Matthew C Thompson

List of Publications by Year
in descending order

52	1,091	516710 16	395702 33
papers	citations	h-index	g-index

52	52	52	761
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Breakdown Limits on Gigavolt-per-Meter Electron-Beam-Driven Wakefields in Dielectric Structures. Physical Review Letters, 2008, 100, 214801.	7.8	123
2		1.9	112
3	Dynamic Formation of a Hot Field Reversed Configuration with Improved Confinement by Supersonic Merging of Two Colliding High-Î²Compact Toroids. Physical Review Letters, 2010, 105, 045003.	7.8	103
4	Effects of Ion Motion in Intense Beam-Driven Plasma Wakefield Accelerators. Physical Review Letters, 2005, 95, 195002.	7.8	79
5	Velocity bunching of high-brightness electron beams. Physical Review Special Topics: Accelerators and Beams, 2005, 8, .	1.8	65
6	Field Reversed Configuration Confinement Enhancement through Edge Biasing and Neutral Beam Injection. Physical Review Letters, 2012, 108, 255008.	7.8	61
7	Formation of a long-lived hot field reversed configuration by dynamically merging two colliding high-Î² compact toroids. Physics of Plasmas, 2011, 18, .	1.9	56
8	Formation of hot, stable, long-lived field-reversed configuration plasmas on the C-2W device. Nuclear Fusion, 2019, 59, 112009.	3.5	53
9	Recent breakthroughs on C-2U: Normanâ€™s legacy. AIP Conference Proceedings, 2016, , .	0.4	46
10	A new high performance field reversed configuration operating regime in the C-2 device. Physics of Plasmas, 2012, 19, .	1.9	42
11	Energy loss of a high-charge bunched electron beam in plasma: Analysis. Physical Review Special Topics: Accelerators and Beams, 2004, 7, .	1.8	30
12	Plasma density transition trapping as a possible high-brightness electron beam source. Physical Review Special Topics: Accelerators and Beams, 2004, 7, .	1.8	30
13	Energy loss of a high charge bunched electron beam in plasma: Simulations, scaling, and accelerating wakefields. Physical Review Special Topics: Accelerators and Beams, 2004, 7, .	1.8	26
14	Direct observation of ion acceleration from a beam-driven wave in a magnetic fusion experiment. Nature Physics, 2019, 15, 281-286.	16.7	21
15	Horizontal Phase-Space Distortions Arising from Magnetic Pulse Compression of an Intense, Relativistic Electron Beam. Physical Review Letters, 2003, 91, 074803.	7.8	17
16	Internal magnetic field measurement on C-2 field-reversed configuration plasmas. Review of Scientific Instruments, 2012, 83, 10D706.	1.3	17
17	Thomson scattering systems on C-2W field-reversed configuration plasma experiment. Review of Scientific Instruments, 2018, 89, 10C118.	1.3	14
18	Observations of low-aberration plasma lens focusing of relativistic electron beams at the underdense threshold. Physics of Plasmas, 2010, 17, 073105.	1.9	13

