Richard D Petrasso

List of Publications by Year
in descending order

198	8,081	34016 52	64668 79
papers	citations	h-index	g-index

200	200	200	2608
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Progress towards ignition on the National Ignition Facility. Physics of Plasmas, 2013, 20, .	0.7	259
2	Observation of magnetic field generation via the Weibel instability in interpenetrating plasma flows. Nature Physics, 2015, 11, 173-176.	6.5	236
3	Spectrometry of charged particles from inertial-confinement-fusion plasmas. Review of Scientific Instruments, 2003, 74, 975-995.	0.6	214
4	MeasuringEandBFields in Laser-Produced Plasmas with Monoenergetic Proton Radiography. Physical Review Letters, 2006, 97, 135003.	2.9	192
5	Charged-particle stopping powers in inertial confinement fusion plasmas. Physical Review Letters, 1993, 70, 3059-3062.	2.9	187
6	Proton Radiography of Inertial Fusion Implosions. Science, 2008, 319, 1223-1225.	6.0	157
7	Observation of Megagauss-Field Topology Changes due to Magnetic Reconnection in Laser-Produced Plasmas. Physical Review Letters, 2007, 99, 055001.	2.9	151
8	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
9	Implosion dynamics measurements at the National Ignition Facility. Physics of Plasmas, 2012, 19, .	0.7	125
10	Neutron spectrometryâ€”An essential tool for diagnosing implosions at the National Ignition Facility (invited). Review of Scientific Instruments, 2012, 83, 10D308.	0.6	117
11	High-density carbon ablator experiments on the National Ignition Facility. Physics of Plasmas, 2014, 21, .	0.7	116
12	Inertial confinement fusion implosions with imposed magnetic field compression using the OMEGA Laser. Physics of Plasmas, 2012, 19, .	0.7	112
13	Demonstration of the Highest Deuterium-Tritium Areal Density Using Multiple-Picket Cryogenic Designs on OMEGA. Physical Review Letters, 2010, 104, 165001.	2.9	111
14	Progress in direct-drive inertial confinement fusion. Physics of Plasmas, 2008, 15, .	0.7	107
15	Measurement of Charged-Particle Stopping in Warm Dense Plasma. Physical Review Letters, 2015, 114, 215002.	2.9	107
16	Laboratory evidence of dynamo amplification of magnetic fields in a turbulent plasma. Nature Communications, 2018, 9, 591.	5.8	105
17	Tripled yield in direct-drive laser fusion through statistical modelling. Nature, 2019, 565, 581-586.	13.7	103
18	Cryogenic thermonuclear fuel implosions on the National Ignition Facility. Physics of Plasmas, 2012, 19, .	0.7	95

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19	Performance of direct-drive cryogenic targets on OMEGA. Physics of Plasmas, 2008, 15, .	0.7	92
20	Laser-Driven Magnetic-Flux Compression in High-Energy-Density Plasmas. Physical Review Letters, 2009, 103, 215004.	2.9	91
21	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
22	Compressing magnetic fields with high-energy lasers. Physics of Plasmas, 2010, 17, .	0.7	89
23	Charged-Particle Probing of X-rayâ€“Driven Inertial-Fusion Implosions. Science, 2010, 327, 1231-1235.	6.0	86
24	Monoenergetic-Proton-Radiography Measurements of Implosion Dynamics in Direct-Drive Inertial-Confinement Fusion. Physical Review Letters, 2008, 100, 225001.	2.9	85
25	Development of nuclear diagnostics for the National Ignition Facility (invited). Review of Scientific Instruments, 2006, 77, 10E715.	0.6	84
26	Plasma Barodiffusion in Inertial-Confinement-Fusion Implosions: Application to Observed Yield Anomalies in Thermonuclear Fuel Mixtures. Physical Review Letters, 2010, 105, 115005.	2.9	84
27	First measurements of the absolute neutron spectrum using the magnetic recoil spectrometer at OMEGA (invited). Review of Scientific Instruments, 2008, 79, 10E502.	0.6	78
