Liang Jie Wong

List of Publications by Year
in descending order

62 papers	1,372 citations	361413 20 h-index	330143 37 g-index
63 all docs	63 docs citations	63 times ranked	1320 citing authors

#	Article	IF	Citations
1	Enhanced Modulation Characteristics of Optical Injection-Locked Lasers: A Tutorial. IEEE Journal of Selected Topics in Quantum Electronics, 2009, 15, 618-633.	2.9	225
2	Towards graphene plasmon-based free-electron infrared to X-ray sources. Nature Photonics, 2016, 10, 46-52.	31.4	112
3	Compact electron acceleration and bunch compression in THz waveguides. Optics Express, 2013, 21, 9792.	3.4	98
4	Direct acceleration of an electron in infinite vacuum by a pulsed radially-polarized laser beam. Optics Express, 2010, 18, 25035.	3.4	80
5	Efficient plasmonic emission by the quantum ÄŒerenkov effect from hot carriers in graphene. Nature Communications, 2016, 7, ncomms11880.	12.8	78
6	Direct longitudinal laser acceleration of electrons in free space. Physical Review Accelerators and Beams, 2016, 19, .	1.6	73
7	Ultrashort Tilted-Pulse-Front Pulses and NonparaxialÂTilted-Phase-Front Beams. ACS Photonics, 2017, 4, 2257-2264.	6.6	54
8	Tunable free-electron X-ray radiation from van der Waals materials. Nature Photonics, 2020, 14, 686-692.	31.4	48
9	High Mobility 3D Dirac Semimetal (Cd₃As₂) for Ultrafast Photoactive Terahertz Photonics. Advanced Functional Materials, 2021, 31, 2011011.	14.9	46
10	Toward a terahertz-driven electron gun. Scientific Reports, 2015, 5, 14899.	3.3	40
11	Metasurface-based multi-harmonic free-electron light source. Light: Science and Applications, 2018, 7, 64.	16.6	40
12	Laser-Induced Linear-Field Particle Acceleration in Free Space. Scientific Reports, 2017, 7, 11159.	3.3	39
13	Bandwidth Enhancement by Master Modulation of Optical Injection-Locked Lasers. Journal of Lightwave Technology, 2008, 26, 2584-2593.	4.6	38
14	Controlling electromagnetic fields at boundaries of arbitrary geometries. Physical Review A, 2016, 94, .	2.5	36
15	Abruptly Focusing and Defocusing Needles of Light and Closed-Form Electromagnetic Wavepackets. ACS Photonics, 2017, 4, 1131-1137.	6.6	35
16	Control of quantum electrodynamical processes by shaping electron wavepackets. Nature Communications, 2021, 12, 1700.	12.8	34
17	Efficient generation of extreme terahertz harmonics in three-dimensional Dirac semimetals. Physical Review Research, 2020, 2, .	3.6	29
18	Surface Dyakonovâ€“Cherenkov radiation. ELight, 2022, 2, .	23.9	29

