Bai-Song Xie

List of Publications by Year
in descending order

90	1,071	471509 17	526287 27
papers	citations	h-index	g-index

90	90	90	433
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Simulation Study of a Bright Attosecond Î³-ray Source Generation by Irradiating an Intense Laser on a Cone Target. Applied Sciences (Switzerland), 2022, 12, 4361.	2.5	2
2	Pair production in asymmetric Sauter potential well. Physica Scripta, 2021, 96, 055305.	2.5	1
3	Effect of symmetrical frequency chirp on pair production*. Chinese Physics B, 2021, 30, 060204.	1.4	5
4	Schwinger pair production in inhomogeneous electric fields with symmetrical frequency chirp. Physical Review D, 2021, 104, .	4.7	12
5	Enhanced dynamically assisted pair production in spatial inhomogeneous electric fields with the frequency chirping. Physical Review D, 2021, 104, .	4.7	10
6	Chirp effects on pair production in oscillating electric fields with spatial inhomogeneity. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2020, 810, 135815.	4.1	12
7	Electron-positron pair production in frequency modulated laser fields. Physical Review D, 2020, 101, .	4.7	14
8	Dynamically assisted pair production for various polarizations. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2020, 802, 135259.	4.1	11
9	Spatial Characteristics of Thomson Scattering Spectra in Laser and Magnetic Fields. Chinese Physics Letters, 2019, 36, 074101.	3.3	3
10	Boson pair production in arbitrarily polarized electric fields. Physical Review D, 2019, 100, .	4.7	11
11	Effects of finite spatial extent on Schwinger pair production. Physical Review D, 2019, 100, .	4.7	19
12	Electron-positron pair production in an oscillating Sauter potential. Physical Review A, 2019, 100, .	2.5	11
13	Effect of the electron heating transition on the proton acceleration in a strongly magnetized plasma. Physics of Plasmas, 2019, 26, 103101.	1.9	4
14	High density Î³-ray emission and dense positron production via multi-laser driven circular target. Plasma Science and Technology, 2019, 21, 085201.	1.5	1
15	Pair production in differently polarized electric fields with frequency chirps. Physical Review D, 2019, 99, .	4.7	32
16	Analytical Thomson backscattering spectra and new scaling laws in laser and magnetic fields. Europhysics Letters, 2019, 127, 54001.	2.0	2
17	Schwinger pair production correction in thermal system. Physical Review D, 2019, 100, .	4.7	3
18	Vortices in multiphoton pair production by two-color rotating laser fields. Journal of Physics B: Atomic, Molecular and Optical Physics, 2019, 52, 025601.	1.5	7

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19	Thomson backscattering in combined uniform magnetic and envelope modulating circularly polarized laser fields. Journal of the Optical Society of America B: Optical Physics, 2019, 36, 1835.	2.1	1
20	Pair production by three fields dynamically assisted Schwinger process. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2018, 777, 406-411.	4.1	11
21	High quality ion acceleration through the interaction of two matched counterpropagating transversely polarized Gaussian lasers with a flat foil target. Physical Review Accelerators and Beams, 2018, 21, .	1.6	5
22	Enhanced electronâ€“positron pair production by frequency chirping in one- and two-color laser pulse fields. Chinese Physics B, 2017, 26, 020301.	1.4	18
23	Delicate scale multipeak and flat-top structures of solitary waves in multi-component plasmas. Plasma Science and Technology, 2017, 19, 035002.	1.5	2
24	Electron-Positron Pair Production in Strong Fields Characterized by Conversion Energy. Communications in Theoretical Physics, 2017, 67, 76.	2.5	2
25	Thomson backscattering in combined fields with a general elliptical polarization. Europhysics Letters, 2017, 117, 44002.	2.0	9
26	Enhanced laser radiation pressure acceleration of protons with a gold cone-capillary. Physics of Plasmas, 2017, 24, 033122.	1.9	3
27	Enhanced photon emission and pair production in laser-irradiated plasmas. Plasma Science and Technology, 2017, 19, 075201.	1.5	1
28	Modulation effect in multiphoton pair production. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2017, 768, 174-179.	4.1	15
29	Guiding and collimating the fast electrons by using a low-density-core target with buried high density layers. Plasma Physics and Controlled Fusion, 2017, 59, 025006.	2.1	4
30	Momentum Vortices on Pairs Production by Two Counter-Rotating Fields. Physical Review D, 2017, 96, .	4.7	28
31	Accelerating and guiding of C6+ by an intense laser irradiating on a foil target with a tapered channel. Physics of Plasmas, 2017, 24, 083114.	1.9	1
32	Photon emission by bremsstrahlung and nonlinear Compton scattering in the interaction of ultraintense laser with plasmas. European Physical Journal D, 2017, 71, 1.	1.3	15
33	Pair production in strong SU(2) background fields. Frontiers of Physics, 2017, 12, 1.	5.0	2
34	Studies on convergence and scaling law of Thomson backscattering spectra in strong fields. Chinese Physics B, 2017, 26, 124101.	1.4	0
35	Transverse magnetic field effect on the transport of relativistic electrons beam in laser irradiating plasmas. Physics of Plasmas, 2017, 24, .	1.9	0
36	Scale invariance and scaling law of Thomson backscatter spectra of electrons moving in the resonance regime in combined laser and magnetic fields. Physical Review A, 2016, 94, .	2.5	10

