James L Terry

List of Publications by Year
in descending order

152	10,028	36303	36028
papers	citations	51 h-index	97 g-index

155	155	155	2662
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Chapter 4: Power and particle control. Nuclear Fusion, 2007, 47, S203-S263.	3.5	891
2	A new look at density limits in tokamaks. Nuclear Fusion, 1988, 28, 2199-2207.	3.5	679
3	Scaling of the tokamak near the scrape-off layer H-mode power width and implications for ITER. Nuclear Fusion, 2013, 53, 093031.	3.5	448
4	First results from Alcatorâ€Câ€MOD*. Physics of Plasmas, 1994, 1, 1511-1518.	1.9	359
5	Marfe: an edge plasma phenomenon. Nuclear Fusion, 1984, 24, 977-988.	3.5	284
6	Edge turbulence measurements in toroidal fusion devices. Plasma Physics and Controlled Fusion, 2007, 49, S1-S23.	2.1	283
7	Energy Confinement of High-Density Pellet-Fueled Plasmas in the AlcatorCTokamak. Physical Review Letters, 1984, 53, 352-355.	7.8	252
8	I-mode: an H-mode energy confinement regime with L-mode particle transport in Alcator C-Mod. Nuclear Fusion, 2010, 50, 105005.	3.5	246
9	Edge turbulence imaging in the Alcator C-Mod tokamak. Physics of Plasmas, 2002, 9, 1981-1989.	1.9	238
10	Particle transport in the scrape-off layer and its relationship to discharge density limit in Alcator C-Mod. Physics of Plasmas, 2001, 8, 2107-2117.	1.9	220
11	Observations of the turbulence in the scrape-off-layer of Alcator C-Mod and comparisons with simulation. Physics of Plasmas, 2003, 10, 1739-1747.	1.9	203
12	H mode confinement in Alcator C-Mod. Nuclear Fusion, 1997, 37, 793-807.	3.5	189
13	Enhancement of Tokamak Fusion Test Reactor performance by lithium conditioning. Physics of Plasmas, 1996, 3, 1892-1897.	1.9	181
14	Characterization of enhanced DÎ± high-confinement modes in Alcator C-Mod. Physics of Plasmas, 1999, 6, 1943-1949.	1.9	178
15	Cross-field plasma transport and main-chamber recycling in diverted plasmas on Alcator C-Mod. Nuclear Fusion, 2000, 40, 2041-2060.	3.5	163
16	Plasmaâ€“surface interaction, scrape-off layer and divertor physics: implications for ITER. Nuclear Fusion, 2007, 47, 1189-1205.	3.5	156
17	Volume recombination and opacity in Alcator C-Mod divertor plasmas. Physics of Plasmas, 1998, 5, 1759-1766.	1.9	151
18	Gyrokinetic projection of the divertor heat-flux width from present tokamaks to ITER. Nuclear Fusion, 2017, 57, 116023.	3.5	125

