V Yu Glebov

List of Publications by Year
in descending order

110 papers	4,037 citations	94433 37 h-index	133252 59 g-index
111 all docs	111 docs citations	111 times ranked	1409 citing authors

#	Article	IF	Citations
1	Progress towards ignition on the National Ignition Facility. Physics of Plasmas, 2013, 20, .	1.9	259
2	Spectrometry of charged particles from inertial-confinement-fusion plasmas. Review of Scientific Instruments, 2003, 74, 975-995.	1.3	214
3	Improving the hot-spot pressure and demonstrating ignition hydrodynamic equivalence in cryogenic deuteriumâ€"tritium implosions on OMEGA. Physics of Plasmas, 2014, 21, .	1.9	139
4	Two-dimensional simulations of plastic-shell, direct-drive implosions on OMEGA. Physics of Plasmas, 2005, 12, 032702.	1.9	126
5	The National Ignition Facility neutron time-of-flight system and its initial performance (invited). Review of Scientific Instruments, 2010, 81, 10D325.	1.3	121
6	Neutron spectrometryâ€"An essential tool for diagnosing implosions at the National Ignition Facility (invited). Review of Scientific Instruments, 2012, 83, 10D308.	1.3	117
7	Cryogenic thermonuclear fuel implosions on the National Ignition Facility. Physics of Plasmas, 2012, 19, .	1.9	95
8	Probing high areal-density cryogenic deuterium-tritium implosions using downscattered neutron spectra measured by the magnetic recoil spectrometer. Physics of Plasmas, 2010, 17, .	1.9	91
9	Core performance and mix in direct-drive spherical implosions with high uniformity. Physics of Plasmas, 2001, 8, 2251-2256.	1.9	84
10	Development of nuclear diagnostics for the National Ignition Facility (invited). Review of Scientific Instruments, 2006, 77, 10E715.	1.3	84
11	First measurements of the absolute neutron spectrum using the magnetic recoil spectrometer at OMEGA (invited). Review of Scientific Instruments, 2008, 79, 10E502.	1.3	78
12	Prototypes of National Ignition Facility neutron time-of-flight detectors tested on OMEGA. Review of Scientific Instruments, 2004, 75, 3559-3562.	1.3	77
13	Exploration of the Transition from the Hydrodynamiclike to the Strongly Kinetic Regime in Shock-Driven Implosions. Physical Review Letters, 2014, 112, 185001.	7.8	77
14	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.	1.3	75
15	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.	7.8	72
16	Three-dimensional modeling of direct-drive cryogenic implosions on OMEGA. Physics of Plasmas, 2016, 23, .	1.9	69
17	Hard x-ray detectors for OMEGA and NIF. Review of Scientific Instruments, 2001, 72, 1197-1200.	1.3	68
18	Increasing Hydrodynamic Efficiency by Reducing Cross-Beam Energy Transfer in Direct-Drive-Implosion Experiments. Physical Review Letters, 2012, 108, 125003.	7.8	67

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19	Ion Thermal Decoupling and Species Separation in Shock-Driven Implosions. Physical Review Letters, 2015, 114, 025001.	7.8	67
20	Evidence for Stratification of Deuterium-Tritium Fuel in Inertial Confinement Fusion Implosions. Physical Review Letters, 2012, 108, 075002.	7.8	61
21	Tests of the hydrodynamic equivalence of direct-drive implosions with different D2 and He3 mixtures. Physics of Plasmas, 2006, 13, 052702.	1.9	60
22	The magnetic recoil spectrometer for measurements of the absolute neutron spectrum at OMEGA and the NIF. Review of Scientific Instruments, 2013, 84, 043506.	1.3	59
23	First Observations of Nonhydrodynamic Mix at the Fuel-Shell Interface in Shock-Driven Inertial Confinement Implosions. Physical Review Letters, 2014, 112, 135001.	7.8	58
24	High-resolution spectroscopy used to measure inertial confinement fusion neutron spectra on Omega (invited). Review of Scientific Instruments, 2012, 83, 10D919.	1.3	54
25	Effects of Fuel-Shell Mix upon Direct-Drive, Spherical Implosions on OMEGA. Physical Review Letters, 2002, 89, 165002.	7.8	53
26	Suprathermal electrons generated by the two-plasmon-decay instability in gas-filled <i>Hohlraums</i>. Physics of Plasmas, 2010, 17, .	1.9	51
27	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.	1.3	50
28	Indications of flow near maximum compression in layered deuterium-tritium implosions at the National Ignition Facility. Physical Review E, 2016, 94, 021202.	2.1	49
29	Inference of mix in direct-drive implosions on OMEGA. Physics of Plasmas, 2002, 9, 2208-2213.	1.9	48
30	Improving cryogenic deuteriumâ€“tritium implosion performance on OMEGA. Physics of Plasmas, 2013, 20, .	1.9	48
31	Anomalous yield reduction in direct-drive deuterium/tritium implosions due to H3e addition. Physics of Plasmas, 2009, 16, 056312.	1.9	46
32	Atomic mix in directly driven inertial confinement implosions. Physics of Plasmas, 2011, 18, .	1.9	44
33	Study of direct-drive, deuteriumâ€“tritium gas-filled plastic capsule implosions using nuclear diagnostics at OMEGA. Physics of Plasmas, 2001, 8, 4902-4913.	1.9	43
34	Observation of persistent species temperature separation in inertial confinement fusion mixtures. Nature Communications, 2020, 11, 544.	12.8	41
35	CVD diamond as a high bandwidth neutron detector for inertial confinement fusion diagnostics. Review of Scientific Instruments, 2003, 74, 1828-1831.	1.3	40
36	A 3D dynamic model to assess the impacts of low-mode asymmetry, aneurysms and mix-induced radiative loss on capsule performance across inertial confinement fusion platforms. Nuclear Fusion, 2019, 59, 032009.	3.5	40

