Chase N Taylor

List of Publications by Year
in descending order

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Version: 2024-02-01

58	855	471061 17	525886 27
papers	citations	h-index	g-index

58	58	58	715
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	NSTX plasma operation with a Liquid Lithium Divertor. Fusion Engineering and Design, 2012, 87, 1724-1731.	1.0	72
2	Overview of physics results from the conclusive operation of the National Spherical Torus Experiment. Nuclear Fusion, 2013, 53, 104007.	1.6	53
3	Deuterium Uptake in Magnetic-Fusion Devices with Lithium-Conditioned Carbon Walls. Physical Review Letters, 2013, 110, 105001.	2.9	45
4	Overview of results from the National Spherical Torus Experiment (NSTX). Nuclear Fusion, 2009, 49, 104016.	1.6	41
5	Chemical response of lithiated graphite with deuterium irradiation. Journal of Applied Physics, 2011, 109, 053306.	1.1	35
6	Softening due to Grain Boundary Cavity Formation and its Competition with Hardening in Helium Implanted Nanocrystalline Tungsten. Scientific Reports, 2018, 8, 2897.	1.6	35
7	Materials analysis and particle probe: A compact diagnostic system for in situ analysis of plasma-facing components (invited). Review of Scientific Instruments, 2012, 83, 10D703.	0.6	33
8	NSTX plasma response to lithium coated divertor. Journal of Nuclear Materials, 2011, 415, S400-S404.	1.3	32
9	Recent progress in the NSTX/NSTX-U lithium programme and prospects for reactor-relevant liquid-lithium based divertor development. Nuclear Fusion, 2013, 53, 113030.	1.6	32
10	Lithium-based surfaces controlling fusion plasma behavior at the plasma-material interface. Physics of Plasmas, 2012, 19, .	0.7	29
11	Thermal desorption spectroscopy of high fluence irradiated ultrafine and nanocrystalline tungsten: helium trapping and desorption correlated with morphology. Nuclear Fusion, 2018, 58, 016020.	1.6	25
12	Deuterium retention in neutron-irradiated single-crystal tungsten. Fusion Engineering and Design, 2018, 136, 1161-1167.	1.0	24
13	Surface chemistry and physics of deuterium retention in lithiated graphite. Journal of Nuclear Materials, 2011, 415, S777-S780.	1.3	23
14	Sputtering of lunar regolith simulant by protons and singly and multicharged Ar ions at solar wind energies. Nuclear Instruments & Methods in Physics Research B, 2011, 269, 1316-1320.	0.6	21
15	An overview of recent physics results from NSTX. Nuclear Fusion, 2015, 55, 104002.	1.6	21
16	Dynamics of deuterium retention and sputtering of Liâ€“Câ€“O surfaces. Fusion Engineering and Design, 2012, 87, 1732-1736.	1.0	20
17	Deuterium retention in NSTX with lithium conditioning. Journal of Nuclear Materials, 2011, 415, S773-S776.	1.3	19
18	Surface effects on deuterium permeation through vanadium membranes. Journal of Membrane Science, 2021, 620, 118949.	4.1	18

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19	Surface chemistry analysis of lithium conditioned NSTX graphite tiles correlated to plasma performance. Fusion Engineering and Design, 2013, 88, 3157-3164.	1.0	17
20	Improved tritium retention modeling with reaction-diffusion code TMAP and bulk depth profiling capability. Nuclear Materials and Energy, 2019, 19, 273-278.	0.6	16
21	Hydrogen and its detection in fusion and fission nuclear materials â€“ a review. Journal of Nuclear Materials, 2022, 558, 153396.	1.3	16
22	Differentiating the role of lithium and oxygen in retaining deuterium on lithiated graphite plasma-facing components. Physics of Plasmas, 2014, 21, .	0.7	14
23	Direct depth distribution measurement of deuterium in bulk tungsten exposed to high-flux plasma. AIP Advances, 2017, 7, 055305.	0.6	13
24	Development of positron annihilation spectroscopy for investigating deuterium decorated voids in neutron-irradiated tungsten. Journal of Nuclear Materials, 2015, 463, 1009-1012.	1.3	12
25	Chemical and physical erosion of carbon and metallic substrates containing lithium during low-energy deuterium ion irradiation. Journal of Nuclear Materials, 2011, 415, S133-S136.	1.3	11
26	Deuterium ionâ€“surface interactions of liquid-lithium thin films on micro-porous molybdenum substrates. Nuclear Instruments & Methods in Physics Research B, 2011, 269, 1262-1265.	0.6	11
27	Recent progress of NSTX lithium program and opportunities for magnetic fusion research. Fusion Engineering and Design, 2012, 87, 1770-1776.	1.0	11
28	D retention and depth profile behavior for single crystal tungsten with high temperature neutron irradiation. Journal of Nuclear Materials, 2020, 539, 152323.	1.3	11
29	Overview of physics results from NSTX. Nuclear Fusion, 2011, 51, 094011.	1.6	10
30	The role of oxygen in the uptake of deuterium in lithiated graphite. Journal of Applied Physics, 2013, 114, .	1.1	10
31	The Materials Analysis Particle Probe (MAPP) Diagnostic System in NSTX. IEEE Transactions on Plasma Science, 2012, 40, 735-739.	0.6	9
32	Development of positron annihilation spectroscopy for characterizing neutron irradiated tungsten. Physica Scripta, 2014, T159, 014055.	1.2	9
33	Deuterium retention and blistering in tungsten foils. Nuclear Materials and Energy, 2017, 12, 689-693.	0.6	9
34	Catalyst Deactivation Probed by Positron Annihilation Spectroscopy. ACS Catalysis, 2021, 11, 14967-14976.	5.5	9
35	Characterization of fueling NSTX H-mode plasmas diverted to a liquid lithium divertor. Journal of Nuclear Materials, 2013, 438, S488-S492.	1.3	8
36	Tritium Plasma Experiment Upgrade and Improvement of Surface Diagnostic Capabilities at STAR Facility for Enhancing Tritium and Nuclear PMI Sciences. Fusion Science and Technology, 2017, 71, 310-315.	0.6	8

