Nasr A M Hafz

List of Publications by Year
in descending order

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86 papers	1,374 citations	394421 19 h-index	361022 35 g-index
89 all docs	89 docs citations	89 times ranked	1089 citing authors

#	Article	IF	Citations
1	Stable generation of GeV-class electron beams from self-guided laserâ€“plasma channels. Nature Photonics, 2008, 2, 571-577.	31.4	291
2	Demonstration of self-truncated ionization injection for GeV electron beams. Scientific Reports, 2015, 5, 14659.	3.3	98
3	Bright betatron X-ray radiation from a laser-driven-clustering gas target. Scientific Reports, 2013, 3, 1912.	3.3	70
4	Electron trapping and acceleration across a parabolic plasma density profile. Physical Review E, 2004, 69, 026409.	2.1	53
5	Demonstration of a saturated Ni-like Ag x-ray laser pumped by a single profiled laser pulse from a 10-Hz Ti:sapphire laser system. Physical Review A, 2008, 77, .	2.5	44
6	Concurrence of monoenergetic electron beams and bright X-rays from an evolving laser-plasma bubble. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 5825-5830.	7.1	43
7	Efficient production of a collimated MeV proton beam from a polyimide target driven by an intense femtosecond laser pulse. Physics of Plasmas, 2008, 15, .	1.9	42
8	Effect of pulse profile and chirp on a laser wakefield generation. Physics of Plasmas, 2012, 19, .	1.9	42
9	Generation of 20â€‰kA electron beam from a laser wakefield accelerator. Physics of Plasmas, 2017, 24, .	1.9	38
10	Controlling the betatron oscillations of a wakefield-accelerated electron beam by temporally asymmetric laser pulses. Physics of Plasmas, 2011, 18, .	1.9	36
11	Diagnostic of laser contrast using target reflectivity. Applied Physics Letters, 2009, 94, .	3.3	33
12	Dependence of the electron beam parameters on the stability of laser propagation in a laser wakefield accelerator. Applied Physics Letters, 2007, 90, 151501.	3.3	32
13	Resonantly Enhanced Betatron Hard X-rays from Ionization Injected Electrons in a Laser Plasma Accelerator. Scientific Reports, 2016, 6, 27633.	3.3	31
14	Computer simulations of a single-laser double-gas-jet wakefield accelerator concept. Physical Review Special Topics: Accelerators and Beams, 2002, 5, .	1.8	29
15	Femtosecond X-ray generation via the thomson scattering of a terawatt laser from electron bunches produced from the LWFA utilizing a plasma density transition. IEEE Transactions on Plasma Science, 2003, 31, 1388-1394.	1.3	26
16	Simultaneous generation of quasi-monoenergetic electron and betatron X-rays from nitrogen gas via ionization injection. Applied Physics Letters, 2014, 105, .	3.3	23
17	A laser-plasma accelerator driven by two-color relativistic femtosecond laser pulses. Science Advances, 2019, 5, eaav7940.	10.3	23
18	Quasimonoenergetic electron beam generation by using a pinholelike collimator in a self-modulated laser wakefield acceleration. Physical Review E, 2006, 73, 016405.	2.1	21

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19	Ion spectrometer composed of time-of-flight and Thomson parabola spectrometers for simultaneous characterization of laser-driven ions. Review of Scientific Instruments, 2009, 80, 053302.	1.3	21
20	Wavefront Correction and Customization of Focal Spot of 100 TW Ti:Sapphire Laser System. Japanese Journal of Applied Physics, 2007, 46, 7724-7730.	1.5	20
21	Evolution of self-injected quasi-monoenergetic electron beams in a plasma bubble. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2011, 637, S51-S53.	1.6	18
22	Enhanced single-stage laser-driven electron acceleration by self-controlled ionization injection. Optics Express, 2014, 22, 29578.	3.4	17
23	Absolute calibration of a time-of-flight spectrometer and imaging plate for the characterization of laser-accelerated protons. Measurement Science and Technology, 2009, 20, 115112.	2.6	16
24	Controlled ionization-induced injection by tailoring the gas-density profile in laser wakefield acceleration. Journal of Plasma Physics, 2012, 78, 363-371.	2.1	15
25	Quasimonoenergetic collimated electron beams from a laser wakefield acceleration in low density pure nitrogen. Physics of Plasmas, 2014, 21, 073102.	1.9	15
26	Stable laserâ€“plasma accelerators at low densities. Journal of Applied Physics, 2014, 116, .	2.5	14
27	Controlling the Pointing Angle of a Relativistic Electron Beam in a Weakly-Nonlinear Laser Wakefield Accelerator. Applied Physics Express, 2010, 3, 076401.	2.4	14
28	Diagnosis of bubble evolution in laser-wakefield acceleration via angular distributions of betatron x-rays. Applied Physics Letters, 2014, 105, .	3.3	13
29	1 kHz laser accelerated electron beam feasible for radiotherapy uses: A PICâ€“Monte Carlo based study. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2021, 987, 164841.	1.6	13
30	Generation of high-quality electron beams by ionization injection in a single acceleration stage. High Power Laser Science and Engineering, 2016, 4, .	4.6	12
31	Control of electron beam energy-spread by beam loading effects in a laser-plasma accelerator. Plasma Physics and Controlled Fusion, 2020, 62, 055004.	2.1	12
32	Experimental verification of laser photocathode RF gun as an injector for a laser plasma accelerator. IEEE Transactions on Plasma Science, 2000, 28, 1133-1142.	1.3	11
33	Hundreds- and tens-femtosecond time-resolved pump-and-probe analysis system. Radiation Physics and Chemistry, 2001, 60, 303-306.	2.8	11
34	Laser Wakefield Acceleration Using Mid-Infrared Laser Pulses. Chinese Physics Letters, 2016, 33, 095202.	3.3	11
35	Laser acceleration in argon clusters and gas media. Plasma Physics and Controlled Fusion, 2016, 58, 034014.	2.1	10
36	Effect of injection-gas concentration on the electron beam quality from a laser-plasma accelerator. Physics of Plasmas, 2018, 25, 043106.	1.9	10