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37	Charged-particle spectroscopy for diagnosing shock ÏR and strength in NIF implosions. Review of Scientific Instruments, 2012, 83, 10D901.	1.3	38
38	Progress in the indirect-drive National Ignition Campaign. Plasma Physics and Controlled Fusion, 2012, 54, 124026.	2.1	38
39	D-T gamma-to-neutron branching ratio determined from inertial confinement fusion plasmas. Physics of Plasmas, 2012, 19, .	1.9	37
40	Measuring the absolute deuteriumâ€“tritium neutron yield using the magnetic recoil spectrometer at OMEGA and the NIF. Review of Scientific Instruments, 2012, 83, 10D912.	1.3	35
41	Neutron temporal diagnostic for high-yield deuteriumâ€“tritium cryogenic implosions on OMEGA. Review of Scientific Instruments, 2016, 87, 053501.	1.3	33
42	Laser-driven magnetized liner inertial fusion on OMEGA. Physics of Plasmas, 2017, 24, .	1.9	33
43	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.	7.8	32
44	Ten-inch manipulator-based neutron temporal diagnostic for cryogenic experiments on OMEGA. Review of Scientific Instruments, 2003, 74, 1713-1716.	1.3	30
45	A gated liquid-scintillator-based neutron detector for fast-ignitor experiments and down-scattered neutron measurements. Review of Scientific Instruments, 2010, 81, 10D302.	1.3	29
46	Testing a new NIF neutron time-of-flight detector with a bibenzyl scintillator on OMEGA. Review of Scientific Instruments, 2012, 83, 10D309.	1.3	29
47	The National Ignition Facility Diagnostic Set at the Completion of the National Ignition Campaign, September 2012. Fusion Science and Technology, 2016, 69, 420-451.	1.1	29
48	A framed, 16-image Kirkpatrickâ€“Baez x-ray microscope. Review of Scientific Instruments, 2017, 88, 093702.	1.3	29
49	National Ignition Facility neutron time-of-flight measurements (invited). Review of Scientific Instruments, 2010, 81, 10D319.	1.3	27
50	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.	1.3	27
51	Measurement of areal density in the ablators of inertial-confinement-fusion capsules <i>via</i> detection of ablator (n, nâ€²Î³) gamma-ray emission. Physics of Plasmas, 2013, 20, .	1.9	27
52	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.	7.8	27
53	Three-dimensional hydrodynamic simulations of OMEGA implosions. Physics of Plasmas, 2017, 24, .	1.9	26
54	Mitigation of mode-one asymmetry in laser-direct-drive inertial confinement fusion implosions. Physics of Plasmas, 2021, 28, .	1.9	26

