

# Lihua Cao

## List of Publications by Year in descending order

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86  
papers

783  
citations

623734

14  
h-index

610901

24  
g-index

86  
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86  
docs citations

86  
times ranked

582  
citing authors

#	ARTICLE	IF	CITATIONS
1	Enhanced absorption of intense short-pulse laser light by subwavelength nanolayered target. <i>Physics of Plasmas</i> , 2010, 17, .	1.9	48
2	Acceleration and guiding of fast electrons by a nanobrush target. <i>Physics of Plasmas</i> , 2010, 17, .	1.9	46
3	Enhancement of backward Raman scattering by electron-ion collisions. <i>Physics of Plasmas</i> , 2009, 16, 112703.	1.9	43
4	Electron acceleration by an intense short-pulse laser in underdense plasma. <i>Physics of Plasmas</i> , 2003, 10, 2468-2474.	1.9	41
5	Control of the hot electrons produced by laser interaction with nanolayered target. <i>Physics of Plasmas</i> , 2010, 17, .	1.9	41
6	Nonlinear laser focusing using a conical guide and generation of energetic ions. <i>Physical Review E</i> , 2008, 78, 036405.	2.1	35
7	Electron Emission at Locked Phases from the Laser-Driven Surface Plasma Wave. <i>Physical Review Letters</i> , 2012, 109, 115002.	7.8	33
8	Enhanced energy coupling for indirect-drive fast-ignition fusion targets. <i>Nature Physics</i> , 2020, 16, 810-814.	16.7	33
9	Study of ultraintense laser propagation in overdense plasmas for fast ignition. <i>Physics of Plasmas</i> , 2009, 16, 056307.	1.9	25
10	Enhancement in coupling efficiency from laser to forward hot electrons by conical nanolayered targets. <i>Applied Physics Letters</i> , 2012, 100, .	3.3	20
11	Self-Organized Kilot Tesla Magnetic-Tube Array in an Expanding Spherical Plasma Irradiated by kHz Femtosecond Laser Pulses. <i>Physical Review Letters</i> , 2018, 121, 255002.	7.8	20
12	Decreasing Brillouin and Raman scattering by alternating-polarization light. <i>Physics of Plasmas</i> , 2017, 24, .	1.9	18
13	Stimulated Brillouin scattering of backward stimulated Raman scattering. <i>Scientific Reports</i> , 2020, 10, 3492.	3.3	16
14	Influence of the target front-surface curvature on proton acceleration in laser-foil interaction. <i>Physics of Plasmas</i> , 2009, 16, .	1.9	15
15	Fluid nonlinear frequency shift of nonlinear ion acoustic waves in multi-ion species plasmas in the small wave number region. <i>Physical Review E</i> , 2016, 94, 023205.	2.1	15
16	Guiding and confining fast electrons by transient electric and magnetic fields with a plasma inverse cone. <i>Physics of Plasmas</i> , 2009, 16, .	1.9	12
17	Generation of monoenergetic proton beams by a combined scheme with an overdense hydrocarbon target and an underdense plasma gas irradiated by ultra-intense laser pulse. <i>Laser and Particle Beams</i> , 2014, 32, 583-589.	1.0	11
18	The controllable electron-heating by external magnetic fields at relativistic laser-solid interactions in the presence of large scale pre-plasmas. <i>Plasma Physics and Controlled Fusion</i> , 2017, 59, 065004.	2.1	11

#	ARTICLE	IF	CITATIONS
19	Enhancing the electron acceleration by a circularly polarized laser interaction with a cone-target with an external longitudinal magnetic field. <i>Physics of Plasmas</i> , 2017, 24, 033103.	1.9	11
20	Collective stimulated Brillouin scattering modes of two crossing laser beams with shared scattered wave. <i>Matter and Radiation at Extremes</i> , 2021, 6, .	3.9	11
21	Efficient laser absorption and enhanced electron yield in the laser-target interaction by using a cone-nanolayer target. <i>Physics of Plasmas</i> , 2011, 18, .	1.9	10
22	Study of strong enhancement of synchrotron radiation via surface plasma waves excitation by particle-in-cell simulations. <i>Applied Physics Letters</i> , 2015, 107, .	3.3	10
23	Physical studies of fast ignition in China. <i>Plasma Physics and Controlled Fusion</i> , 2015, 57, 064003.	2.1	10
24	Faraday effect on stimulated Raman scattering in the linear region. <i>Plasma Physics and Controlled Fusion</i> , 2018, 60, 045008.	2.1	10
25	Stimulated Brillouin scattering behaviors in multi-ion species plasmas in high-temperature and high-density region. <i>Physics of Plasmas</i> , 2019, 26, .	1.9	10
26	Anti-Langmuir decay instability in Langmuir decay instability cascade. <i>Physics of Plasmas</i> , 2018, 25, 092112.	1.9	9
27	Particle simulation and electron heating effects in plasmas produced by laser pulse. <i>Physics of Plasmas</i> , 1998, 5, 499-502.	1.9	8
28	Terahertz radiation from oscillating electrons in laser-induced wake fields. <i>Physical Review E</i> , 2004, 70, 046408.	2.1	8
29	Reshaping of intense laser pulse with a capillary. <i>Physics of Plasmas</i> , 2009, 16, 093109.	1.9	8
30	Focusing of intense laser pulse by a hollow cone. <i>Laser and Particle Beams</i> , 2010, 28, 293-298.	1.0	8
31	Improvement of proton energy in high-intensity laser-nanobrush target interactions. <i>Laser and Particle Beams</i> , 2012, 30, 307-311.	1.0	8
32	Controlling stimulated Raman scattering by two-color light in inertial confinement fusion. <i>Physics of Plasmas</i> , 2017, 24, .	1.9	8
33	Excitation of coherent terahertz radiation by stimulated Raman scatterings. <i>Physics of Plasmas</i> , 2010, 17, 024502.	1.9	7
34	Guiding and collimating fast electron beam by the quasi-static electromagnetic field array. <i>Physics of Plasmas</i> , 2014, 21, .	1.9	7
35	Transport of fast electrons in a nanowire array with collisional effects included. <i>Physics of Plasmas</i> , 2015, 22, .	1.9	7
36	A spherical shell target scheme for laser-driven neutron sources. <i>Physics of Plasmas</i> , 2015, 22, .	1.9	6

