

Chase N Taylor

List of Publications by Year in descending order

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58
papers

855
citations

471061

17
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525886

27
g-index

58
all docs

58
docs citations

58
times ranked

715
citing authors

#	ARTICLE	IF	CITATIONS
1	Hydrogen and its detection in fusion and fission nuclear materials – a review. <i>Journal of Nuclear Materials</i> , 2022, 558, 153396.	1.3	16
2	Surface effects on deuterium permeation through vanadium membranes. <i>Journal of Membrane Science</i> , 2021, 620, 118949.	4.1	18
3	Neutron irradiated tungsten bulk defect characterization by positron annihilation spectroscopy. <i>Nuclear Materials and Energy</i> , 2021, 26, 100936.	0.6	1
4	Conceptual Design for a Blanket Tritium Extraction Test Stand. <i>Fusion Science and Technology</i> , 2021, 77, 829-835.	0.6	5
5	Deuterium retention in tungsten irradiated by high-dose neutrons at high temperature. <i>Nuclear Materials and Energy</i> , 2021, 27, 100980.	0.6	3
6	Numerical analysis of deuterium migration behaviors in tungsten damaged by fast neutron by means of gas absorption method. <i>Fusion Engineering and Design</i> , 2021, 168, 112635.	1.0	3
7	Effects of Helium Seeding on Deuterium Retention in Neutron-Irradiated Tungsten. <i>Fusion Science and Technology</i> , 2021, 77, 76-79.	0.6	5
8	Catalyst Deactivation Probed by Positron Annihilation Spectroscopy. <i>ACS Catalysis</i> , 2021, 11, 14967-14976.	5.5	9
9	Effects of rhenium contents on oxidation behaviors of tungsten-rhenium alloys in the oxygen gas atmosphere at 873ÅK. <i>Nuclear Materials and Energy</i> , 2020, 25, 100791.	0.6	0
10	D retention and depth profile behavior for single crystal tungsten with high temperature neutron irradiation. <i>Journal of Nuclear Materials</i> , 2020, 539, 152323.	1.3	11
11	GD-OES study of the influence of second phase particles on the deuterium depth distribution in dispersion-strengthened tungsten. <i>Journal of Nuclear Materials</i> , 2020, 532, 152047.	1.3	7
12	Positron Parameters for Atypical Samples. <i>Acta Physica Polonica A</i> , 2020, 137, 201-204.	0.2	2
13	Elemental Characterization of Neutron-Irradiated Tungsten Using the GD-OES Technique. <i>Fusion Science and Technology</i> , 2019, 75, 510-519.	0.6	0
14	Influence of dynamic annealing of irradiation defects on the deuterium retention behaviors in tungsten irradiated with neutron. <i>Fusion Engineering and Design</i> , 2019, 146, 1624-1627.	1.0	6
15	Improved tritium retention modeling with reaction-diffusion code TMAP and bulk depth profiling capability. <i>Nuclear Materials and Energy</i> , 2019, 19, 273-278.	0.6	16
16	High temperature deuterium enrichment using TiC coated vanadium membranes. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2019, 37, .	0.9	7
17	Characterization of coincidence Doppler broadening and positron annihilation lifetime systems at INL. <i>AIP Conference Proceedings</i> , 2019, , .	0.3	3
18	Softening due to Grain Boundary Cavity Formation and its Competition with Hardening in Helium Implanted Nanocrystalline Tungsten. <i>Scientific Reports</i> , 2018, 8, 2897.	1.6	35

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19	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
20	Deuterium retention in neutron-irradiated single-crystal tungsten. Fusion Engineering and Design, 2018, 136, 1161-1167.	1.0	24
21	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
22	First GD-OES results on various deuterium ion fluences implanted in tungsten. Nuclear Materials and Energy, 2018, 16, 29-33.	0.6	6
23	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
24	Recent accomplishments of the fusion safety program at the Idaho National Laboratory. Fusion Engineering and Design, 2018, 136, 1106-1111.	1.0	3
25	Does sink efficiency unequivocally characterize how grain boundaries impact radiation damage?. Physical Review Materials, 2018, 2, .	0.9	5
26	Deuterium retention and blistering in tungsten foils. Nuclear Materials and Energy, 2017, 12, 689-693.	0.6	9
27	Deuterium Retention in Helium and Neutron Irradiated Molybdenum. Fusion Science and Technology, 2017, 71, 491-495.	0.6	3
28	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
29	Direct depth distribution measurement of deuterium in bulk tungsten exposed to high-flux plasma. AIP Advances, 2017, 7, 055305.	0.6	13
30	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
31	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
32	An overview of recent physics results from NSTX. Nuclear Fusion, 2015, 55, 104002.	1.6	21
33	Differentiating the role of lithium and oxygen in retaining deuterium on lithiated graphite plasma-facing components. Physics of Plasmas, 2014, 21, .	0.7	14
34	Development of positron annihilation spectroscopy for characterizing neutron irradiated tungsten. Physica Scripta, 2014, T159, 014055.	1.2	9
35	The role of oxygen in the uptake of deuterium in lithiated graphite. Journal of Applied Physics, 2013, 114, .	1.1	10
36	Overview of physics results from the conclusive operation of the National Spherical Torus Experiment. Nuclear Fusion, 2013, 53, 104007.	1.6	53

