

Chengzhuo Xiao

List of Publications by Year in descending order

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times ranked

548
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 1 | Progress in octahedral spherical hohlraum study. Matter and Radiation at Extremes, 2016, 1, 8-27. | 3.9 | 106 |
| 2 | Enhancement of backward Raman scattering by electron-ion collisions. Physics of Plasmas, 2009, 16, 112703. | 1.9 | 43 |
| 3 | Quasistatic magnetic and electric fields generated in intense laser plasma interaction. Physics of Plasmas, 2005, 12, 053104. | 1.9 | 40 |
| 4 | Competition between the stimulated Raman and Brillouin scattering under the strong damping condition. Laser and Particle Beams, 2013, 31, 203-209. | 1.0 | 32 |
| 5 | Suppression of transverse ablative Rayleigh-Taylor-like instability in the hole-boring radiation pressure acceleration by using elliptically polarized laser pulses. Physical Review E, 2014, 90, 023101. | 2.1 | 30 |
| 6 | The transition from plasma gratings to cavitons in laser-plasma interactions. Physics of Plasmas, 2009, 16, 093108. | 1.9 | 29 |
| 7 | Experimental demonstration of low laser-plasma instabilities in gas-filled spherical hohlraums at laser injection angle designed for ignition target. Physical Review E, 2017, 95, 031202. | 2.1 | 28 |
| 8 | Recent research progress of laser plasma interactions in Shenguang laser facilities. Matter and Radiation at Extremes, 2019, 4, . | 3.9 | 28 |
| 9 | Analysis of stimulated Raman backscatter and stimulated Brillouin backscatter in experiments performed on SG-III prototype facility with a spectral analysis code. Physics of Plasmas, 2014, 21, . | 1.9 | 27 |
| 10 | Competition between stimulated Raman scattering and two-plasmon decay in inhomogeneous plasma. Physics of Plasmas, 2016, 23, . | 1.9 | 26 |
| 11 | Electron acceleration in combined intense laser fields and self-consistent quasistatic fields in plasma. Physics of Plasmas, 2005, 12, 083102. | 1.9 | 25 |
| 12 | On the stimulated Raman sidescattering in inhomogeneous plasmas: revisit of linear theory and three-dimensional particle-in-cell simulations. Plasma Physics and Controlled Fusion, 2018, 60, 025020. | 2.1 | 24 |
| 13 | Short-pulse laser absorption via $J\tilde{A}$ -B heating in ultrahigh intensity laser plasma interaction. Physics of Plasmas, 2006, 13, 113105. | 1.9 | 23 |
| 14 | Spatiotemporal Chaos in The Regime of the Conserved Zakharov Equations. Physical Review Letters, 1995, 74, 78-81. | 7.8 | 20 |
| 15 | Nonlinear evolution of stimulated Raman scattering near the quarter-critical density. Physics of Plasmas, 2015, 22, 052121. | 1.9 | 20 |
| 16 | Excitation of nonlinear ion acoustic waves in CH plasmas. Physics of Plasmas, 2016, 23, 082106. | 1.9 | 20 |
| 17 | Slow-time-scale magnetic fields driven by fast-time-scale waves in an underdense relativistic Vlasov plasma. Physics of Plasmas, 2001, 8, 321-328. | 1.9 | 19 |
| 18 | First experimental comparisons of laser-plasma interactions between spherical and cylindrical hohlraums at SGIII laser facility. Matter and Radiation at Extremes, 2017, 2, 77-86. | 3.9 | 18 |