28	Exploration of the Transition from the Hydrodynamiclike to the Strongly Kinetic Regime in Shock-Driven Implosions. Physical Review Letters, 2014, 112, 185001.	2.9	77
29	Absolute measurements of neutron yields from DD and DT implosions at the OMEGA laser facility using CR-39 track detectors. Review of Scientific Instruments, 2002, 73, 2597-2605.	0.6	75
30	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
31	Observations of Electromagnetic Fields and Plasma Flow in Hohlraums with Proton Radiography. Physical Review Letters, 2009, 102, 205001.	2.9	69
32	Plasma-Density Determination from X-Ray Radiography of Laser-Driven Spherical Implosions. Physical Review Letters, 2009, 102, 185004.	2.9	68
33	Observation of a Reflected Shock in an Indirectly Driven Spherical Implosion at the National Ignition Facility. Physical Review Letters, 2014, 112, 225002.	2.9	68
34	Ion Thermal Decoupling and Species Separation in Shock-Driven Implosions. Physical Review Letters, 2015, 114, 025001.	2.9	67
35	The response of CR-39 nuclear track detector to 1â€“9 MeV protons. Review of Scientific Instruments, 2011, 82, 103303.	0.6	66
36	Nuclear imaging of the fuel assembly in ignition experiments. Physics of Plasmas, 2013, 20, 056320.	0.7	65

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37	First Measurements of Rayleigh-Taylor-Induced Magnetic Fields in Laser-Produced Plasmas. Physical Review Letters, 2012, 108, 255006.	2.9	64
38	Measurements of Ion Stopping Around the Bragg Peak in High-Energy-Density Plasmas. Physical Review Letters, 2015, 115, 205001.	2.9	64
39	Evidence for Stratification of Deuterium-Tritium Fuel in Inertial Confinement Fusion Implosions. Physical Review Letters, 2012, 108, 075002.	2.9	61
40	Fokker-Planck equation for moderately coupled plasmas. Physical Review Letters, 1993, 70, 3063-3066.	2.9	60
41	Tests of the hydrodynamic equivalence of direct-drive implosions with different D2 and He3 mixtures. Physics of Plasmas, 2006, 13, 052702.	0.7	60
42	Hydrodynamic instability growth and mix experiments at the National Ignition Facility. Physics of Plasmas, 2014, 21, .	0.7	60
43	Charged-particle acceleration and energy loss in laser-produced plasmas. Physics of Plasmas, 2000, 7, 5106-5117.	0.7	59
44	The magnetic recoil spectrometer for measurements of the absolute neutron spectrum at OMEGA and the NIF. Review of Scientific Instruments, 2013, 84, 043506.	0.6	59
45	Monoenergetic proton backlighter for measuring E and B fields and for radiographing implosions and high-energy density plasmas (invited). Review of Scientific Instruments, 2006, 77, 10E725.	0.6	58
46	Using high-intensity laser-generated energetic protons to radiograph directly driven implosions. Review of Scientific Instruments, 2012, 83, 013511.	0.6	58
47	First Observations of Nonhydrodynamic Mix at the Fuel-Shell Interface in Shock-Driven Inertial Confinement Implosions. Physical Review Letters, 2014, 112, 135001.	2.9	58
48	Assembly of High-Areal-Density Deuterium-Tritium Fuel from Indirectly Driven Cryogenic Implosions. Physical Review Letters, 2012, 108, 215005.	2.9	57
49	A laboratory study of asymmetric magnetic reconnection in strongly driven plasmas. Nature Communications, 2015, 6, 6190.	5.8	55
50	Dâ€“3He proton spectra for diagnosing shell ïR and fuel Ti of imploded capsules at OMEGA. Physics of Plasmas, 2000, 7, 2578-2584.	0.7	54
51		0.7	52
52	Collisionless shock experiments with lasers and observation of Weibel instabilities. Physics of Plasmas, 2015, 22, .	0.7	51
53	The near vacuum hohlraum campaign at the NIF: A new approach. Physics of Plasmas, 2016, 23, .	0.7	51
54	A neutron spectrometer for precise measurements of DT neutrons from 10 to 18 MeV at OMEGA and the National Ignition Facility. Review of Scientific Instruments, 2001, 72, 854-858.	0.6	50

