Hiroshi Sawada

List of Publications by Year
in descending order

58	1,014	471509 17	454955 30
papers	citations	h-index	g-index

58	58	58	1023
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Hot surface ionic line emission and cold K-inner shell emission from petawatt-laser-irradiated Cu foil targets. Physics of Plasmas, 2006, 13, 043102.	1.9	99
2	Magnetized fast isochoric laser heating for efficient creation of ultra-high-energy-density states. Nature Communications, 2018, 9, 3937.	12.8	75
3	Hot Electron Temperature and Coupling Efficiency Scaling with Prepulse for Cone-Guided Fast Ignition. Physical Review Letters, 2012, 108, 115004.	7.8	60
4	Measurement of carbon ionization balance in high-temperature plasma mixtures by temporally resolved X-ray scattering. Journal of Quantitative Spectroscopy and Radiative Transfer, 2006, 99, 225-237.	2.3	56
5	Fast ignition realization experiment with high-contrast kilo-joule peta-watt LFEX laser and strong external magnetic field. Physics of Plasmas, 2016, 23, .	1.9	54
6	Time-resolved compression of a capsule with a cone to high density for fast-ignition laser fusion. Nature Communications, 2014, 5, 5785.	12.8	50
7	Visualizing fast electron energy transport into laser-compressed high-density fast-ignitionÂtargets. Nature Physics, 2016, 12, 499-504.	16.7	49
8	Dynamics of Relativistic Laser-Plasma Interaction on Solid Targets. Physical Review Letters, 2012, 109, 145006.	7.8	40
9	Effect of Target Material on Fast-Electron Transport and Resistive Collimation. Physical Review Letters, 2013, 110, 025001.	7.8	40
10	Diagnosing direct-drive, shock-heated, and compressed plastic planar foils with noncollective spectrally resolved x-ray scattering. Physics of Plasmas, 2007, 14, 122703.	1.9	37
11	Microbial Production of Ursodeoxycholic Acid from Lithocholic Acid by Fusarium equiseti M41. Applied and Environmental Microbiology, 1982, 44, 1249-1252.	3.1	36
12	Laser absorption, mass ablation rate, and shock heating in direct-drive inertial confinement fusion. Physics of Plasmas, 2007, 14, 056305.	1.9	30
13	Petapascal Pressure Driven by Fast Isochoric Heating with a Multipicosecond Intense Laser Pulse. Physical Review Letters, 2020, 124, 035001.	7.8	26
14	Flash KÎ± radiography of laser-driven solid sphere compression for fast ignition. Applied Physics Letters, 2016, 108, .	3.3	25
15	Characterization of intense laser-produced fast electrons using hard x-rays via bremsstrahlung. Journal of Physics B: Atomic, Molecular and Optical Physics, 2015, 48, 224008.	1.5	24
16	Enhanced Relativistic-Electron-Beam Energy Loss in Warm Dense Aluminum. Physical Review Letters, 2015, 114, 095004.	7.8	23
17	Al â€‰ 1 s - 2 p absorption spectroscopy of shock-wave heating and compression in laser-driven planar foil. Physics of Plasmas, 2009, 16, .	1.9	18
18	Analysis of gene expression profiles of <i>Lactobacillus paracasei</i> induced by direct contact with <i>Saccharomyces cerevisiae</i> through recognition of yeast mannan. Bioscience of Microbiota, Food and Health, 2017, 36, 17-25.	1.8	18

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19	Measurement of pulsed-power-driven magnetic fields via proton deflectometry. Applied Physics Letters, 2014, 105, .	3.3	17
20	Monochromatic 2D <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>K</mml:mi><mml:mi>Î±</mml:mi></mml:mrow></mml:math> Emission Images Revealing Short-Pulse Laser Isochoric Heating Mechanism. Physical Review Letters, 2019, 122, 155002.	7.8	16
21	Calibration and characterization of a highly efficient spectrometer in von Hamos geometry for 7-10 keV x-rays. Review of Scientific Instruments, 2017, 88, 043110.	1.3	15
22	Characterization of fast electron divergence and energy spectrum from modeling of angularly resolved bremsstrahlung measurements. Physics of Plasmas, 2018, 25, .	1.9	15
23	Characterizing the energy distribution of laser-generated relativistic electrons in cone-wire targets. Physics of Plasmas, 2012, 19, .	1.9	13
24	Spectral tomographic analysis of Bremsstrahlung X-rays generated in a laser-produced plasma. Laser and Particle Beams, 2016, 34, 645-654.	1.0	13
25	An evaluation of high energy bremsstrahlung background in point-projection x-ray radiography experiments. Review of Scientific Instruments, 2012, 83, 10E528.	1.3	12
26	Study of laser produced plasma in a longitudinal magnetic field. Physics of Plasmas, 2019, 26, .	1.9	12
27	Single-shot divergence measurements of a laser-generated relativistic electron beam. Physics of Plasmas, 2010, 17, .	1.9	11
28	Collimated Propagation of Fast Electron Beams Accelerated by High-Contrast Laser Pulses in Highly Resistive Shocked Carbon. Physical Review Letters, 2017, 118, 205001.	7.8	11
29	Applied plasma spectroscopy: Laser-fusion experiments. High Energy Density Physics, 2009, 5, 234-243.	1.5	10
30	The response function of Fujifilm BAS-TR imaging plates to laser-accelerated titanium ions. Review of Scientific Instruments, 2019, 90, 083302.	1.3	10
31	Diagnosing laser-driven, shock-heated foam target with Al absorption spectroscopy on OMEGA EP. High Energy Density Physics, 2012, 8, 180-183.	1.5	8
32	Supra-thermal electron beam stopping power and guiding in dense plasmas. Journal of Plasma Physics, 2013, 79, 429-435.	2.1	8
33	Impact of extended preplasma on energy coupling in kilojoule energy relativistic laser interaction with cone wire targets relevant to fast ignition. New Journal of Physics, 2013, 15, 015020.	2.9	7
34	Cu-oleate microspheres fabricated by emulsion method as novel targets for fast ignition laser fusion experiments. Fusion Engineering and Design, 2017, 125, 89-92.	1.9	7
35	Development of 4.5 keV monochromatic X-ray radiography using the high-energy, picosecond LFEX laser. Journal of Physics: Conference Series, 2016, 717, 012112.	0.4	6
36	Two-color monochromatic x-ray imaging with a single short-pulse laser. Review of Scientific Instruments, 2017, 88, 063502.	1.3	6

