Marius Millot

List of Publications by Year
in descending order

89 papers	3,110 citations	186265 28 h-index	168389 53 g-index
93 all docs	93 docs citations	93 times ranked	2786 citing authors

#	Article	IF	Citations
1	Design of inertial fusion implosions reaching the burning plasma regime. Nature Physics, 2022, 18, 251-258.	16.7	87
2	Measuring the melting curve of iron at super-Earth core conditions. Science, 2022, 375, 202-205.	12.6	39
3	Burning plasma achieved in inertial fusion. Nature, 2022, 601, 542-548.	27.8	233
4	Nature of the bonded-to-atomic transition in liquid silica to TPa pressures. Journal of Applied Physics, 2022, 131, .	2.5	4
5	Structure and density of silicon carbide to 1.5 TPa and implications for extrasolar planets. Nature Communications, 2022, 13, 2260.	12.8	11
6	First graded metal pushered single shell capsule implosions on the National Ignition Facility. Physics of Plasmas, 2022, 29, .	1.9	4
7	Structural complexity in ramp-compressed sodium to 480â€‰GPa. Nature Communications, 2022, 13, 2534.	12.8	14
8	Exploring implosion designs for increased compression on the National Ignition Facility using high density carbon ablators. Physics of Plasmas, 2022, 29, .	1.9	15
9	Mechanisms of shape transfer and preheating in indirect-drive double shell collisions. Physics of Plasmas, 2022, 29, .	1.9	7
10	Hydroscaling indirect-drive implosions on the National Ignition Facility. Physics of Plasmas, 2022, 29, .	1.9	4
11	Evidence for Dissociation and Ionization in Shock Compressed Nitrogen to 800ÂGPa. Physical Review Letters, 2022, 129, .	7.8	7
12	Implications of the iron oxide phase transition on the interiors of rocky exoplanets. Nature Geoscience, 2021, 14, 121-126.	12.9	28
13	Equation-of-state, sound speed, and reshock of shock-compressed fluid carbon dioxide. Physics of Plasmas, 2021, 28, .	1.9	5
14	Constraining computational modeling of indirect drive double shell capsule implosions using experiments. Physics of Plasmas, 2021, 28, .	1.9	17
15	Interferometric measurements of refractive index and dispersion at high pressure. Scientific Reports, 2021, 11, 5610.	3.3	9
16	Fuel convergence sensitivity in indirect drive implosions. Physics of Plasmas, 2021, 28, 042705.	1.9	11
17	The Principal Hugoniot of Ironâ€Bearing Olivine to 1465ÂGPa. Geophysical Research Letters, 2021, 48, e2021GL092471.	4.0	2
18	Evidence of hydrogenâ˜helium immiscibility at Jupiter-interior conditions. Nature, 2021, 593, 517-521.	27.8	41

#	Article	IF	Citations
19	Establishing gold and platinum standards to 1 terapascal using shockless compression. Science, 2021, 372, 1063-1068.	12.6	53
20	Techniques for studying materials under extreme states of high energy density compression. Physics of Plasmas, 2021, 28, 060901.	1.9	3
21	Achieving record hot spot energies with large HDC implosions on NIF in HYBRID-E. Physics of Plasmas, 2021, 28, .	1.9	55
22	A theoretical approach for transient shock strengthening in high-energy-density laser compression experiments. Physics of Plasmas, 2021, 28, 082708.	1.9	1
23	Metastability of Liquid Water Freezing into Ice VII under Dynamic Compression. Physical Review Letters, 2021, 127, 135701.	7.8	7
24	Equation of State of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>CO</mml:mi></mml:mrow><mml:mrow><mml:mn>2</mml:mn></mml:mrow></mml:msub></mml:mrow></mml:math> Shock Compressed to 1ÂTPa. Physical Review Letters, 2020, 125, 165701.	7.8	16
25	High-precision shock equation of state measurements for metallic fluid carbon between 15 and 20 Mbar. Physics of Plasmas, 2020, 27, .	1.9	7
26	Experimental measurement of two copropagating shocks interacting with an unstable interface. Physical Review E, 2020, 102, 043212.	2.1	8
27	Application of cross-beam energy transfer to control drive symmetry in ICF implosions in low gas fill Hohlraums at the National Ignition Facility. Physics of Plasmas, 2020, 27, .	1.9	18
28	Principal factors in performance of indirect-drive laser fusion experiments. Physics of Plasmas, 2020, 27, .	1.9	7
29	Deficiencies in compression and yield in x-ray-driven implosions. Physics of Plasmas, 2020, 27, .	1.9	12
30	Hotspot parameter scaling with velocity and yield for high-adiabat layered implosions at the National Ignition Facility. Physical Review E, 2020, 102, 023210.	2.1	25
31	Symmetric fielding of the largest diamond capsule implosions on the NIF. Physics of Plasmas, 2020, 27, .	1.9	28
32	Achieving 280 Gbar hot spot pressure in DT-layered CH capsule implosions at the National Ignition Facility. Physics of Plasmas, 2020, 27, .	1.9	20
33	Probing the Solid Phase of Noble Metal Copper at Terapascal Conditions. Physical Review Letters, 2020, 124, 015701.	7.8	43
34	Recreating Giants Impacts in the Laboratory: Shock Compression of Bridgmanite to 14 Mbar. Geophysical Research Letters, 2020, 47, e2019GL085476.	4.0	19
35	Yield and compression trends and reproducibility at NIF*. High Energy Density Physics, 2020, 36, 100755.	1.5	25
36	Nonideal mixing effects in warm dense matter studied with first-principles computer simulations. Journal of Chemical Physics, 2020, 153, 184101.	3.0	7

