

# Hiroshi Sawada

## List of Publications by Year in descending order

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58  
papers

1,014  
citations

471509

17  
h-index

454955

30  
g-index

58  
all docs

58  
docs citations

58  
times ranked

1023  
citing authors

#	ARTICLE	IF	CITATIONS
1	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
2	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
3	Petapascal Pressure Driven by Fast Isochoric Heating with a Multipicosecond Intense Laser Pulse. Physical Review Letters, 2020, 124, 035001.	7.8	26
4	The response function of Fujifilm BAS-TR imaging plates to laser-accelerated titanium ions. Review of Scientific Instruments, 2019, 90, 083302.	1.3	10
5	Development of broadband x-ray radiography for diagnosing magnetically driven cylindrically compressed matter. Physics of Plasmas, 2019, 26, 083104.	1.9	5
6	Study of laser produced plasma in a longitudinal magnetic field. Physics of Plasmas, 2019, 26, .	1.9	12
7	Monochromatic 2D $K \pm I$ Emission Images Revealing Short-Pulse Laser Isochoric Heating Mechanism. Physical Review Letters, 2019, 122, 155002.	7.8	16
8	Characterization of fast electron divergence and energy spectrum from modeling of angularly resolved bremsstrahlung measurements. Physics of Plasmas, 2018, 25, .	1.9	15
9	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
10	Magnetized fast isochoric laser heating for efficient creation of ultra-high-energy-density states. Nature Communications, 2018, 9, 3937.	12.8	75
11	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
12	Two-color monochromatic x-ray imaging with a single short-pulse laser. Review of Scientific Instruments, 2017, 88, 063502.	1.3	6
13	Transport and spatial energy deposition of relativistic electrons in copper-doped fast ignition plasmas. Physics of Plasmas, 2017, 24, 102710.	1.9	6
14	Numerical study of core formation of asymmetrically driven cone-guided targets. Physics of Plasmas, 2017, 24, 100703.	1.9	0
15	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
16	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
17	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
18	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

#	ARTICLE	IF	CITATIONS
19	Fast ignition realization experiment with high-contrast kilo-joule peta-watt LFEX laser and strong external magnetic field. <i>Physics of Plasmas</i> , 2016, 23, .	1.9	54
20	Flash K $\alpha$ radiography of laser-driven solid sphere compression for fast ignition. <i>Applied Physics Letters</i> , 2016, 108, .	3.3	25
21	Spectral tomographic analysis of Bremsstrahlung X-rays generated in a laser-produced plasma. <i>Laser and Particle Beams</i> , 2016, 34, 645-654.	1.0	13
22	Visualizing fast electron energy transport into laser-compressed high-density fast-ignition targets. <i>Nature Physics</i> , 2016, 12, 499-504.	16.7	49
23	High-contrast laser acceleration of relativistic electrons in solid cone-wire targets. <i>Physical Review E</i> , 2015, 92, 063112.	2.1	4
24	Enhanced Relativistic-Electron-Beam Energy Loss in Warm Dense Aluminum. <i>Physical Review Letters</i> , 2015, 114, 095004.	7.8	23
25	Characterization of intense laser-produced fast electrons using hard x-rays via bremsstrahlung. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2015, 48, 224008.	1.5	24
26	Time-resolved compression of a capsule with a cone to high density for fast-ignition laser fusion. <i>Nature Communications</i> , 2014, 5, 5785.	12.8	50
27	Measurement of pulsed-power-driven magnetic fields via proton deflectometry. <i>Applied Physics Letters</i> , 2014, 105, .	3.3	17
28	Investigation of fast-electron-induced $K\alpha$ x rays in laser-produced blow-off plasma. <i>Physical Review E</i> , 2014, 89, 033105.	2.1	5
29	Relativistic high-current electron beams in dense plasmas in the context of the fast ignition of inertially confined fusion targets. , 2013, , .		0
30	Effect of Target Material on Fast-Electron Transport and Resistive Collimation. <i>Physical Review Letters</i> , 2013, 110, 025001.	7.8	40
31	Impact of extended preplasma on energy coupling in kilojoule energy relativistic laser interaction with cone wire targets relevant to fast ignition. <i>New Journal of Physics</i> , 2013, 15, 015020.	2.9	7
32	Supra-thermal electron beam stopping power and guiding in dense plasmas. <i>Journal of Plasma Physics</i> , 2013, 79, 429-435.	2.1	8
33	An evaluation of high energy bremsstrahlung background in point-projection x-ray radiography experiments. <i>Review of Scientific Instruments</i> , 2012, 83, 10E528.	1.3	12
34	Emission of energetic protons from relativistic intensity laser interaction with a cone-wire target. <i>Physical Review E</i> , 2012, 86, 056405.	2.1	3
35	Hot Electron Temperature and Coupling Efficiency Scaling with Prepulse for Cone-Guided Fast Ignition. <i>Physical Review Letters</i> , 2012, 108, 115004.	7.8	60
36	Temporally resolved characterization of shock-heated foam target with Al absorption spectroscopy for fast electron transport study. <i>Physics of Plasmas</i> , 2012, 19, 092705.	1.9	1