#	Article	IF	Citations
19	Radially propagating fluctuation structures in the scrape-off layer of Alcator C-Mod. Physics of Plasmas, 2006, 13, 012306.	1.9	124
20	Evidence for electromagnetic fluid drift turbulence controlling the edge plasma state in the Alcator C-Mod tokamak. Nuclear Fusion, 2005, 45, 1658-1675.	3.5	121
21	Radiative and three-body recombination in the Alcator C-Mod divertor. Physics of Plasmas, 1997, 4, 2555-2566.	1.9	116
22	Experimental investigation of transport phenomena in the scrape-off layer and divertor. Journal of Nuclear Materials, 1997, 241-243, 149-166.	2.7	114
23	Analysis of a multi-machine database on divertor heat fluxes. Physics of Plasmas, 2012, 19, .	1.9	109
24	Gas puff imaging of edge turbulence (invited). Review of Scientific Instruments, 2003, 74, 2020-2026.	1.3	108
25	Comments on particle and energy balance in the edge plasma of Alcator C-Mod. Physics of Plasmas, 1998, 5, 3373-3376.	1.9	107
26	Divertor Physics Research on Alcator C-Mod. Fusion Science and Technology, 2007, 51, 369-389.	1.1	92
27	20 years of research on the Alcator C-Mod tokamak. Physics of Plasmas, 2014, 21, .	1.9	88
28	Edge energy transport barrier and turbulence in the I-mode regime on Alcator C-Mod. Physics of Plasmas, 2011, 18, .	1.9	87
29	Pedestal profiles and fluctuations in C-Mod enhanced D-alpha H-modes. Physics of Plasmas, 2001, 8, 2033-2040.	1.9	85
30	High confinement/high radiated power H-mode experiments in Alcator C-Mod and consequences for International Thermonuclear Experimental Reactor (ITER) QDTâ€‰=â€‰10 operation. Physics of Plasmas, 2011, 18, .	1.9	84
31	ADX: a high field, high power density, advanced divertor and RF tokamak. Nuclear Fusion, 2015, 55, 053020.	3.5	82
32	Transport phenomena in the edge of Alcator C-Mod plasmas. Nuclear Fusion, 2005, 45, 1321-1327.	3.5	79
33	Fluctuating zonal flows in the I-mode regime in Alcator C-Mod. Physics of Plasmas, 2013, 20, .	1.9	79
34	Effect of N2, Ne and Ar seeding on Alcator C-Mod H-mode confinement. Journal of Nuclear Materials, 2011, 415, S340-S344.	2.7	73
35	Invited Review Article: Gas puff imaging diagnostics of edge plasma turbulence in magnetic fusion devices. Review of Scientific Instruments, 2017, 88, 041101.	1.3	73
36	Studies of EDA H-mode in Alcator C-Mod. Plasma Physics and Controlled Fusion, 2000, 42, A263-A269.	2.1	72

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37	Wave-Particle Studies in the Ion Cyclotron and Lower Hybrid Ranges of Frequencies in Alcator C-Mod. Fusion Science and Technology, 2007, 51, 401-436.	1.1	72
38	Visible imaging of turbulence in the SOL of the Alcator C-Mod tokamak. Journal of Nuclear Materials, 2001, 290-293, 757-762.	2.7	71
39	Scaling of the power exhaust channel in Alcator C-Mod. Physics of Plasmas, 2011, 18, 056104.	1.9	69
40	Critical gradients and plasma flows in the edge plasma of Alcator C-Mod. Physics of Plasmas, 2008, 15, .	1.9	67
41	Structure and motion of edge turbulence in the National Spherical Torus Experiment and Alcator C-Mod. Physics of Plasmas, 2006, 13, 056114.	1.9	63
42	The effects of field reversal on the Alcator C-Mod divertor. Plasma Physics and Controlled Fusion, 1995, 37, 1389-1406.	2.1	62
43	High resolution bolometry on the Alcator C-Mod tokamak (invited). Review of Scientific Instruments, 1999, 70, 260-264.	1.3	62
44	Diagnostic Systems on Alcator C-Mod. Fusion Science and Technology, 2007, 51, 476-507.	1.1	62
45	New insights on boundary plasma turbulence and the quasi-coherent mode in Alcator C-Mod using a Mirror Langmuir Probe. Physics of Plasmas, 2014, 21, .	1.9	61
46	Characterization and performance of a field aligned ion cyclotron range of frequency antenna in Alcator C-Mod. Physics of Plasmas, 2013, 20, .	1.9	57
47	Neutral transport simulations of gas puff imaging experiments. Journal of Nuclear Materials, 2003, 313-316, 1066-1070.	2.7	56
48	Experimental studies of edge turbulence and confinement in Alcator C-Mod. Physics of Plasmas, 2010, 17, .	1.9	56
49	Intermittent fluctuations in the Alcator C-Mod scrape-off layer. Physics of Plasmas, 2013, 20, 055901.	1.9	54
50	Impact of a narrow limiter SOL heat flux channel on the ITER first wall panel shaping. Nuclear Fusion, 2015, 55, 033019.	3.5	54
51	Vacuum ultraviolet impurity spectroscopy on the Alcator C-Mod tokamak. Review of Scientific Instruments, 2010, 81, 10D736.	1.3	52
52	Zonal flow production in the Lâ€“H transition in Alcator C-Mod. Plasma Physics and Controlled Fusion, 2014, 56, 075013.	2.1	49
53	Edge profile stiffness and insensitivity of the density pedestal to neutral fuelling in Alcator C-Mod edge transport barriers. Nuclear Fusion, 2007, 47, 1057-1063.	3.5	48
54	Comparison of scrape-off layer turbulence in Alcator C-Mod with three dimensional gyrofluid computations. Physics of Plasmas, 2009, 16, .	1.9	48