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37	Surface chemistry analysis of lithium conditioned NSTX graphite tiles correlated to plasma performance. <i>Fusion Engineering and Design</i> , 2013, 88, 3157-3164.	1.0	17
38	Characterization of fueling NSTX H-mode plasmas diverted to a liquid lithium divertor. <i>Journal of Nuclear Materials</i> , 2013, 438, S488-S492.	1.3	8
39	Recent progress in the NSTX/NSTX-U lithium programme and prospects for reactor-relevant liquid-lithium based divertor development. <i>Nuclear Fusion</i> , 2013, 53, 113030.	1.6	32
40	Deuterium Uptake in Magnetic-Fusion Devices with Lithium-Conditioned Carbon Walls. <i>Physical Review Letters</i> , 2013, 110, 105001.	2.9	45
41	Lithium-based surfaces controlling fusion plasma behavior at the plasma-material interface. <i>Physics of Plasmas</i> , 2012, 19, .	0.7	29
42	Materials analysis and particle probe: A compact diagnostic system for <i>in situ</i> analysis of plasma-facing components (invited). <i>Review of Scientific Instruments</i> , 2012, 83, 10D703.	0.6	33
43	The Materials Analysis Particle Probe (MAPP) Diagnostic System in NSTX. <i>IEEE Transactions on Plasma Science</i> , 2012, 40, 735-739.	0.6	9
44	In-situ ion scattering surface characterization of nanostructured materials exposed to controlled irradiation fields. <i>Microscopy and Microanalysis</i> , 2012, 18, 886-887.	0.2	1
45	Dynamics of deuterium retention and sputtering of Li-C-O surfaces. <i>Fusion Engineering and Design</i> , 2012, 87, 1732-1736.	1.0	20
46	NSTX plasma operation with a Liquid Lithium Divertor. <i>Fusion Engineering and Design</i> , 2012, 87, 1724-1731.	1.0	72
47	Recent progress of NSTX lithium program and opportunities for magnetic fusion research. <i>Fusion Engineering and Design</i> , 2012, 87, 1770-1776.	1.0	11
48	Overview of physics results from NSTX. <i>Nuclear Fusion</i> , 2011, 51, 094011.	1.6	10
49	Lithium wall conditioning and surface dust detection on NSTX, and dust removal. <i>Physica Scripta</i> , 2011, T145, 014020.	1.2	1
50	Deuterium retention in NSTX with lithium conditioning. <i>Journal of Nuclear Materials</i> , 2011, 415, S773-S776.	1.3	19
51	Surface chemistry and physics of deuterium retention in lithiated graphite. <i>Journal of Nuclear Materials</i> , 2011, 415, S777-S780.	1.3	23
52	Chemical and physical erosion of carbon and metallic substrates containing lithium during low-energy deuterium ion irradiation. <i>Journal of Nuclear Materials</i> , 2011, 415, S133-S136.	1.3	11
53	NSTX plasma response to lithium coated divertor. <i>Journal of Nuclear Materials</i> , 2011, 415, S400-S404.	1.3	32
54	Deuterium ion surface interactions of liquid-lithium thin films on micro-porous molybdenum substrates. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2011, 269, 1262-1265.	0.6	11

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55	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
56	The Materials Analysis particle Probe (MAPP) diagnostic system in NSTX. , 2011, , .		0
57	Chemical response of lithiated graphite with deuterium irradiation. Journal of Applied Physics, 2011, 109, 053306.	1.1	35
58	Overview of results from the National Spherical Torus Experiment (NSTX). Nuclear Fusion, 2009, 49, 104016.	1.6	41