, 89, 031101.	2.1	26
29	Collisionless shocks driven by 800â€‰nm laser pulses generate high-energy carbon ions. Physics of Plasmas, 2015, 22, 013113.	1.9	24
30	Gamma-ray emission in near critical density plasmas at laser intensities of 1021â€‰W/cm2. Physics of Plasmas, 2015, 22, 033102.	1.9	23
31	Super-Heavy Ions Acceleration Driven by Ultrashort Laser Pulses at Ultrahigh Intensity. Physical Review X, 2021, 11, .	8.9	23
32	Bright Subcycle Extreme Ultraviolet Bursts from a Single Dense Relativistic Electron Sheet. Physical Review Letters, 2014, 113, 235002.	7.8	22
33	Transmutation prospect of long-lived nuclear waste induced by high-charge electron beam from laser plasma accelerator. Physics of Plasmas, 2017, 24, .	1.9	22
34	Detection and analysis of laser driven proton beams by calibrated Gafchromic HD-V2 and MD-V3 radiochromic films. Review of Scientific Instruments, 2019, 90, 033306.	1.3	21
35	Charged particle dynamics in multiple colliding electromagnetic waves. Survey of random walk, LÃ©vy flights, limit circles, attractors and structurally determinate patterns. Journal of Plasma Physics, 2017, 83, .	2.1	20
36	The generation of collimated Î³-ray pulse from the interaction between 10 PW laser and a narrow tube target. Applied Physics Letters, 2018, 112, .	3.3	19

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37	Radiation reaction as an energy enhancement mechanism for laser-irradiated electrons in a strong plasma magnetic field. Scientific Reports, 2019, 9, 17181.	3.3	18
38	On the small divergence of laser-driven ion beams from nanometer thick foils. Physics of Plasmas, 2013, 20, .	1.9	17
39	Suppressing longitudinal double-layer oscillations by using elliptically polarized laser pulses in the hole-boring radiation pressure acceleration regime. Physics of Plasmas, 2013, 20, .	1.9	17
40	Ultra-High Dose Rate FLASH Irradiation Induced Radio-Resistance of Normal Fibroblast Cells Can Be Enhanced by Hypoxia and Mitochondrial Dysfunction Resulting From Loss of Cytochrome C. Frontiers in Cell and Developmental Biology, 2021, 9, 672929.	3.7	17
41	Signatures of quantum radiation reaction in laser-electron-beam collisions. Physics of Plasmas, 2015, 22, 093103.	1.9	16
42	Enhanced laser proton acceleration by target ablation on a femtosecond laser system. Physics of Plasmas, 2018, 25, 063109.	1.9	16
43	Highly collimated electron acceleration by longitudinal laser fields in a hollow-core target. Plasma Physics and Controlled Fusion, 2019, 61, 035012.	2.1	16
44	Terahertz radiation enhanced by target ablation during the interaction of high intensity laser pulse and micron-thickness metal foil. Physics of Plasmas, 2020, 27, .	1.9	16
45	Radiation reaction induced spiral attractors in ultra-intense colliding laser beams. Matter and Radiation at Extremes, 2016, 1, 308-315.	3.9	15
46	Association of Cancer Stem Cell Radio-Resistance Under Ultra-High Dose Rate FLASH Irradiation With Lysosome-Mediated Autophagy. Frontiers in Cell and Developmental Biology, 2021, 9, 672693.	3.7	15
47	Laser-driven three-stage heavy-ion acceleration from relativistic laser-plasma interaction. Physical Review E, 2014, 89, 013107.	2.1	14
48	Ion acceleration enhanced by target ablation. Physics of Plasmas, 2015, 22, .	1.9	14
49	Near-diffraction-limited laser focusing with a near-critical density plasma lens. Optics Letters, 2016, 41, 139.	3.3	14
50	Brilliant GeV electron beam with narrow energy spread generated by a laser plasma accelerator. Physical Review Accelerators and Beams, 2016, 19, .	1.6	14
