

Kai Huang

List of Publications by Year in descending order

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75
papers

1,599
citations

304743

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315739

38
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all docs

77
docs citations

77
times ranked

1614
citing authors

#	ARTICLE	IF	CITATIONS
1	Flexible X-ray Detectors Based on Amorphous Ga ₂ O ₃ Thin Films. ACS Photonics, 2019, 6, 351-359.	6.6	123
2	Manipulation of polarizations for broadband terahertz waves emitted from laser plasma filaments. Nature Photonics, 2018, 12, 554-559.	31.4	109
3	1.4â€mJ High Energy Terahertz Radiation from Lithium Niobates. Laser and Photonics Reviews, 2021, 15, 2000295.	8.7	105
4	Demonstration of self-truncated ionization injection for GeV electron beams. Scientific Reports, 2015, 5, 14659.	3.3	98
5	Study of X-Ray Emission Enhancement via a High-Contrast Femtosecond Laser Interacting with a Solid Foil. Physical Review Letters, 2008, 100, 045004.	7.8	92
6	Strong terahertz radiation from relativistic laser interaction with solid density plasmas. Applied Physics Letters, 2012, 100, .	3.3	70
7	Bright betatron X-ray radiation from a laser-driven-clustering gas target. Scientific Reports, 2013, 3, 1912.	3.3	70
8	Bursts of Terahertz Radiation from Large-Scale Plasmas Irradiated by Relativistic Picosecond Laser Pulses. Physical Review Letters, 2015, 114, 255001.	7.8	60
9	Intense High-Contrast Femtosecond $K\alpha$ -Shell X-Ray Source from Laser-Driven Ar Clusters. Physical Review Letters, 2010, 104, 215004.	7.8	59
10	Effects of Laser Polarization on Jet Emission of Fast Electrons in Femtosecond-Laser Plasmas. Physical Review Letters, 2001, 87, 225001.	7.8	57
11	Study of hard x-ray emission from intense femtosecond Ti:sapphire laserâ€solid target interactions. Physics of Plasmas, 2004, 11, 4439-4445.	1.9	57
12	Hot electron generation via vacuum heating process in femtosecond laserâ€solid interactions. Physics of Plasmas, 2001, 8, 2925-2929.	1.9	56
13	Generation of 20â€kA electron beam from a laser wakefield accelerator. Physics of Plasmas, 2017, 24, .	1.9	38
14	Statistical analysis of laser driven protons using a high-repetition-rate tape drive target system. Physical Review Accelerators and Beams, 2017, 20, .	1.6	35
15	Phase-contrast x-ray imaging with intense ArK α radiation from femtosecond-laser-driven gas target. Applied Physics Letters, 2007, 90, 211501.	3.3	31
16	Resonantly Enhanced Betatron Hard X-rays from Ionization Injected Electrons in a Laser Plasma Accelerator. Scientific Reports, 2016, 6, 27633.	3.3	31
17	Collisionless shockwaves formed by counter-streaming laser-produced plasmas. New Journal of Physics, 2011, 13, 093001.	2.9	30
18	Laser pulse guiding and electron acceleration in the ablative capillary discharge plasma. Physics of Plasmas, 2009, 16, .	1.9	29

