

David Meyerhofer

List of Publications by Year in descending order

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70
papers

5,121
citations

76326

40
h-index

95266

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 Grüneisen parameter of polystyrene at inertial confinement fusion conditions. <i>Physical Review B</i> , 2020, 102, .	3.2	9
2	Hugoniot, sound velocity, and shock temperature of MgO to 2300 GPa. <i>Physical Review B</i> , 2019, 100, .	3.2	17
3	The National Direct-Drive Program: OMEGA to the National Ignition Facility. <i>Fusion Science and Technology</i> , 2018, 73, 89-97.	1.1	12
4	Monochromatic backlighting of direct-drive cryogenic DT implosions on OMEGA. <i>Physics of Plasmas</i> , 2017, 24, .	1.9	21
5	Hugoniot and release measurements in diamond shocked up to 26 Mbar. <i>Physical Review B</i> , 2017, 95, .	3.2	32
6	Polar-direct-drive experiments at the National Ignition Facility. <i>Journal of Physics: Conference Series</i> , 2016, 717, 012009.	0.4	1
7	Shock-wave equation-of-state measurements in fused silica up to 1600 GPa. <i>Journal of Applied Physics</i> , 2016, 119, .	2.5	26
8	Direct drive: Simulations and results from the National Ignition Facility. <i>Physics of Plasmas</i> , 2016, 23, 056305.	1.9	36
9	Optical smoothing of laser imprinting in planar-target experiments on OMEGA EP using multi-FM 1-D smoothing by spectral dispersion. <i>Physics of Plasmas</i> , 2016, 23, .	1.9	9
10	Measurements of the sound velocity of shock-compressed liquid silica to 1100 GPa. <i>Journal of Applied Physics</i> , 2016, 120, .	2.5	14
11	Demonstration of Fuel Hot-Spot Pressure in Excess of 50 Gbar for Direct-Drive, Layered Deuterium-Tritium Implosions on OMEGA. <i>Physical Review Letters</i> , 2016, 117, 025001.	7.8	72
12	High field assisted X-ray source. , 2016, , .		0
13	A high-resolving-power x-ray spectrometer for the OMEGA EP Laser (invited). <i>Review of Scientific Instruments</i> , 2016, 87, 11D504.	1.3	7
14	Direct-drive inertial confinement fusion: A review. <i>Physics of Plasmas</i> , 2015, 22, .	1.9	521
15		1.9	52
16	Measurements of the Conduction-Zone Length and Mass Ablation Rate in Cryogenic Direct-Drive Implosions on OMEGA. <i>Physical Review Letters</i> , 2015, 114, 155002.	7.8	12
17	Time-resolved K _α spectroscopy measurements of hot-electron equilibration dynamics in thin-foil solid targets: collisional and collective effects. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2015, 48, 224001.	1.5	9
18	Theory of hydro-equivalent ignition for inertial fusion and its applications to OMEGA and the National Ignition Facility. <i>Physics of Plasmas</i> , 2014, 21, .	1.9	68

