

# Gary Taylor

## List of Publications by Year in descending order

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133  
papers

3,948  
citations

117625

34  
h-index

128289

60  
g-index

135  
all docs

135  
docs citations

135  
times ranked

1530  
citing authors

#	ARTICLE	IF	CITATIONS
1	Improved Confinement with Reversed Magnetic Shear in TFTR. Physical Review Letters, 1995, 75, 4417-4420.	7.8	662
2	Enhancement of Tokamak Fusion Test Reactor performance by lithium conditioning. Physics of Plasmas, 1996, 3, 1892-1897.	1.9	181
3	Turbulent Fluctuations in TFTR Configurations with Reversed Magnetic Shear. Physical Review Letters, 1996, 77, 3145-3148.	7.8	178
4	Overview of the physics and engineering design of NSTX upgrade. Nuclear Fusion, 2012, 52, 083015.	3.5	177
5	Off-Axis Sawteeth and Double-Tearing Reconnection in Reversed Magnetic Shear Plasmas in TFTR. Physical Review Letters, 1996, 77, 3553-3556.	7.8	147
6	Local transport barrier formation and relaxation in reverse-shear plasmas on the Tokamak Fusion Test Reactor. Physics of Plasmas, 1997, 4, 1736-1744.	1.9	109
7	Fusion plasma experiments on TFTR: A 20 year retrospective. Physics of Plasmas, 1998, 5, 1577-1589.	1.9	91
8	Review of deuterium-tritium results from the Tokamak Fusion Test Reactor. Physics of Plasmas, 1995, 2, 2176-2188.	1.9	89
9	Parallel electric resistivity in the TFTR tokamak. Physics of Fluids B, 1990, 2, 1852-1857.	1.7	72
10	Studies of EDA H-mode in Alcator C-Mod. Plasma Physics and Controlled Fusion, 2000, 42, A263-A269.	2.1	72
11	Chapter 3: Microwave Diagnostics. Fusion Science and Technology, 2008, 53, 335-396.	1.1	72
12	High harmonic fast wave heating efficiency enhancement and current drive at longer wavelength on the National Spherical Torus Experiment. Physics of Plasmas, 2008, 15, .	1.9	70
13	Tomography of full sawtooth crashes on the Tokamak Fusion Test Reactor. Physics of Plasmas, 1996, 3, 1647-1655.	1.9	65
14	Notched velocity profiles and the radial electric field in high ion temperature plasmas in the Tokamak Fusion Test Reactor. Physics of Plasmas, 1998, 5, 665-681.	1.9	61
15	Isotopic scaling of confinement in deuterium-tritium plasmas. Physics of Plasmas, 1995, 2, 2299-2307.	1.9	57
16	High-Harmonic Fast-Wave Power Flow along Magnetic Field Lines in the Scrape-Off Layer of NSTX. Physical Review Letters, 2012, 109, 045001.	7.8	55
17	Confined Alpha Distribution Measurements in a Deuterium-Tritium Tokamak Plasma. Physical Review Letters, 1995, 75, 649-652.	7.8	52
18	Helium, iron, and electron particle transport and energy transport studies on the Tokamak Fusion Test Reactor. Physics of Fluids B, 1993, 5, 2215-2228.	1.7	49