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55	Determination of the deuterium-tritium branching ratio based on inertial confinement fusion implosions. Physical Review C, 2012, 85, .	2.9	25
56	Time-Dependent Nuclear Measurements of Mix in Inertial Confinement Fusion. Physical Review Letters, 2007, 98, 215002.	7.8	24
57	A new neutron time-of-flight detector for fuel-areal-density measurements on OMEGA. Review of Scientific Instruments, 2014, 85, 11E102.	1.3	23
58	Systematic Fuel Cavity Asymmetries in Directly Driven Inertial Confinement Fusion Implosions. Physical Review Letters, 2017, 118, 135001.	7.8	22
59	Diagnosing fuel ÏR and ÏR asymmetries in cryogenic deuterium-tritium implosions using charged-particle spectrometry at OMEGA. Physics of Plasmas, 2009, 16, 042704.	1.9	21
60	Monochromatic backlighting of direct-drive cryogenic DT implosions on OMEGA. Physics of Plasmas, 2017, 24, .	1.9	21
61	Calibration of a neutron time-of-flight detector with a rapid instrument response function for measurements of bulk fluid motion on OMEGA. Review of Scientific Instruments, 2018, 89, 101131.	1.3	21
62	Tests and calibration of NIF neutron time of flight detectors. Review of Scientific Instruments, 2008, 79, 10E527.	1.3	20
63	Wide-dynamic-range â€œneutron bang timeâ€• detector on OMEGA. Review of Scientific Instruments, 2002, 73, 3796-3800.	1.3	18
64	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.	1.3	18
65	Analysis of trends in experimental observables: Reconstruction of the implosion dynamics and implications for fusion yield extrapolation for direct-drive cryogenic targets on OMEGA. Physics of Plasmas, 2018, 25, .	1.9	18
66	The rate of development of atomic mixing and temperature equilibration in inertial confinement fusion implosions. Physics of Plasmas, 2020, 27, .	1.9	17
67	Impact of asymmetries on fuel performance in inertial confinement fusion. Physical Review E, 2018, 98, .	2.1	16
68	Diffusion-dominated mixing in moderate convergence implosions. Physical Review E, 2018, 97, 061201.	2.1	16
69	A compact proton spectrometer for measurement of the absolute DD proton spectrum from which yield and <i>ÏR</i> are determined in thin-shell inertial-confinement-fusion implosions. Review of Scientific Instruments, 2014, 85, 103504.	1.3	15
70	Fusion-neutron measurements for magnetized liner inertial fusion experiments on the Z accelerator. Journal of Physics: Conference Series, 2016, 717, 012020.	0.4	15
71	Impact of imposed mode 2 laser drive asymmetry on inertial confinement fusion implosions. Physics of Plasmas, 2019, 26, .	1.9	15
72	Neutron yield enhancement and suppression by magnetization in laser-driven cylindrical implosions. Physics of Plasmas, 2020, 27, .	1.9	15

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73	Inferring thermal ion temperature and residual kinetic energy from nuclear measurements in inertial confinement fusion implosions. Physics of Plasmas, 2020, 27, .	1.9	15
74	Impact of stalk on directly driven inertial confinement fusion implosions. Physics of Plasmas, 2020, 27, 032704.	1.9	15
75	Measured dependence of nuclear burn region size on implosion parameters in inertial confinement fusion experiments. Physics of Plasmas, 2006, 13, 082704.	1.9	14
76	Measuring implosion velocities in experiments and simulations of laser-driven cylindrical implosions on the OMEGA laser. Plasma Physics and Controlled Fusion, 2018, 60, 054014.	2.1	14
77	High-yield bang time detector for the OMEGA laser. Review of Scientific Instruments, 2006, 77, 10E712.	1.3	13
78	Diagnosing ignition with DT reaction history. Review of Scientific Instruments, 2008, 79, 10E525.	1.3	12
79	A method for <i>in situ</i> 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.	1.3	12
80	Measurement of apparent ion temperature using the magnetic recoil spectrometer at the OMEGA laser facility. Review of Scientific Instruments, 2018, 89, 10I129.	1.3	12
81	Inertial-confinement fusion-plasma-based cross-calibration of the deuterium-tritium Î³-to-neutron branching ratio. Physical Review C, 2021, 104, .	2.9	12
82	Inferring fuel areal density from secondary neutron yields in laser-driven magnetized liner inertial fusion. Physics of Plasmas, 2019, 26, .	1.9	11
83	<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mmultiscripts><mml:mi mathvariant="normal">H</mml:mi><mml:mprescripts /><mml:none /><mml:mn>2</mml:mn></mml:mmultiscripts><mml:mo>(</mml:mo><mml:mi>p</mml:mi><mml:mo>,</mml:mo><mml:mi>Î³</mm /><mml:none /><mml:mn>3</mml:mn></mml:mmultiscripts></mml:mrow></mml:math> cross section measurement using high-energy-density plasmas. Physical Review C, 2020, 101, .	2.9	11
84	Reconstructing 3D asymmetries in laser-direct-drive implosions on OMEGA. Review of Scientific Instruments, 2021, 92, 033529.	1.3	11
85	High-dynamic-range neutron time-of-flight detector used to infer the D(t,n)4He and D(d,n)3He reaction yield and ion temperature on OMEGA. Review of Scientific Instruments, 2016, 87, 11D814.	1.3	10
86	CR-39 nuclear track detector response to inertial confinement fusion relevant ions. Review of Scientific Instruments, 2020, 91, 053502.	1.3	10
87	First Measurements of Deuterium-Tritium and Deuterium-Deuterium Fusion Reaction Yields in Ignition-Scalable Direct-Drive Implosions. Physical Review Letters, 2017, 118, 095002.	7.8	9
88	Deuteron breakup induced by 14-MeV neutrons from inertial confinement fusion. Physical Review C, 2019, 100, .	2.9	9
89	Enhanced laser-energy coupling with small-spot distributed phase plates (SG5-650) in OMEGA DT cryogenic target implosions. Physics of Plasmas, 2022, 29, .	1.9	9
90	Demonstrating ignition hydrodynamic equivalence in direct-drive cryogenic implosions on OMEGA. Journal of Physics: Conference Series, 2016, 717, 012008.	0.4	8

