

J M Canik

List of Publications by Year in descending order

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80
papers

2,499
citations

172457

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214800

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82
all docs

82
docs citations

82
times ranked

1677
citing authors

#	ARTICLE	IF	CITATIONS
1	Quantification of the effect of uncertainty on impurity migration in PISCES-A simulated with GTR. Nuclear Fusion, 2022, 62, 056007.	3.5	2
2	Integrated model predictions on the impact of substrate damage on gas dynamics during ITER burning-plasma operations. Nuclear Fusion, 2021, 61, 116051.	3.5	5
3	A Domestic Program for Liquid Metal PFC Research in Fusion. Journal of Fusion Energy, 2020, 39, 441-447.	1.2	9
4	Advancing Fusion with Machine Learning Research Needs Workshop Report. Journal of Fusion Energy, 2020, 39, 123-155.	1.2	17
5	Multi-physics modeling of the long-term evolution of helium plasma exposed surfaces. Physica Scripta, 2020, T171, 014041.	2.5	13
6	Surface Erosion of Plasma-Facing Materials Using an Electrothermal Plasma Source and Ion Beam Micro-Trenches. Fusion Science and Technology, 2019, 75, 621-635.	1.1	5
7	Optimization of pumping performance in the EAST upgraded divertor. Plasma Physics and Controlled Fusion, 2019, 61, 065001.	2.1	5
8	NSTX/NSTX-U theory, modeling and analysis results. Nuclear Fusion, 2019, 59, 112007.	3.5	20
9	Radiative heat exhaust in Alcator C-Mod I-mode plasmas. Nuclear Fusion, 2019, 59, 046018.	3.5	14
10	Real time wall conditioning with lithium powder injection in long pulse H-mode plasmas in EAST with tungsten divertor. Nuclear Materials and Energy, 2019, 19, 124-130.	1.3	25
11	Stellarator Research Opportunities: A Report of the National Stellarator Coordinating Committee. Journal of Fusion Energy, 2018, 37, 51-94.	1.2	15
12	Active Recycling Control Through Lithium Injection in EAST. IEEE Transactions on Plasma Science, 2018, 46, 1081-1085.	1.3	11
13	Injected mass deposition thresholds for lithium granule instigated triggering of edge localized modes on EAST. Nuclear Fusion, 2018, 58, 036007.	3.5	20
14	First Results of ELM Triggering With a Multichamber Lithium Granule Injector Into EAST Discharges. IEEE Transactions on Plasma Science, 2018, 46, 1076-1080.	1.3	11
15	ELM frequency enhancement and discharge modification through lithium granule injection into EAST H-modes. Nuclear Fusion, 2018, 58, 126021.	3.5	8
16	SOL effects on the pedestal structure in DIII-D discharges. Nuclear Fusion, 2017, 57, 076025.	3.5	19
17	Overview of NSTX Upgrade initial results and modelling highlights. Nuclear Fusion, 2017, 57, 102006.	3.5	45
18	Linear gyrokinetic simulations of microinstabilities within the pedestal region of H-mode NSTX discharges in a highly shaped geometry. Physics of Plasmas, 2016, 23, 062520.	1.9	12