#	ARTICLE	IF	CITATIONS
19	Overview of the initial NSTX experimental results. Nuclear Fusion, 2001, 41, 1435-1447.	3.5	49
20	Fusion Heating in a Deuterium-Tritium Tokamak Plasma. Physical Review Letters, 1996, 76, 2722-2725.	7.8	48
21	Correlations of heat and momentum transport in the TFTR tokamak. Physics of Fluids B, 1990, 2, 1300-1305.	1.7	47
22	Full wave simulations of fast wave heating losses in the scrape-off layer of NSTX and NSTX-U. Nuclear Fusion, 2014, 54, 083004.	3.5	47
23	Initial physics results from the National Spherical Torus Experiment. Physics of Plasmas, 2001, 8, 1977-1987.	1.9	46
24	Mode Conversion Heating and Current Drive Experiments in TFTR. Physical Review Letters, 1996, 76, 764-767.	7.8	45
25	Tests of local transport theory and reduced wall impurity influx with highly radiative plasmas in the Tokamak Fusion Test Reactor. Physics of Plasmas, 1999, 6, 877-884.	1.9	45
26	Ion cyclotron range of frequencies stabilization of sawteeth on Tokamak Fusion Test Reactor. Physics of Fluids B, 1992, 4, 2155-2164.	1.7	41
27	The diffusion of fast ions in Ohmic TFTR discharges. Physics of Fluids B, 1991, 3, 3167-3170.	1.7	40
28	Fast-wave power flow along SOL field lines in NSTX and the associated power deposition profile across the SOL in front of the antenna. Nuclear Fusion, 2013, 53, 083025.	3.5	39
29	$\hat{I}^2$ limit disruptions in the Tokamak Fusion Test Reactor. Physics of Plasmas, 1995, 2, 4216-4229.	1.9	37
30	Enhanced performance of deuterium-tritium fueled supershots using extensive lithium conditioning in the Tokamak Fusion Test Reactor. Physics of Plasmas, 1995, 2, 4252-4256.	1.9	36
31	Fast scanning heterodyne receiver for the measurement of the time evolution of the electron temperature profile on the Tokamak Fusion Test Reactor. Review of Scientific Instruments, 1984, 55, 1739-1743.	1.3	35
32	High-beta operation and magnetohydrodynamic activity on the TFTR tokamak. Physics of Fluids B, 1990, 2, 1287-1290.	1.7	35
33	Neoclassical tearing modes in Tokamak Fusion Test Reactor experiments. I. Measurements of magnetic islands and $\hat{I}^2$ . Physics of Plasmas, 1998, 5, 1076-1084.	1.9	35
34	Spectral effects on fast wave core heating and current drive. Nuclear Fusion, 2009, 49, 075015.	3.5	35
35	Advances in high-harmonic fast wave physics in the National Spherical Torus Experiment. Physics of Plasmas, 2010, 17, 056114.	1.9	34
36	High-frequency core localized modes in neutral beam heated plasmas on TFTR. Physics of Plasmas, 1996, 3, 593-605.	1.9	33

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37	Effect of plasma shaping on performance in the National Spherical Torus Experiment. Physics of Plasmas, 2006, 13, 056122.	1.9	33
38	Measuring $\hat{\Gamma}^2$ from electron temperature fluctuations in the Tokamak Fusion Test Reactor. Physics of Plasmas, 1998, 5, 450-454.	1.9	31
39	Comparison of steady-state and perturbative transport coefficients in TFTR. Physics of Fluids B, 1991, 3, 2315-2323.	1.7	29
40	Anomalous losses of deuterium-deuterium fusion products in the Tokamak Fusion Test Reactor*. Physics of Plasmas, 1994, 1, 1469-1478.	1.9	29
41	Deuterium-tritium plasmas in novel regimes in the Tokamak Fusion Test Reactor. Physics of Plasmas, 1997, 4, 1714-1724.	1.9	27
42	H-mode threshold and dynamics in the National Spherical Torus Experiment. Physics of Plasmas, 2003, 10, 1755-1764.	1.9	27
43	Measurement of internal magnetic field pitch using Li pellet injection on TFTR (invited). Review of Scientific Instruments, 1990, 61, 2908-2913.	1.3	26
44	Deuterium-tritium high confinement (H-mode) studies in the Tokamak Fusion Test Reactor. Physics of Plasmas, 1995, 2, 2366-2374.	1.9	26
45	Ion cyclotron range of frequency experiments in the Tokamak Fusion Test Reactor with fast waves and mode converted ion Bernstein waves. Physics of Plasmas, 1996, 3, 2006-2012.	1.9	26
46	First Observation of Alpha Particle Loss Induced by Kinetic Ballooning Modes in TFTR Deuterium-Tritium Experiments. Physical Review Letters, 1996, 76, 1071-1074.	7.8	26
47	Alpha particle losses from Tokamak Fusion Test Reactor deuterium-tritium plasmas. Physics of Plasmas, 1996, 3, 1875-1880.	1.9	25
48	Intense electron cyclotron emission bursts during high power neutral beam heating on TFTR. Nuclear Fusion, 1992, 32, 1867-1872.	3.5	24
49	Observation of particle transport barriers in reverse shear plasmas on the Tokamak Fusion Test Reactor. Physics of Plasmas, 1998, 5, 1832-1838.	1.9	24
50	Status and Plans for TFTR. Fusion Science and Technology, 1992, 21, 1324-1331.	0.6	23
51	Full wave simulations of fast wave efficiency and power losses in the scrape-off layer of tokamak plasmas in mid/high harmonic and minority heating regimes <sup>*</sup> . Nuclear Fusion, 2016, 56, 016019.	3.5	23
52	High non-inductive fraction H-mode discharges generated by high-harmonic fast wave heating and current drive in the National Spherical Torus Experiment. Physics of Plasmas, 2012, 19, .	1.9	22
53	Investigation of ballooning modes in high poloidal beta plasmas in the Tokamak Fusion Test Reactor*. Physics of Fluids B, 1993, 5, 2571-2577.	1.7	21
54	Phenomenology of major and minor disruptions in high $\hat{\Gamma}^2$ deuterium and tritium tokamak fusion test reactor plasma. Physics of Plasmas, 1998, 5, 3950-3960.	1.9	20

