

R Stephen Craxton

List of Publications by Year in descending order

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4,491
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117625

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docs citations

76
times ranked

1518
citing authors

#	ARTICLE	IF	CITATIONS
1	Emission phases of implosion sources for x-ray absorption fine structure spectroscopy. <i>Physics of Plasmas</i> , 2022, 29, .	1.9	5
2	The Scattered Light Time-history Diagnostic suite at the National Ignition Facility. <i>Review of Scientific Instruments</i> , 2021, 92, 033511.	1.3	5
3	Comparison of ablaters for the polar direct drive exploding pusher platform. <i>High Energy Density Physics</i> , 2021, 38, 100928.	1.5	2
4	Pentagonal prism spherical hohlraums for OMEGA. <i>Physics of Plasmas</i> , 2021, 28, 062703.	1.9	6
5	Saturn-ring proton backlighters for the National Ignition Facility. <i>Review of Scientific Instruments</i> , 2020, 91, 093505.	1.3	2
6	Enhanced direct-drive implosion performance on NIF with wavelength separation. <i>Physics of Plasmas</i> , 2020, 27, 124501.	1.9	5
7	The National Direct-Drive Program: OMEGA to the National Ignition Facility. <i>Fusion Science and Technology</i> , 2018, 73, 89-97.	1.1	12
8	Optimization of a high-yield, low-areal-density fusion product source at the National Ignition Facility with applications in nucleosynthesis experiments. <i>Physics of Plasmas</i> , 2018, 25, .	1.9	10
9	Developing a high-flux, high-energy continuum backlighter for extended x-ray absorption fine structure measurements at the National Ignition Facility. <i>Review of Scientific Instruments</i> , 2018, 89, 10F114.	1.3	20
10	Development and modeling of a polar-direct-drive exploding pusher platform at the National Ignition Facility. <i>Physics of Plasmas</i> , 2018, 25, 072710.	1.9	22
11	Conceptual design of initial opacity experiments on the national ignition facility. <i>Journal of Plasma Physics</i> , 2017, 83, .	2.1	23
12	Development of an inertial confinement fusion platform to study charged-particle-producing nuclear reactions relevant to nuclear astrophysics. <i>Physics of Plasmas</i> , 2017, 24, .	1.9	20
13	Capsule implosions for continuum x-ray backlighting of opacity samples at the National Ignition Facility. <i>Physics of Plasmas</i> , 2017, 24, 063301.	1.9	17
14	X-ray source development for EXAFS measurements on the National Ignition Facility. <i>Review of Scientific Instruments</i> , 2017, 88, 083907.	1.3	22
15	Polar-direct-drive experiments at the National Ignition Facility. <i>Journal of Physics: Conference Series</i> , 2016, 717, 012009.	0.4	1
16	Direct drive: Simulations and results from the National Ignition Facility. <i>Physics of Plasmas</i> , 2016, 23, 056305.	1.9	36
17	Demonstration of Fuel Hot-Spot Pressure in Excess of 50ÅGbar for Direct-Drive, Layered Deuterium-Tritium Implosions on OMEGA. <i>Physical Review Letters</i> , 2016, 117, 025001.	7.8	72
18	X-ray self-emission imaging used to diagnose 3-D nonuniformities in direct-drive ICF implosions. <i>Review of Scientific Instruments</i> , 2016, 87, 11E340.	1.3	7

