Thomas Schwarz-Selinger

List of Publications by Year
in descending order

62	1,816	218677	289244
papers	citations	26 h-index	40 g-index

63	63	63	989
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Latest results of Eurofusion plasma-facing components research in the areas of power loading, material erosion and fuel retention. Nuclear Fusion, 2022, 62, 042013.	3.5	11
2	Reduced defect recovery in self-ion damaged W due to simultaneous deuterium exposure during annealing. Nuclear Fusion, 2022, 62, 036012.	3.5	2
3	Irradiation effects in tungstenâ€"From surface effects to bulk mechanical properties. Nuclear Materials and Energy, 2022, 30, 101093.	1.3	5
4	Influence of thin surface oxide films on hydrogen isotope release from ion-irradiated tungsten. Nuclear Materials and Energy, 2022, 30, 101137.	1.3	5
5	Dislocation structure of tungsten irradiated by medium to high-mass ions. Nuclear Fusion, 2022, 62, 096003.	3.5	12
6	Deuterium retention in W and binary W alloys irradiated with high energy Fe ions. Journal of Nuclear Materials, 2021, 545, 152749.	2.7	15
7	Microstructure evolution in helium implanted self-irradiated tungsten annealed at 1700ÂK studied by TEM. Materials Characterization, 2021, 174, 110991.	4.4	8
8	Dependence of blistering and deuterium retention on damage depth in damaged tungsten exposed to deuterium plasma. Nuclear Fusion, 2021, 61, 056003.	3.5	11
9	Influence of thin tungsten oxide films on hydrogen isotope uptake and retention in tungsten â€“ Evidence for permeation barrier effect. Nuclear Materials and Energy, 2021, 27, 100991.	1.3	5
10	Experiments and modelling of multiple sequential MeV ion irradiations and deuterium exposures in tungsten. Journal of Nuclear Materials, 2021, 550, 152947.	2.7	13
11	Parameter-free quantitative simulation of high-dose microstructure and hydrogen retention in ion-irradiated tungsten. Physical Review Materials, 2021, 5, .	2.4	26
12	Gross and net erosion balance of plasma-facing materials in full-W tokamaks. Nuclear Fusion, 2021, 61, 116006.	3.5	13
13	Influence of surface roughness on the sputter yield of Mo under keV D ion irradiation. Journal of Nuclear Materials, 2021, 555, 153135.	2.7	16
14	New rate equation model to describe the stabilization of displacement damage by hydrogen atoms during ion irradiation in tungsten. Nuclear Fusion, 2020, 60, 036024.	3.5	16
15	Kinetic model for hydrogen absorption in tungsten with coverage dependent surface mechanisms. Nuclear Fusion, 2020, 60, 106011.	3.5	11
16	Solute diffusion of hydrogen isotopes in tungstenâ€"a gas loading experiment. Physica Scripta, 2020, T171, 014034.	2.5	18
17	Cross section of 15N-2D nuclear reactions from 3.3 to 7.0ÂMeV for simultaneous hydrogen and deuterium quantitation in surface layers with 15N ion beams. Nuclear Instruments & Methods in Physics Research B, 2020, 478, 56-61.	1.4	1
18	Deuterium retention in tungsten irradiated by different ions. Nuclear Fusion, 2020, 60, 096002.	3.5	32

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19	ITER monoblock performance under lifetime loading conditions in Magnum-PSI. Physica Scripta, 2020, T171, 014065.	2.5	22
20	Deuterium transport and retention in the bulk of tungsten containing helium: the effect of helium concentration and microstructure. Nuclear Fusion, 2020, 60, 106029.	3.5	14
21	Effect of D on the evolution of radiation damage in W during high temperature annealing. Nuclear Fusion, 2020, 60, 106028.	3.5	11
22	Experimental determination of the 16O(3He,p0)18F differential cross section. Nuclear Instruments & Methods in Physics Research B, 2019, 450, 13-18.	1.4	10
23	TEM investigation of the influence of dose rate on radiation damage and deuterium retention in tungsten. Materials Characterization, 2019, 154, 1-6.	4.4	12
24	Displacement damage stabilization by hydrogen presence under simultaneous W ion damage and D ion exposure. Nuclear Fusion, 2019, 59, 086050.	3.5	32
25	Isolating the detrapping of deuterium in heavy ion damaged tungsten via partial thermal desorption. Journal of Nuclear Materials, 2019, 522, 158-167.	2.7	6
26	Stabilization of defects by the presence of hydrogen in tungsten: simultaneous W-ion damaging and D-atom exposure. Nuclear Fusion, 2019, 59, 016011.	3.5	14
27	Influence of grain size on deuterium transport and retention in self-damaged tungsten. Journal of Nuclear Materials, 2019, 513, 198-208.	2.7	19
28	Motion of W and He atoms during formation of W fuzz. Nuclear Fusion, 2018, 58, 066005.	3.5	34
29	Influence of sub-surface damage evolution on low-energy-plasma-driven deuterium permeation through tungsten. Nuclear Fusion, 2018, 58, 056027.	3.5	21
30	Influence of the presence of deuterium on displacement damage in tungsten. Nuclear Materials and Energy, 2018, 17, 228-234.	1.3	35
31	Hydrogen isotope accumulation in the helium implantation zone in tungsten. Nuclear Fusion, 2017, 57, 064002.	3.5	37
32	Influence of near-surface blisters on deuterium transport in tungsten. Nuclear Fusion, 2017, 57, 086015.	3.5	33
33	Deuterium retention in MeV self-implanted tungsten: Influence of damaging dose rate. Nuclear Materials and Energy, 2017, 12, 683-688.	1.3	43
34	Deuterium retention in tungsten simultaneously damaged by high energy W ions and loaded by D atoms. Nuclear Materials and Energy, 2017, 12, 169-174.	1.3	28
35	Deuterium atom loading of self-damaged tungsten at different sample temperatures. Journal of Nuclear Materials, 2017, 496, 1-8.	2.7	29
36	Quantitatively measuring the influence of helium in plasma-exposed tungsten. Nuclear Materials and Energy, 2017, 12, 372-378.	1.3	26