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37	Ultrashort, MeV-scale laser-plasma positron source for positron annihilation lifetime spectroscopy. Physical Review Accelerators and Beams, 2021, 24, .	1.6	10
38	Quasi-Monoenergetic Electron-Beam Generation Using a Laser Accelerator for Ultra-Short X-ray Sources. Journal of the Korean Physical Society, 2007, 51, 397.	0.7	10
39	New injection and acceleration scheme of positrons in the laser-plasma bubble regime. Physical Review Accelerators and Beams, 2020, 23, .	1.6	10
40	Characteristics of a Ni-like silver x-ray laser pumped by a single profiled laser pulse. Journal of the Optical Society of America B: Optical Physics, 2008, 25, B76.	2.1	9
41	Enhanced electron yield from laser-driven wakefield acceleration in high-Z gas jets. Review of Scientific Instruments, 2015, 86, 103502.	1.3	9
42	Numerical analysis of 10's femtosecond relativistic electron beam generation using single 12TW50fs laser pulse. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2000, 455, 148-154.	1.6	8
43	Laser wakefield acceleration in Krâ€“He plasmas and its application to positron beam generation. Plasma Physics and Controlled Fusion, 2018, 60, 085012.	2.1	8
44	Highly efficient few-cycle laser wakefield electron accelerator. Plasma Physics and Controlled Fusion, 2021, 63, 065019.	2.1	8
45	On-Line plasma diagnostics of a laser-produced plasma. Plasma Science and Technology, 2017, 19, 015506.	1.5	7
46	GENERATION OF GOOD-QUALITY RELATIVISTIC ELECTRON BEAM FROM SELF-MODULATED LASER WAKEFIELD ACCELERATION. International Journal of Modern Physics B, 2007, 21, 398-406.	2.0	6
47	Target Diagnostic Systems for Proton, Electron, and X-rayGeneration Experiments Based on Ultraintense Laser-TargetInteractions. Journal of the Korean Physical Society, 2009, 55, 517-527.	0.7	6
48	Near-GeV electron beam from a laser wakefield accelerator in the bubble regime. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2005, 554, 49-58.	1.6	5
49	Utilizing asymmetric laser pulses for the generation of high-quality wakefield-accelerated electron beams. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2011, 654, 592-596.	1.6	5
50	Generation of quasi-monoenergetic electron beams with small normalized divergences angle from a 2 TW laser facility. Optics Express, 2014, 22, 12836.	3.4	5
51	Generation of GeV Electron Beam From a Laser-Plasma Accelerator and Its Prospect as a Desktop Source of Energetic Positrons and Gamma Rays For Applications. IEEE Transactions on Nuclear Science, 2018, 65, 2671-2678.	2.0	5
52	Substantial enhancement of betatron radiation in cluster targets. Physical Review E, 2020, 102, 053205.	2.1	5
53	Generation of electron beams from a laser wakefield acceleration in pure neon gas. Physics of Plasmas, 2014, 21, 083108.	1.9	4
54	Enhanced electron injection in laser-driven bubble acceleration by ultra-intense laser irradiating foil-gas targets. Physics of Plasmas, 2015, 22, 083110.	1.9	3