#	Article	IF	Citations
37	Experiments to explore the influence of pulse shaping at the National Ignition Facility. Physics of Plasmas, 2020, 27, 112708.	1.9	11
38	Toward a burning plasma state using diamond ablator inertially confined fusion (ICF) implosions on the National Ignition Facility (NIF). Plasma Physics and Controlled Fusion, 2019, 61, 014023.	2.1	53
39	Measurement of Body-Centered Cubic Gold and Melting under Shock Compression. Physical Review Letters, 2019, 123, 045701.	7.8	67
40	Shock Compression of Liquid Deuterium up to 1ÂTPa. Physical Review Letters, 2019, 122, 255702.	7.8	26
41	Reply to: Reconsidering X-ray plasmons. Nature Photonics, 2019, 13, 751-753.	31.4	0
42	Measurement of the sound speed in dense fluid deuterium along the cryogenic liquid Hugoniot. Physics of Plasmas, 2019, 26, .	1.9	10
43	Nanosecond X-ray diffraction of shock-compressed superionic water ice. Nature, 2019, 569, 251-255.	27.8	215
44	Response to Comment on â€œInsulator-metal transition in dense fluid deuteriumâ€• Science, 2019, 363, .	12.6	5
45	Optimized x-ray sources for x-ray diffraction measurements at the Omega Laser Facility. Review of Scientific Instruments, 2019, 90, 125113.	1.3	25
46	Antiproliferative and antibiofilm potentials of endolichenic fungi associated with the lichen Nephroma laevigatum. Journal of Applied Microbiology, 2019, 126, 1044-1058.	3.1	8
47	A near one-dimensional indirectly driven implosion at convergence ratio 30. Physics of Plasmas, 2018, 25, .	1.9	20
48	Measuring the shock impedance mismatch between high-density carbon and deuterium at the National Ignition Facility. Physical Review B, 2018, 97, .	3.2	21
49	Experimental evidence for superionic water ice using shock compression. Nature Physics, 2018, 14, 297-302.	16.7	165
50	The Principal Hugoniot of Forsterite to 950 GPa. Geophysical Research Letters, 2018, 45, 3865-3872.	4.0	31
51	The high velocity, high adiabat, â€œBigfootâ€•campaign and tests of indirect-drive implosion scaling. Physics of Plasmas, 2018, 25, .	1.9	90
52	Energy transfer between lasers in low-gas-fill-density hohlraums. Physical Review E, 2018, 98, .	2.1	27
53	High-Performance Indirect-Drive Cryogenic Implosions at High Adiabat on the National Ignition Facility. Physical Review Letters, 2018, 121, 135001.	7.8	86
54	Beryllium capsule implosions at a case-to-capsule ratio of 3.7 on the National Ignition Facility. Physics of Plasmas, 2018, 25, .	1.9	20