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55	OSM-EIRENE modeling of neutral pressures in the Alcator C-Mod divertor. Journal of Nuclear Materials, 2005, 337-339, 139-145.	2.7	46
56	Comparison of detached and radiative divertor operation in Alcator Câ€Mod. Physics of Plasmas, 1996, 3, 1908-1915.	1.9	45
57	High confinement dissipative divertor operation on Alcator C-Mod. Physics of Plasmas, 1999, 6, 1899-1906.	1.9	44
58	The role of particle sinks and sources in Alcator C-Mod detached divertor discharges. Physics of Plasmas, 1999, 6, 1907-1916.	1.9	42
59	Ion-cyclotron range of frequencies in the scrape-off-layer: fine structure radial electric fields. Plasma Physics and Controlled Fusion, 2012, 54, 105019.	2.1	42
60	Ion cyclotron range of frequencies stabilization of sawteeth on Tokamak Fusion Test Reactor. Physics of Fluids B, 1992, 4, 2155-2164.	1.7	41
61	Pedestal structure and stability in H-mode and I-mode: a comparative study on Alcator C-Mod. Nuclear Fusion, 2013, 53, 043016.	3.5	41
62	High-resolution heat flux width measurements at reactor-level magnetic fields and observation of a unified width scaling across confinement regimes in the Alcator C-Mod tokamak. Nuclear Fusion, 2018, 58, 094002.	3.5	41
63	Confinement and Transport Research in Alcator C-Mod. Fusion Science and Technology, 2007, 51, 266-287.	1.1	40
64	The dynamics and structure of edge-localized-modes in Alcator C-Mod. Journal of Nuclear Materials, 2007, 363-365, 994-999.	2.7	40
65	Power requirements for superior H-mode confinement on Alcator C-Mod: experiments in support of ITER. Nuclear Fusion, 2011, 51, 083007.	3.5	40
66	ICRF-enhanced plasma potentials in the SOL of Alcator C-Mod. Plasma Physics and Controlled Fusion, 2014, 56, 015004.	2.1	40
67	Divertor heat flux challenge and mitigation in SPARC. Journal of Plasma Physics, 2020, 86, .	2.1	40
68	Electron temperature fluctuations associated with the weakly coherent mode in the edge of I-mode plasmas. Nuclear Fusion, 2011, 51, 113005.	3.5	39
69	Experimental investigation of the parallel structure of fluctuations in the scrape-off layer of Alcator C-Mod. Nuclear Fusion, 2014, 54, 043012.	3.5	39
70	Velocity fields of edge/Scrape-Off-Layer turbulence in Alcator C-Mod. Journal of Nuclear Materials, 2005, 337-339, 322-326.	2.7	38
71	Spatial structure of scrape-off-layer filaments near the midplane and X-point regions of Alcator-C-Mod. Journal of Nuclear Materials, 2009, 390-391, 339-342.	2.7	38
72	Divertor IR thermography on Alcator C-Mod. Review of Scientific Instruments, 2010, 81, 10E513.	1.3	37