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37	Investigation on laser plasma instability of the outer ring beams on SGIII laser facility. AIP Advances, 2019, 9, .	1.3	6
38	Auto-resonant stimulated Brillouin backscattering in supersonic flowing plasmas by fully kinetic Vlasov simulations. Plasma Physics and Controlled Fusion, 2019, 61, 085017.	2.1	6
39	Improvement of ion acceleration in radiation pressure acceleration regime by using an external strong magnetic field. Laser and Particle Beams, 2019, 37, 217-222.	1.0	6
40	Influences of sinusoidal density modulation on stimulated Raman scattering in inhomogeneous plasmas. Plasma Physics and Controlled Fusion, 2021, 63, 055004.	2.1	6
41	Improvement of laser absorption and control of particle acceleration by subwavelength nanowire target. Physics of Plasmas, 2020, 27, .	1.9	6
42	Anti-Stokes scattering and Stokes scattering of stimulated Brillouin scattering cascade in high-intensity laser-plasma interaction. Plasma Physics and Controlled Fusion, 2017, 59, 075007.	2.1	6
43	Fast electron beam with manageable spotsize from laser interaction with the tailored cone-nanolayer target. Laser and Particle Beams, 2012, 30, 553-558.	1.0	5
44	Direct generation of relativistic isolated attosecond pulses in transmission from laser-driven plasmas. Optics Letters, 2021, 46, 1285.	3.3	5
45	Enhanced parametric pulse amplification in a comparable-mass plasma affected by charge state. Plasma Physics and Controlled Fusion, 2020, 62, 105020.	2.1	5
46	Saturation of trapped particle instability induced by vortex-merging in electron plasma waves. Plasma Physics and Controlled Fusion, 2020, 62, 095009.	2.1	5
47	Multi-dimensional Vlasov simulations on trapping-induced sidebands of Langmuir waves. Physics of Plasmas, 2021, 28, .	1.9	5
48	Suprathermal electrons from the anti-Stokes Langmuir decay instability cascade. Physical Review E, 2022, 105, 045208.	2.1	5
49	Self-organization of plasma due to electron beam instability. Physics of Plasmas, 2006, 13, 053103.	1.9	4
50	Relative importance of mega electronvolt-electron energy deposition by collisions and field effects in fast ignition. Physics of Plasmas, 2012, 19, .	1.9	4
51	The light diffraction effect on stimulated Raman scattering. Physics of Plasmas, 2016, 23, 022705.	1.9	4
52	Enhancement of proton acceleration by a right-handed circularly polarized laser interaction with a cone target exposed to a longitudinal magnetic field. Physics of Plasmas, 2017, 24, .	1.9	4
53	Harmonic effects on ion-bulk waves and simulation of stimulated ion-bulk-wave scattering in CH plasmas. Plasma Physics and Controlled Fusion, 2017, 59, 085007.	2.1	4
54	Growth rate and gain of stimulated Brillouin scattering considering nonlinear Landau damping due to particle trapping. Plasma Physics and Controlled Fusion, 2020, 62, 045013.	2.1	4

