

# Kai Huang

## List of Publications by Year in descending order

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75  
papers

1,599  
citations

304743

22  
h-index

315739

38  
g-index

77  
all docs

77  
docs citations

77  
times ranked

1614  
citing authors

#	ARTICLE	IF	CITATIONS
1	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
2	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
3	1.4â€mJ High Energy Terahertz Radiation from Lithium Niobates. <i>Laser and Photonics Reviews</i> , 2021, 15, 2000295.	8.7	105
4	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
5	Divergence control of relativistic harmonics by an optically shaped plasma surface. <i>Physical Review E</i> , 2020, 101, 033202.	2.1	9
6	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
7	Betatron X/Î³-Ray Radiation from Wakefield-Accelerated Electrons Wiggling in Laser Fields. <i>Springer Proceedings in Physics</i> , 2020, , 109-116.	0.2	0
8	Double optimal density gradients for harmonic generation from relativistically oscillating plasma surfaces. <i>Physics of Plasmas</i> , 2019, 26, .	1.9	8
9	Gamma-ray emission from wakefield-accelerated electrons wiggling in a laser field. <i>Scientific Reports</i> , 2019, 9, 2531.	3.3	7
10	Flexible X-ray Detectors Based on Amorphous Ga <sub>2</sub> O <sub>3</sub> Thin Films. <i>ACS Photonics</i> , 2019, 6, 351-359.	6.6	123
11	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
12	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
13	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
14	Periodic spectral modulations of low-energy, low-charge-state carbon ions accelerated in an intense laserâ€solid interaction. <i>Physics of Plasmas</i> , 2018, 25, 043122.	1.9	2
15	Energy enhancement of the target surface electron by using a 200 TW sub-picosecond laser. <i>Optics Letters</i> , 2018, 43, 3909.	3.3	1
16	Ultra-fast x-ray-dynamic experimental subsystem. <i>Chinese Physics B</i> , 2018, 27, 074101.	1.4	2
17	Manipulation of polarizations for broadband terahertz waves emitted from laser plasma filaments. <i>Nature Photonics</i> , 2018, 12, 554-559.	31.4	109
18	Proton acceleration from vacuum-gapped double-foil target with low-contrast picosecond intense laser. <i>Physics of Plasmas</i> , 2018, 25, 073108.	1.9	1

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19	Collimated gamma rays from laser wakefield accelerated electrons. Matter and Radiation at Extremes, 2018, 3, 188-196.	3.9	7
20	Ultrahigh-charge electron beams from laser-irradiated solid surface. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 6980-6985.	7.1	23
21	Laser-driven powerful kHz hard x-ray source. Radiation Physics and Chemistry, 2017, 137, 78-82.	2.8	12
22	Generation of 20â€‰%kA electron beam from a laser wakefield accelerator. Physics of Plasmas, 2017, 24, .	1.9	38
23	Intense $\hat{1}^3$ ray generated by refocusing laser pulse on wakefield accelerated electrons. Physics of Plasmas, 2017, 24, .	1.9	7
24	Deuteron-deuteron fusion in laser-driven counter-streaming collisionless plasmas. Physical Review C, 2017, 96, .	2.9	13
25	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
26	Studies of high energy density physics and laboratory astrophysics driven by intense lasers. Journal of Physics: Conference Series, 2016, 717, 012004.	0.4	0
27	A novel laser-collider used to produce monoenergetic 13.3â€‰%MeV $^7\text{Li}$ (d, n) neutrons. Scientific Reports, 2016, 6, 27363.	3.3	10
28	Resonantly Enhanced Betatron Hard X-rays from Ionization Injected Electrons in a Laser Plasma Accelerator. Scientific Reports, 2016, 6, 27633.	3.3	31
29	Enhancement of betatron x-rays in a laser plasma accelerator. , 2016, , .		0
30	Generation of femtosecond $\hat{1}^3$ -ray bursts stimulated by laser-driven hosing evolution. Scientific Reports, 2016, 6, 30491.	3.3	21
31	Bursts of Terahertz Radiation from Large-Scale Plasmas Irradiated by Relativistic Picosecond Laser Pulses. Physical Review Letters, 2015, 114, 255001.	7.8	60
32	Demonstration of self-truncated ionization injection for GeV electron beams. Scientific Reports, 2015, 5, 14659.	3.3	98
33	Neutron yield enhancement in laser-induced deuterium-deuterium fusion using a novel shaped target. Review of Scientific Instruments, 2015, 86, 063505.	1.3	10
34	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
35	Highly collimated monoenergetic target-surface electron acceleration in near-critical-density plasmas. Applied Physics Letters, 2015, 106, .	3.3	14
36	Multiple quasi-monoenergetic electron beams from laser-wakefield acceleration with spatially structured laser pulse. Physics of Plasmas, 2015, 22, .	1.9	7