#	Article	IF	Citations
19	Magnetic diagnostic suite of the C-2 field-reversed configuration experiment confinement vessel. Review of Scientific Instruments, 2012, 83, 10D709.	1.3	13
20	Development of a three-wave far-infrared laser interferometry and polarimetry diagnostic system for the C-2W field-reversed configuration plasmas. Review of Scientific Instruments, 2018, 89, 10B109.	1.3	13
21	Diagnostic suite of the C-2U advanced beam-driven field-reversed configuration plasma experiment. Review of Scientific Instruments, 2016, 87, 11D435.	1.3	11
22	High sensitivity far infrared laser diagnostics for the C-2U advanced beam-driven field-reversed configuration plasmas. Review of Scientific Instruments, 2016, 87, 11E125.	1.3	11
23	Integrated diagnostic and data analysis system of the C-2W advanced beam-driven field-reversed configuration plasma experiment. Review of Scientific Instruments, 2018, 89, 10K114.	1.3	11
24	Enhanced magnetic field probe array for improved excluded flux calculations on the C-2U advanced beam-driven field-reversed configuration plasma experiment. Review of Scientific Instruments, 2016, 87, 11D409.	1.3	10
25	Magnetic diagnostic suite of the C-2W field-reversed configuration experiment. Review of Scientific Instruments, 2018, 89, 10J107.	1.3	10
26	Transport studies in high-performance field reversed configuration plasmas. Physics of Plasmas, 2016, 23, 052307.	1.9	9
27	Characterization and calibration of the Thomson scattering diagnostic suite for the C-2W field-reversed configuration experiment. Review of Scientific Instruments, 2018, 89, 10C120.	1.3	9
28	Ultra-High Gradient Dielectric Wakefield Accelerator Experiments. AIP Conference Proceedings, 2006, , .	0.4	8
29	Overview of C-2 field-reversed configuration experiment plasma diagnostics. Review of Scientific Instruments, 2014, 85, 11D836.	1.3	8
30	Development of a Zeff diagnostic using visible and near-infrared bremsstrahlung light for the C-2W field-reversed configuration plasma. Review of Scientific Instruments, 2018, 89, 10D130.	1.3	8
31	Improved Confinement of C-2 Field-Reversed Configuration Plasmas. Fusion Science and Technology, 2015, 68, 44-49.	1.1	7
32	The upgrade of the Thomson scattering system for measurement on the C-2/C-2U devices. Review of Scientific Instruments, 2016, 87, 11D602.	1.3	7
33	Particle and heat flux diagnostics on the C-2W divertor electrodes. Review of Scientific Instruments, 2018, 89, 10J110.	1.3	7
34	Commissioning and measurements of the Neptune photo-injector. AIP Conference Proceedings, 2001, , .	0.4	4
35	Creation of plasma density transitions short compared to the plasma skin depth. Review of Scientific Instruments, 2005, 76, 013303.	1.3	4
36	Measurements of neutral density profiles using a deuterium Balmer-alpha diagnostic in the C-2 FRC plasma. Review of Scientific Instruments, 2012, 83, 10D534.	1.3	4

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37	Calibration and applications of visible imaging cameras on the C-2U advanced beam-driven field-reversed configuration device. Review of Scientific Instruments, 2018, 89, 10E103.	1.3	4
38	A High Performance Field-Reversed Configuration Regime in the C-2 Device. Fusion Science and Technology, 2013, 63, 139-142.	1.1	3
39	Jet outflow and open field line measurements on the C-2U advanced beam-driven field-reversed configuration plasma experiment. Review of Scientific Instruments, 2016, 87, 11D432.	1.3	3
40	Jet outflow and open field line measurements on the C-2W advanced beam-driven field-reversed configuration plasma experiment. Review of Scientific Instruments, 2018, 89, 10D120.	1.3	3
41	Combination Doppler backscattering/cross-polarization scattering diagnostic for the C-2W field-reversed configuration. Review of Scientific Instruments, 2018, 89, 10H116.	1.3	3
42	Design of a custom insertable probe platform for measurements of C-2W inner divertor plasma parameters. Review of Scientific Instruments, 2018, 89, 10J115.	1.3	3
43	Dielectric Wakefield Accelerating Structure as a Source of Terahertz Coherent Cerenkov Radiation. AIP Conference Proceedings, 2006, , .	0.4	2
44	UCLA/FNPL Underdense Plasma Lens Experiment: Results and Analysis. AIP Conference Proceedings, 2006, , .	0.4	2
45	End loss analyzer system for measurements of plasma flux at the C-2U divertor electrode. Review of Scientific Instruments, 2016, 87, 11D428.	1.3	2
46	Longitudinal Beam Shaping and Compression Scheme for the UCLA Neptune Laboratory. AIP Conference Proceedings, 2002, , .	0.4	1
47	Plasma Density Transition Trapping as a Possible High-Brightness Electron Beam Source. AIP Conference Proceedings, 2002, , .	0.4	1
48	RESULTS FROM THE UCLA/FNPL UNDERDENSE PLASMA LENS EXPERIMENT. International Journal of Modern Physics A, 2007, 22, 3979-3987.	1.5	1
49	Combined FRC and Mirror Plasma Studies in the C-2 Device. Fusion Science and Technology, 2011, 59, 23-26.	1.1	1
50	Production and synchronization of electron beams from RF photoinjector/compressor systems for ultra-fast applications. AIP Conference Proceedings, 2001, , .	0.4	0
51	Status of the UCLA/NICADD Plasma Density Transition Trapping Experiment. AIP Conference Proceedings, 2004, , .	0.4	0
52	Presentation Countsâ€"Just Ask Galileo. Physics Magazine, 2020, 13, .	0.1	0