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37	Transport and spatial energy deposition of relativistic electrons in copper-doped fast ignition plasmas. Physics of Plasmas, 2017, 24, 102710.	1.9	6
38	Compton scattering measurements from dense plasmas*. Journal of Physics: Conference Series, 2008, 112, 032071.	0.4	5
39	Investigation of fast-electron-induced<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>K</mml:mi></mml:math>Î± x rays in laser-produced blow-off plasma. Physical Review E, 2014, 89, 033105.	2.1	5
40	Development of broadband x-ray radiography for diagnosing magnetically driven cylindrically compressed matter. Physics of Plasmas, 2019, 26, 083104.	1.9	5
41	Development of a predictive capability of short-pulse laser-driven broadband x-ray radiography. Plasma Physics and Controlled Fusion, 2020, 62, 065001.	2.1	5
42	<title>Characterization of Brillouin-enhanced four-wave mixing for an application to space debris removal</title>. , 1999, , .		4
43	High-contrast laser acceleration of relativistic electrons in solid cone-wire targets. Physical Review E, 2015, 92, 063112.	2.1	4
44	Hot electron generation and transport using KÎ± emission. Journal of Physics: Conference Series, 2010, 244, 022026.	0.4	3
45	Spectroscopic observations of Fermi-degenerate aluminum compressed and heated to four times solid density and 20ÂeV. High Energy Density Physics, 2011, 7, 259-262.	1.5	3
46	Proton Radiography of Intense-Laser-Irradiated Wire-Attached Cone Targets. IEEE Transactions on Plasma Science, 2011, 39, 2822-2823.	1.3	3
47	Monochromatic Imaging of 8.0-keV Cu $hbox{K}alpha$ Emission Induced by Energetic Electrons Generated at OMEGA EP. IEEE Transactions on Plasma Science, 2011, 39, 2816-2817.	1.3	3
48	Emission of energetic protons from relativistic intensity laser interaction with a cone-wire target. Physical Review E, 2012, 86, 056405.	2.1	3
49	2D monochromatic x-ray imaging for beam monitoring of an x-ray free electron laser and a high-power femtosecond laser. Review of Scientific Instruments, 2021, 92, 013510.	1.3	3
50	Direct-Drive Inertial Confinement Fusion Implosions on Omega. Astrophysics and Space Science, 2005, 298, 227-233.	1.4	2
51	Infrared transient absorption spectra of excitons and biexcitons confined in CuCl quantum dots. , 2006, , .		2
52	Temporally resolved characterization of shock-heated foam target with Al absorption spectroscopy for fast electron transport study. Physics of Plasmas, 2012, 19, 092705.	1.9	1
53	Transition between Rydberg 1s and 2p Exciton states of Biexcitons in Semiconductor Quantum Dots. , 2007, , .		0
54	Transition between rydberg 1s and 2p exciton states of biexcitons in semiconductor quantum dots. , 2007, , .		0

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55	Divergence of laser-generated hot electrons generated in a cone geometry. Journal of Physics: Conference Series, 2010, 244, 022064.	0.4	0
56	Relativistic high-current electron beams in dense plasmas in the context of the fast ignition of inertially confined fusion targets. , 2013, , .		0
57	Numerical study of core formation of asymmetrically driven cone-guided targets. Physics of Plasmas, 2017, 24, 100703.	1.9	0
58	Reduced fast electron transport in shock-heated plasma in multilayer targets due to self-generated magnetic fields. Physical Review E, 2018, 98, .	2.1	0