Hideo Nagatomo

List of Publications by Year
in descending order

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88	960	430874	477307
papers	citations	18 h-index	29 g-index

88	88	88	888
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Magnetized fast isochoric laser heating for efficient creation of ultra-high-energy-density states. Nature Communications, 2018, 9, 3937.	12.8	75
2	Boosting laser-ion acceleration with multi-picosecond pulses. Scientific Reports, 2017, 7, 42451.	3.3	71
3	Shock Hugoniot and temperature data for polystyrene obtained with quartz standard. Physics of Plasmas, 2009, 16, .	1.9	46
4	Fast ignition integrated interconnecting code project for cone-guided targets. Laser and Particle Beams, 2006, 24, 191-198.	1.0	45
5	Efficient production of a collimated MeV proton beam from a polyimide target driven by an intense femtosecond laser pulse. Physics of Plasmas, 2008, 15, .	1.9	42
6	High-energy-density plasmas generation on GEKKO-LFEX laser facility for fast-ignition laser fusion studies and laboratory astrophysics. Plasma Physics and Controlled Fusion, 2012, 54, 124042.	2.1	40
7	Prepulse effects on the generation of high energy electrons in fast ignition scheme. Physics of Plasmas, 2010, 17, .	1.9	38
8	Control of an electron beam using strong magnetic field for efficient core heating in fast ignition. Nuclear Fusion, 2015, 55, 053022.	3.5	37
9	Holistic Simulation for FIREX Project with FI³. Laser and Particle Beams, 2007, 25, 621-629.	1.0	34
10	Diagnostic of laser contrast using target reflectivity. Applied Physics Letters, 2009, 94, .	3.3	33
11	Magnetohydrodynamics of laser-produced high-energy-density plasma in a strong external magnetic field. Physical Review E, 2017, 95, 053204.	2.1	29
12	Fast ion acceleration in a foil plasma heated by a multi-picosecond high intensity laser. Physics of Plasmas, 2017, 24, .	1.9	29
13	Petapascal Pressure Driven by Fast Isochoric Heating with a Multipicosecond Intense Laser Pulse. Physical Review Letters, 2020, 124, 035001.	7.8	26
14	Study of ultraintense laser propagation in overdense plasmas for fast ignition. Physics of Plasmas, 2009, 16, 056307.	1.9	25
15	Heating efficiency evaluation with mimicking plasma conditions of integrated fast-ignition experiment. Physical Review E, 2015, 91, 063102.	2.1	23
16	Present Status of Fast Ignition Research and Prospects of FIREX Project. Fusion Science and Technology, 2005, 47, 662-666.	1.1	22
17	Generation and transport of fast electrons inside cone targets irradiated by intense laser pulses. Laser and Particle Beams, 2006, 24, 5-8.	1.0	22
18	Generation and confinement of high energy electrons generated by irradiation of ultra-intense short laser pulses onto cone targets. Laser and Particle Beams, 2008, 26, 207-212.	1.0	20

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19	Multi-imaging x-ray streak camera for ultrahigh-speed two-dimensional x-ray imaging of imploded core plasmas (invited). Review of Scientific Instruments, 2004, 75, 3921-3925.	1.3	18
20	Generation of pre-formed plasma and its reduction for fast-ignition. Laser and Particle Beams, 2012, 30, 95-102.	1.0	18
21	Computational study of magnetic field compression by laser-driven implosion. Nuclear Fusion, 2015, 55, 093028.	3.5	17
22	Rayleighâ€“Taylor instability growth on low-density foam targets. Physics of Plasmas, 2008, 15, .	1.9	14
23	Magnetic collimation of fast electrons in specially engineered targets irradiated by ultraintense laser pulses. Physics of Plasmas, 2011, 18, .	1.9	13
24	Enhancement of Ablative Rayleigh-Taylor Instability Growth by Thermal Conduction Suppression in a Magnetic Field. Physical Review Letters, 2021, 127, 165001.	7.8	13
25	Recent results and future prospects of laser fusion research at ILE, Osaka. European Physical Journal D, 2007, 44, 259-264.	1.3	11
26	Equation of motion with radiation reaction in ultrarelativistic laser-electron interactions. Physics of Plasmas, 2011, 18, 123101.	1.9	11
27	Electromagnetic field growth triggering super-ponderomotive electron acceleration during multi-picosecond laser-plasma interaction. Communications Physics, 2019, 2, .	5.3	11
28	X-ray backlight measurement of preformed plasma by kJ-class petawatt LFEX laser. Journal of Applied Physics, 2012, 112, 063301.	2.5	10
29	Characterization of Extreme UV Radiation from Laser Produced Spherical Tin Plasmas for Use in Lithography. Journal of Plasma and Fusion Research, 2004, 80, 325-330.	0.4	10
30	Asymmetric implosion of a cone-guided target irradiated by Gekko XII laser. Laser and Particle Beams, 2015, 33, 367-378.	1.0	9
31	Effect of equation of state on laser imprinting by comparing diamond and polystyrene foils. Physics of Plasmas, 2018, 25, 032706.	1.9	9
32	Probing of nonlinear evolution of laser wakefield by Raman scattering of laser light. Physics of Plasmas, 2008, 15, 093107.	1.9	8
33	Stabilization of radiation reaction with vacuum polarization. Progress of Theoretical and Experimental Physics, 2014, 2014, 43A01-0.	6.6	8
34	Study of fast ignition target design for ignition and burning experiments. Nuclear Fusion, 2019, 59, 106055.	3.5	8
35	Direct observation of imploded core heating via fast electrons with super-penetration scheme. Nature Communications, 2019, 10, 5614.	12.8	8
36	The formation of high-density core plasma in non-spherical implosion using high-resolution two-dimensional integrated implosion code. Journal of Plasma Physics, 2006, 72, 791.	2.1	7