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19	Particle-in-cell gyrokinetic simulations of the microtearing mode. <i>Physics of Plasmas</i> , 2016, 23, .	1.9	19
20	Investigation of island formation due to RMPs in DIII-D plasmas with the SIESTA resistive MHD equilibrium code. <i>Journal of Plasma Physics</i> , 2016, 82, .	2.1	2
21	Taming the Heat Flux Problem: Advanced Divertors Towards Fusion Power. <i>Journal of Fusion Energy</i> , 2016, 35, 27-30.	1.2	2
22	Evidence of Toroidally Localized Turbulence with Applied 3D Fields in the DIII-D Tokamak. <i>Physical Review Letters</i> , 2016, 117, 135001.	7.8	21
23	Fusion nuclear science facilities and pilot plants based on the spherical tokamak. <i>Nuclear Fusion</i> , 2016, 56, 106023.	3.5	119
24	Dependence of recycling and edge profiles on lithium evaporation in high triangularity, high performance NSTX H-mode discharges. <i>Journal of Nuclear Materials</i> , 2015, 463, 1134-1137.	2.7	17
25	Modeling the effect of lithium-induced pedestal profiles on scrape-off-layer turbulence and the heat flux width. <i>Physics of Plasmas</i> , 2015, 22, 092311.	1.9	16
26	Transport simulations of linear plasma generators with the B2.5-Eirene and EMC3-Eirene codes. <i>Journal of Nuclear Materials</i> , 2015, 463, 510-514.	2.7	40
27	Alcator C-Mod: research in support of ITER and steps beyond. <i>Nuclear Fusion</i> , 2015, 55, 104020.	3.5	14
28	Modeling of detachment experiments at DIII-D. <i>Journal of Nuclear Materials</i> , 2015, 463, 569-572.	2.7	29
29	Correlations between quasi-coherent fluctuations and the pedestal evolution during the inter-edge	1.9	69
30	Quasi-coherent fluctuations limiting the pedestal growth on Alcator C-Mod: experiment and modelling. <i>Nuclear Fusion</i> , 2015, 55, 053003.	3.5	35
31	An overview of recent physics results from NSTX. <i>Nuclear Fusion</i> , 2015, 55, 104002.	3.5	21
32	Connection between plasma response and resonant magnetic perturbation (RMP) edge localized mode (ELM) suppression in DIII-D. <i>Plasma Physics and Controlled Fusion</i> , 2015, 57, 104006.	2.1	23
33	Characterization of divertor footprints and the pedestal plasmas in the presence of applied $n=3$ fields for the attached and detached conditions in NSTX. <i>Plasma Physics and Controlled Fusion</i> , 2014, 56, 015005.	2.1	9
34	Observation of Edge Instability Limiting the Pedestal Growth in Tokamak Plasmas. <i>Physical Review Letters</i> , 2014, 112, 115001.	7.8	78
35	Edge transport studies in the edge and scrape-off layer of the National Spherical Torus Experiment with Langmuir probes. <i>Physics of Plasmas</i> , 2014, 21, .	1.9	44
36	A Fusion Nuclear Science Facility for a fast-track path to DEMO. <i>Fusion Engineering and Design</i> , 2014, 89, 876-881.	1.9	43

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37	Three-dimensional distortions of the tokamak plasma boundary: boundary displacements in the presence of resonant magnetic perturbations. Nuclear Fusion, 2014, 54, 083006.	3.5	27
38	Feasibility of Power and Particle Handling in an ST-FNSF and the Effects of Divertor Geometry. IEEE Transactions on Plasma Science, 2014, 42, 573-579.	1.3	7
39	Overview of physics results from MAST towards ITER/DEMO and the MAST Upgrade. Nuclear Fusion, 2013, 53, 104008.	3.5	21
40	Edge microstability of NSTX plasmas without and with lithium-coated plasma-facing components. Nuclear Fusion, 2013, 53, 113016.	3.5	52
41	Overview of physics results from the conclusive operation of the National Spherical Torus Experiment. Nuclear Fusion, 2013, 53, 104007.	3.5	53
42	Design and analysis of the W7-X divertor scraper element. Fusion Engineering and Design, 2013, 88, 1773-1777.	1.9	68
43	MAST-upgrade divertor facility and assessing performance of long-legged divertors. Journal of Nuclear Materials, 2013, 438, S356-S359.	2.7	47
44	Particle control and plasma performance in the Lithium Tokamak eXperiment. Physics of Plasmas, 2013, 20, .	1.9	23
45	Effect of changes in separatrix magnetic geometry on divertor behaviour in DIII-D. Nuclear Fusion, 2013, 53, 113024.	3.5	34
46	Recent progress in the NSTX/NSTX-U lithium programme and prospects for reactor-relevant liquid-lithium based divertor development. Nuclear Fusion, 2013, 53, 113030.	3.5	32
47	Progress in characterization of the pedestal stability and turbulence during the edge-localized-mode cycle on National Spherical Torus Experiment. Nuclear Fusion, 2013, 53, 093026.	3.5	28
48	Power and particle exhaust in an ST-FNSF. , 2013, , .		2
49	Overview of the physics and engineering design of NSTX upgrade. Nuclear Fusion, 2012, 52, 083015.	3.5	177
50	Recent progress of NSTX lithium program and opportunities for magnetic fusion research. Fusion Engineering and Design, 2012, 87, 1770-1776.	1.9	11
51	Pedestal Structure Model. Physical Review Letters, 2012, 108, 245003.	7.8	10
52	Overview of physics results from NSTX. Nuclear Fusion, 2011, 51, 094011.	3.5	10
53	Soft X-Ray Imaging Design and Analysis Methods on DIII-D. Plasma and Fusion Research, 2011, 6, 2402041-2402041.	0.7	2
54	Measurements and 2-D modeling of recycling and edge transport in discharges with lithium-coated PFCs in NSTX. Journal of Nuclear Materials, 2011, 415, S409-S412.	2.7	41