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19	Light emission based on nanophotonic vacuum forces. Nature Physics, 2019, 15, 1284-1289.	16.7	21
20	Graphene Metamaterials for Intense, Tunable, and Compact Extreme Ultraviolet and Xâ€Ray Sources. Advanced Science, 2020, 7, 1901609.	11.2	21
21	All-optical three-dimensional electron pulse compression. New Journal of Physics, 2015, 17, 013051.	2.9	20
22	Dilated convolutional neural networks for fiber Bragg grating signal demodulation. Optics Express, 2021, 29, 7110.	3.4	19
23	Improved beam waist formula for ultrashort, tightly focused linearly, radially, and azimuthally polarized laser pulses in free space. Optics Letters, 2014, 39, 1258.	3.3	18
24	Prospects in x-ray science emerging from quantum optics and nanomaterials. Applied Physics Letters, 2021, 119, .	3.3	18
25	The Complex Charge Paradigm: A New Approach for Designing Electromagnetic Wavepackets. Advanced Science, 2020, 7, 1903377.	11.2	17
26	Propagation-invariant space-time caustics of light. Optics Express, 2021, 29, 30682.	3.4	15
27	Self-adaptive deep reinforcement learning for THz beamforming with silicon metasurfaces in 6G communications. Optics Express, 2022, 30, 27763.	3.4	13
28	Two-color-laser-driven direct electron acceleration in infinite vacuum. Optics Letters, 2011, 36, 957.	3.3	12
29	Terahertz-optical intensity grating for creating high-charge, attosecond electron bunches. New Journal of Physics, 2019, 21, 033020.	2.9	12
30	Enhanced Versatility of Tableâ€Top Xâ€Rays from Van der Waals Structures. Advanced Science, 2022, 9, e2105401.	11.2	12
31	Spaceâ€Time Wave Packets from Smithâ€Purcell Radiation. Advanced Science, 2021, 8, e2100925.	11.2	10
32	Ultrafast Multiharmonic Plasmon Generation by Optically Dressed Electrons. Physical Review Letters, 2019, 122, 053901.	7.8	8
33	A threshold for laser-driven linear particle acceleration in unbounded vacuum. Applied Physics Letters, 2011, 99, 211101.	3.3	7
34	Monochromatic X-ray Source Based on Scattering from a Magnetic Nanoundulator. ACS Photonics, 2020, 7, 1096-1103.	6.6	4
35	Maximal terahertz emission in high harmonic generation from 3D Dirac semimetals. Communications Physics, 2021, 4, .	5.3	4
36	Enhanced photon emission from free electron excitation of a nanowell. APL Photonics, 2021, 6, .	5.7	3

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37	Editorial: Lasers in Accelerator Science and Secondary Emission Light Source Technology. Frontiers in Physics, 2019, 7, .	2.1	2
38	Graphene metamaterials for intense, tunable and compact EUV and X-sources. , 2018, , .		2
39	Electron acceleration in a single-cycle terahertz field. , 2014, , .		0
40	First Observation of Direct Laser On-axis Acceleration of Electrons in Vacuum. , 2014, , .		0
41	Relativistic Few-cycle Cylindrical Vector Beams for Table-top Particle Accelerators. , 2015, , .		0
42	Controlling the Near-Field of Metasurfaces for Free-Electron Multi-Harmonic Hard X-Ray Generation. , 2018, , .		0
43	Linear-Field Particle Acceleration in Free Space by Spatiotemporally Structured Laser Pulses. , 2018, , .		0
44	Propagation-induced radiation limits in 3D Dirac semimetal high harmonic generation. , 2021, , .		0
45	Two-Color-Laser-Driven Direct Electron Acceleration in Infinite Vacuum. , 2011, , .		0
46	A General Threshold for Laser-Driven Linear Particle Acceleration in Infinite Vacuum. , 2012, , .		0
47	Ultrafast Non-Paraxial Autofocusing Pulses for High-Gradient Electron Acceleration. , 2015, , .		0
48	Temporal Lenses for Three-Dimensional Electron Pulse Compression. , 2015, , .		0
49	All-Optical, Three-Dimensional Electron Pulse Compression. , 2015, , .		0
50	Towards On-Chip, Tunable X-ray Sources based on Graphene Plasmons. , 2016, , .		0
51	Ultrafast Non-Paraxial Abruptly Autofocusing Pulses for High-Gradient Electron Acceleration. , 2016, , .		0
52	Monoenergetic Relativistic Electron Pulses by Laser-Driven Linear Acceleration in Free Space. , 2016, , .		0
53	Accelerating Beam-Driven Generation of Isolated Few-cycle EUV and X-ray Pulses. , 2017, , .		0
54	Abruptly Focusing and Defocusing Needles of Light. , 2017, , .		0

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55	Few-Cycle-Pulse-Driven Metasurface-Based Multi-Color X-ray Source. , 2018, , .		0
56	Engineering Infrared Quantum Fluctuations to Generate Light from UV through Gamma Rays. , 2018, , .		0
57	High harmonic plasmon generation by dressed electrons. , 2018, , .		0
58	Bloch oscillations of a free electron in a strong field. , 2018, , .		0
59	Abruptly focusing X-waves: Nondiffracting waves with localized disruptions. , 2019, , .		0
60	Tunable Free-electron X-ray Radiation From van der Waals Materials. , 2020, , .		0
61	Quantum Electron Wave-Shaping for Coherent Enhancement of Radiation. , 2020, , .		0
62	Anomalous Suppression of Higher-Order Nonlinearities in 3D Dirac Semimetals. , 2020, , .		0