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37	Self-generated magnetic dipoles in weakly magnetized beam-plasma system. Physical Review E, 2015, 91, 023107.	2.1	7
38	Compression and electron beam heating of solid target under the external magnetic field for fast ignition. Nuclear Fusion, 2017, 57, 086009.	3.5	7
39	Intensification of laser-produced relativistic electron beam using converging magnetic fields for ignition in fast ignition laser fusion. High Energy Density Physics, 2020, 36, 100841.	1.5	7
40	Dynamics of Self-Generated Magnetic Fields in Stagnation Phase and their Effects on Hot Spark Formation. Plasma and Fusion Research, 2006, 1, 020-020.	0.7	6
41	Experimental and computational characterization of hydrodynamic expansion of a preformed plasma from thin-foil target for laser-driven proton acceleration. Journal of Plasma Physics, 2009, 75, 609-617.	2.1	6
42	Numerical Simulation of Non-spherical Implosion Related to Fast Ignition. AIP Conference Proceedings, 2003, , .	0.4	5
43	Effects of long rarefied plasma on fast electron generation for FIREX-I targets. Laser and Particle Beams, 2012, 30, 103-109.	1.0	5
44	Validation of thermal conductivity in magnetized plasmas using particle-in-cell simulations. Physics of Plasmas, 2017, 24, .	1.9	5
45	Theoretical Study of Ultra-Relativistic Laser Electron Interaction in the Strong Radiation Reaction Regime. Plasma and Fusion Research, 2011, 6, 2404099-2404099.	0.7	5
46	Simultaneous Generation of UV Harmonics and Protons From a Thin-Foil Target With a High-Intensity Laser. IEEE Transactions on Plasma Science, 2008, 36, 1812-1816.	1.3	4
47	Control of laser-accelerated proton beams by modifying the target density with ASE. European Physical Journal D, 2009, 55, 421-425.	1.3	4
48	Effects of CH foam preplasma on fast ignition. Laser and Particle Beams, 2012, 30, 189-197.	1.0	4
49	Extremely high-pressure generation and compression with laser implosion plasmas. Applied Physics Letters, 2013, 102, .	3.3	4
50	High Energy Electron Generation by Laser-Cone Interaction. Plasma and Fusion Research, 2007, 2, 018-018.	0.7	4
51	Effects of laser profiles on fast electron generation under the same laser energy. Laser and Particle Beams, 2013, 31, 371-377.	1.0	3
52	The role of hot electrons on ultrahigh pressure generation relevant to shock ignition conditions. High Energy Density Physics, 2020, 37, 100892.	1.5	3
53	Direct-drive implosion experiment of diamond capsules fabricated with hot filament chemical vapor deposition technique. Physics of Plasmas, 2021, 28, 104501.	1.9	3
54	Design of foam-buffered high gain target with Fokkerâ€“Planck implosion simulation for thermal insulation and imprint mitigation. Physics of Plasmas, 2003, 10, 2608-2611.	1.9	2