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37	Solitary waves in asymmetric electronâ€“positronâ€“ion plasmas. Journal of Plasma Physics, 2015, 81, .	2.1	4
38	Effects of electric field polarizations on pair production. Physical Review D, 2015, 92, .	4.7	26
39	Dynamically assisted pair production for scalar QED by two fields. Frontiers of Physics, 2015, 10, 155-160.	5.0	2
40	Electron-positron pair production in the low-density approximation. Frontiers of Physics, 2015, 10, 1-7.	5.0	4
41	Relativistic laser pulse compression in magnetized plasmas. Physics of Plasmas, 2015, 22, .	1.9	9
42	Nonperturbative signatures in pair production for general elliptic polarization fields. Europhysics Letters, 2015, 110, 51001.	2.0	9
43	Numerically optimized structures for dielectric asymmetric dual-grating laser accelerators. Physics of Plasmas, 2014, 21, 023110.	1.9	23
44	QED cascade induced by a high-energy<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>Î³</mml:mi></mml:math>photon in a strong laser field. Physical Review A, 2014, 89, .	2.5	25
45	Multiple-slit interference effect in the time domain for boson pair production. Physical Review D, 2014, 89, .	4.7	19
46	Electron-positron pair production in a strong asymmetric laser electric field. Frontiers of Physics, 2014, 9, 157-163.	5.0	8
47	Solitary and shock waves in magnetized electron-positron plasma. Physics of Plasmas, 2014, 21, 022108.	1.9	6
48	Enhanced pair production in strong fields by multiple-slit interference effect with dynamically assisted Schwinger mechanism. Physical Review D, 2014, 89, .	4.7	34
49	Enhanced Correlation of Electron-Positron Pair in Two and Three Dimensions. Chinese Physics Letters, 2014, 31, 011203.	3.3	0
50	Efficient proton acceleration and focusing by an ultraintense laser interacting with a parabolic double concave target with an extended rear. Physics of Plasmas, 2013, 20, .	1.9	2
51	Effects of ion mobility and positron fraction on solitary waves in weak relativistic electron-positron-ion plasma. Physical Review E, 2013, 88, 033109.	2.1	15
52	Electron-positron pair creation and correlation between momentum and energy level in a symmetric potential well. Physical Review A, 2013, 88, .	2.5	27
53	Effects of laser pulse shape and carrier envelope phase on pair production. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2013, 726, 820-826.	4.1	53
54	Energetic protons from an ultraintense laser interacting with a symmetric parabolic concave target. Physics of Plasmas, 2013, 20, 033112.	1.9	11