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55	Enhanced laser wakefield acceleration using dual-color relativistic pulses. Plasma Physics and Controlled Fusion, 2020, 62, 095012.	2.1	3
56	Emittance Growth of High-Energy Electrons Produced From the Laser Wakefield Acceleration. IEEE Transactions on Plasma Science, 2004, 32, 429-432.	1.3	2
57	Radiography with Low Energy Protons Generated from Ultraintense Laser-plasma Interactions. Journal of the Optical Society of Korea, 2009, 13, 28-32.	0.6	2
58	Correlation between macroscopic plasma dynamics and electron beam parameters in a laser-plasma accelerator. Plasma Physics and Controlled Fusion, 2018, 60, 085020.	2.1	2
59	Ultrafast dynamics of magnetic vortices and pulse collapse in a laser-under dense plasma interaction. Physics of Plasmas, 2019, 26, 022306.	1.9	2
60	Generation and collective interaction of giant magnetic dipoles in laser cluster plasma. Scientific Reports, 2021, 11, 15971.	3.3	2
61	Laser-driven electron acceleration research at APRI and future application to compact light sources. Journal of the Korean Physical Society, 2010, 56, 241-246.	0.7	2
62	Electron single bunch acceleration from laser-plasma at the University of Tokyo. , 0, , .		1
63	Laser Acceleration of Electron Beams to the GeV-class Energies in Gas Jets. Journal of the Optical Society of Korea, 2009, 13, 8-14.	0.6	1
64	High-Quality Laser-Driven Electron Beams by Ionization Injection in Low-Density Nitrogen Gas Jet. IEEE Transactions on Plasma Science, 2015, 43, 539-543.	1.3	1
65	Self-induced ionization injection LWFA and generation of sub-fs electron bunches with few-cycle sub-TW laser pulses. Laser and Particle Beams, 2019, 37, 165-170.	1.0	1
66	Generation of high-quality GeV-class electron beams utilizing attosecond ionization injection. New Journal of Physics, 2021, 23, 043016.	2.9	1
67	High Stability Positron Beam Generation Based on Ultra-intense Laser. Acta Physica Polonica A, 2020, 137, 156-159.	0.5	1
68	A laser wakefield acceleration facility using SG-II petawatt laser system. Review of Scientific Instruments, 2022, 93, 033504.	1.3	1
69	Stability evaluation of femtosecond S-band linac with photocathode RF gun. AIP Conference Proceedings, 2001, , .	0.4	0
70	Numerical simulation for plasma electron acceleration by 12TW 50 fs laser pulse. AIP Conference Proceedings, 2001, , .	0.4	0
71	Laser-plasma electron linear accelerator. International Journal of Applied Electromagnetics and Mechanics, 2002, 14, 271-276.	0.6	0
72	Ultra short x-ray source based on the nonlinear thomson scattering of femtosecond lasers from plasma-accelerated electron beams. , 0, , .		0

#	Article	IF	Citations
73	Near-GeV Electron Beams from the Laser Wakefield Accelerator in the “Bubble” Regime. , 0, , .		0
74	Generation of Small Energy Spread Electron Beam from Self-Modulated Laserwakefield Accelerator. , 0, , .		0
75	Generation of 1.2 X Diffraction-Limited Focal Spot from the 100 TW Ti:sapphire Laser System by use of an adaptive optics system. , 2007, , .		0
76	Development of X-ray Lasers and High-order Harmonics towards Harmonic Seeded X-ray Lasers around 13-nm Wavelength. , 2007, , .		0
77	Enhancement of Electron Beam Generation by Using a Steep Downward Density Gradient. , 2007, , .		0
78	Full characterization of a GRIP Ni-like Ag amplifier for seeding with high harmonics at 13.9 nm. , 2007, , .		0
79	Generation of 1.2 X diffraction-limited focal spot from the 100 TW Ti:sapphire laser system. , 2007, , .		0
80	Accelerators moving on. Nature Photonics, 2008, 2, 580-580.	31.4	0
81	Development of Laser-Driven Proton and Electron Sources Using APRI 100-TW Ti:Sapphire Laser System. AIP Conference Proceedings, 2008, , .	0.4	0
82	Laser-driven electron beam acceleration and future application to compact light sources. , 2009, , .		0
83	On-Target Contrast Diagnostic via Specular Reflectivity Measurement. , 2009, , .		0
84	On the Pointing Angle of Electron Beams from Laser Wakefield Accelerators. , 2010, , .		0
85	Generation of high-quality electron beams from a laser-based advanced accelerator. Chinese Physics C, 2015, 39, 067003.	3.7	0
86	Review on Recent High Intensity Physics Experiments Relevant to X-Ray and Quantum Beam Generation at JAEA. Springer Proceedings in Physics, 2009, , 33-42.	0.2	0