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55	First results from cryogenic target implosions on OMEGA. Physics of Plasmas, 2002, 9, 2195-2201.	0.7	49
56	Indications of flow near maximum compression in layered deuterium-tritium implosions at the National Ignition Facility. Physical Review E, 2016, 94, 021202.	0.8	49
57	Transition from Collisional to Collisionless Regimes in Interpenetrating Plasma Flows on the National Ignition Facility. Physical Review Letters, 2017, 118, 185003.	2.9	49
58	Using secondary-proton spectra to study the compression and symmetry of deuterium-filled capsules at OMEGA. Physics of Plasmas, 2002, 9, 2725-2737.	0.7	48
59	Inference of mix in direct-drive implosions on OMEGA. Physics of Plasmas, 2002, 9, 2208-2213.	0.7	48
60	Observation of the Decay Dynamics and Instabilities of Megagauss Field Structures in Laser-Produced Plasmas. Physical Review Letters, 2007, 99, 015001.	2.9	48
61	Improving cryogenic deuteriumâ€“tritium implosion performance on OMEGA. Physics of Plasmas, 2013, 20, .	0.7	48
62	Shell Mix in the Compressed Core of Spherical Implosions. Physical Review Letters, 2002, 89, 085003.	2.9	47
63	Performance of High-Convergence, Layered DT Implosions with Extended-Duration Pulses at the National Ignition Facility. Physical Review Letters, 2013, 111, 215001.	2.9	47
64	Species separation in inertial confinement fusion fuels. Physics of Plasmas, 2013, 20, 012701.	0.7	47
65	D3He-proton emission imaging for inertial-confinement-fusion experiments (invited). Review of Scientific Instruments, 2004, 75, 3520-3525.	0.6	46
66	Species separation and kinetic effects in collisional plasma shocks. Physics of Plasmas, 2014, 21, .	0.7	46
67	Scaled laboratory experiments explain the kink behaviour of the Crab Nebula jet. Nature Communications, 2016, 7, 13081.	5.8	46
68	Study of direct-drive, deuteriumâ€“tritium gas-filled plastic capsule implosions using nuclear diagnostics at OMEGA. Physics of Plasmas, 2001, 8, 4902-4913.	0.7	43
69	Lorentz Mapping of Magnetic Fields in Hot Dense Plasmas. Physical Review Letters, 2009, 103, 085001.	2.9	43
70	Measurements of the Differential Cross Sections for the Elastic<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>n</mml:mi><mml:mtext mathvariant="normal">â^'</mml:mtext><mml:mmultiscripts><mml:mi mathvariant="normal">H</mml:mi><mml:mprescripts /><mml:none /><mml:mn>3</mml:mn></mml:mmultiscripts></mml:math>and<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>n</mml:mi><mml:mtext	2.9	43
71	Measurements of collective fuel velocities in deuterium-tritium exploding pusher and cryogenically layered deuterium-tritium implosions on the NIF. Physics of Plasmas, 2013, 20, .	0.7	42
72	Development of the CD Symcap platform to study gas-shell mix in implosions at the National Ignition Facility. Physics of Plasmas, 2014, 21, .	0.7	42

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73	Measuring shock-bang timing and ÏR evolution of D3He implosions at OMEGA. Physics of Plasmas, 2004, 11, 2798-2805.	0.7	41
74	Advances in compact proton spectrometers for inertial-confinement fusion and plasma nuclear science. Review of Scientific Instruments, 2012, 83, 10D908.	0.6	41
75	Nuclear diagnostics for the National Ignition Facility (invited). Review of Scientific Instruments, 2001, 72, 773-779.	0.6	39
76	Measuring Implosion Dynamics throughÏREvolution in Inertial-Confinement Fusion Experiments. Physical Review Letters, 2003, 90, 095002.	2.9	39
77	Direct-drive cryogenic target implosion performance on OMEGA. Physics of Plasmas, 2004, 11, 2790-2797.	0.7	39