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|----|---|-----|-----------|
| 19 | Decreasing Brillouin and Raman scattering by alternating-polarization light. <i>Physics of Plasmas</i> , 2017, 24, . | 1.9 | 18 |
| 20 | Suppressing longitudinal double-layer oscillations by using elliptically polarized laser pulses in the hole-boring radiation pressure acceleration regime. <i>Physics of Plasmas</i> , 2013, 20, . | 1.9 | 17 |
| 21 | Vacuum heating in the interaction of ultrashort, relativistically strong laser pulses with solid targets. <i>Physics of Plasmas</i> , 2006, 13, 063108. | 1.9 | 16 |
| 22 | Stimulated Brillouin scattering of backward stimulated Raman scattering. <i>Scientific Reports</i> , 2020, 10, 3492. | 3.3 | 16 |
| 23 | 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 |
| 24 | Nonlinear transition from convective to absolute Raman instability with trapped electrons and inflationary growth of reflectivity. <i>Physics of Plasmas</i> , 2018, 25, . | 1.9 | 15 |
| 25 | Transition from convective to absolute Raman instability via the longitudinal relativistic effect by using Vlasov-Maxwell simulations. <i>Physics of Plasmas</i> , 2018, 25, . | 1.9 | 13 |
| 26 | Breather-like penetration of ultrashort linearly polarized laser into over-dense plasmas. <i>Physics of Plasmas</i> , 2013, 20, . | 1.9 | 12 |
| 27 | A theoretical model for a spontaneous magnetic field in intense laser plasma interaction. <i>Physics of Plasmas</i> , 2003, 10, 4166-4168. | 1.9 | 11 |
| 28 | 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 |
| 29 | Stimulated backward Brillouin scattering in two ion-species plasmas. <i>Physics of Plasmas</i> , 2011, 18, 032705. | 1.9 | 10 |
| 30 | 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 |
| 31 | Effect of density modulation on backward stimulated Raman Scattering in a laser-irradiated plasma. <i>Physics of Plasmas</i> , 2017, 24, . | 1.9 | 10 |
| 32 | Faraday effect on stimulated Raman scattering in the linear region. <i>Plasma Physics and Controlled Fusion</i> , 2018, 60, 045008. | 2.1 | 10 |
| 33 | 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 |
| 34 | Upper limit power for self-guided propagation of intense lasers in plasma. <i>Applied Physics Letters</i> , 2012, 101, . | 3.3 | 9 |
| 35 | Study of stimulated Raman and Brillouin scattering in a finite interaction region under the convective instability condition. <i>Science Bulletin</i> , 2012, 57, 2747-2751. | 1.7 | 9 |
| 36 | Design of octahedral spherical hohlraum for CH Rev5 ignition capsule. <i>Physics of Plasmas</i> , 2017, 24, . | 1.9 | 9 |

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|----|---|-----|-----------|
| 37 | Transition of backward stimulated Raman scattering from absolute to convective instability via density modulation. <i>Physics of Plasmas</i> , 2017, 24, . | 1.9 | 9 |
| 38 | Anti-Langmuir decay instability in Langmuir decay instability cascade. <i>Physics of Plasmas</i> , 2018, 25, 092112. | 1.9 | 9 |
| 39 | Study of crossed-beam energy transfer process with large crossing angle in three-dimension. <i>Laser and Particle Beams</i> , 2016, 34, 270-275. | 1.0 | 8 |
| 40 | Controlling stimulated Raman scattering by two-color light in inertial confinement fusion. <i>Physics of Plasmas</i> , 2017, 24, . | 1.9 | 8 |
| 41 | Excitation of coherent terahertz radiation by stimulated Raman scatterings. <i>Physics of Plasmas</i> , 2010, 17, 024502. | 1.9 | 7 |
| 42 | Research on ponderomotive driven Vlasov-Poisson system in electron acoustic wave parametric region. <i>Physics of Plasmas</i> , 2014, 21, 032107. | 1.9 | 7 |
| 43 | Growth and saturation of stimulated Raman scattering in two overlapping laser beams. <i>Physical Review E</i> , 2020, 102, 013205. | 2.1 | 7 |
| 44 | A spherical shell target scheme for laser-driven neutron sources. <i>Physics of Plasmas</i> , 2015, 22, . | 1.9 | 6 |
| 45 | Enhancement of the surface emission at the fundamental frequency and the transmitted high-order harmonics by pre-structured targets. <i>High Power Laser Science and Engineering</i> , 2019, 7, . | 4.6 | 6 |
| 46 | Investigation on laser plasma instability of the outer ring beams on SGIII laser facility. <i>AIP Advances</i> , 2019, 9, . | 1.3 | 6 |
| 47 | Formation of relativistic electromagnetic solitons in over-dense plasmas. <i>Physics of Plasmas</i> , 2019, 26, 063107. | 1.9 | 6 |
| 48 | Auto-resonant stimulated Brillouin backscattering in supersonic flowing plasmas by fully kinetic Vlasov simulations. <i>Plasma Physics and Controlled Fusion</i> , 2019, 61, 085017. | 2.1 | 6 |
| 49 | Improvement of ion acceleration in radiation pressure acceleration regime by using an external strong magnetic field. <i>Laser and Particle Beams</i> , 2019, 37, 217-222. | 1.0 | 6 |
| 50 | Influences of sinusoidal density modulation on stimulated Raman scattering in inhomogeneous plasmas. <i>Plasma Physics and Controlled Fusion</i> , 2021, 63, 055004. | 2.1 | 6 |
| 51 | Improvement of laser absorption and control of particle acceleration by subwavelength nanowire target. <i>Physics of Plasmas</i> , 2020, 27, . | 1.9 | 6 |
| 52 | Anti-Stokes scattering and Stokes scattering of stimulated Brillouin scattering cascade in high-intensity laser-plasma interaction. <i>Plasma Physics and Controlled Fusion</i> , 2017, 59, 075007. | 2.1 | 6 |
| 53 | Simulation of electron beam instabilities in collisionless plasmas. <i>Journal of Plasma Physics</i> , 2006, 72, 249. | 2.1 | 5 |
| 54 | Enhanced parametric pulse amplification in a comparable-mass plasma affected by charge state. <i>Plasma Physics and Controlled Fusion</i> , 2020, 62, 105020. | 2.1 | 5 |