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55	Investigation of Langdon effect on the stimulated backward Raman and Brillouin scattering. Plasma Physics and Controlled Fusion, 2021, 63, 125021.	2.1	4
56	Enhanced Proton Acceleration from Laser Interaction with a Tailored Nanowire Target. Applied Sciences (Switzerland), 2022, 12, 1153.	2.5	4
57	Hot electron transport and heating in dense plasma core by hollow guiding. Laser and Particle Beams, 2010, 28, 563-570.	1.0	3
58	Multiple acoustic modes stimulated Brillouin scattering in hydrogen plasmas. Plasma Physics and Controlled Fusion, 2012, 54, 095004.	2.1	3
59	Monte Carlo simulations of $K_{\pm}$ source generated by hot electrons-nanobrush target interactions. Physics of Plasmas, 2016, 23, 093102.	1.9	3
60	Improvement of proton acceleration via collisionless shock acceleration by laser-foil interaction with an external magnetic field. Physics of Plasmas, 2019, 26, .	1.9	3
61	Reducing reflectivity of stimulated Raman scattering by discretely changing phase of incident light in inertial fusion plasmas. Physica Scripta, 2021, 96, 125634.	2.5	3
62	Weibel instability induced by kinetic stimulated Raman scattering in unmagnetized and magnetized plasmas. Plasma Physics and Controlled Fusion, 2022, 64, 045009.	2.1	3
63	Refluxed electrons direct laser acceleration in ultrahigh laser and relativistic critical density plasma interaction. Physics of Plasmas, 2015, 22, 013106.	1.9	2
64	Enhanced betatron radiation in strongly magnetized plasma. Physics of Plasmas, 2016, 23, 043115.	1.9	2
65	Enhanced focusing of relativistic lasers by plasma lens with exponentially increasing density profiles. Physics of Plasmas, 2017, 24, .	1.9	2
66	$K_{\pm}$ emission by the electrons with bi-Maxwellian distribution in a Cu foil. Physics of Plasmas, 2018, 25, .	1.9	2
67	Enhanced Proton Acceleration by Laser-Driven Collisionless Shock in the Near-Critical Density Target Embedding with Solid Nanolayers. Laser and Particle Beams, 2021, 2021, .	1.0	2
68	Terahertz Radiation from a Plasma Cylinder with External Radial Electric and Axial Magnetic Fields. Laser and Particle Beams, 2021, 2021, .	1.0	2
69	Manipulation and optimization of electron transport by nanopore array targets. Plasma Science and Technology, 2021, 23, 015001.	1.5	2
70	Collective stimulated Brillouin scattering with shared ion acoustic wave under the action of two overlapping laser beams. Plasma Physics and Controlled Fusion, 2021, 63, 125026.	2.1	2
71	Enhancement of Magnetic Vortex Acceleration by Laser Interaction with Near-Critical Density Plasma inside a Hollow Conical Target. Laser and Particle Beams, 2022, 2022, .	1.0	2
72	Comparison of the analytical and simulation results of the equilibrium beam profile. Physics of Plasmas, 2007, 14, .	1.9	1

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73	Study on the effects of ion motion on laser-induced plasma wakes. <i>Physics of Plasmas</i> , 2012, 19, 093101.	1.9	1
74	Two-Dimensional Hybrid Model for High-Current Electron Beam Transport in a Dense Plasma. <i>Plasma Science and Technology</i> , 2014, 16, 1007-1012.	1.5	1
75	Combined action of corrugation and Weibel instabilities from electron-beam interaction with laser-irradiated plasma. <i>Physics of Plasmas</i> , 2018, 25, 033112.	1.9	1
76	Generation of collimated electron jets from plasma under applied electromagnetostatic field. <i>Laser and Particle Beams</i> , 2018, 36, 384-390.	1.0	1
77	Investigation on the transport efficiency of fast electrons with double-layer $K\hat{\mu}\pm$ fluorescence measurement. <i>Physics of Plasmas</i> , 2019, 26, 073101.	1.9	1
78	Enhanced proton acceleration via the leaky light-sail regime by laser interaction with nanofoils in strongly magnetized plasmas. <i>Physics of Plasmas</i> , 2020, 27, 063107.	1.9	1
79	Eigenvalue solution for the ion-collisional effects on the fast and slow ion acoustic waves in multi-ion species plasmas. <i>Plasma Physics and Controlled Fusion</i> , 2021, 63, 045014.	2.1	1
80	The effects of plasma density-gradient on laser-driven transmitted emission. <i>Plasma Physics and Controlled Fusion</i> , 2020, 62, 115003.	2.1	1
81	Stimulated Brillouin scattering enhanced by the stimulated Raman process near the quarter-critical density. <i>Plasma Physics and Controlled Fusion</i> , 2022, 64, 035002.	2.1	1
82	Collimated proton beams by ultra-short, ultra-intense laser pulse interaction with a foilâ€“ramparts target. <i>Laser and Particle Beams</i> , 2015, 33, 765-771.	1.0	0
83	Stably propagating trains of attosecond electron bunches generated along the target back. <i>Physics of Plasmas</i> , 2016, 23, 093101.	1.9	0
84	Trapping laser pulse between two foils and periodic generation of energetic electron beam. <i>Physics of Plasmas</i> , 2019, 26, 014502.	1.9	0
85	Enhancement of brightness of high-order harmonics with elliptical polarization from near-critical density plasmas irradiated by an ultraintense laser pulse. <i>Physics of Plasmas</i> , 2020, 27, 083101.	1.9	0
86	Polarization conversion in the caviton driven by linearly polarized lasers. <i>Physical Review E</i> , 2022, 105, L023202.	2.1	0