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73	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
74	H-Mode Pedestal and L-H Transition Studies on Alcator C-Mod. Fusion Science and Technology, 2007, 51, 317-341.	1.1	36
75	Physics and performance of the I-mode regime over an expanded operating space on Alcator C-Mod. Nuclear Fusion, 2017, 57, 126039.	3.5	36
76	Modeling of particle and energy transport in the edge plasma of Alcator C-Mod. Physics of Plasmas, 1999, 6, 2791-2796.	1.9	35
77	Edge-localized mode avoidance and pedestal structure in I-mode plasmas. Physics of Plasmas, 2014, 21, 056103.	1.9	35
78	Core impurity transport in Alcator C-Mod L-, I- and H-mode plasmas. Nuclear Fusion, 2015, 55, 033014.	3.5	35
79	Impurity compression and enrichment studies on Alcator C-Mod. Journal of Nuclear Materials, 1999, 266-269, 354-359.	2.7	34
80	Edge sheared flows and the dynamics of blob-filaments. Nuclear Fusion, 2013, 53, 073013.	3.5	34
81	Lower hybrid current drive at high density in the multi-pass regime. Physics of Plasmas, 2012, 19, 062505.	1.9	31
82	The effects of dilution on turbulence and transport in C-Mod ohmic plasmas and comparisons with gyrokinetic simulations. Physics of Plasmas, 2015, 22, 072507.	1.9	31
83	Overview of the Alcator C-Mod Research Program. Nuclear Fusion, 2009, 49, 104014.	3.5	29
84	Blob sizes and velocities in the Alcator C-Mod scrape-off layer. Journal of Nuclear Materials, 2013, 438, S505-S508.	2.7	29
85	Burst statistics in Alcator C-Mod SOL turbulence. Journal of Nuclear Materials, 2013, 438, S180-S183.	2.7	29
86	Fluctuation statistics in the scrape-off layer of Alcator C-Mod. Plasma Physics and Controlled Fusion, 2016, 58, 054001.	2.1	29
87	Turbulence Nonlinearities Shed Light on Geometric Asymmetry in Tokamak Confinement Transitions. Physical Review Letters, 2017, 118, 105003.	7.8	29
88	Overview of the Alcator C-Mod program. Nuclear Fusion, 2005, 45, S109-S117.	3.5	28
89	Power balance and scaling of the radiated power in the divertor and main plasma of Alcator C-Mod. Journal of Nuclear Materials, 1995, 220-222, 971-975.	2.7	27
90	Edge turbulence and divertor heat flux width simulations of Alcator C-Mod discharges using an electromagnetic two-fluid model. Nuclear Fusion, 2017, 57, 116025.	3.5	27

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91	Edge turbulence in different density regimes in Alcator C-Mod experiment. Nuclear Fusion, 2011, 51, 053020.	3.5	25
92	Alpha particle diagnostics using impurity pellet injection (invited). Review of Scientific Instruments, 1992, 63, 4499-4504.	1.3	24
93	Intermittent electron density and temperature fluctuations and associated fluxes in the Alcator C-Mod scrape-off layer. Plasma Physics and Controlled Fusion, 2018, 60, 065002.	2.1	22
94	Nonlinear transfer in heated L-modes approaching the Lâ€“H transition threshold in Alcator C-Mod. Nuclear Fusion, 2015, 55, 083007.	3.5	21
95	Comparison of 3D flux-driven scrape-off layer turbulence simulations with gas-puff imaging of Alcator C-Mod inner-wall limited discharges. Plasma Physics and Controlled Fusion, 2015, 57, 054005.	2.1	20
96	Comparison of edge turbulence imaging at two different poloidal locations in the scrape-off layer of Alcator C-Mod. Physics of Plasmas, 2013, 20, .	1.9	19
97	Relationship between frequency power spectra and intermittent, large-amplitude bursts in the Alcator C-Mod scrape-off layer. Nuclear Fusion, 2017, 57, 114004.	3.5	18
98	Radial localization of edge modes in Alcator C-Mod pedestals using optical diagnostics. Plasma Physics and Controlled Fusion, 2017, 59, 025016.	2.1	18
99	Application of magnetically-broadened hydrogenic line profiles to computational modeling of a plasma experiment. Journal of Quantitative Spectroscopy and Radiative Transfer, 2001, 71, 117-128.	2.3	17
100	Progress towards modeling tokamak boundary plasma turbulence and understanding its role in setting divertor heat flux widths. Physics of Plasmas, 2018, 25, 055905.	1.9	17
101	The dependence of divertor power sharing on magnetic flux balance in near double-null configurations on Alcator C-Mod. Nuclear Fusion, 2018, 58, 076010.	3.5	17
102	Attainment of a stable, fully detached plasma state in innovative divertor configurations. Physics of Plasmas, 2017, 24, .	1.9	16
103	Surface heat flux feedback controlled impurity seeding experiments with Alcator C-Modâ€™s high-Zvertical target plate divertor: performance, limitations and implications for fusion power reactors. Nuclear Fusion, 2017, 57, 086030.	3.5	16
104	Intermittent fluctuations in the Alcator C-Mod scrape-off layer for ohmic and high confinement mode plasmas. Physics of Plasmas, 2018, 25, 056103.	1.9	16
105	Imaging of lithium pellet ablation trails and measurement of q profiles in TFTR. Review of Scientific Instruments, 1992, 63, 5191-5194.	1.3	15
106	A novel tracer-gas injection system for scrape-off layer impurity transport and screening experiments. Journal of Nuclear Materials, 1999, 266-269, 571-576.	2.7	15
107	Comparison of heat flux measurements by IR thermography and probes in the Alcator C-Mod divertor. Journal of Nuclear Materials, 2011, 415, S375-S378.	2.7	15
108	Performance assessment of long-legged tightly-baffled divertor geometries in the ARC reactor concept. Nuclear Fusion, 2019, 59, 106052.	3.5	15