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55	Assessment of an Oblique ECE Diagnostic for ITER. <i>Fusion Science and Technology</i> , 2009, 55, 64-75.	1.1	20
56	Image reconstructions of ECE and x-ray signals for high $\beta^2$ plasmas on TFTR. <i>Review of Scientific Instruments</i> , 1990, 61, 3265-3267.	1.3	19
57	Tomography of (2, 1) and (3, 2) magnetic island structures on Tokamak Fusion Test Reactor. <i>Physics of Plasmas</i> , 1996, 3, 2631-2640.	1.9	19
58	Resolving interactions between ion-cyclotron range of frequencies heating and the scrape-off layer plasma in EAST using divertor probes. <i>Plasma Physics and Controlled Fusion</i> , 2019, 61, 045011.	2.1	19
59	Collisional Damping of Electron Bernstein Waves and its Mitigation by Evaporated Lithium Conditioning in Spherical-Tokamak Plasmas. <i>Physical Review Letters</i> , 2009, 103, 015002.	7.8	18
60	The role of rectified currents in far-field RF sheaths and in SOL losses of HHFW power on NSTX. <i>Nuclear Materials and Energy</i> , 2017, 12, 283-288.	1.3	18
61	High-Q plasmas in the TFTR tokamak. <i>Physics of Fluids B</i> , 1991, 3, 2308-2314.	1.7	17
62	Plasma diagnostics in the Tokamak Fusion Test Reactor using emission of electron cyclotron radiation at arbitrary frequencies. <i>Physics of Plasmas</i> , 1996, 3, 2331-2336.	1.9	17
63	The stability of advanced operational regimes on the Tokamak Fusion Test Reactor. <i>Physics of Plasmas</i> , 1997, 4, 1589-1595.	1.9	16
64	Alpha-driven magnetohydrodynamics (MHD) and MHD-induced alpha loss in the Tokamak Fusion Test Reactor. <i>Physics of Plasmas</i> , 1997, 4, 1610-1616.	1.9	16
65	Overview of MAST results. <i>Nuclear Fusion</i> , 2015, 55, 104008.	3.5	16
66	Electron Bernstein wave electron temperature profile diagnostic (invited). <i>Review of Scientific Instruments</i> , 2001, 72, 285-292.	1.3	15
67	Electron cyclotron measurements with the fast-scanning heterodyne radiometer on the tokamak fusion test reactor. <i>Review of Scientific Instruments</i> , 1986, 57, 1974-1976.	1.3	14
68	Advanced ST plasma scenario simulations for NSTX. <i>Nuclear Fusion</i> , 2005, 45, 814-824.	3.5	14
69	Recent Fast Wave Coupling and Heating Studies on NSTX, with Possible Implications for ITER. , 2009, , .		14
70	The contribution of radio-frequency rectification to field-aligned losses of high-harmonic fast wave power to the divertor in the National Spherical Torus eXperiment. <i>Physics of Plasmas</i> , 2015, 22, 042506.	1.9	14
71	Nonthermal electron cyclotron emission from TFTR supershot plasmas. <i>Plasma Physics and Controlled Fusion</i> , 1989, 31, 1957-1972.	2.1	13
72	Operation of two grating polychromators on TFTR and new observations of magnetohydrodynamic phenomena. <i>Review of Scientific Instruments</i> , 1995, 66, 668-670.	1.3	13