#	ARTICLE	IF	CITATIONS
19	Experimental study of a subpicosecond pulse laser interacting with metallic and dielectric targets. <i>Physical Review E</i> , 2001, 63, 036403.	2.1	23
20	Compression grating alignment by far-field monitoring. <i>Applied Physics B: Lasers and Optics</i> , 2010, 101, 587-591.	2.2	23
21	Simultaneous generation of quasi-monoenergetic electron and betatron X-rays from nitrogen gas via ionization injection. <i>Applied Physics Letters</i> , 2014, 105, .	3.3	23
22	Ultrahigh-charge electron beams from laser-irradiated solid surface. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, 6980-6985.	7.1	23
23	Intense high repetition rate Mo $K\alpha$ x-ray source generated from laser solid interaction for imaging application. <i>Review of Scientific Instruments</i> , 2014, 85, 113304.	1.3	22
24	Generation of femtosecond β -ray bursts stimulated by laser-driven hosing evolution. <i>Scientific Reports</i> , 2016, 6, 30491.	3.3	21
25	Spectrally peaked electron beams produced via surface guiding and acceleration in femtosecond laser-solid interactions. <i>Physical Review E</i> , 2012, 85, 025401.	2.1	19
26	Femtosecond Pumping of Nuclear Isomeric States by the Coulomb Collision of Ions with Quivering Electrons. <i>Physical Review Letters</i> , 2022, 128, 052501.	7.8	19
27	Quasimonoenergetic collimated electron beams from a laser wakefield acceleration in low density pure nitrogen. <i>Physics of Plasmas</i> , 2014, 21, 073102.	1.9	15
28	Doping tuned rectifying properties in $\text{La}_{2-x}\text{Sr}_x\text{CuO}_4/\text{Nb}:\text{SrTiO}_3$ heterojunctions. <i>Applied Physics Letters</i> , 2009, 94, 143506.	3.3	14
29	Highly collimated monoenergetic target-surface electron acceleration in near-critical-density plasmas. <i>Applied Physics Letters</i> , 2015, 106, .	3.3	14
30	Diagnostics of the early stage of the heating of clusters by a femtosecond laser pulse from the spectra of hollow ions. <i>JETP Letters</i> , 2011, 94, 171.	1.4	13
31	Diagnosis of bubble evolution in laser-wakefield acceleration via angular distributions of betatron x-rays. <i>Applied Physics Letters</i> , 2014, 105, .	3.3	13
32	Deuteron-deuteron fusion in laser-driven counter-streaming collisionless plasmas. <i>Physical Review C</i> , 2017, 96, .	2.9	13
33	Laser-driven powerful kHz hard x-ray source. <i>Radiation Physics and Chemistry</i> , 2017, 137, 78-82.	2.8	12
34	Generation of Quantum Beams in Large Clusters Irradiated by Super-Intense, High Contrast Femtosecond Laser Pulses. <i>Contributions To Plasma Physics</i> , 2013, 53, 148-160.	1.1	11
35	Probing the laser wakefield in underdense plasmas by induced terahertz emission. <i>Physics of Plasmas</i> , 2013, 20, 080702.	1.9	10
36	Neutron yield enhancement in laser-induced deuterium-deuterium fusion using a novel shaped target. <i>Review of Scientific Instruments</i> , 2015, 86, 063505.	1.3	10

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37	A novel laser-collider used to produce monoenergetic 13.3 MeV ${}^7\text{Li}$ (d, n) neutrons. <i>Scientific Reports</i> , 2016, 6, 27363.	3.3	10
38	Inverse Compton scattering x-ray source from laser electron accelerator in pure nitrogen with 15 TW laser pulses. <i>Plasma Physics and Controlled Fusion</i> , 2019, 61, 024001.	2.1	9
39	High-efficiency neutron source generation from photonuclear reactions driven by laser plasma accelerator. <i>High Energy Density Physics</i> , 2020, 36, 100753.	1.5	9
40	Divergence control of relativistic harmonics by an optically shaped plasma surface. <i>Physical Review E</i> , 2020, 101, 033202.	2.1	9
41	Double optimal density gradients for harmonic generation from relativistically oscillating plasma surfaces. <i>Physics of Plasmas</i> , 2019, 26, .	1.9	8
42	Long-distance femtosecond laser filaments in air. <i>Laser Physics</i> , 2009, 19, 1769-1775.	1.2	7
43	Application of a transmission crystal x-ray spectrometer to moderate-intensity laser driven sources. <i>Review of Scientific Instruments</i> , 2012, 83, 043104.	1.3	7
44	Multiple quasi-monoenergetic electron beams from laser-wakefield acceleration with spatially structured laser pulse. <i>Physics of Plasmas</i> , 2015, 22, .	1.9	7
45	Intense γ ray generated by refocusing laser pulse on wakefield accelerated electrons. <i>Physics of Plasmas</i> , 2017, 24, .	1.9	7
46	Small energy spread electron beams from laser wakefield acceleration by self-evolved ionization injection. <i>Plasma Physics and Controlled Fusion</i> , 2018, 60, 034004.	2.1	7
47	Collimated gamma rays from laser wakefield accelerated electrons. <i>Matter and Radiation at Extremes</i> , 2018, 3, 188-196.	3.9	7
48	Gamma-ray emission from wakefield-accelerated electrons wiggling in a laser field. <i>Scientific Reports</i> , 2019, 9, 2531.	3.3	7
49	Optical control of transverse motion of ionization injected electrons in a laser plasma accelerator. <i>High Power Laser Science and Engineering</i> , 2021, 9, .	4.6	6
50	Micro focusing of fast electrons with opened cone targets. <i>Physics of Plasmas</i> , 2012, 19, 013103.	1.9	5
51	Circularly polarized x-ray generation from an ionization induced laser plasma electron accelerator. <i>Plasma Physics and Controlled Fusion</i> , 2020, 62, 105021.	2.1	5
52	2D semiclassical model for high harmonic generation from gas. <i>Science in China Series A: Mathematics</i> , 2000, 43, 1202-1207.	0.5	4
53	Optical diagnostics of femtosecond laser plasmas. <i>Science in China Series A: Mathematics</i> , 2001, 44, 98-102.	0.5	4
54	Parametric scalings of laser driven protons using a high repetition rate tape drive target system. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2018, 909, 164-167.	1.6	4

