

# Gary Taylor

## List of Publications by Year in descending order

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133  
papers

3,948  
citations

117625

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128289

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g-index

135  
all docs

135  
docs citations

135  
times ranked

1530  
citing authors

#	ARTICLE	IF	CITATIONS
1	Progress in ITER ECE diagnostic design and integration. Journal of Instrumentation, 2022, 17, C04019.	1.2	3
2	Resolving interactions between ion-cyclotron range of frequencies heating and the scrape-off layer plasma in EAST using divertor probes. Plasma Physics and Controlled Fusion, 2019, 61, 045011.	2.1	19
3	Prototype Design of a 700 Å°C In-Vacuum Blackbody Source for <i>In Situ</i> Calibration of the ITER ECE Diagnostic. IEEE Transactions on Plasma Science, 2018, 46, 1239-1246.	1.3	5
4	Edge loss of high-harmonic fast-wave heating power in NSTX: a cylindrical model. Nuclear Fusion, 2017, 57, 116062.	3.5	4
5	The build-up of energetic electrons triggering electron cyclotron emission bursts due to a magnetohydrodynamic mode at the edge of tokamaks. Physics of Plasmas, 2017, 24, .	1.9	9
6	The role of rectified currents in far-field RF sheaths and in SOL losses of HHFW power on NSTX. Nuclear Materials and Energy, 2017, 12, 283-288.	1.3	18
7	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
8	Modifications to the synthetic aperture microwave imaging diagnostic. Review of Scientific Instruments, 2016, 87, 11E129.	1.3	2
9	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
10	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
11	Simplifying the ST and AT Concepts. Journal of Fusion Energy, 2016, 35, 34-40.	1.2	4
12	Resonance in fast-wave amplitude in the periphery of cylindrical plasmas and application to edge losses of wave heating power in tokamaks. Physics of Plasmas, 2016, 23, 070702.	1.9	6
13	Suppression of energetic particle driven instabilities with HHFW heating. Nuclear Fusion, 2015, 55, 013012.	3.5	11
14	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. Physics of Plasmas, 2015, 22, 042506.	1.9	14
15	Overview of MAST results. Nuclear Fusion, 2015, 55, 104008.	3.5	16
16	SPIRAL field mapping on NSTX for comparison to divertor RF heat deposition. , 2014, , .		2
17	Towards identifying the mechanisms underlying field-aligned edge-loss of HHFW power on NSTX. , 2014, , .		3
18	Lower hybrid current drive and ion cyclotron range of frequencies heating experiments in H-mode plasmas in Experimental Advanced Superconducting Tokomak. Physics of Plasmas, 2014, 21, 061501.	1.9	5

#	ARTICLE	IF	CITATIONS
19	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
20	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
21	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
22	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
23	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
24	Overview of the physics and engineering design of NSTX upgrade. Nuclear Fusion, 2012, 52, 083015.	3.5	177
25	A 20-Channel Grating Polychromator for Electron Cyclotron Emission Measurements on EAST. Fusion Science and Technology, 2011, 59, 657-662.	1.1	2
26	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
27	EBW H&CD Potential for Spherical Tokamaks. , 2011, , .		0
28	The Effect of ELMs on HHFW Heating of NBI Generated H-modes. AIP Conference Proceedings, 2011, , .	0.4	1
29	EC PROGRAM ON EAST AND HT-7. , 2011, , .		0
30	SUMMARY OF ECE PRESENTATIONS AT EC-16. , 2011, , .		0
31	Recent progress of the 20-channel grating polychromator on EAST. , 2011, , .		0
32	PROSPECTS FOR EBW HEATING AND CURRENT DRIVE ON SPHERICAL TORI. , 2011, , .		0
33	Advances in high-harmonic fast wave physics in the National Spherical Torus Experiment. Physics of Plasmas, 2010, 17, 056114.	1.9	34
34	10.1063/1.3371956.1. , 2010, , .		0
35	Collisional Damping of Electron Bernstein Waves and its Mitigation by Evaporated Lithium Conditioning in Spherical-Tokamak Plasmas. Physical Review Letters, 2009, 103, 015002.	7.8	18
36	Spectral effects on fast wave core heating and current drive. Nuclear Fusion, 2009, 49, 075015.	3.5	35