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73	Confinement analysis in low- $\beta$ confinement mode of hydrogen isotope experiments on the Tokamak Fusion Test Reactor. <i>Physics of Plasmas</i> , 1996, 3, 4521-4535.	1.9	12
74	Suppression of energetic particle driven instabilities with HHFW heating. <i>Nuclear Fusion</i> , 2015, 55, 013012.	3.5	11
75	TFTR Plasma Feedback Systems. <i>Fusion Science and Technology</i> , 1985, 8, 1807-1812.	0.6	10
76	Transient transport experiments in the current-drive experiment upgrade spherical torus. <i>Physics of Plasmas</i> , 2002, 9, 480-487.	1.9	10
77	Measurement of the magnetic field in a spherical torus plasma via electron Bernstein wave emission harmonic overlap. <i>Physics of Plasmas</i> , 2004, 11, 1028-1032.	1.9	10
78	Experiments utilizing ion cyclotron range of frequencies heating on the TFTR tokamak. <i>Physics of Fluids B</i> , 1991, 3, 2270-2276.	1.7	9
79	The build-up of energetic electrons triggering electron cyclotron emission bursts due to a magnetohydrodynamic mode at the edge of tokamaks. <i>Physics of Plasmas</i> , 2017, 24, .	1.9	9
80	Confinement Studies In TFTR. <i>Fusion Science and Technology</i> , 1985, 8, 657-663.	0.6	8
81	Fast scanning heterodyne receiver for the measurement of the time evolution of the electron temperature profile on the Tokamak Fusion Test Reactor. <i>Review of Scientific Instruments</i> , 1985, 56, 928-930.	1.3	8
82	Electron Bernstein wave-bootstrap current synergy in the National Spherical Torus Experiment. <i>Physics of Plasmas</i> , 2005, 12, 052509.	1.9	8
83	Preparations for deuterium- $\alpha$ -tritium experiments on the Tokamak Fusion Test Reactor*. <i>Physics of Plasmas</i> , 1994, 1, 1560-1567.	1.9	7
84	EBW simulation for MAST and NSTX experiments. <i>AIP Conference Proceedings</i> , 2005, , .	0.4	7
85	Dominance of convective heat transport in the core of TFTR (Tokamak Fusion Test Reactor) supershot plasmas. <i>Physics of Fluids B</i> , 1993, 5, 3618-3621.	1.7	6
86	Resonance in fast-wave amplitude in the periphery of cylindrical plasmas and application to edge losses of wave heating power in tokamaks. <i>Physics of Plasmas</i> , 2016, 23, 070702.	1.9	6
87	Transient nonthermal electron cyclotron emission phenomena in high $\beta^2$ TFTR plasmas. <i>Review of Scientific Instruments</i> , 1995, 66, 830-832.	1.3	5
88	Application of microwave reflectometry to the measurement of fast magnetosonic waves in the Tokamak Fusion Test Reactor. <i>Review of Scientific Instruments</i> , 1997, 68, 450-453.	1.3	5
89	Lower hybrid current drive and ion cyclotron range of frequencies heating experiments in H-mode plasmas in Experimental Advanced Superconducting Tokamak. <i>Physics of Plasmas</i> , 2014, 21, 061501.	1.9	5
90	Prototype Design of a 700 $\text{\AA}^\circ\text{C}$ In-Vacuum Blackbody Source for <i>In Situ</i> Calibration of the ITER ECE Diagnostic. <i>IEEE Transactions on Plasma Science</i> , 2018, 46, 1239-1246.	1.3	5

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91	ICRF in D-T plasmas in TFTR. , 1996, , .		4
92	Mode conversion heating and current drive in TFTR. , 1997, , .		4
93	Recent Improvements in Fast Wave Heating in NSTX. , 2009, , .		4
94	Using X-mode L, R and O-mode reflectometry cutoffs to measure scrape-off-layer density profiles for upgraded ORNL reflectometer on NSTX-U. Review of Scientific Instruments, 2014, 85, 11D815.	1.3	4
95	Preliminary measurements of the edge magnetic field pitch from 2-D Doppler backscattering in MAST and NSTX-U (invited). Review of Scientific Instruments, 2016, 87, 11D902.	1.3	4
96	Simplifying the ST and AT Concepts. Journal of Fusion Energy, 2016, 35, 34-40.	1.2	4
97	Edge loss of high-harmonic fast-wave heating power in NSTX: a cylindrical model. Nuclear Fusion, 2017, 57, 116062.	3.5	4
98	Characteristics of radiated power for various Tokamak Fusion Test Reactor regimes. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1988, 6, 2004-2007.	2.1	3
99	Confinement and the safety factor profile. Physics of Plasmas, 1996, 3, 1348-1355.	1.9	3
100	Scaling of Confinement with Isotopic Content in Deuterium and Tritium Plasmas. Physical Review Letters, 1997, 79, 1050-1053.	7.8	3
101	Towards identifying the mechanisms underlying field-aligned edge-loss of HHFW power on NSTX. , 2014, , .		3
102	ITER ECE: PLANS AND CHALLENGES. , 2009, , .		3
103	Progress in ITER ECE diagnostic design and integration. Journal of Instrumentation, 2022, 17, C04019.	1.2	3
104	Results of NSTX heating experiments. IEEE Transactions on Plasma Science, 2003, 31, 60-67.	1.3	2
105	Coupled Ray-tracing and Fokker-Planck EBW Modeling for Spherical Tokamaks. AIP Conference Proceedings, 2009, , .	0.4	2
106	A 20-Channel Grating Polychromator for Electron Cyclotron Emission Measurements on EAST. Fusion Science and Technology, 2011, 59, 657-662.	1.1	2
107	Electron Cyclotron Heating Program and Electron Cyclotron Emission Diagnostics on the EAST and HT-7 Superconducting Tokamaks. Fusion Science and Technology, 2011, 59, 631-639.	1.1	2
108	SPiRAL field mapping on NSTX for comparison to divertor RF heat deposition. , 2014, , .		2