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19	Direct-drive inertial confinement fusion: A review. <i>Physics of Plasmas</i> , 2015, 22, .	1.9	521
20	Note: A monoenergetic proton backlighter for the National Ignition Facility. <i>Review of Scientific Instruments</i> , 2015, 86, 116104.	1.3	23
21		1.9	52
22	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
23	A polar-drive shock-ignition design for the National Ignition Facility. <i>Physics of Plasmas</i> , 2013, 20, .	1.9	37
24	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
25	Improving cryogenic deuterium-tritium implosion performance on OMEGA. <i>Physics of Plasmas</i> , 2013, 20, .	1.9	48
26	Polar-drive implosions on OMEGA and the National Ignition Facility. <i>Physics of Plasmas</i> , 2013, 20, .	1.9	28
27	Crossed-beam energy transfer in direct-drive implosions. <i>Physics of Plasmas</i> , 2012, 19, .	1.9	133
28	Saturation of the Two-Plasmon Decay Instability in Long-Scale-Length Plasmas Relevant to Direct-Drive Inertial Confinement Fusion. <i>Physical Review Letters</i> , 2012, 108, 165003.	7.8	58
29	Fast-electron generation in long-scale-length plasmas. <i>Physics of Plasmas</i> , 2012, 19, .	1.9	46
30	A polar-drive ignition design for the National Ignition Facility. <i>Physics of Plasmas</i> , 2012, 19, .	1.9	70
31	Initial cone-in-shell fast-ignition experiments on OMEGA. <i>Physics of Plasmas</i> , 2011, 18, .	1.9	82
32	High-Power, Kilojoule Class Laser Channeling in Millimeter-Scale Underdense Plasma. <i>Physical Review Letters</i> , 2011, 106, 105002.	7.8	58
33	An empirical model of collective electrostatic effects for laser-beam channeling in long-scale-length relativistic plasmas. <i>Physics of Plasmas</i> , 2011, 18, .	1.9	2
34	Shock-tuned cryogenic-deuterium-tritium implosion performance on Omega. <i>Physics of Plasmas</i> , 2010, 17, 056312.	1.9	33
35	Cryogenic-target performance and implosion physics studies on OMEGA. <i>Physics of Plasmas</i> , 2009, 16, 056301.	1.9	13
36	Advanced-ignition-concept exploration on OMEGA. <i>Plasma Physics and Controlled Fusion</i> , 2009, 51, 124052.	2.1	33

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37	Performance of direct-drive cryogenic targets on OMEGA. <i>Physics of Plasmas</i> , 2008, 15, .	1.9	92
38	High-Areal-Density Fuel Assembly in Direct-Drive Cryogenic Implosions. <i>Physical Review Letters</i> , 2008, 100, 185006.	7.8	49
39	Progress in direct-drive inertial confinement fusion. <i>Physics of Plasmas</i> , 2008, 15, .	1.9	107
40	Time-resolved absorption in cryogenic and room-temperature direct-drive implosions. <i>Physics of Plasmas</i> , 2008, 15, .	1.9	64
41	Polar-drive designs for optimizing neutron yields on the National Ignition Facility. <i>Physics of Plasmas</i> , 2008, 15, 082705.	1.9	26
42	Measurements of the effects of the intensity pickets on laser imprinting for direct-drive, adiabat-shaping designs on OMEGA. <i>Physics of Plasmas</i> , 2007, 14, 032702.	1.9	17
43	Cryogenic DT and D2 targets for inertial confinement fusion. <i>Physics of Plasmas</i> , 2007, 14, 058101.	1.9	55
44	Progress in direct-drive inertial confinement fusion research at the laboratory for laser energetics. <i>European Physical Journal D</i> , 2007, 44, 233-238.	1.3	8
45	Polar-direct-drive experiments on OMEGA. <i>European Physical Journal Special Topics</i> , 2006, 133, 153-157.	0.2	19
46	Three-Dimensional Characterization of Cryogenic Target Ice Layers Using Multiple Shadowgraph Views. <i>Fusion Science and Technology</i> , 2006, 49, 616-625.	1.1	23
47	Polar-direct-drive simulations and experiments. <i>Physics of Plasmas</i> , 2006, 13, 056311.	1.9	58
48	Polar direct drive " Ignition at 1 MJ. <i>European Physical Journal Special Topics</i> , 2006, 133, 233-235.	0.2	4
49	Polar direct drive: Proof-of-principle experiments on OMEGA and prospects for ignition on the National Ignition Facility. <i>Physics of Plasmas</i> , 2005, 12, 056304.	1.9	46
50	Direct-drive, cryogenic target implosions on OMEGA. <i>Physics of Plasmas</i> , 2005, 12, 056302.	1.9	27
51	The Saturn Target for Polar Direct Drive on the National Ignition Facility. <i>Physical Review Letters</i> , 2005, 94, 095002.	7.8	18
52	Performance of 1-THz-bandwidth, two-dimensional smoothing by spectral dispersion and polarization smoothing of high-power, solid-state laser beams. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2005, 22, 998.	2.1	80
53	Modeling stimulated Brillouin scattering in the underdense corona of a direct drive inertial confinement fusion target. <i>Physics of Plasmas</i> , 2004, 11, 3394-3403.	1.9	32
54	Direct-drive cryogenic target implosion performance on OMEGA. <i>Physics of Plasmas</i> , 2004, 11, 2790-2797.	1.9	39