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37	Coupled Ray-tracing and Fokker-Planck EBW Modeling for Spherical Tokamaks. AIP Conference Proceedings, 2009, , .	0.4	2
38	Recent Fast Wave Coupling and Heating Studies on NSTX, with Possible Implications for ITER. , 2009, , .		14
39	Recent Improvements in Fast Wave Heating in NSTX. , 2009, , .		4
40	Assessment of an Oblique ECE Diagnostic for ITER. Fusion Science and Technology, 2009, 55, 64-75.	1.1	20
41	ITER ECE: PLANS AND CHALLENGES. , 2009, , .		3
42	MODELING RESULTS FOR PROPOSED NSTX 28 GHZ ECH/EBWH SYSTEM. , 2009, , .		0
43	INVESTIGATION OF EBW THERMAL EMISSION AND MODE CONVERSION PHYSICS IN H-MODE PLASMAS ON NSTX. , 2009, , .		0
44	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
45	Chapter 3: Microwave Diagnostics. Fusion Science and Technology, 2008, 53, 335-396.	1.1	72
46	Nonthermal Electron Bernstein Emission in NSTX-Like Discharges. Fusion Science and Technology, 2008, 53, 237-245.	1.1	0
47	Plans for Electron Bernstein Wave and Electron Cyclotron Heating in NSTX. AIP Conference Proceedings, 2007, , .	0.4	1
48	Effect of plasma shaping on performance in the National Spherical Torus Experiment. Physics of Plasmas, 2006, 13, 056122.	1.9	33
49	EBW simulation for MAST and NSTX experiments. AIP Conference Proceedings, 2005, , .	0.4	7
50	Advanced ST plasma scenario simulations for NSTX. Nuclear Fusion, 2005, 45, 814-824.	3.5	14
51	Electron Bernstein wave-bootstrap current synergy in the National Spherical Torus Experiment. Physics of Plasmas, 2005, 12, 052509.	1.9	8
52	Measurement of the magnetic field in a spherical torus plasma via electron Bernstein wave emission harmonic overlap. Physics of Plasmas, 2004, 11, 1028-1032.	1.9	10
53	Results of NSTX heating experiments. IEEE Transactions on Plasma Science, 2003, 31, 60-67.	1.3	2
54	H-mode threshold and dynamics in the National Spherical Torus Experiment. Physics of Plasmas, 2003, 10, 1755-1764.	1.9	27

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55	Mode-Converted Electron Bernstein Wave Emission Research on CDX-U and NSTX. , 2003, , .		0
56	Transient transport experiments in the current-drive experiment upgrade spherical torus. Physics of Plasmas, 2002, 9, 480-487.	1.9	10
57	Electron Bernstein wave electron temperature profile diagnostic (invited). Review of Scientific Instruments, 2001, 72, 285-292.	1.3	15
58	Overview of the initial NSTX experimental results. Nuclear Fusion, 2001, 41, 1435-1447.	3.5	49
59	Initial physics results from the National Spherical Torus Experiment. Physics of Plasmas, 2001, 8, 1977-1987.	1.9	46
60	Studies of EDA H-mode in Alcator C-Mod. Plasma Physics and Controlled Fusion, 2000, 42, A263-A269.	2.1	72
61	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
62	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
63	Neoclassical tearing modes in Tokamak Fusion Test Reactor experiments. I. Measurements of magnetic islands and $\hat{\Gamma}^2$ . Physics of Plasmas, 1998, 5, 1076-1084.	1.9	35
64	Measuring $\hat{\Gamma}^2$ from electron temperature fluctuations in the Tokamak Fusion Test Reactor. Physics of Plasmas, 1998, 5, 450-454.	1.9	31
65	Fusion plasma experiments on TFTR: A 20 year retrospective. Physics of Plasmas, 1998, 5, 1577-1589.	1.9	91
66	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
67	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
68	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
69	Deuterium-tritium plasmas in novel regimes in the Tokamak Fusion Test Reactor. Physics of Plasmas, 1997, 4, 1714-1724.	1.9	27
70	The stability of advanced operational regimes on the Tokamak Fusion Test Reactor. Physics of Plasmas, 1997, 4, 1589-1595.	1.9	16
71	Scaling of Confinement with Isotopic Content in Deuterium and Tritium Plasmas. Physical Review Letters, 1997, 79, 1050-1053.	7.8	3
72	Application of microwave reflectometry to the measurement of fast magnetosonic waves in the Tokamak Fusion Test Reactor. Review of Scientific Instruments, 1997, 68, 450-453.	1.3	5