78	Source characterization and modeling development for monoenergetic-proton radiography experiments on OMEGA. Review of Scientific Instruments, 2012, 83, 063506.	0.6	39
79	Time evolution of filamentation and self-generated fields in the coronae of directly driven inertial-confinement fusion capsules. Physics of Plasmas, 2012, 19, .	0.7	38
80	Charged-particle spectroscopy for diagnosing shock ÏR and strength in NIF implosions. Review of Scientific Instruments, 2012, 83, 10D901.	0.6	38
81	A novel particle time of flight diagnostic for measurements of shock- and compression-bang times in D3He and DT implosions at the NIF. Review of Scientific Instruments, 2012, 83, 10D902.	0.6	38
82	Approximate models for the ion-kinetic regime in inertial-confinement-fusion capsule implosions. Physics of Plasmas, 2015, 22, 052707.	0.7	38
83	Slowing of Magnetic Reconnection Concurrent with Weakening Plasma Inflows and Increasing Collisionality in Strongly Driven Laser-Plasma Experiments. Physical Review Letters, 2015, 114, 205004.	2.9	37
84	Direct drive: Simulations and results from the National Ignition Facility. Physics of Plasmas, 2016, 23, 056305.	0.7	36
85	Measuring the absolute deuteriumâ€“tritium neutron yield using the magnetic recoil spectrometer at OMEGA and the NIF. Review of Scientific Instruments, 2012, 83, 10D912.	0.6	35
86	Symmetry control in subscale near-vacuum hohlraums. Physics of Plasmas, 2016, 23, .	0.7	34
87	Shock-tuned cryogenic-deuterium-tritium implosion performance on Omega. Physics of Plasmas, 2010, 17, 056312.	0.7	33
88	Investigation of ion kinetic effects in direct-drive exploding-pusher implosions at the NIF. Physics of Plasmas, 2014, 21, 122712.	0.7	33
89	Triple-picket warm plastic-shell implosions on OMEGA. Physics of Plasmas, 2011, 18, 012705.	0.7	32
90	Experimental Validation of Low- <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>Z</mml:mi></mml:math> Ion-Stopping Formalisms around the Bragg Peak in High-Energy-Density Plasmas. Physical Review Letters, 2019, 122, 015002.	2.9	32

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91	Numerical modeling of laser-driven experiments aiming to demonstrate magnetic field amplification via turbulent dynamo. Physics of Plasmas, 2017, 24, .	0.7	31
92	Dependence of Shell Mix on Feedthrough in Direct Drive Inertial Confinement Fusion. Physical Review Letters, 2004, 92, 185002.	2.9	29
93	The National Ignition Facility Diagnostic Set at the Completion of the National Ignition Campaign, September 2012. Fusion Science and Technology, 2016, 69, 420-451.	0.6	29
94	Observations of fast protons above 1 MeV produced in direct-drive laser-fusion experiments. Physics of Plasmas, 2001, 8, 606-610.	0.7	28
95	Polar-drive implosions on OMEGA and the National Ignition Facility. Physics of Plasmas, 2013, 20, .	0.7	28
96	Measurements of ÏR asymmetries at burn time in inertial-confinement-fusion capsules. Physics of Plasmas, 2002, 9, 3558-3566.	0.7	27
97	Direct-drive, cryogenic target implosions on OMEGA. Physics of Plasmas, 2005, 12, 056302.	0.7	27
98	The coincidence counting technique for orders of magnitude background reduction in data obtained with the magnetic recoil spectrometer at OMEGA and the NIF. Review of Scientific Instruments, 2011, 82, 073502.	0.6	27
99	Measurements of the<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi mathvariant="bold">T</mml:mi><mml:mo stretchy="false">(</mml:mo><mml:mi>t</mml:mi><mml:mo>,</mml:mo><mml:mn>2</mml:mn><mml:mi>n</mml:mi><mml:mo) Tj ET /><mml:none /><mml:mn>4</mml:mn></mml:mmultiscripts></mml:math>Neutron Spectrum at Low Reactant Energies from Inertial Confinement Implosions. Physical Review Letters, 2012, 109, 025003.	2.9	27