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55	Angular distribution of terahertz emission from laser interactions with solid targets. Science China Information Sciences, 2012, 55, 43-48.	4.3	3
56	Hot electrons generated by ultra-short pulse laser interacting with solid targets. Science in China Series A: Mathematics, 2000, 43, 1294-1300.	0.5	2
57	Polarization of terahertz emission out of incident plane from laser interactions with solid targets. Science China: Physics, Mechanics and Astronomy, 2012, 55, 589-592.	5.1	2
58	The influence of target material and thickness on proton energy and angular distribution. Science China: Physics, Mechanics and Astronomy, 2013, 56, 457-461.	5.1	2
59	Note: Pre-pulse characterization of femtosecond laser pulse by filamentation in transparent media. Review of Scientific Instruments, 2014, 85, 126103.	1.3	2
60	Angle-dependent modulated spectral peaks of proton beams generated in ultrashort intense laser-solid interactions. Physics of Plasmas, 2014, 21, 093111.	1.9	2
61	Proton angular distribution research by a new angle-resolved proton energy spectrometer. Science China: Physics, Mechanics and Astronomy, 2014, 57, 844-848.	5.1	2
62	Periodic spectral modulations of low-energy, low-charge-state carbon ions accelerated in an intense laser-solid interaction. Physics of Plasmas, 2018, 25, 043122.	1.9	2
63	Ultra-fast x-ray-dynamic experimental subsystem. Chinese Physics B, 2018, 27, 074101.	1.4	2
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	Energy enhancement of the target surface electron by using a 200 TW sub-picosecond laser. Optics Letters, 2018, 43, 3909.	3.3	1
66	Proton acceleration from vacuum-gapped double-foil target with low-contrast picosecond intense laser. Physics of Plasmas, 2018, 25, 073108.	1.9	1
67	Experimental studies of axial magnetic fields generated in ultrashort-pulse laser-plasma interaction. Science in China Series A: Mathematics, 2000, 43, 1312-1317.	0.5	0
68	Effect of prepulse on fast electron lateral transport at the target surface irradiated by intense femtosecond laser pulses. , 2010, , .		0
69	Recent Studies of Intense-Laser-Driven X-ray and Terahertz Radiation Sources at the Insitute of Physics, CAS. , 2010, , .		0
70	Strong terahertz radiation form intense femtosecond laser-solid interactions. , 2010, , .		0
71	Demonstration of high power terahertz sources driven by intense femtosecond lasers. , 2010, , .		0
72	Studies of high energy density physics and laboratory astrophysics driven by intense lasers. Journal of Physics: Conference Series, 2016, 717, 012004.	0.4	0

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73	Enhancement of betatron x-rays in a laser plasma accelerator. , 2016, , .		0
74	Review of Energetic Particle Generation and Electromagnetic Radiation from Intense Laser-Plasma Interactions at the Institute of Physics, Chinese Academy of Sciences. Plasma and Fusion Research, 2009, 4, 023-023.	0.7	0
75	Betatron X-Ray Radiation from Wakefield-Accelerated Electrons Wiggling in Laser Fields. Springer Proceedings in Physics, 2020, , 109-116.	0.2	0