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73	Alpha-driven magnetohydrodynamics (MHD) and MHD-induced alpha loss in the Tokamak Fusion Test Reactor. Physics of Plasmas, 1997, 4, 1610-1616.	1.9	16
74	Mode conversion heating and current drive in TFTR. , 1997, , .		4
75	Alpha particle losses from Tokamak Fusion Test Reactor deuterium-tritium plasmas. Physics of Plasmas, 1996, 3, 1875-1880.	1.9	25
76	Confinement and the safety factor profile. Physics of Plasmas, 1996, 3, 1348-1355.	1.9	3
77	Confinement analysis in low-confinement mode of hydrogen isotope experiments on the Tokamak Fusion Test Reactor. Physics of Plasmas, 1996, 3, 4521-4535.	1.9	12
78	Tomography of full sawtooth crashes on the Tokamak Fusion Test Reactor. Physics of Plasmas, 1996, 3, 1647-1655.	1.9	65
79	Performance of ICRF-heated D-T plasmas fueled by neutral beam injection in TFTR. , 1996, , .		1
80	ICRF in D-T plasmas in TFTR. , 1996, , .		4
81	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
82	Turbulent Fluctuations in TFTR Configurations with Reversed Magnetic Shear. Physical Review Letters, 1996, 77, 3145-3148.	7.8	178
83	Mode Conversion Heating and Current Drive Experiments in TFTR. Physical Review Letters, 1996, 76, 764-767.	7.8	45
84	Fusion Heating in a Deuterium-Tritium Tokamak Plasma. Physical Review Letters, 1996, 76, 2722-2725.	7.8	48
85	Tomography of (2, 1) and (3, 2) magnetic island structures on Tokamak Fusion Test Reactor. Physics of Plasmas, 1996, 3, 2631-2640.	1.9	19
86	Enhancement of Tokamak Fusion Test Reactor performance by lithium conditioning. Physics of Plasmas, 1996, 3, 1892-1897.	1.9	181
87	Plasma diagnostics in the Tokamak Fusion Test Reactor using emission of electron cyclotron radiation at arbitrary frequencies. Physics of Plasmas, 1996, 3, 2331-2336.	1.9	17
88	Off-Axis Sawteeth and Double-Tearing Reconnection in Reversed Magnetic Shear Plasmas in TFTR. Physical Review Letters, 1996, 77, 3553-3556.	7.8	147
89	High-frequency core localized modes in neutral beam heated plasmas on TFTR. Physics of Plasmas, 1996, 3, 593-605.	1.9	33
90	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

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91	Deuterium-tritium experiments on TFTR. AIP Conference Proceedings, 1995, , .	0.4	0
92	Enhanced performance of deuteriumâ€“tritiumâ€“fueled supershots using extensive lithium conditioning in the Tokamak Fusion Test Reactor. Physics of Plasmas, 1995, 2, 4252-4256.	1.9	36
93	Operation of two grating polychromators on TFTR and new observations of magnetohydrodynamic phenomena. Review of Scientific Instruments, 1995, 66, 668-670.	1.3	13
94	Improved Confinement with Reversed Magnetic Shear in TFTR. Physical Review Letters, 1995, 75, 4417-4420.	7.8	662
95	Isotopic scaling of confinement in deuteriumâ€“tritium plasmas. Physics of Plasmas, 1995, 2, 2299-2307.	1.9	57
96	Deuteriumâ€“tritium high confinement (Hâ€“mode) studies in the Tokamak Fusion Test Reactor. Physics of Plasmas, 1995, 2, 2366-2374.	1.9	26
97	Review of deuteriumâ€“tritium results from the Tokamak Fusion Test Reactor. Physics of Plasmas, 1995, 2, 2176-2188.	1.9	89
98	$\hat{I}^2$ limit disruptions in the Tokamak Fusion Test Reactor. Physics of Plasmas, 1995, 2, 4216-4229.	1.9	37
99	Transient nonthermal electron cyclotron emission phenomena in high $\hat{I}^2$ TFTR plasmas. Review of Scientific Instruments, 1995, 66, 830-832.	1.3	5
100	Confined Alpha Distribution Measurements in a Deuterium-Tritium Tokamak Plasma. Physical Review Letters, 1995, 75, 649-652.	7.8	52
101	Modeling of high-power ICRF heating experiments on TFTR. AIP Conference Proceedings, 1994, , .	0.4	0
102	Fast wave direct electron heating in TFTR. AIP Conference Proceedings, 1994, , .	0.4	1
103	Preparations for deuteriumâ€“tritium experiments on the Tokamak Fusion Test Reactor*. Physics of Plasmas, 1994, 1, 1560-1567.	1.9	7
104	Anomalous losses of deuteriumâ€“deuterium fusion products in the Tokamak Fusion Test Reactor*. Physics of Plasmas, 1994, 1, 1469-1478.	1.9	29
105	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
106	Dominance of convective heat transport in the core of TFTR (Tokamak Fusion Test Reactor) supershot plasmas. Physics of Fluids B, 1993, 5, 3618-3621.	1.7	6
107	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
108	Intense electron cyclotron emission bursts during high power neutral beam heating on TFTR. Nuclear Fusion, 1992, 32, 1867-1872.	3.5	24