100	Impeding Hohlraum Plasma Stagnation in Inertial-Confinement Fusion. Physical Review Letters, 2012, 108, 025001.	2.9	27
101	Assessment of ion kinetic effects in shock-driven inertial confinement fusion implosions using fusion burn imaging. Physics of Plasmas, 2015, 22, .	0.7	27
102	Using Inertial Fusion Implosions to Measure the<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi mathvariant="normal">T</mml:mi><mml:mo>+</mml:mo><mml:mrow><mml:mmultiscripts><mml:mrow><mml:mi>He</mml:mi></mm /><mml:none /><mml:mrow><mml:mn>3</mml:mn></mml:mrow></mml:mmultiscripts></mml:mrow></mml:mrow></mml:math>Fusion Cross Section at Nucleosynthesis-Relevant Energies. Physical Review Letters, 2016, 117, 035002.	2.9	27
103	Ion-kinetic simulations of D-3He gas-filled inertial confinement fusion target implosions with moderate to large Knudsen number. Physics of Plasmas, 2016, 23, .	0.7	26
104	The magnetic recoil spectrometer (MRSt) for time-resolved measurements of the neutron spectrum at the National Ignition Facility (NIF). Review of Scientific Instruments, 2016, 87, 11D806.	0.6	26
105	Collisionless Shocks Driven by Supersonic Plasma Flows with Self-Generated Magnetic Fields. Physical Review Letters, 2019, 123, 055002.	2.9	26
106	Electric field and ionization-gradient effects on inertial-confinement-fusion implosions. Plasma Physics and Controlled Fusion, 2009, 51, 124048.	0.9	25
107	In-flight observations of low-mode <i>Ï</i>R asymmetries in NIF implosions. Physics of Plasmas, 2015, 22, .	0.7	24
108	Direct-drive high-convergence-ratio implosion studies on the OMEGA laser system. Physics of Plasmas, 2000, 7, 2108-2113.	0.7	23

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109	Observations of the collapse of asymmetrically driven convergent shocks. Physics of Plasmas, 2008, 15, .	0.7	23
110	Using multiple secondary fusion products to evaluate fuel ÏR, electron temperature, and mix in deuterium-filled implosions at the NIF. Physics of Plasmas, 2015, 22, .	0.7	23
111	Note: A monoenergetic proton backlighter for the National Ignition Facility. Review of Scientific Instruments, 2015, 86, 116104.	0.6	23
112	Characterization of single and colliding laser-produced plasma bubbles using Thomson scattering and proton radiography. Physical Review E, 2012, 86, 056407.	0.8	22
113	A Particle X-ray Temporal Diagnostic (PXTD) for studies of kinetic, multi-ion effects, and ion-electron equilibration rates in Inertial Confinement Fusion plasmas at OMEGA (invited). Review of Scientific Instruments, 2016, 87, 11D701.	0.6	22
114	Visualizing deceleration-phase instabilities in inertial confinement fusion implosions using an â€œenhanced self-emissionâ€•technique at the National Ignition Facility. Physics of Plasmas, 2018, 25, 054502.	0.7	22
115	Mapping return currents in laser-generated Z-pinch plasmas using proton deflectometry. Applied Physics Letters, 2012, 100, .	1.5	21
116	Monochromatic backlighting of direct-drive cryogenic DT implosions on OMEGA. Physics of Plasmas, 2017, 24, .	0.7	21
117	Design of an electronic charged particle spectrometer to measure ã€ÏRã€‰ on inertial fusion experiments. Review of Scientific Instruments, 1997, 68, 589-592.	0.6	20
118	The effect of shock dynamics on compressibility of ignition-scale National Ignition Facility implosions. Physics of Plasmas, 2014, 21, .	0.7	20
119	Development of an inertial confinement fusion platform to study charged-particle-producing nuclear reactions relevant to nuclear astrophysics. Physics of Plasmas, 2017, 24, .	0.7	20
120	Time-resolved turbulent dynamo in a laser plasma. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	20
121	Using nuclear data and Monte Carlo techniques to study areal density and mix in D2 implosions. Physics of Plasmas, 2005, 12, 032703.	0.7	18