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55	Computational Studies and Designs for Fast Ignition. AIP Conference Proceedings, 2006, , .	0.4	2
56	Hot Electron Spectra in Plain, Cone and Integrated Targets for FIREX-I using Electron Spectrometer. Plasma and Fusion Research, 2013, 8, 2404125-2404125.	0.7	2
57	Assessing infrared intensity using the evaporation rate of liquid hydrogen inside a cryogenic integrating sphere for laser fusion targets. Review of Scientific Instruments, 2017, 88, 075103.	1.3	2
58	Theoretical Study of Ultra-Relativistic Laser Electron Interaction with Radiation Reaction by Quantum Description. Plasma and Fusion Research, 2012, 7, 2404010-2404010.	0.7	2
59	Nonlinear Evolution of Single Spike Structure and Vortex in the Richtmyer-Meshkov Instability. Journal of Plasma and Fusion Research, 1999, 75-CD, 201-210.	0.4	1
60	Characterization of Thin-Foil Preformed Plasmas for High-Intensity Laser Plasma Interactions. Acta Physica Hungarica A Heavy Ion Physics, 2006, 26, 327-333.	0.4	1
61	Simulation analysis of the effects of an initial cone position and opening angle on a cone-guided implosion. Physics of Plasmas, 2013, 20, 102703.	1.9	1
62	Confirmation of hot electron preheat with a Cu foam sphere on GEKKO-LFEX laser facility. Physics of Plasmas, 2017, 24, 112709.	1.9	1
63	Surface structure on diamond foils generated by spatially nonuniform laser irradiation. Scientific Reports, 2020, 10, 9017.	3.3	1
64	Advanced Target Design for the FIREX-I Project. Plasma and Fusion Research, 2009, 4, S1001-S1001.	0.7	1
65	Prospect for Multiple Time and Spatial Scale Simulation Research of Laser Fusion Plasmas. Journal of Plasma and Fusion Research, 2003, 79, 489-495.	0.4	1
66	Preliminary Cryogenic Layering by the Infrared Heating Method Modified with Cone Temperature Control for the Polystyrene Shell FIREX Target. Plasma and Fusion Research, 2021, 16, 1404099-1404099.	0.7	1
67	Relativistic Electron Fluid Simulation and Studies on Electric Shock Wave Formation. Journal of the Physical Society of Japan, 2007, 76, 044502.	1.6	0
68	Laser ion acceleration by a near-critical density target. AIP Conference Proceedings, 2008, , .	0.4	0
69	X-ray polarization spectroscopy to study energy transport in ultra-high intensity laser produced plasmas. , 2009, , .		0
70	On-Target Contrast Diagnostic via Specular Reflectivity Measurement. , 2009, , .		0
71	Polarized He[sub Î±] Radiation by Anisotropic Fast Electron Transport in Ultra-Intense Laser Produced Plasmas. , 2009, , .		0
72	High-intensity laser-driven particle and electromagnetic wave sources for science, industry, and medicine. Frontiers of Optoelectronics in China, 2009, 2, 299-303.	0.2	0

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73	Ion Acceleration Using Temporally-Controlled High-Intensity Laser Pulses. The Review of Laser Engineering, 2009, 37, 449-454.	0.0	0
74	Proton Generation and Terahertz Radiation from A Thin-Foil Target with A High-Intensity Laser. The Review of Laser Engineering, 2010, 38, 702-705.	0.0	0
75	FIREX Project and Effects of Self-generated Electric and Magnetic Fields on Electron Driven Fast Ignition. , 2010, , .		0
76	Progress of impact ignition. , 2011, , .		0
77	Fast ignition integrated experiments on GEKKO-LFEX laser facility. , 2011, , .		0
78	Energy Transportation by MeV Hot Electrons in Fast Ignition Plasma Driven with LFEX PW Laser. Plasma and Fusion Research, 2014, 9, 1404118-1404118.	0.7	0
79	Implosion Simulation by Hydro Code Coupled with Laser Absorption using New Raytrace Algorithm. Plasma and Fusion Research, 2014, 9, 3404090-3404090.	0.7	0
80	Evaluation of neutron pulse width in laser-driven neutron source using organic scintillator. , 2019, , .		0
81	Pulse duration constraint of whistler waves in magnetized dense plasma. Physical Review E, 2021, 104, 035205.	2.1	0
82	Improvement of ignition and burning target designÂfor fast ignition scheme. Nuclear Fusion, 2021, 61, 126032.	3.5	0
83	Advances in Plasma and Fusion Simulation and Prospects for the Future Progress of Laser Fusion Simulations and Network Computing. Journal of Plasma and Fusion Research, 2004, 80, 396-400.	0.4	0
84	Integration of Individual Simulation Codes for Fast Ignition. The Review of Laser Engineering, 2004, 32, 324-329.	0.0	0
85	High Intensity Laser Propagation though Overdense Plasmas. The Review of Laser Engineering, 2008, 36, 1139-1141.	0.0	0
86	Particle-in-Cell Simulation of the Measurement of Laser Wakefields with Raman Scattering of Probe Laser Light. Plasma and Fusion Research, 2008, 3, 063-063.	0.7	0
87	Proton Acceleration in the Interaction of an Intense Laser Light with a Cone Plasma Target and Coated Proton Layer. Plasma and Fusion Research, 2008, 3, 062-062.	0.7	0
88	Characteristics of Laser-Driven Neutron Sources. The Review of Laser Engineering, 2018, 46, 564.	0.0	0