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37	High temperature deuterium enrichment using TiC coated vanadium membranes. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2019, 37, .	0.9	7
38	GD-OES study of the influence of second phase particles on the deuterium depth distribution in dispersion-strengthened tungsten. Journal of Nuclear Materials, 2020, 532, 152047.	1.3	7
39	TPE upgrade for enhancing operational safety and improving in-vessel tritium inventory assessment in fusion nuclear environment. Fusion Engineering and Design, 2016, 109-111, 1077-1081.	1.0	6
40	First GD-OES results on various deuterium ion fluences implanted in tungsten. Nuclear Materials and Energy, 2018, 16, 29-33.	0.6	6
41	Surface or bulk He existence effect on deuterium retention in Fe ion damaged W. Nuclear Materials and Energy, 2018, 16, 217-220.	0.6	6
42	Influence of dynamic annealing of irradiation defects on the deuterium retention behaviors in tungsten irradiated with neutron. Fusion Engineering and Design, 2019, 146, 1624-1627.	1.0	6
43	Conceptual Design for a Blanket Tritium Extraction Test Stand. Fusion Science and Technology, 2021, 77, 829-835.	0.6	5
44	Effects of Helium Seeding on Deuterium Retention in Neutron-Irradiated Tungsten. Fusion Science and Technology, 2021, 77, 76-79.	0.6	5
45	Does sink efficiency unequivocally characterize how grain boundaries impact radiation damage?. Physical Review Materials, 2018, 2, .	0.9	5
46	Deuterium Retention in Helium and Neutron Irradiated Molybdenum. Fusion Science and Technology, 2017, 71, 491-495.	0.6	3
47	Recent accomplishments of the fusion safety program at the Idaho National Laboratory. Fusion Engineering and Design, 2018, 136, 1106-1111.	1.0	3
48	Characterization of coincidence Doppler broadening and positron annihilation lifetime systems at INL. AIP Conference Proceedings, 2019, , .	0.3	3
49	Deuterium retention in tungsten irradiated by high-dose neutrons at high temperature. Nuclear Materials and Energy, 2021, 27, 100980.	0.6	3
50	Numerical analysis of deuterium migration behaviors in tungsten damaged by fast neutron by means of gas absorption method. Fusion Engineering and Design, 2021, 168, 112635.	1.0	3
51	Positron Parameters for Atypical Samples. Acta Physica Polonica A, 2020, 137, 201-204.	0.2	2
52	Lithium wall conditioning and surface dust detection on NSTX, and dust removal. Physica Scripta, 2011, T145, 014020.	1.2	1
53	In-situ ion scattering surface characterization of nanostructured materials exposed to controlled irradiation fields. Microscopy and Microanalysis, 2012, 18, 886-887.	0.2	1
54	Neutron irradiated tungsten bulk defect characterization by positron annihilation spectroscopy. Nuclear Materials and Energy, 2021, 26, 100936.	0.6	1

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55	The Materials Analysis patticle Probe (MAPP) diagnostic system in NSTX. , 2011, , .		0
56	Effect of C-He simultaneous implantation on deuterium retention in damaged W by Fe implantation. Fusion Engineering and Design, 2018, 137, 10-14.	1.0	0
57	Elemental Characterization of Neutron-Irradiated Tungsten Using the GD-OES Technique. Fusion Science and Technology, 2019, 75, 510-519.	0.6	0
58	Effects of rhenium contents on oxidation behaviors of tungsten-rhenium alloys in the oxygen gas atmosphere at 873ÂK. Nuclear Materials and Energy, 2020, 25, 100791.	0.6	0