122	Upgrade of the MIT Linear Electrostatic Ion Accelerator (LEIA) for nuclear diagnostics development for Omega, Z and the NIF. Review of Scientific Instruments, 2012, 83, 043502.	0.6	18
123	Empirical assessment of the detection efficiency of CR-39 at high proton fluence and a compact, proton detector for high-fluence applications. Review of Scientific Instruments, 2014, 85, 043302.	0.6	18
124	Proton core imaging of the nuclear burn in inertial confinement fusion implosions. Review of Scientific Instruments, 2006, 77, 043503.	0.6	17
125	Effects of fuel-capsule shimming and drive asymmetry on inertial-confinement-fusion symmetry and yield. Physics of Plasmas, 2016, 23, .	0.7	17
126	Proton Spectra from <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mmultiscripts><mml:mrow><mml:mi>He</mml:mi></mml:mrow><mml:mprescripts /><mml:none /><mml:mrow><mml:mn>3</mml:mn></mml:mrow></mml:mmultiscripts><mml:mo>+</mml:mo><mml:mi mathvariant="normal">T</mml:mi></mml:mrow></mml:math> and <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mmultiscripts	2.9	16

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127	Impact of asymmetries on fuel performance in inertial confinement fusion. Physical Review E, 2018, 98, .	0.8	16
128	Electron-ion thermal equilibration after spherical shock collapse. Physical Review E, 2009, 80, 026403.	0.8	15
129	A compact proton spectrometer for measurement of the absolute DD proton spectrum from which yield and ÏR are determined in thin-shell inertial-confinement-fusion implosions. Review of Scientific Instruments, 2014, 85, 103504.	0.6	15
130	Kinetic mix mechanisms in shock-driven inertial confinement fusion implosions. Physics of Plasmas, 2014, 21, .	0.7	15
131	Development of new platforms for hydrodynamic instability and asymmetry measurements in deceleration phase of indirectly driven implosions on NIF. Physics of Plasmas, 2018, 25, 082705.	0.7	15
132	Impact of imposed mode 2 laser drive asymmetry on inertial confinement fusion implosions. Physics of Plasmas, 2019, 26, .	0.7	15
133	Observations of Multiple Nuclear Reaction Histories and Fuel-Ion Species Dynamics in Shock-Driven Inertial Confinement Fusion Implosions. Physical Review Letters, 2019, 122, 035001.	2.9	15
134	Impact of stalk on directly driven inertial confinement fusion implosions. Physics of Plasmas, 2020, 27, 032704.	0.7	15
135	Measured dependence of nuclear burn region size on implosion parameters in inertial confinement fusion experiments. Physics of Plasmas, 2006, 13, 082704.	0.7	14
136	Observation of strong electromagnetic fields around laser-entrance holes of ignition-scale hohlraums in inertial-confinement fusion experiments at the National Ignition Facility. New Journal of Physics, 2013, 15, 025040.	1.2	14
137	Capsule-areal-density asymmetries inferred from 14.7-MeV deuteriumâ€“helium protons in direct-drive OMEGA implosions. Physics of Plasmas, 2003, 10, 1919-1924.	0.7	13
138	Measurements of fuel and ablator ÏR in Symmetry-Capsule implosions with the Magnetic Recoil neutron Spectrometer (MRS) on the National Ignition Facility. Review of Scientific Instruments, 2014, 85, 11E104.	0.6	13
139	Changes in CR-39 proton sensitivity due to prolonged exposure to high vacuums relevant to the National Ignition Facility and OMEGA. Review of Scientific Instruments, 2011, 82, 095110.	0.6	12
140	An empirical target discharging model relevant to hot-electron preheat in direct-drive implosions on OMEGA. Plasma Physics and Controlled Fusion, 2013, 55, 045001.	0.9	12
141	A magnetic particle time-of-flight (MagPTOF) diagnostic for measurements of shock- and compression-bang time at the NIF (invited). Review of Scientific Instruments, 2014, 85, 11D901.	0.6	12