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|----|--|-----|-----------|
| 55 | Multi-dimensional Vlasov simulations on trapping-induced sidebands of Langmuir waves. <i>Physics of Plasmas</i> , 2021, 28, . | 1.9 | 5 |
| 56 | Suprathermal electrons from the anti-Stokes Langmuir decay instability cascade. <i>Physical Review E</i> , 2022, 105, 045208. | 2.1 | 5 |
| 57 | Self-organization of plasma due to electron beam instability. <i>Physics of Plasmas</i> , 2006, 13, 053103. | 1.9 | 4 |
| 58 | Towards Sub-TeV electron beams driven by ultra-short, ultra-intense laser pulses. <i>Journal of Plasma Physics</i> , 2012, 78, 461-468. | 2.1 | 4 |
| 59 | The development of laser-plasma interaction program LAP3D on thousands of processors. <i>AIP Advances</i> , 2015, 5, . | 1.3 | 4 |
| 60 | The light diffraction effect on stimulated Raman scattering. <i>Physics of Plasmas</i> , 2016, 23, 022705. | 1.9 | 4 |
| 61 | Enhancement of proton acceleration by a right-handed circularly polarized laser interaction with a cone target exposed to a longitudinal magnetic field. <i>Physics of Plasmas</i> , 2017, 24, . | 1.9 | 4 |
| 62 | Harmonic effects on ion-bulk waves and simulation of stimulated ion-bulk-wave scattering in CH plasmas. <i>Plasma Physics and Controlled Fusion</i> , 2017, 59, 085007. | 2.1 | 4 |
| 63 | The interplay between the kinetic nonlinear frequency shift and the flowing gradient in stimulated Brillouin scattering. <i>Plasma Physics and Controlled Fusion</i> , 2018, 60, 025016. | 2.1 | 4 |
| 64 | Burst behavior due to the quasimode excited by stimulated Brillouin scattering in high-intensity laser-plasma interactions. <i>High Power Laser Science and Engineering</i> , 2019, 7, . | 4.6 | 4 |
| 65 | Growth rate and gain of stimulated Brillouin scattering considering nonlinear Landau damping due to particle trapping. <i>Plasma Physics and Controlled Fusion</i> , 2020, 62, 045013. | 2.1 | 4 |
| 66 | Enhanced Proton Acceleration from Laser Interaction with a Tailored Nanowire Target. <i>Applied Sciences (Switzerland)</i> , 2022, 12, 1153. | 2.5 | 4 |
| 67 | Coupling between a laser and a prestructured target with an arbitrary structure period. <i>Physical Review E</i> , 2018, 98, . | 2.1 | 3 |
| 68 | Improvement of proton acceleration via collisionless shock acceleration by laser-foil interaction with an external magnetic field. <i>Physics of Plasmas</i> , 2019, 26, . | 1.9 | 3 |
| 69 | Suppression of auto-resonant stimulated Brillouin scattering in supersonic flowing plasmas by different forms of incident lasers*. <i>Chinese Physics B</i> , 2020, 29, 095202. | 1.4 | 3 |
| 70 | Reducing reflectivity of stimulated Raman scattering by discretely changing phase of incident light in inertial fusion plasmas. <i>Physica Scripta</i> , 2021, 96, 125634. | 2.5 | 3 |
| 71 | Electron acceleration by the short pulse laser in inhomogeneous underdense plasmas. <i>Journal of Plasma Physics</i> , 2004, 70, 625-634. | 2.1 | 2 |
| 72 | $\langle i \rangle \langle i \rangle$ emission by the electrons with bi-Maxwellian distribution in a Cu foil. <i>Physics of Plasmas</i> , 2018, 25, . | 1.9 | 2 |