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37	Dynamics of Relativistic Laser-Plasma Interaction on Solid Targets. Physical Review Letters, 2012, 109, 145006.	7.8	40
38	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
39	Characterizing the energy distribution of laser-generated relativistic electrons in cone-wire targets. Physics of Plasmas, 2012, 19, .	1.9	13
40	Spectroscopic observations of Fermi-degenerate aluminum compressed and heated to four times solid density and 20ÅeV. High Energy Density Physics, 2011, 7, 259-262.	1.5	3
41	Proton Radiography of Intense-Laser-Irradiated Wire-Attached Cone Targets. IEEE Transactions on Plasma Science, 2011, 39, 2822-2823.	1.3	3
42	Monochromatic Imaging of 8.0-keV Cu $K\alpha$ Emission Induced by Energetic Electrons Generated at OMEGA EP. IEEE Transactions on Plasma Science, 2011, 39, 2816-2817.	1.3	3
43	Divergence of laser-generated hot electrons generated in a cone geometry. Journal of Physics: Conference Series, 2010, 244, 022064.	0.4	0
44	Hot electron generation and transport using $K\alpha$ emission. Journal of Physics: Conference Series, 2010, 244, 022026.	0.4	3
45	Single-shot divergence measurements of a laser-generated relativistic electron beam. Physics of Plasmas, 2010, 17, .	1.9	11
46	Al $L\alpha$ absorption spectroscopy of shock-wave heating and compression in laser-driven planar foil. Physics of Plasmas, 2009, 16, .	1.9	18
47	Applied plasma spectroscopy: Laser-fusion experiments. High Energy Density Physics, 2009, 5, 234-243.	1.5	10
48	Compton scattering measurements from dense plasmas*. Journal of Physics: Conference Series, 2008, 112, 032071.	0.4	5
49	Transition between Rydberg 1s and 2p Exciton states of Biexcitons in Semiconductor Quantum Dots. , 2007, , .		0
50	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
51	Transition between rydberg 1s and 2p exciton states of biexcitons in semiconductor quantum dots. , 2007, , .		0
52	Laser absorption, mass ablation rate, and shock heating in direct-drive inertial confinement fusion. Physics of Plasmas, 2007, 14, 056305.	1.9	30
53	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
54	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

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55	Infrared transient absorption spectra of excitons and biexcitons confined in CuCl quantum dots. , 2006, , .		2
56	Direct-Drive Inertial Confinement Fusion Implosions on Omega. Astrophysics and Space Science, 2005, 298, 227-233.	1.4	2
57	<title>Characterization of Brillouin-enhanced four-wave mixing for an application to space debris removal</title>. , 1999, , .		4
58	Microbial Production of Ursodeoxycholic Acid from Lithocholic Acid by <i>Fusarium equiseti</i> M41. Applied and Environmental Microbiology, 1982, 44, 1249-1252.	3.1	36