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55	Electron-Positron Pair Creation from Vacuum by using Negative Frequency Chirping Laser Pulses. Chinese Physics Letters, 2013, 30, 111201.	3.3	5
56	Enhanced Electron-Positron Pair Production of a Vacuum in a Strong Laser Pulse Field by Frequency Variation. Chinese Physics Letters, 2013, 30, 071201.	3.3	8
57	Electrons trajectories around a bubble regime in intense laser plasma interaction. Physics of Plasmas, 2013, 20, .	1.9	3
58	On existence of solitary waves in unmagnetized neutral hot pair plasma. Physics of Plasmas, 2013, 20, 112109.	1.9	9
59	Enhanced electronâ€"positron pair creation by the frequency chirped laser pulse. Chinese Physics B, 2013, 22, 100307.	1.4	10
60	Energy enhancement of proton acceleration in combinational radiation pressure and bubble by optimizing plasma density. Physics of Plasmas, 2012, 19, .	1.9	8
61	Electron injection and acceleration in the plasma bubble regime driven by an ultraintense laser pulse combined with using dense-plasma wall and block. Physics of Plasmas, 2012, 19, .	1.9	6
62	Analytical Study of Pair Production Rate from Vacuum in an Elliptic Polarized Field by a Two-Level Transition Technique. Communications in Theoretical Physics, 2012, 57, 422-426.	2.5	5
63	Electron-Positron Pair Production in an Elliptic Polarized Time Varying Field. Chinese Physics Letters, 2012, 29, 021102.	3.3	25
64	Enhanced electronâ€"positron pair creation by dynamically assisted combinational fields. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2012, 717, 465-469.	4.1	33
65	Allowable propagation of short pulse laser beam in a plasma channel and electromagnetic solitary waves. Physics Letters, Section A: General, Atomic and Solid State Physics, 2011, 375, 4022-4028.	2.1	5
66	Solitary waves of laser pulse in a plasma channel. Physics of Plasmas, 2011, 18, 033104.	1.9	21
67	High quality ion acceleration from a double-layer target dominated by the radiation pressure of a transversely Gaussian laser pulse. Physics of Plasmas, 2010, 17, 103107.	1.9	15
68	Electron trajectories and betatron oscillation in the wake bubble in laser-plasma interaction. Physics of Plasmas, 2009, 16, .	1.9	15
69	Nonlinear laser-driven electron resonance acceleration in an inhomogeneous magnetic field. Applied Physics Letters, 2009, 95, .	3.3	10
70	Electron acceleration by intense short laser pulse in the preplasma of a target. Physics of Plasmas, 2009, 16, 083104.	1.9	12
71	Energetic collimated ion bunch generation from an ultraintense laser interacting with thin concave targets. Physics of Plasmas, 2008, 15, 063104.	1.9	16
72	Electron acceleration in vacuum by subcycle laser pulse. Physics of Plasmas, 2008, 15, 023108.	1.9	8

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73	Solitons in relativistic laser-plasma interactions. Frontiers of Physics in China, 2007, 2, 178-185.	1.0	1
74	Spectrum of electromagnetic solitons in relativistic plasma. Physica Scripta, 2006, 74, 638-641.	2.5	5
75	Multipeak solitons and nonlinear modulated solutions in plasma under relativistic electromagnetic field. Physics of Plasmas, 2006, 13, 074504.	1.9	23
76	Steady bifurcation and solitons in relativistic laser plasmas interaction. Chaos, Solitons and Fractals, 2005, 25, 1161-1167.	5.1	14
77	Heat conduction in a one-dimensional Yukawa chain. Europhysics Letters, 2005, 69, 358-364.	2.0	11
78	IONIZATION OF Na2 BY HIGHLY CHARGED PARTICLES. International Journal of Modern Physics B, 2005, 19, 2886-2891.	2.0	4
79	Low frequency modes in strongly coupled magnetized dusty plasmas. Physics of Plasmas, 2004, 11, 3519-3524.	1.9	12
80	Nonlinear instabilities in plasma with highly correlated dust grains. Physics of Plasmas, 2002, 9, 717-720.	1.9	1
81	Noise driven configuration of dust clusters by molecular dynamics simulation. Physics of Plasmas, 2002, 9, 4851-4855.	1.9	3
82	Modulational instability of short-wavelength ion waves in strongly coupled dusty plasmas. Physical Review E, 2002, 65, 027401.	2.1	6
83	Optimum Effect of Asymmetric Laser Pulse Shape on Relativistic Laser-Plasma Wake Field. Physica Scripta, 2002, 65, 444-446.	2.5	12
84	Effect of dust-charge variation on ion-wave decay interaction in dusty plasma. IEEE Transactions on Plasma Science, 2002, 30, 1384-1386.	1.3	0
85	Dust-acoustic waves in strongly coupled plasmas with variable dust charge. Physics of Plasmas, 2000, 7, 3137-3140.	1.9	20
86	Dust acoustic waves in strongly coupled dissipative plasmas. Physical Review E, 2000, 62, 8501-8507.	2.1	35
87	Dust-acoustic solitary waves and double layers in dusty plasma with variable dust charge and two-temperature ions. Physics of Plasmas, 1999, 6, 3808-3816.	1.9	109
88	Dust shielding and correlation function for dusty plasmas. Physics of Plasmas, 1999, 6, 2997-3001.	1.9	20
89	Ultrabright Î³-ray emission from the interaction of an intense laser pulse with a near-critical-density plasma. Chinese Physics B, 0, , .	1.4	3
90	Asymmetric pulse effects on pair production in polarized electric fields. High Power Laser Science and Engineering, 0, 8, .	4.6	14