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55	Predicting High Harmonic Ion Cyclotron Heating Efficiency in Tokamak Plasmas. Physical Review Letters, 2011, 107, 145001.	7.8	28
56	Continuous Improvement of H-Mode Discharge Performance with Progressively Increasing Lithium Coatings in the National Spherical Torus Experiment. Physical Review Letters, 2011, 107, 145004.	7.8	77
57	Simulation of High-Harmonic Fast-Wave Heating on the National Spherical Tokamak Experiment. IEEE Transactions on Plasma Science, 2011, 39, 3020-3021.	1.3	0
58	Pedestal characterization and stability of small-ELM regimes in NSTX. Nuclear Fusion, 2011, 51, 103022.	3.5	17
59	A fusion development facility on the critical path to fusion energy. Nuclear Fusion, 2011, 51, 083019.	3.5	28
60	Edge transport and turbulence reduction with lithium coated plasma facing components in the National Spherical Torus Experiment. Physics of Plasmas, 2011, 18, .	1.9	59
61	Effect of nonaxisymmetric magnetic perturbations on divertor heat and particle flux profiles in National Spherical Torus Experiment. Physics of Plasmas, 2011, 18, .	1.9	19
62	Implications of NSTX lithium results for magnetic fusion research. Fusion Engineering and Design, 2010, 85, 882-889.	1.9	17
63	The relation between upstream density and temperature widths in the scrape-off layer and the power width in an attached divertor. Nuclear Fusion, 2010, 50, 125003.	3.5	43
64	The super X divertor (SXD) and a compact fusion neutron source (CFNS). Nuclear Fusion, 2010, 50, 035003.	3.5	42
65	On Demand Triggering of Edge Localized Instabilities Using External Nonaxisymmetric Magnetic Perturbations in Toroidal Plasmas. Physical Review Letters, 2010, 104, 045001.	7.8	66
66	Triggered Confinement Enhancement and Pedestal Expansion in High-Confinement-Mode Discharges in the National Spherical Torus Experiment. Physical Review Letters, 2010, 105, 135004.	7.8	41
67	Edge turbulence measurements in electron-heated Helically Symmetric Experiment plasmas. Physics of Plasmas, 2009, 16, 082508.	1.9	4
68	Super-X divertors and high power density fusion devices. Physics of Plasmas, 2009, 16, .	1.9	192
69	Fluid modeling of an ELMing H-mode and a RMP H-mode. Journal of Nuclear Materials, 2009, 390-391, 299-302.	2.7	9
70	Overview of results from the National Spherical Torus Experiment (NSTX). Nuclear Fusion, 2009, 49, 104016.	3.5	41
71	Plasma response to lithium-coated plasma-facing components in the National Spherical Torus Experiment. Plasma Physics and Controlled Fusion, 2009, 51, 124054.	2.1	99
72	Effect of Quasihelical Symmetry on Trapped-Electron Mode Transport in the HSX Stellarator. Physical Review Letters, 2008, 101, 215002.	7.8	20

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73	Reduced particle and heat transport with quasisymmetry in the Helically Symmetric Experiment. Physics of Plasmas, 2007, 14, 056107.	1.9	31
74	Experimental Demonstration of Improved Neoclassical Transport with Quasihelical Symmetry. Physical Review Letters, 2007, 98, 085002.	7.8	74
75	Overview of Recent Results from HSX. Fusion Science and Technology, 2006, 50, 171-176.	1.1	13
76	Experimental Evidence of Reduced Plasma Flow Damping with Quasisymmetry. Physical Review Letters, 2005, 94, 015002.	7.8	31
77	Measurements and modeling of plasma flow damping in the Helically Symmetric eXperiment. Physics of Plasmas, 2005, 12, 056116.	1.9	23
78	H \pm detector system for the Helically Symmetric Experiment. Review of Scientific Instruments, 2004, 75, 2981-2984.	1.3	7
79	Comparison of electron cyclotron heating results in the helically symmetric experiment with and without quasi-symmetry. Plasma Physics and Controlled Fusion, 2003, 45, A133-A142.	2.1	11
80	Anderson localization of ballooning modes, quantum chaos and the stability of compact quasiaxially symmetric stellarators. Physics of Plasmas, 2002, 9, 1990-1996.	1.9	5