#	ARTICLE	IF	CITATIONS
19	Improving the hot-spot pressure and demonstrating ignition hydrodynamic equivalence in cryogenic deuterium–tritium implosions on OMEGA. <i>Physics of Plasmas</i> , 2014, 21, .	1.9	139
20	Effects of local defect growth in direct-drive cryogenic implosions on OMEGA. <i>Physics of Plasmas</i> , 2013, 20, .	1.9	42
21	Laser-Beam Zooming to Mitigate Crossed-Beam Energy Losses in Direct-Drive Implosions. <i>Physical Review Letters</i> , 2013, 110, 145001.	7.8	31
22	Improving cryogenic deuterium–tritium implosion performance on OMEGA. <i>Physics of Plasmas</i> , 2013, 20, .	1.9	48
23	Polar-drive implosions on OMEGA and the National Ignition Facility. <i>Physics of Plasmas</i> , 2013, 20, .	1.9	28
24	OMEGA polar-drive target designs. <i>Physics of Plasmas</i> , 2012, 19, .	1.9	25
25	Inertial confinement fusion implosions with imposed magnetic field compression using the OMEGA Laser. <i>Physics of Plasmas</i> , 2012, 19, .	1.9	112
26	Experimental reduction of laser imprinting and Rayleigh–Taylor growth in spherically compressed, medium-Z-doped plastic targets. <i>Physics of Plasmas</i> , 2012, 19, 062704.	1.9	41
27	Crossed-beam energy transfer in direct-drive implosions. <i>Physics of Plasmas</i> , 2012, 19, .	1.9	133
28	Time-Resolved Measurements of Hot-Electron Equilibration Dynamics in High-Intensity Laser Interactions with Thin-Foil Solid Targets. <i>Physical Review Letters</i> , 2012, 108, 085002.	7.8	59
29	Precision equation-of-state measurements on National Ignition Facility ablator materials from 1 to 12 Mbar using laser-driven shock waves. <i>Journal of Applied Physics</i> , 2012, 111, .	2.5	40
30	Shock timing experiments on the National Ignition Facility: Initial results and comparison with simulation. <i>Physics of Plasmas</i> , 2012, 19, .	1.9	115
31	Mitigating Laser Imprint in Direct-Drive Inertial Confinement Fusion Implosions with High- Z Dopants. <i>Physical Review Letters</i> , 2012, 108, 195003.	7.8	70
32	A polar-drive–ignition design for the National Ignition Facility. <i>Physics of Plasmas</i> , 2012, 19, .	1.9	70
33	Hot-spot mix in ignition-scale implosions on the NIF. <i>Physics of Plasmas</i> , 2012, 19, .	1.9	107
34	Velocity and Timing of Multiple Spherically Converging Shock Waves in Liquid Deuterium. <i>Physical Review Letters</i> , 2011, 106, 195005.	7.8	54
35	Scaling hot-electron generation to long-pulse, high-intensity laser–solid interactions. <i>Physics of Plasmas</i> , 2011, 18, 056703.	1.9	15
36	Target-heating effects on the $K\alpha_{1,2}$ -emission spectrum from solid targets heated by laser-generated hot electrons. <i>Physics of Plasmas</i> , 2011, 18, 042702.	1.9	17

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37	Point design targets, specifications, and requirements for the 2010 ignition campaign on the National Ignition Facility. <i>Physics of Plasmas</i> , 2011, 18, .	1.9	534
38	Triple-picket warm plastic-shell implosions on OMEGA. <i>Physics of Plasmas</i> , 2011, 18, 012705.	1.9	32
39	Multiple spherically converging shock waves in liquid deuterium. <i>Physics of Plasmas</i> , 2011, 18, 092706.	1.9	34
40	Scaling Hot-Electron Generation to High-Power, Kilojoule-Class Laser-Solid Interactions. <i>Physical Review Letters</i> , 2010, 105, 235001.	7.8	49
41	Demonstration of the Highest Deuterium-Tritium Areal Density Using Multiple-Picket Cryogenic Designs on OMEGA. <i>Physical Review Letters</i> , 2010, 104, 165001.	7.8	111
42	Two-dimensional simulations of the neutron yield in cryogenic deuterium-tritium implosions on OMEGA. <i>Physics of Plasmas</i> , 2010, 17, 102706.	1.9	43
43	Shock-tuned cryogenic-deuterium-tritium implosion performance on Omega. <i>Physics of Plasmas</i> , 2010, 17, 056312.	1.9	33
44	The effect of condensates and inner coatings on the performance of vacuum hohlraum targets. <i>Physics of Plasmas</i> , 2010, 17, 032701.	1.9	6
45	Probing high areal-density cryogenic deuterium-tritium implosions using downscattered neutron spectra measured by the magnetic recoil spectrometer. <i>Physics of Plasmas</i> , 2010, 17, .	1.9	91
46	High-precision measurements of the equation of state of hydrocarbons at ~ 10 Mbar using laser-driven shock waves. <i>Physics of Plasmas</i> , 2010, 17, .	1.9	119
47	Laser-driven single shock compression of fluid deuterium from 45 to 220 GPa. <i>Physical Review B</i> , 2009, 79, .	3.2	138
48	Bulk heating of solid-density plasmas during high-intensity-laser plasma interactions. <i>Physical Review E</i> , 2009, 79, 016406.	2.1	54
49	Demonstration of the shock-timing technique for ignition targets on the National Ignition Facility. <i>Physics of Plasmas</i> , 2009, 16, .	1.9	82
50	Performance of direct-drive cryogenic targets on OMEGA. <i>Physics of Plasmas</i> , 2008, 15, .	1.9	92
51	Streaked optical pyrometer system for laser-driven shock-wave experiments on OMEGA. <i>Review of Scientific Instruments</i> , 2007, 78, 034903.	1.3	143
52	Early stage of implosion in inertial confinement fusion: Shock timing and perturbation evolution. <i>Physics of Plasmas</i> , 2006, 13, 012702.	1.9	155
53	Polar-direct-drive simulations and experiments. <i>Physics of Plasmas</i> , 2006, 13, 056311.	1.9	58
54	Direct-drive, cryogenic target implosions on OMEGA. <i>Physics of Plasmas</i> , 2005, 12, 056302.	1.9	27