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109	Modifications to the synthetic aperture microwave imaging diagnostic. Review of Scientific Instruments, 2016, 87, 11E129.	1.3	2
110	Physics design of the in-vessel collection optics for the ITER electron cyclotron emission diagnostic. Review of Scientific Instruments, 2016, 87, 11E132.	1.3	2
111	Application of TFTR diagnostics to study of limiter H-modes. Review of Scientific Instruments, 1990, 61, 3532-3535.	1.3	1
112	TFTR vertically viewing electron cyclotron emission diagnostic. Review of Scientific Instruments, 1990, 61, 2837-2839.	1.3	1
113	Zeff behavior following Li and C pellet injection into TFTR. Review of Scientific Instruments, 1990, 61, 3087-3089.	1.3	1
114	Fast wave direct electron heating in TFTR. AIP Conference Proceedings, 1994, , .	0.4	1
115	Performance of ICRF-heated D-T plasmas fueled by neutral beam injection in TFTR. , 1996, , .		1
116	Plans for Electron Bernstein Wave and Electron Cyclotron Heating in NSTX. AIP Conference Proceedings, 2007, , .	0.4	1
117	The Effect of ELMs on HHFW Heating of NBI Generated H-modes. AIP Conference Proceedings, 2011, , .	0.4	1
118	Calibration techniques for broadband MM & SMMW diagnostic instruments. , 1983, , .		0
119	Application of TFTR diagnostics to study of limiter H modes (abstract). Review of Scientific Instruments, 1990, 61, 3307-3307.	1.3	0
120	Modeling of high-power ICRF heating experiments on TFTR. AIP Conference Proceedings, 1994, , .	0.4	0
121	Deuterium-tritium experiments on TFTR. AIP Conference Proceedings, 1995, , .	0.4	0
122	A toroidal liquid lithium limiter for CDX-U. , 0, , .		0
123	Nonthermal Electron Bernstein Emission in NSTX-Like Discharges. Fusion Science and Technology, 2008, 53, 237-245.	1.1	0
124	EBW H&CD Potential for Spherical Tokamaks. , 2011, , .		0
125	Mode-Converted Electron Bernstein Wave Emission Research on CDX-U and NSTX. , 2003, , .		0
126	MODELING RESULTS FOR PROPOSED NSTX 28 GHZ ECH/EBWH SYSTEM. , 2009, , .		0



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127	INVESTIGATION OF EBW THERMAL EMISSION AND MODE CONVERSION PHYSICS IN H<sub>H</sub>-MODE PLASMAS ON NSTX. , 2009, , .		0
128	10.1063/1.3371956.1. , 2010, , .		0
129	EC PROGRAM ON EAST AND HT-7. , 2011, , .		0
130	SUMMARY OF ECE PRESENTATIONS AT EC-16. , 2011, , .		0
131	Recent progress of the 20-channel grating polychromator on EAST. , 2011, , .		0
132	PROSPECTS FOR EBW HEATING AND CURRENT DRIVE ON SPHERICAL TORI. , 2011, , .		0
133	X-Ray Simulation of the Sawtooth Phenomena on TFTR. Journal of the Physical Society of Japan, 1989, 58, 167-180.	1.6	0