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91	Improved calibration of the OMEGA gas Cherenkov detector. Review of Scientific Instruments, 2019, 90, 123504.	1.3	8
92	First spectral measurement of deuterium-tritium fusion <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>Î³</mml:mi></mml:math> rays in inertial fusion experiments. Physical Review C, 2021, 104, .	2.9	8
93	Causes of fuelâ€“ablator mix inferred from modeling of monochromatic time-gated radiography of OMEGA cryogenic implosions. Physics of Plasmas, 2022, 29, .	1.9	8
94	Deuteriumâ€“tritium neutron yield measurements with the 4.5 m neutron-time-of-flight detectors at NIF. Review of Scientific Instruments, 2012, 83, 10D312.	1.3	7
95	Testing a Cherenkov neutron time-of-flight detector on OMEGA. Review of Scientific Instruments, 2018, 89, 101122.	1.3	7
96	A compact neutron spectrometer for characterizing inertial confinement fusion implosions at OMEGA and the NIF. Review of Scientific Instruments, 2014, 85, 063502.	1.3	6
97	A new tri-particle backlighter for high-energy-density plasmas (invited). Review of Scientific Instruments, 2021, 92, 063524.	1.3	6
98	Measurements of the temperature and velocity of the dense fuel layer in inertial confinement fusion experiments. Physical Review E, 2022, 105, .	2.1	5
99	Understanding the stagnation and burn of implosions on NIF. Journal of Physics: Conference Series, 2016, 688, 012048.	0.4	4
100	First observation of increased DT yield over prediction due to addition of hydrogen. Physics of Plasmas, 2021, 28, 012707.	1.9	4
101	A novel photomultiplier tube neutron time-of-flight detector. Review of Scientific Instruments, 2021, 92, 013509.	1.3	4
102	Application of an energy-dependent instrument response function to analysis of nTOF data from cryogenic DT experiments. Review of Scientific Instruments, 2021, 92, 043546.	1.3	4
103	Yield degradation due to laser drive asymmetry in D3He backlit proton radiography experiments at OMEGA. Review of Scientific Instruments, 2021, 92, 043551.	1.3	4
104	Optical lightpipe as a high-bandwidth fusion diagnostic. Review of Scientific Instruments, 2006, 77, 10E718.	1.3	3
105	Nuclear Diagnostics at the National Ignition Facility, 2013-2015. Journal of Physics: Conference Series, 2016, 717, 012117.	0.4	3
106	Gated liquid scintillator detector for neutron time of flight measurements in a gas-puff Z-pinch experiment. Review of Scientific Instruments, 2019, 90, 073505.	1.3	3
107	Response of a lead-free borosilicate-glass microchannel plate to 14-MeV neutrons and Î³-rays. Review of Scientific Instruments, 2019, 90, 103306.	1.3	3
108	Neutron bang time detector based on a light pipe. Review of Scientific Instruments, 2008, 79, 10E528.	1.3	2

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109	Direct-drive DT implosions with Knudsen number variations. Journal of Physics: Conference Series, 2016, 717, 012030.	0.4	2
110	Using millimeter-sized carbonâ€“deuterium foils for high-precision deuteriumâ€“tritium neutron spectrum measurements in direct-drive inertial confinement fusion at the OMEGA laser facility. Review of Scientific Instruments, 2021, 92, 023503.	1.3	2