

Peter Hakel

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/6193406/publications.pdf>

Version: 2024-02-01

63
papers

1,170
citations

394421

19
h-index

395702

33
g-index

66
all docs

66
docs citations

66
times ranked

1155
citing authors

#	ARTICLE	IF	CITATIONS
1	Experiments and simulations of isochorically heated warm dense carbon foam at the Texas Petawatt Laser. <i>Matter and Radiation at Extremes</i> , 2021, 6, .	3.9	10
2	Sodium tracer measurements of an expanded dense aluminum plasma from e-beam isochoric heating. <i>Physics of Plasmas</i> , 2021, 28, .	1.9	1
3	A temperature profile diagnostic for radiation waves on OMEGA-60. <i>High Energy Density Physics</i> , 2021, 39, 100939.	1.5	6
4	Laser-driven production of the antihydrogen molecular ion. <i>Physical Review A</i> , 2019, 100, .	2.5	9
5	Progress on observations of interspecies ion separation in inertial-confinement-fusion implosions via imaging x-ray spectroscopy. <i>Physics of Plasmas</i> , 2019, 26, 062702.	1.9	7
6	FESTR: Finite-Element Spectral Transfer of Radiation spectroscopic modeling and analysis code (New) Tj ETQq0 0 0,rgBT /Overlock 10 Tf	7.5	1
7	New Los Alamos Opacity Calculations. <i>Atoms</i> , 2018, 6, 32.	1.6	4
8	Kinetic equations for cylindrically symmetric plasmas including atomic coherence and Coulomb potential effects. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2017, 50, 095701.	1.5	0
9	Observation and modeling of interspecies ion separation in inertial confinement fusion implosions via imaging x-ray spectroscopy. <i>Physics of Plasmas</i> , 2017, 24, 056305.	1.9	15
10	A new generation of Los Alamos opacity tables. <i>AIP Conference Proceedings</i> , 2017, , .	0.4	2
11	Generation of disc-like plasma from laser-matter interaction in the presence of a strong external magnetic field. <i>Plasma Physics and Controlled Fusion</i> , 2017, 59, 085008.	2.1	17
12	Atomic structure considerations for the low-temperature opacity of Sn. <i>High Energy Density Physics</i> , 2017, 23, 133-137.	1.5	22
13	Observation of extremely strong shock waves in solids launched by petawatt laser heating. <i>Physics of Plasmas</i> , 2017, 24, .	1.9	8
14	Systematic Fuel Cavity Asymmetries in Directly Driven Inertial Confinement Fusion Implosions. <i>Physical Review Letters</i> , 2017, 118, 135001.	7.8	22
15	State-resolved Photodissociation and Radiative Association Data for the Molecular Hydrogen Ion. <i>Astrophysical Journal</i> , 2017, 851, 64.	4.5	13
16	Inversions of the Ledoux discriminant: a closer look at the tachocline. <i>Monthly Notices of the Royal Astronomical Society: Letters</i> , 2017, 472, L70-L74.	3.3	10
17	Seismic inversion of the solar entropy. <i>Astronomy and Astrophysics</i> , 2017, 607, A58.	5.1	15
18	Kinetic studies of ICF implosions. <i>Journal of Physics: Conference Series</i> , 2016, 717, 012027.	0.4	1

#	ARTICLE	IF	CITATIONS
19	Observation of interspecies ion separation in inertial-confinement-fusion implosions. <i>Europhysics Letters</i> , 2016, 115, 65001.	2.0	21
20	FESTR: Finite-Element Spectral Transfer of Radiation spectroscopic modeling and analysis code. <i>Computer Physics Communications</i> , 2016, 207, 415-425.	7.5	10
21	Development of a polar direct drive platform for mix and burn experiments on the National Ignition Facility. <i>Journal of Physics: Conference Series</i> , 2016, 688, 012075.	0.4	3
22	A NEW GENERATION OF LOS ALAMOS OPACITY TABLES. <i>Astrophysical Journal</i> , 2016, 817, 116.	4.5	153
23	Laser irradiance scaling in polar direct drive implosions on the National Ignition Facility. <i>Physics of Plasmas</i> , 2015, 22, .	1.9	11
24	The Los Alamos suite of relativistic atomic physics codes. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2015, 48, 144014.	1.5	122
25	Laboratory measurements of resistivity in warm dense plasmas relevant to the microphysics of brown dwarfs. <i>Nature Communications</i> , 2015, 6, 8742.	12.8	17
26	Theoretical modeling and analysis of the emission spectra of a ChemCam standard: Basalt BIR-1A. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 2015, 110, 20-30.	2.9	8
27	Relativistic opacities for astrophysical applications. <i>High Energy Density Physics</i> , 2015, 16, 53-59.	1.5	52
28	An equation of state for partially ionized plasmas: The Coulomb contribution to the free energy. <i>High Energy Density Physics</i> , 2015, 16, 36-40.	1.5	15
29	Light element opacities of astrophysical interest from ATOMIC. <i>High Energy Density Physics</i> , 2015, 14, 33-37.	1.5	31
30	Multiple-view spectrally resolved x-ray imaging observations of polar-direct-drive implosions on OMEGA. <i>Physics of Plasmas</i> , 2014, 21, 122704.	1.9	5
31	Designing symmetric polar direct drive implosions on the Omega laser facility. <i>Physics of Plasmas</i> , 2014, 21, .	1.9	12
32	Observation of early shell-dopant mix in OMEGA direct-drive implosions and comparisons with radiation-hydrodynamic simulations. <i>Physics of Plasmas</i> , 2014, 21, .	1.9	25
33	X-ray spectroscopic diagnostics and modeling of polar-drive implosion experiments on the National Ignition Facility. <i>Physics of Plasmas</i> , 2014, 21, .	1.9	13
34	Compressed shell conditions extracted from spectroscopic analysis of Ti K-shell absorption spectra with evaluation of line self-emission. <i>Physics of Plasmas</i> , 2014, 21, .	1.9	13
35	Radiative cooling of two-component wire-array Z-pinch plasma. <i>Physics of Plasmas</i> , 2014, 21, .	1.9	2
36	Light element opacities from ATOMIC. <i>High Energy Density Physics</i> , 2013, 9, 369-374.	1.5	41