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109	Observations of cold, high density plasma in the private flux region of the Alcator C-Mod divertor. Journal of Nuclear Materials, 2001, 290-293, 556-560.	2.7	14
110	Divertor heat flux footprints in EDA H-mode discharges on Alcator C-Mod. Journal of Nuclear Materials, 2011, 415, S349-S352.	2.7	14
111	Alcator C-Mod: research in support of ITER and steps beyond. Nuclear Fusion, 2015, 55, 104020.	3.5	14
112	Lower hybrid wave edge power loss quantification on the Alcator C-Mod tokamak. Physics of Plasmas, 2016, 23, 056115.	1.9	14
113	Fast imaging of filaments in the X-point region of Alcator C-Mod. Nuclear Materials and Energy, 2017, 12, 989-993.	1.3	14
114	Assessment of X-point target divertor configuration for power handling and detachment front control. Nuclear Materials and Energy, 2017, 12, 918-923.	1.3	14
115	Radiative heat exhaust in Alcator C-Mod I-mode plasmas. Nuclear Fusion, 2019, 59, 046018.	3.5	14
116	Simulations of divertor heat flux width using transport code with cross-field drifts under the BOUT++ framework. AIP Advances, 2020, 10, .	1.3	14
117	Characterization of core and edge turbulence in L- and enhanced DÎ± H-mode Alcator C-Mod plasmas. Physics of Plasmas, 2005, 12, 052512.	1.9	13
118	Heat-flux footprints for I-mode and EDA H-mode plasmas on Alcator C-Mod. Journal of Nuclear Materials, 2013, 438, S212-S215.	2.7	13
119	Overview of experimental results and code validation activities at Alcator C-Mod. Nuclear Fusion, 2013, 53, 104004.	3.5	13
120	Comparison of velocimetry techniques for turbulent structures in gas-puff imaging data. Review of Scientific Instruments, 2016, 87, 023502.	1.3	13
121	Investigation of RF-enhanced plasma potentials on Alcator C-Mod. Journal of Nuclear Materials, 2013, 438, S875-S878.	2.7	12
122	Three-dimensional simulation of H-mode plasmas with localized divertor impurity injection on	1.9	12
123	Impurity screening behavior of the high-field side scrape-off layer in near-double-null configurations: prospect for mitigating plasmaâ€“material interactions on RF actuators and first-wall components. Nuclear Fusion, 2017, 57, 076021.	3.5	12
124	Universality of Poisson-driven plasma fluctuations in the Alcator C-Mod scrape-off layer. Physics of Plasmas, 2018, 25, 122309.	1.9	12
125	Characterization of SOL plasma flows and potentials in ICRF-heated plasmas in Alcator C-mod. Plasma Physics and Controlled Fusion, 2017, 59, 105008.	2.1	11
126	Statistical properties of the plasma fluctuations and turbulent cross-field fluxes in the outboard mid-plane scrape-off layer of Alcator C-Mod. Nuclear Materials and Energy, 2019, 18, 193-200.	1.3	11