51	Radiative polarization dynamics of relativistic electrons in an intense electromagnetic field. Physical Review A, 2021, 103, .	2.5	13
52	Breather-like penetration of ultrashort linearly polarized laser into over-dense plasmas. Physics of Plasmas, 2013, 20, .	1.9	12
53	Enhanced proton acceleration from an ultrathin target irradiated by laser pulses with plateau ASE. Scientific Reports, 2018, 8, 2536.	3.3	12
54	Proton beams from intense laser-solid interaction: Effects of the target materials. Matter and Radiation at Extremes, 2020, 5, .	3.9	12

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55	Determination of carrier-envelope phase of relativistic few-cycle laser pulses by Thomson backscattering spectroscopy. Physical Review E, 2012, 85, 035401.	2.1	11
56	Laser Acceleration of Ions for Radiation Therapy. , 2009, , 201-228.		10
57	Characterization of magnetic reconnection in the high-energy-density regime. Physical Review E, 2016, 93, 033206.	2.1	10
58	Energetic spin-polarized proton beams from two-stage coherent acceleration in laser-driven plasma. Physical Review E, 2020, 102, 053212.	2.1	9
59	Enhancing electromagnetic radiations by a pre-ablation laser during laser interaction with solid target. Physics of Plasmas, 2020, 27, .	1.9	9
60	Generation of High-Current Proton Beams With a Low Energy Spread by Phase-Stable Acceleration (PSA). IEEE Transactions on Plasma Science, 2008, 36, 1854-1856.	1.3	8
61	High-quality proton bunch from laser interaction with a gas-filled cone target. Physics of Plasmas, 2011, 18, .	1.9	8
62	Design of coupled cavity with energy modulated electron cyclotron resonance ion source for materials irradiation research. Physical Review Special Topics: Accelerators and Beams, 2012, 15, .	1.8	7
63	Frequency tunable x-ray/Î³-ray source via Thomson backscattering on flying mirror from laser foil interaction. Applied Physics Letters, 2012, 101, .	3.3	7
64	Automated positioning of transparent targets using defocusing method in a laser proton accelerator. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2019, 927, 236-239.	1.6	7
65	Generation of bright Î³-ray/hard x-ray flash with intense femtosecond pulses and double-layer targets. Physics of Plasmas, 2019, 26, .	1.9	7
66	Laser-driven collimated tens-GeV monoenergetic protons from mass-limited target plus preformed channel. Physics of Plasmas, 2013, 20, 013107.	1.9	6
67	Collimated proton acceleration in light sail regime with a tailored pinhole target. Physics of Plasmas, 2014, 21, 063113.	1.9	6
68	The impact of femtosecond pre-pulses on nanometer thin foils for laser-ion acceleration. Plasma Physics and Controlled Fusion, 2017, 59, 055020.	2.1	6
69	Deflection of a reflected intense circularly polarized light beam induced by asymmetric radiation pressure. Physical Review E, 2019, 100, 063203.	2.1	6
70	Efficiency enhancement of ion acceleration from thin target irradiated by multi-PW few-cycle laser pulses. Physics of Plasmas, 2021, 28, .	1.9	6
71	Influence factors of resolution in laser accelerated proton radiography and image deblurring. AIP Advances, 2021, 11, .	1.3	6
72	Stable radiation pressure acceleration of ions by suppressing transverse Rayleigh-Taylor instability with multiple Gaussian pulses. Physics of Plasmas, 2016, 23, 083109.	1.9	5

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73	Proton sheet crossing in thin relativistic plasma irradiated by a femtosecond petawatt laser pulse. Physical Review E, 2020, 102, 013207.	2.1	5
74	Strong enhancement of coherent terahertz radiation by target ablation using picosecond laser pulses. Physics of Plasmas, 2020, 27, 113104.	1.9	5
