David Meyerhofer

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/2827832/publications.pdf

Version: 2024-02-01

70 papers	5,121 citations	76294 40 h-index	95218 68 g-index
71 all docs	71 docs citations	71 times ranked	1993 citing authors

#	Article	IF	Citations
1	Measurement of the sound velocity and GrÃ¼neisen parameter of polystyrene at inertial confinement fusion conditions. Physical Review B, 2020, 102, .	1.1	9
2	Hugoniot, sound velocity, and shock temperature of MgO to 2300ÂGPa. Physical Review B, 2019, 100, .	1.1	17
3	The National Direct-Drive Program: OMEGA to the National Ignition Facility. Fusion Science and Technology, 2018, 73, 89-97.	0.6	12
4	Monochromatic backlighting of direct-drive cryogenic DT implosions on OMEGA. Physics of Plasmas, 2017, 24, .	0.7	21
5	Hugoniot and release measurements in diamond shocked up to 26 Mbar. Physical Review B, 2017, 95, .	1.1	32
6	Polar-direct-drive experiments at the National Ignition Facility. Journal of Physics: Conference Series, 2016, 717, 012009.	0.3	1
7	Shock-wave equation-of-state measurements in fused silica up to 1600â€‰GPa. Journal of Applied Physics, 2016, 119, .	1.1	26
8	Direct drive: Simulations and results from the National Ignition Facility. Physics of Plasmas, 2016, 23, 056305.	0.7	36
9	Optical smoothing of laser imprinting in planar-target experiments on OMEGA EP using multi-FM 1-D smoothing by spectral dispersion. Physics of Plasmas, 2016, 23, .	0.7	9
10	Measurements of the sound velocity of shock-compressed liquid silica to 1100â€‰GPa. Journal of Applied Physics, 2016, 120, .	1.1	14
11	Demonstration of Fuel Hot-Spot Pressure in Excess of 50ÂGbar for Direct-Drive, Layered Deuterium-Tritium Implosions on OMEGA. Physical Review Letters, 2016, 117, 025001.	2.9	72
12	High field assisted X-ray source. , 2016, , .		0
13	A high-resolving-power x-ray spectrometer for the OMEGA EP Laser (invited). Review of Scientific Instruments, 2016, 87, 11D504.	0.6	7
14	Direct-drive inertial confinement fusion: A review. Physics of Plasmas, 2015, 22, .	0.7	521
15		0.7	52
16	Measurements of the Conduction-Zone Length and Mass Ablation Rate in Cryogenic Direct-Drive Implosions on OMEGA. Physical Review Letters, 2015, 114, 155002.	2.9	12
17	Time-resolved K_{Î±}spectroscopy measurements of hot-electron equilibration dynamics in thin-foil solid targets: collisional and collective effects. Journal of Physics B: Atomic, Molecular and Optical Physics, 2015, 48, 224001.	0.6	9
18	Theory of hydro-equivalent ignition for inertial fusion and its applications to OMEGA and the National Ignition Facility. Physics of Plasmas, 2014, 21, .	0.7	68

#	Article	IF	Citations
19	Improving the hot-spot pressure and demonstrating ignition hydrodynamic equivalence in cryogenic deuteriumâ€“tritium implosions on OMEGA. Physics of Plasmas, 2014, 21, .	0.7	139
20	Effects of local defect growth in direct-drive cryogenic implosions on OMEGA. Physics of Plasmas, 2013, 20, .	0.7	42
21	Laser-Beam Zooming to Mitigate Crossed-Beam Energy Losses in Direct-Drive Implosions. Physical Review Letters, 2013, 110, 145001.	2.9	31
22	Improving cryogenic deuteriumâ€“tritium implosion performance on OMEGA. Physics of Plasmas, 2013, 20, .	0.7	48
23	Polar-drive implosions on OMEGA and the National Ignition Facility. Physics of Plasmas, 2013, 20, .	0.7	28
24	OMEGA polar-drive target designs. Physics of Plasmas, 2012, 19, .	0.7	25
25	Inertial confinement fusion implosions with imposed magnetic field compression using the OMEGA Laser. Physics of Plasmas, 2012, 19, .	0.7	112
26	Experimental reduction of laser imprinting and Rayleighâ€“Taylor growth in spherically compressed, medium-Z-doped plastic targets. Physics of Plasmas, 2012, 19, 062704.	0.7	41
27	Crossed-beam energy transfer in direct-drive implosions. Physics of Plasmas, 2012, 19, .	0.7	133
28	Time-Resolved Measurements of Hot-Electron Equilibration Dynamics in High-Intensity Laser Interactions with Thin-Foil Solid Targets. Physical Review Letters, 2012, 108, 085002.	2.9	59
29	Precision equation-of-state measurements on National Ignition Facility ablator materials from 1 to 12 Mbar using laser-driven shock waves. Journal of Applied Physics, 2012, 111, .	1.1	40
30	Shock timing experiments on the National Ignition Facility: Initial results and comparison with simulation. Physics of Plasmas, 2012, 19, .	0.7	115
31	Mitigating Laser Imprint in Direct-Drive Inertial Confinement Fusion Implosions with High-<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>Z</mml:mi></mml:math>Dopants. Physical Review Letters, 2012, 108, 195003.	2.9	70
32	A polar-driveâ€“ignition design for the National Ignition Facility. Physics of Plasmas, 2012, 19, .	0.7	70
33	Hot-spot mix in ignition-scale implosions on the NIF. Physics of Plasmas, 2012, 19, .	0.7	107
34	Velocity and Timing of Multiple Spherically Converging Shock Waves in Liquid Deuterium. Physical Review Letters, 2011, 106, 195005.	2.9	54
35	Scaling hot-electron generation to long-pulse, high-intensity laserâ€“solid interactions. Physics of Plasmas, 2011, 18, 056703.	0.7	15
36	Target-heating effects on the KÎ±1,2-emission spectrum from solid targets heated by laser-generated hot electrons. Physics of Plasmas, 2011, 18, 042702.	0.7	17