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109	Ion cyclotron range of frequencies stabilization of sawteeth on Tokamak Fusion Test Reactor. Physics of Fluids B, 1992, 4, 2155-2164.	1.7	41
110	Status and Plans for TFTR. Fusion Science and Technology, 1992, 21, 1324-1331.	0.6	23
111	High- $Q$ plasmas in the TFTR tokamak. Physics of Fluids B, 1991, 3, 2308-2314.	1.7	17
112	Experiments utilizing ion cyclotron range of frequencies heating on the TFTR tokamak. Physics of Fluids B, 1991, 3, 2270-2276.	1.7	9
113	The diffusion of fast ions in Ohmic TFTR discharges. Physics of Fluids B, 1991, 3, 3167-3170.	1.7	40
114	Comparison of steady-state and perturbative transport coefficients in TFTR. Physics of Fluids B, 1991, 3, 2315-2323.	1.7	29
115	High- $\beta$ operation and magnetohydrodynamic activity on the TFTR tokamak. Physics of Fluids B, 1990, 2, 1287-1290.	1.7	35
116	Correlations of heat and momentum transport in the TFTR tokamak. Physics of Fluids B, 1990, 2, 1300-1305.	1.7	47
117	Application of TFTR diagnostics to study of limiter H modes (abstract). Review of Scientific Instruments, 1990, 61, 3307-3307.	1.3	0
118	Measurement of internal magnetic field pitch using Li pellet injection on TFTR (invited). Review of Scientific Instruments, 1990, 61, 2908-2913.	1.3	26
119	Application of TFTR diagnostics to study of limiter H modes. Review of Scientific Instruments, 1990, 61, 3532-3535.	1.3	1
120	TFTR vertically viewing electron cyclotron emission diagnostic. Review of Scientific Instruments, 1990, 61, 2837-2839.	1.3	1
121	Zeff behavior following Li and C pellet injection into TFTR. Review of Scientific Instruments, 1990, 61, 3087-3089.	1.3	1
122	Image reconstructions of ECE and X-ray signals for high $\beta^2$ plasmas on TFTR. Review of Scientific Instruments, 1990, 61, 3265-3267.	1.3	19
123	Parallel electric resistivity in the TFTR tokamak. Physics of Fluids B, 1990, 2, 1852-1857.	1.7	72
124	Nonthermal electron cyclotron emission from TFTR supersonic plasmas. Plasma Physics and Controlled Fusion, 1989, 31, 1957-1972.	2.1	13
125	X-Ray Simulation of the Sawtooth Phenomena on TFTR. Journal of the Physical Society of Japan, 1989, 58, 167-180.	1.6	0
126	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



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127	Electron cyclotron measurements with the fast-scanning heterodyne radiometer on the tokamak fusion test reactor. Review of Scientific Instruments, 1986, 57, 1974-1976.	1.3	14
128	TFTR Plasma Feedback Systems. Fusion Science and Technology, 1985, 8, 1807-1812.	0.6	10
129	Confinement Studies In TFTR. Fusion Science and Technology, 1985, 8, 657-663.	0.6	8
130	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, 1985, 56, 928-930.	1.3	8
131	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
132	Calibration techniques for broadband MM & SMMW diagnostic instruments. , 1983, , .		0
133	A toroidal liquid lithium limiter for CDX-U. , 0, , .		0