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55	Shock compression of quartz in the high-pressure fluid regime. <i>Physics of Plasmas</i> , 2005, 12, 082702.	1.9	89
56	Two-dimensional simulations of plastic-shell, direct-drive implosions on OMEGA. <i>Physics of Plasmas</i> , 2005, 12, 032702.	1.9	126
57	Properties of fluid deuterium under double-shock compression to several Mbar. <i>Physics of Plasmas</i> , 2004, 11, L49-L52.	1.9	58
58	Polar direct drive on the National Ignition Facility. <i>Physics of Plasmas</i> , 2004, 11, 2763-2770.	1.9	139
59	Improved performance of direct-drive inertial confinement fusion target designs with adiabat shaping using an intensity picket. <i>Physics of Plasmas</i> , 2003, 10, 1906-1918.	1.9	146
60	Observations of modulated shock waves in solid targets driven by spatially modulated laser beams. <i>Journal of Applied Physics</i> , 2002, 92, 1212-1215.	2.5	5
61	First results from cryogenic target implosions on OMEGA. <i>Physics of Plasmas</i> , 2002, 9, 2195-2201.	1.9	49
62	Deceleration phase of inertial confinement fusion implosions. <i>Physics of Plasmas</i> , 2002, 9, 2277-2286.	1.9	118
63	Laser beam smoothing caused by the small-spatial-scale B integral. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2002, 19, 7.	2.1	8
64	Optical and plasma smoothing of laser imprinting in targets driven by lasers with SSD bandwidths up to 1 THz. <i>Physics of Plasmas</i> , 2001, 8, 2331-2337.	1.9	31
65	A model of laser imprinting. <i>Physics of Plasmas</i> , 2000, 7, 2062-2068.	1.9	81
66	Nonlinear evolution of broad-bandwidth, laser-imprinted nonuniformities in planar targets accelerated by 351-nm laser light. <i>Physics of Plasmas</i> , 1999, 6, 4022-4036.	1.9	22
67	Reduction of laser imprinting using polarization smoothing on a solid-state fusion laser. <i>Journal of Applied Physics</i> , 1999, 85, 3444-3447.	2.5	207
68	Measurements of core and pusher conditions in surrogate capsule implosions on the OMEGA laser system. <i>Physics of Plasmas</i> , 1998, 5, 1870-1879.	1.9	36
69	Spatial Coherence Measurement of Soft X-Ray Radiation Produced by High Order Harmonic Generation. <i>Physical Review Letters</i> , 1996, 77, 4756-4759.	7.8	140
70	Scaling Hot-Electron Generation to High-Power, Kilojoule-Class Laser-Solid Interactions. , 0, .		1