142	A method for in situ absolute DD yield calibration of neutron time-of-flight detectors on OMEGA using CR-39-based proton detectors. Review of Scientific Instruments, 2015, 86, 053506.	0.6	12
143	Impact of x-ray dose on the response of CR-39 to 1â€“5.5 MeV alphas. Review of Scientific Instruments, 2015, 86, 033501.	0.6	12
144	The National Direct-Drive Program: OMEGA to the National Ignition Facility. Fusion Science and Technology, 2018, 73, 89-97.	0.6	12

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145	One dimensional imager of neutrons on the Z machine. Review of Scientific Instruments, 2018, 89, 10I132.	0.6	12
146	Measurement of apparent ion temperature using the magnetic recoil spectrometer at the OMEGA laser facility. Review of Scientific Instruments, 2018, 89, 10I129.	0.6	12
147	Mega-Gauss Plasma Jet Creation Using a Ring of Laser Beams. Astrophysical Journal Letters, 2019, 873, L11.	3.0	12
148	Kinetic effects on neutron generation in moderately collisional interpenetrating plasma flows. Physics of Plasmas, 2019, 26, .	0.7	12
149	Effects of scattering upon energetic ion energy loss in plasmas. Physics of Plasmas, 1995, 2, 2460-2464.	0.7	11
150	Laser irradiance scaling in polar direct drive implosions on the National Ignition Facility. Physics of Plasmas, 2015, 22, .	0.7	11
151	Laboratory astrophysical collisionless shock experiments on Omega and NIF. Journal of Physics: Conference Series, 2016, 688, 012084.	0.3	11
152	Strong suppression of heat conduction in a laboratory replica of galaxy-cluster turbulent plasmas. Science Advances, 2022, 8, eabj6799.	4.7	11
153	Total energy loss to fast ablator-ions and target capacitance of direct-drive implosions on OMEGA. Applied Physics Letters, 2012, 101, 114102.	1.5	10
154	Optimization of a high-yield, low-areal-density fusion product source at the National Ignition Facility with applications in nucleosynthesis experiments. Physics of Plasmas, 2018, 25, .	0.7	10
155	Numerical simulation of magnetized jet creation using a hollow ring of laser beams. Physics of Plasmas, 2019, 26, .	0.7	10
156	Modified parameterization of the Li-Petrasso charged-particle stopping power theory. Physics of Plasmas, 2019, 26, .	0.7	10
157	CR-39 nuclear track detector response to inertial confinement fusion relevant ions. Review of Scientific Instruments, 2020, 91, 053502.	0.6	10
158	An x-ray penumbral imager for measurements of electronâ€“temperature profiles in inertial confinement fusion implosions at OMEGA. Review of Scientific Instruments, 2021, 92, 043548.	0.6	10
159	Hydrodynamic growth of shell modulations in the deceleration phase of spherical direct-drive implosions. Physics of Plasmas, 2003, 10, 1861-1866.	0.7	9
160	Increasing the energy dynamic range of solid-state nuclear track detectors using multiple surfaces. Review of Scientific Instruments, 2011, 82, 083301.	0.6	9
161	Thermal decoupling of deuterium and tritium during the inertial confinement fusion shock-convergence phase. Physical Review E, 2021, 104, L013201.	0.8	9
162	Transport of High-energy Charged Particles through Spatially Intermittent Turbulent Magnetic Fields. Astrophysical Journal, 2020, 892, 114.	1.6	8

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163	Effect of higher z dopants on implosion dynamics: X-ray spectroscopy. High Energy Density Physics, 2007, 3, 163-168.	0.4	7
164	High-resolution measurements of the DT neutron spectrum using new CD foils in the Magnetic Recoil neutron Spectrometer (MRS) on the National Ignition Facility. Review of Scientific Instruments, 2016, 87, 11D816.	0.6	7
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