#	Article	IF	Citations
37	Point design targets, specifications, and requirements for the 2010 ignition campaign on the National Ignition Facility. Physics of Plasmas, 2011, 18, .	0.7	534
38	Triple-picket warm plastic-shell implosions on OMEGA. Physics of Plasmas, 2011, 18, 012705.	0.7	32
39	Multiple spherically converging shock waves in liquid deuterium. Physics of Plasmas, 2011, 18, 092706.	0.7	34
40	Scaling Hot-Electron Generation to High-Power, Kilojoule-Class Laser-Solid Interactions. Physical Review Letters, 2010, 105, 235001.	2.9	49
41	Demonstration of the Highest Deuterium-Tritium Areal Density Using Multiple-Picket Cryogenic Designs on OMEGA. Physical Review Letters, 2010, 104, 165001.	2.9	111
42	Two-dimensional simulations of the neutron yield in cryogenic deuterium-tritium implosions on OMEGA. Physics of Plasmas, 2010, 17, 102706.	0.7	43
43	Shock-tuned cryogenic-deuterium-tritium implosion performance on Omega. Physics of Plasmas, 2010, 17, 056312.	0.7	33
44	The effect of condensates and inner coatings on the performance of vacuum hohlraum targets. Physics of Plasmas, 2010, 17, 032701.	0.7	6
45	Probing high areal-density cryogenic deuterium-tritium implosions using downscattered neutron spectra measured by the magnetic recoil spectrometer. Physics of Plasmas, 2010, 17, .	0.7	91
46	High-precision measurements of the equation of state of hydrocarbons at 1â€“10 Mbar using laser-driven shock waves. Physics of Plasmas, 2010, 17, .	0.7	119
47	Laser-driven single shock compression of fluid deuterium from 45 to 220 GPa. Physical Review B, 2009, 79, .	1.1	138
48	Bulk heating of solid-density plasmas during high-intensity-laser plasma interactions. Physical Review E, 2009, 79, 016406.	0.8	54
49	Demonstration of the shock-timing technique for ignition targets on the National Ignition Facility. Physics of Plasmas, 2009, 16, .	0.7	82
50	Performance of direct-drive cryogenic targets on OMEGA. Physics of Plasmas, 2008, 15, .	0.7	92
51	Streaked optical pyrometer system for laser-driven shock-wave experiments on OMEGA. Review of Scientific Instruments, 2007, 78, 034903.	0.6	143
52	Early stage of implosion in inertial confinement fusion: Shock timing and perturbation evolution. Physics of Plasmas, 2006, 13, 012702.	0.7	155
53	Polar-direct-drive simulations and experiments. Physics of Plasmas, 2006, 13, 056311.	0.7	58
54	Direct-drive, cryogenic target implosions on OMEGA. Physics of Plasmas, 2005, 12, 056302.	0.7	27

#	Article	IF	Citations
55	Shock compression of quartz in the high-pressure fluid regime. Physics of Plasmas, 2005, 12, 082702.	0.7	89
56	Two-dimensional simulations of plastic-shell, direct-drive implosions on OMEGA. Physics of Plasmas, 2005, 12, 032702.	0.7	126
57	Properties of fluid deuterium under double-shock compression to several Mbar. Physics of Plasmas, 2004, 11, L49-L52.	0.7	58
58	Polar direct drive on the National Ignition Facility. Physics of Plasmas, 2004, 11, 2763-2770.	0.7	139
59	Improved performance of direct-drive inertial confinement fusion target designs with adiabat shaping using an intensity picket. Physics of Plasmas, 2003, 10, 1906-1918.	0.7	146
60	Observations of modulated shock waves in solid targets driven by spatially modulated laser beams. Journal of Applied Physics, 2002, 92, 1212-1215.	1.1	5
61	First results from cryogenic target implosions on OMEGA. Physics of Plasmas, 2002, 9, 2195-2201.	0.7	49
62	Deceleration phase of inertial confinement fusion implosions. Physics of Plasmas, 2002, 9, 2277-2286.	0.7	118
63	Laser beam smoothing caused by the small-spatial-scale B integral. Journal of the Optical Society of America B: Optical Physics, 2002, 19, 7.	0.9	8
64	Optical and plasma smoothing of laser imprinting in targets driven by lasers with SSD bandwidths up to 1 THz. Physics of Plasmas, 2001, 8, 2331-2337.	0.7	31
65	A model of laser imprinting. Physics of Plasmas, 2000, 7, 2062-2068.	0.7	81
66	Nonlinear evolution of broad-bandwidth, laser-imprinted nonuniformities in planar targets accelerated by 351-nm laser light. Physics of Plasmas, 1999, 6, 4022-4036.	0.7	22
67	Reduction of laser imprinting using polarization smoothing on a solid-state fusion laser. Journal of Applied Physics, 1999, 85, 3444-3447.	1.1	207
68	Measurements of core and pusher conditions in surrogate capsule implosions on the OMEGA laser system. Physics of Plasmas, 1998, 5, 1870-1879.	0.7	36
69	Spatial Coherence Measurement of Soft X-Ray Radiation Produced by High Order Harmonic Generation. Physical Review Letters, 1996, 77, 4756-4759.	2.9	140
70	Scaling Hot-Electron Generation to High-Power, Kilojoule-Class Laser-Solid Interactions. , 0, .		1