#	Article	IF	Citations
55	Thermodynamic properties of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>MgSiO</mml:mi><mml:msub><mml:mrow /><mml:mn>3</mml:mn></mml:msub></mml:math> at super-Earth mantle conditions. Physical Review B, 2018, 97, .	3.2	28
56	Implosion shape control of high-velocity, large case-to-capsule ratio beryllium ablators at the National Ignition Facility. Physics of Plasmas, 2018, 25, 072708.	1.9	16
57	Absolute Equation-of-State Measurement for Polystyrene from 25 to 60ÂMbar Using a Spherically Converging Shock Wave. Physical Review Letters, 2018, 121, 025001.	7.8	39
58	Insulator-metal transition in dense fluid deuterium. Science, 2018, 361, 677-682.	12.6	108
59	Fusion Energy Output Greater than the Kinetic Energy of an Imploding Shell at the National Ignition Facility. Physical Review Letters, 2018, 120, 245003.	7.8	205
60	Examining the radiation drive asymmetries present in the high foot series of implosion experiments at the National Ignition Facility. Physics of Plasmas, 2017, 24, .	1.9	31
61	Symmetry control of an indirectly driven high-density-carbon implosion at high convergence and high velocity. Physics of Plasmas, 2017, 24, .	1.9	106
62	Shock equation of state of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mmultiscripts><mml:mi>LiH</mml:mi><mml:mprescripts /><mml:none /><mml:mn>6</mml:mn></mml:mmultiscripts></mml:math> to 1.1 TPa. Physical Review B, 2017, 96, .	3.2	11
63	Equation of state, adiabatic sound speed, and GrÃ¼neisen coefficient of boron carbide along the principal Hugoniot to 700 GPa. Physical Review B, 2016, 94, .	3.2	24
64	Identifying and discriminating phase transitions along decaying shocks with line imaging Doppler interferometric velocimetry and streaked optical pyrometry. Physics of Plasmas, 2016, 23, .	1.9	8
65	Absolute calibration of the OMEGA streaked optical pyrometer for temperature measurements of compressed materials. Review of Scientific Instruments, 2016, 87, 114903.	1.3	34
66	Analysis of laser shock experiments on precompressed samples using a quartz reference and application to warm dense hydrogen and helium. Journal of Applied Physics, 2015, 118, .	2.5	69
67	Upgrades to the VISAR-streaked optical pyrometer (SOP) system on NIF. Proceedings of SPIE, 2015, , .	0.8	2
68	Shock compression of stishovite and melting of silica at planetary interior conditions. Science, 2015, 347, 418-420.	12.6	123
69	Ultrabright X-ray laser scattering for dynamic warm dense matter physics. Nature Photonics, 2015, 9, 274-279.	31.4	208
70	Optical and transport properties of dense liquid silica. Physics of Plasmas, 2015, 22, 062706.	1.9	22
71	Red-green luminescence in indium gallium nitride alloys investigated by high pressure optical spectroscopy. Applied Physics Letters, 2012, 100, 162103.	3.3	14
72	Weak ferrimagnetism and multiple magnetization reversal inÎ±-Cr3(PO4)2. Physical Review B, 2012, 85, .	3.2	8

#	Article	IF	Citations
73	Comparative Raman spectroscopy of individual and bundled double wall carbon nanotubes. Physica Status Solidi (B): Basic Research, 2011, 248, 974-979.	1.5	3
74	Determination of effective mass in InN by high-field oscillatory magnetoabsorption spectroscopy. Physical Review B, 2011, 83, .	3.2	34
75	Thermodynamic properties and neutron diffraction studies of silver ferrite AgFeO2. Journal of Physics Condensed Matter, 2010, 22, 016007.	1.8	22
76	Doping dependence of the G-band Raman spectra of an individual multiwall carbon nanotube. Physica E: Low-Dimensional Systems and Nanostructures, 2010, 42, 2466-2470.	2.7	10
77	Pressure dependence of Raman modes in double wall carbon nanotubes filled with 1D Tellurium. Carbon, 2010, 48, 2566-2572.	10.3	11
78	Trigonal field acting at the<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msup><mml:mrow><mml:mtext>Cr</mml:mtext></mml:mrow><mml:mrow><mml:mn>3</mml:mn></mml:mrow></mml:msup></mml:mrow></mml:math>states in ruby from magneto-optical measur. Physical Review B, 2010, 81, .	3.2	6
79	Anharmonic effects in ZnO optical phonons probed by Raman spectroscopy. Applied Physics Letters, 2010, 96, .	3.3	35
80	Electron cyclotron effective mass in indium nitride. Applied Physics Letters, 2010, 96, .	3.3	37
81	Electronic structure of indium selenide probed by magnetoabsorption spectroscopy under high pressure. Physical Review B, 2010, 81, .	3.2	26
82	Evidence of type-I direct recombination in InP/GaP quantum dots via magnetoluminescence. Applied Physics Letters, 2009, 95, 151105.	3.3	12
83	Photoluminescence of InP/GaP quantum dots under extreme conditions. High Pressure Research, 2009, 29, 488-494.	1.2	1
84	High pressure and high magnetic field behaviour of free and donorâ€boundâ€exciton photoluminescence in InSe. Physica Status Solidi (B): Basic Research, 2009, 246, 532-535.	1.5	4
85	Er³⁺luminescence as a sensor of high pressure and strong external magnetic fields. High Pressure Research, 2009, 29, 748-753.	1.2	20
86	New diamond anvil cell for optical and transport measurements under high magnetic fields up to 60ÂT. High Pressure Research, 2008, 28, 627-631.	1.2	6
87	Pressure dependence of Raman modes in double wall carbon nanotubes filled with Î±-Fe. High Pressure Research, 2008, 28, 577-582.	1.2	7
88	High-field Zeeman and Paschen-Back effects at high pressure in oriented ruby. Physical Review B, 2008, 78, .	3.2	14
89	Raman spectroscopy and magnetic properties of bulk ZnO:Co single crystal. Journal of Alloys and Compounds, 2006, 423, 224-227.	5.5	32