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55	Modeling of stimulated Brillouin scattering near the critical-density surface in the plasmas of direct-drive inertial confinement fusion targets. <i>Physics of Plasmas</i> , 2004, 11, 2994-3000.	1.9	17
56	Polar direct drive on the National Ignition Facility. <i>Physics of Plasmas</i> , 2004, 11, 2763-2770.	1.9	139
57	Multibeam Effects on Fast-Electron Generation from Two-Plasmon-Decay Instability. <i>Physical Review Letters</i> , 2003, 90, 235002.	7.8	95
58	Multibeam Stimulated Brillouin Scattering from Hot, Solid-Target Plasmas. <i>Physical Review Letters</i> , 2002, 89, 175002.	7.8	59
59	Laser-Plasma Interaction Diagnostics for ICF Fusion Research. , 2002, , 27-30.		1
60	Three-dimensional modeling of capsule implosions in OMEGA tetrahedral hohlraums. <i>Physics of Plasmas</i> , 2000, 7, 2964-2977.	1.9	15
61	Moderate-convergence inertial confinement fusion implosions in tetrahedral hohlraums at Omega. <i>Physics of Plasmas</i> , 2000, 7, 2594-2603.	1.9	20
62	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
63	Irradiation uniformity for high-compression laser-fusion experiments. <i>Physics of Plasmas</i> , 1999, 6, 2157-2163.	1.9	129
64	Laser-plasma interactions in long-scale-length plasmas under direct-drive National Ignition Facility conditions. <i>Physics of Plasmas</i> , 1999, 6, 2072-2080.	1.9	123
65	Inertial Confinement Fusion with Tetrahedral Hohlraums at OMEGA. <i>Physical Review Letters</i> , 1999, 82, 3807-3810.	7.8	39
66	Demonstration of the dual-tripler scheme for increased-bandwidth third-harmonic generation. <i>Optics Letters</i> , 1998, 23, 927.	3.3	33
67	Signatures of target performance and mixing in titanium-doped, laser-driven target implosions. <i>Physics of Plasmas</i> , 1997, 4, 3021-3030.	1.9	21
68	Direct-drive laser-fusion experiments with the OMEGA, 60-beam, >40 kJ, ultraviolet laser system. <i>Physics of Plasmas</i> , 1996, 3, 2108-2112.	1.9	182
69	Indirect-drive radiation uniformity in tetrahedral hohlraums. <i>Physics of Plasmas</i> , 1996, 3, 3786-3797.	1.9	31
70	Direct Measurements of the Ion Acoustic Decay Instability in a Laser-Produced, Large-Scale, Hot Plasma. <i>Physical Review Letters</i> , 1994, 73, 2704-2707.	7.8	6
71	Nonlinear laser-matter interaction processes in long-scale-length plasmas. <i>Physics of Fluids B</i> , 1992, 4, 2232-2240.	1.7	47
72	Improved laser-beam uniformity using the angular dispersion of frequency-modulated light. <i>Journal of Applied Physics</i> , 1989, 66, 3456-3462.	2.5	729

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73	Absorption Physics at 351 nm in Spherical Geometry. Physical Review Letters, 1985, 54, 1656-1659.	7.8	23
74	Brillouin scattering, two-plasmon decay, and self-focusing in underdense ultraviolet laser-produced plasmas. Physics of Fluids, 1985, 28, 2910-2914.	1.4	39
75	Hydrodynamics of thermal self-focusing in laser plasmas. Journal of Applied Physics, 1984, 56, 108-117.	2.5	85