75	Dependence of Optimum Thickness of Ultrathin Diamond-like Carbon Coatings over Carbon Nanotubes on Geometric Field Enhancement Factor. ACS Applied Electronic Materials, 2020, 2, 84-92.	4.3	5
76	Commissioning experiment of the high-contrast SILEX-â...¡ multi-petawatt laser facility. Matter and Radiation at Extremes, 2021, 6, .	3.9	5
77	Numerical simulations and experiments of simultaneous acceleration of positive and negative ions in a radio frequency quadrupole. Physical Review Special Topics: Accelerators and Beams, 2006, 9, .	1.8	4
78	YanetÂal.Reply:. Physical Review Letters, 2009, 102, .	7.8	4
79	Ultraintense laser interaction with nanoscale targets: a simple model for layer expansion and ion acceleration. Journal of Physics: Conference Series, 2010, 244, 042022.	0.4	4
80	Autofocused, enhanced proton acceleration from a nanometer-scale bulged foil. Physics of Plasmas, 2010, 17, .	1.9	4
81	Fabrication and Field Emission Properties of Diamond-Like Carbon Nanostructure Arrays Deposited by Filtered Cathodic Vacuum Arc. Plasma Processes and Polymers, 2016, 13, 1044-1052.	3.0	4
82	Manipulation of laser-accelerated proton beam spatial distribution by laser machined microstructure targets. Physics of Plasmas, 2021, 28, .	1.9	4
83	Efficient proton beam generation from a foam-carbon foil target using an intense circularly polarized laser. Physics of Plasmas, 2012, 19, 083107.	1.9	3
84	RF and field measurements of the SSC-LINAC RFQ. Science China: Physics, Mechanics and Astronomy, 2014, 57, 1311-1317.	5.1	3
85	Single-shot laser-induced damage threshold of free-standing nanometer-thin diamond-like carbon foils. Nuclear Instruments & Methods in Physics Research B, 2018, 436, 18-21.	1.4	3
86	Shaping of ion energy spectrum due to ionization in ion acceleration driven by an ultra-short pulse laser. Plasma Physics and Controlled Fusion, 2018, 60, 115007.	2.1	3
87	Preparation of graphene on SiC by laser-accelerated pulsed ion beams*. Chinese Physics B, 2021, 30, 116106.	1.4	3
88	Energy spread inhibition of compact electron bunch driven by circularly polarized laser pulse. Physics of Plasmas, 2012, 19, 083112.	1.9	2
89	Study of a free-electron laser driven by a laser-plasma accelerated beam at Peking University. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2019, 925, 193-198.	1.6	2
90	Ultrahigh brightness attosecond electron beams from intense X-ray laser driven plasma photocathode. International Journal of Modern Physics A, 2019, 34, 1943012.	1.5	2

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91	Design of a compact short pulse positron source based on laser plasma accelerators. Physics of Plasmas, 2020, 27, .	1.9	2
92	Progress in the beam commissioning of separated function RFQ accelerator. Science China: Physics, Mechanics and Astronomy, 2011, 54, 222-224.	5.1	1
93	Optimization of the combined proton acceleration regime with a target composition scheme. Physics of Plasmas, 2016, 23, .	1.9	1
94	Theoretical Studies on Intense Laser Produced Quasi-Monoenergetic Particle Beams. , 2009, , .		0
95	Simulation Study on 104 MHz Radio Frequency Quadrupole Accelerator. , 2010, , .		0
96	Design of a compact electron radiography system with electron source from laser wakefield accelerator. AIP Advances, 2021, 11, 045030.	1.3	0
97	Emittance growth due to energy spread in a laser-driven proton beamline. Results in Physics, 2021, 29, 104779.	4.1	0
98	Direct Imaging with Hundreds of MeV Electron Bunches from Laser Wakefield Acceleration. Physica Status Solidi (A) Applications and Materials Science, 2021, 218, 2000371.	1.8	0