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37	Intense high repetition rate Mo K $\alpha$ x-ray source generated from laser solid interaction for imaging application. Review of Scientific Instruments, 2014, 85, 113304.	1.3	22
38	Note: Pre-pulse characterization of femtosecond laser pulse by filamentation in transparent media. Review of Scientific Instruments, 2014, 85, 126103.	1.3	2
39	Simultaneous generation of quasi-monoenergetic electron and betatron X-rays from nitrogen gas via ionization injection. Applied Physics Letters, 2014, 105, .	3.3	23
40	Angle-dependent modulated spectral peaks of proton beams generated in ultrashort intense laser-solid interactions. Physics of Plasmas, 2014, 21, 093111.	1.9	2
41	Diagnosis of bubble evolution in laser-wakefield acceleration via angular distributions of betatron x-rays. Applied Physics Letters, 2014, 105, .	3.3	13
42	Quasimonoenergetic collimated electron beams from a laser wakefield acceleration in low density pure nitrogen. Physics of Plasmas, 2014, 21, 073102.	1.9	15
43	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
44	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
45	Generation of Quantum Beams in Large Clusters Irradiated by Super-Intense, High Contrast Femtosecond Laser Pulses. Contributions To Plasma Physics, 2013, 53, 148-160.	1.1	11
46	Bright betatron X-ray radiation from a laser-driven-clustering gas target. Scientific Reports, 2013, 3, 1912.	3.3	70
47	Probing the laser wakefield in underdense plasmas by induced terahertz emission. Physics of Plasmas, 2013, 20, 080702.	1.9	10
48	Micro focusing of fast electrons with opened cone targets. Physics of Plasmas, 2012, 19, 013103.	1.9	5
49	Application of a transmission crystal x-ray spectrometer to moderate-intensity laser driven sources. Review of Scientific Instruments, 2012, 83, 043104.	1.3	7
50	Spectrally peaked electron beams produced via surface guiding and acceleration in femtosecond laser-solid interactions. Physical Review E, 2012, 85, 025401.	2.1	19
51	Strong terahertz radiation from relativistic laser interaction with solid density plasmas. Applied Physics Letters, 2012, 100, .	3.3	70
52	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
53	Angular distribution of terahertz emission from laser interactions with solid targets. Science China Information Sciences, 2012, 55, 43-48.	4.3	3
54	Diagnostics of the early stage of the heating of clusters by a femtosecond laser pulse from the spectra of hollow ions. JETP Letters, 2011, 94, 171.	1.4	13

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55	Collisionless shockwaves formed by counter-streaming laser-produced plasmas. <i>New Journal of Physics</i> , 2011, 13, 093001.	2.9	30
56	Compression grating alignment by far-field monitoring. <i>Applied Physics B: Lasers and Optics</i> , 2010, 101, 587-591.	2.2	23
57	Effect of prepulse on fast electron lateral transport at the target surface irradiated by intense femtosecond laser pulses. , 2010, , .		0
58	Recent Studies of Intense-Laser-Driven X-ray and Terahertz Radiation Sources at the Institute of Physics, CAS. , 2010, , .		0
59	Intense High-Contrast Femtosecond $K\alpha$ -Shell X-Ray Source from Laser-Driven Ar Clusters. <i>Physical Review Letters</i> , 2010, 104, 215004.	7.8	59
60	Strong terahertz radiation from intense femtosecond laser-solid interactions. , 2010, , .		0
61	Demonstration of high power terahertz sources driven by intense femtosecond lasers. , 2010, , .		0
62	Laser pulse guiding and electron acceleration in the ablative capillary discharge plasma. <i>Physics of Plasmas</i> , 2009, 16, .	1.9	29
63	Doping tuned rectifying properties in $\text{La}_{2-x}\text{Sr}_x\text{CuO}_4/\text{Nb:SrTiO}_3$ heterojunctions. <i>Applied Physics Letters</i> , 2009, 94, 143506.	3.3	14
64	Long-distance femtosecond laser filaments in air. <i>Laser Physics</i> , 2009, 19, 1769-1775.	1.2	7
65	Review of Energetic Particle Generation and Electromagnetic Radiation from Intense Laser-Plasma Interactions at the Institute of Physics, Chinese Academy of Sciences. <i>Plasma and Fusion Research</i> , 2009, 4, 023-023.	0.7	0
66	Study of X-Ray Emission Enhancement via a High-Contrast Femtosecond Laser Interacting with a Solid Foil. <i>Physical Review Letters</i> , 2008, 100, 045004.	7.8	92
67	Phase-contrast x-ray imaging with intense $\text{Ar}K\alpha$ radiation from femtosecond-laser-driven gas target. <i>Applied Physics Letters</i> , 2007, 90, 211501.	3.3	31
68	Study of hard x-ray emission from intense femtosecond Ti:sapphire laser-solid target interactions. <i>Physics of Plasmas</i> , 2004, 11, 4439-4445.	1.9	57
69	Experimental study of a subpicosecond pulse laser interacting with metallic and dielectric targets. <i>Physical Review E</i> , 2001, 63, 036403.	2.1	23
70	Hot electron generation via vacuum heating process in femtosecond laser-solid interactions. <i>Physics of Plasmas</i> , 2001, 8, 2925-2929.	1.9	56
71	Effects of Laser Polarization on Jet Emission of Fast Electrons in Femtosecond-Laser Plasmas. <i>Physical Review Letters</i> , 2001, 87, 225001.	7.8	57
72	Optical diagnostics of femtosecond laser plasmas. <i>Science in China Series A: Mathematics</i> , 2001, 44, 98-102.	0.5	4

#	ARTICLE	IF	CITATIONS
73	2D semiclassical model for high harmonic generation from gas. Science in China Series A: Mathematics, 2000, 43, 1202-1207.	0.5	4
74	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
75	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