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|----|--|-----|-----------|
| 73 | Stimulated Raman scattering instability of a left-handed circularly polarized laser in strongly axially magnetized plasmas. <i>Physics of Plasmas</i> , 2019, 26, . | 1.9 | 2 |
| 74 | Suppression of stimulated Brillouin scattering by two perpendicular linear polarization lasers. <i>AIP Advances</i> , 2020, 10, 025123. | 1.3 | 2 |
| 75 | Enhanced Proton Acceleration by Laser-Driven Collisionless Shock in the Near-Critical Density Target Embedding with Solid Nanolayers. <i>Laser and Particle Beams</i> , 2021, 2021, . | 1.0 | 2 |
| 76 | Enhancement of Magnetic Vortex Acceleration by Laser Interaction with Near-Critical Density Plasma inside a Hollow Conical Target. <i>Laser and Particle Beams</i> , 2022, 2022, . | 1.0 | 2 |
| 77 | Comparison of the analytical and simulation results of the equilibrium beam profile. <i>Physics of Plasmas</i> , 2007, 14, . | 1.9 | 1 |
| 78 | Dynamics of ultra-intense circularly polarized solitons under inhomogeneous plasmas. <i>Physics of Plasmas</i> , 2013, 20, 063106. | 1.9 | 1 |
| 79 | Optimization of the combined proton acceleration regime with a target composition scheme. <i>Physics of Plasmas</i> , 2016, 23, . | 1.9 | 1 |
| 80 | Potential terahertz radiation by mode conversion from two-color laser to surface plasma waves. <i>AIP Advances</i> , 2017, 7, . | 1.3 | 1 |
| 81 | Controlling of the electromagnetic solitary waves generation in the wake of a two-color laser. <i>Physics of Plasmas</i> , 2018, 25, . | 1.9 | 1 |
| 82 | 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 |
| 83 | 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 |
| 84 | QUASIPERIODIC AND CHAOTIC BEHAVIOR ON ZAKHAROV EQUATIONS. <i>Modern Physics Letters B</i> , 1994, 08, 833-840. | 1.9 | 0 |
| 85 | Numerical Simulation on Laser Fusion in China. , 2009, , . | | 0 |
| 86 | Stably propagating trains of attosecond electron bunches generated along the target back. <i>Physics of Plasmas</i> , 2016, 23, 093101. | 1.9 | 0 |
| 87 | 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 |
| 88 | Investigation of stimulated Raman scattering in longitudinal magnetized plasma by theory and kinetic simulation. <i>Plasma Science and Technology</i> , 2021, 23, 115201. | 1.5 | 0 |
| 89 | Numerical simulation of beam deflection for smoothed laser beams. <i>Wuli Xuebao/Acta Physica Sinica</i> , 2020, 69, 075201. | 0.5 | 0 |
| 90 | Effects of Landau Damping and Collision on Stimulated Raman Scattering with Various Phase-Space Distributions. <i>Chinese Physics B</i> , 0, , . | 1.4 | 0 |

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|----|--|-----|-----------|
| 91 | Polarization conversion in the caviton driven by linearly polarized lasers. Physical Review E, 2022, 105, L023202. | 2.1 | 0 |