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127	Comparison between mirror Langmuir probe and gas-puff imaging measurements of intermittent fluctuations in the Alcator C-Mod scrape-off layer. Journal of Plasma Physics, 2020, 86, .	2.1	11
128	Lithium pellet deposition and penetration in TFTR. Review of Scientific Instruments, 1992, 63, 4984-4986.	1.3	10
129	Search for zonal flows in the edge turbulence of Alcator C-Mod. Plasma Physics and Controlled Fusion, 2012, 54, 025008.	2.1	10
130	Numerical investigation of edge plasma phenomena in an enhanced D-alpha discharge at Alcator C-Mod: Parallel heat flux and quasi-coherent edge oscillations. Physics of Plasmas, 2012, 19, .	1.9	10
131	Study of passively stable, fully detached divertor plasma regimes attained in innovative long-legged divertor configurations. Nuclear Fusion, 2020, 60, 016004.	3.5	10
132	External excitation of a short-wavelength fluctuation in the Alcator C-Mod edge plasma and its relationship to the quasi-coherent mode. Physics of Plasmas, 2014, 21, 056111.	1.9	9
133	Kinetic modeling of divertor heat load fluxes in the Alcator C-Mod and DIII-D tokamaks. Physics of Plasmas, 2015, 22, .	1.9	9
134	Chaotic edge density fluctuations in the Alcator C-Mod tokamak. Physics of Plasmas, 2017, 24, .	1.9	9
135	Mean flows and blob velocities in scrape-off layer (SOLT) simulations of an L-mode discharge on Alcator C-Mod. Physics of Plasmas, 2016, 23, 062305.	1.9	8
136	Fast camera imaging of plasmas in Alcator C-Mod and W7-X. Nuclear Materials and Energy, 2018, 17, 269-273.	1.3	8
137	Improved confinement in high-density H-modes via modification of the plasma boundary with lower	1.9	7
138	Expanding the role of impurity spectroscopy for investigating the physics of high-Z dissipative divertors. Nuclear Materials and Energy, 2017, 12, 91-99.	1.3	7
139	Outer midplane scrape-off layer profiles and turbulence in simulations of Alcator C-Mod inner-wall limited discharges. Physics of Plasmas, 2017, 24, 072502.	1.9	7
140	Shadowing effects in simulated Alcator C-Mod gas puff imaging data. Nuclear Materials and Energy, 2019, 19, 113-119.	1.3	7
141	I-mode pedestal relaxation events in the Alcator C-Mod and ASDEX Upgrade tokamaks. Nuclear Fusion, 2022, 62, 036004.	3.5	7
142	Simulation of the SPARC plasma boundary with the UEDGE code. Nuclear Fusion, 2021, 61, 086014.	3.5	6
143	UEDGE modelling of detached divertor operation for longâ€leg divertor geometries in ARC. Contributions To Plasma Physics, 2018, 58, 791-797.	1.1	5
144	Experimental tests of an infrared video bolometer on Alcator C-Mod. Review of Scientific Instruments, 2018, 89, 103507.	1.3	5

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145	Dynamics and dependencies of the configuration-dependent 1â€“2ÂkHz fluctuation in W7-X. Nuclear Materials and Energy, 2021, 27, 100967.	1.3	4
146	Deep modeling of plasma and neutral fluctuations from gas puff turbulence imaging. Review of Scientific Instruments, 2022, 93, 063504.	1.3	4
147	Diagnostic tools for studying divertor detachment: bolometry, spectroscopy, and thermography for surface heat-flux. Plasma Physics and Controlled Fusion, 2017, 59, 044004.	2.1	3
148	Impact of perturbative, non-axisymmetric impurity fueling on Alcator C-Mod H-modes. Plasma Physics and Controlled Fusion, 2017, 59, 122002.	2.1	3
149	Edge transport and mode structure of a QCM-like fluctuation driven by the Shoelace antenna. Nuclear Fusion, 2018, 58, 056018.	3.5	2
150	Zeff behavior following Li and C pellet injection into TFTR. Review of Scientific Instruments, 1990, 61, 3087-3089.	1.3	1
151	10.1063/5.0002876.1. , 2020, , .		0
152	Dependence of the boundary heat flux width on core and edge profiles in Alcator C-Mod. Nuclear Fusion, 0, , .	3.5	0