#	ARTICLE	IF	CITATIONS
37	Development of a polar direct-drive platform for studying inertial confinement fusion implosion mix on the National Ignition Facility. <i>Physics of Plasmas</i> , 2013, 20, .	1.9	21
38	Light element opacities of astrophysical interest from ATOMIC. , 2013, , .		0
39	Polarization properties of the Ly- \hat{I} ± line from sulphur plasmas driven by high-intensity, ultrashort-duration laser pulses1This article is part of a Special Issue on the 10th International Colloquium on Atomic Spectra and Oscillator Strengths for Astrophysical and Laboratory Plasmas.. <i>Canadian Journal of Physics</i> . 2011, 89, 509-511.	1.1	1
40	Study of the Internal Structure and Small-Scale Instabilities in the Dense Z Pinch. <i>Physical Review Letters</i> , 2011, 107, 165002.	7.8	22
41	X-ray absorption spectroscopy for wire-array Z-pinches at the non-radiative stage. <i>High Energy Density Physics</i> , 2011, 7, 383-390.	1.5	2
42	Precision X-ray spectroscopy of intense laser-plasma interactions. <i>High Energy Density Physics</i> , 2011, 7, 105-109.	1.5	7
43	Measurement of the Ionization State and Electron Temperature of Plasma during the Ablation Stage of a Wire-Array Z Pinch Using Absorption Spectroscopy. <i>Physical Review Letters</i> , 2011, 106, 225005.	7.8	8
44	The derivation of kinetic equations for anisotropic plasmas from the impact approximation. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2011, 44, 215701.	1.5	8
45	Energy transport and isochoric heating of a low-Z, reduced-mass target irradiated with a high intensity laser pulse. <i>Physics of Plasmas</i> , 2011, 18, .	1.9	21
46	Implosion dynamics and x-ray generation in small-diameter wire-array Z pinches. <i>Physical Review E</i> , 2009, 79, 056404.	2.1	28
47	Effect of reentrant cone geometry on energy transport in intense laser-plasma interactions. <i>Physical Review E</i> , 2009, 80, 045401.	2.1	4
48	Polarization Spectroscopy Modeling With The Inclusion Of Radiation Transport. , 2009, , .		0
49	X-ray line polarization spectroscopy of Li-like Si satellite line spectra. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2009, 42, 085701.	1.5	10
50	Opacity effects on the polarization of line emissions in Astrophysical plasmas. <i>Astrophysics and Space Science</i> , 2009, 322, 113-116.	1.4	1
51	X-ray line emissions from tamped thin aluminum targets driven by subpicosecond-duration laser pulses. <i>High Energy Density Physics</i> , 2009, 5, 35-43.	1.5	8
52	Opacity effects on the polarization of line emissions in Astrophysical plasmas. , 2008, , 113-116.		0
53	Cascade effects on the polarization of He-like Fe s_1 line emission. <i>Physical Review A</i> . 2007, 76, .	2.5	30
54	Spectral line strength binning method for opacity calculations. <i>High Energy Density Physics</i> , 2007, 3, 309-313.	1.5	9

#	ARTICLE	IF	CITATIONS
55	The new Los Alamos opacity code ATOMIC. Journal of Quantitative Spectroscopy and Radiative Transfer, 2006, 99, 265-271.	2.3	94
56	Los Alamos Opacities: Transition from LEDCOP to ATOMIC. AIP Conference Proceedings, 2004, , .	0.4	37
57	CHEMEOS: A New Chemical-Picture-Based Model for Plasma Equation-of-State Calculations. AIP Conference Proceedings, 2004, , .	0.4	18
58	X-ray line polarization of He-like Si satellite spectra in plasmas driven by high-intensity ultrashort pulsed lasers. Physical Review E, 2004, 69, 056405.	2.1	36
59	X-Ray Spectroscopy of Dense Plasmas Produced by Isochoric Heating with Ultrashort Laser Pulses. AIP Conference Proceedings, 2004, , .	0.4	3
60	K-shell spectra from hot dense aluminum layers buried in carbon and heated by ultrashort laser pulses. Journal of Quantitative Spectroscopy and Radiative Transfer, 2003, 81, 133-146.	2.3	54
61	Astrophysical and inertial-confinement-fusion plasmas generated with millijoule femtosecond laser pulses. Journal of Modern Optics, 2002, 49, 2615-2628.	1.3	2
62	Demonstration of aluminum K -shell line shifts in isochorically heated targets driven by ultrashort laser pulses. Europhysics Letters, 2002, 60, 861-867.	2.0	28
63	Hot solid-state aluminum plasmas, positrons, and neutrons generated with the garching laser facility ATLAS. AIP Conference Proceedings, 2002, , .	0.4	0