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37	Plasmaâ€“wall interaction studies within the EUROfusion consortium: progress on plasma-facing components development and qualification. Nuclear Fusion, 2017, 57, 116041.	3.5	75
38	The influence of the annealing temperature on deuterium retention in self-damaged tungsten. Physica Scripta, 2016, T167, 014031.	2.5	30
39	Optimization of the depth resolution for deuterium depth profiling up to large depths. Nuclear Instruments & Methods in Physics Research B, 2016, 387, 103-114.	1.4	13
40	Cross section data for the D(3He,p)4He nuclear reaction from 0.25 to 6 MeV. Nuclear Instruments & Methods in Physics Research B, 2016, 371, 41-45.	1.4	46
41	Interaction of deuterium plasma with sputter-deposited tungsten nitride films. Nuclear Fusion, 2016, 56, 016004.	3.5	22
42	Simulation of coupled sputter-diffusion effects. Physica Scripta, 2016, T167, 014023.	2.5	9
43	In situ NRA study of hydrogen isotope exchange in self-ion damaged tungsten exposed to neutral atoms. Journal of Nuclear Materials, 2016, 469, 133-144.	2.7	41
44	Recovery temperatures of defects in tungsten created by self-implantation. Journal of Nuclear Materials, 2015, 463, 329-332.	2.7	28
45	Influence of MeV helium implantation on deuterium retention in self-ion implanted tungsten. Physica Scripta, 2014, T159, 014045.	2.5	10
46	Impact of surface morphology on sputtering during high-fluence plasma exposure. Physica Scripta, 2014, T159, 014040.	2.5	22
47	Transport of hydrogen in metals with occupancy dependent trap energies. Journal of Applied Physics, 2014, 116, .	2.5	55
48	Temperature dependence of D atom adsorption on polycrystalline tungsten. Applied Surface Science, 2013, 282, 478-486.	6.1	33
49	Study of thermal hydrogen atom interaction with undamaged and self-damaged tungsten. Journal of Nuclear Materials, 2013, 438, S1027-S1031.	2.7	13
50	Quantification of the deuterium ion fluxes from a plasma source. Plasma Sources Science and Technology, 2011, 20, 015010.	3.1	95
51	Temperature dependence of the chemical sputtering of amorphous hydrogenated carbon films by hydrogen. Journal of Nuclear Materials, 2008, 376, 33-37.	2.7	29
52	Redeposition of amorphous hydrogenated carbon films during thermal decomposition. Journal of Nuclear Materials, 2008, 376, 160-168.	2.7	67
53	Can plasma experiments unravel microscopic surface processes in thin film growth and erosion? Implications of particleâ€“beam experiments on the understanding of a-C:H growth. Vacuum, 2003, 71, 361-376.	3.5	11
54	Simultaneous interaction of methyl radicals and atomic hydrogen with amorphous hydrogenated carbon films. Journal of Applied Physics, 2001, 89, 2979-2986.	2.5	65

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55	Analysis of multicomponent mass spectra applying Bayesian probability theory. Journal of Mass Spectrometry, 2001, 36, 866-874.	1.6	29
56	Quantification of a radical beam source for methyl radicals. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2001, 19, 101-107.	2.1	37
57	Novel method for absolute quantification of the flux and angular distribution of a radical source for atomic hydrogen. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2000, 18, 995-1001.	2.1	63
58	Surface loss probabilities of hydrocarbon radicals on amorphous hydrogenated carbon film surfaces: Consequences for the formation of re-deposited layers in fusion experiments. Nuclear Fusion, 1999, 39, 1451-1462.	3.5	99
59	Surface loss probabilities of the dominant neutral precursors for film growth in methane and acetylene discharges. Applied Physics Letters, 1999, 74, 3800-3802.	3.3	52
60	Plasma chemical vapor deposition of hydrocarbon films: The influence of hydrocarbon source gas on the film properties. Journal of Applied Physics, 1999, 86, 3988-3996.	2.5	221
61	Surface relaxation during plasma chemical vapor deposition of diamond-like carbon films, investigated by in-situ ellipsometry. Thin Solid Films, 1997, 308-309, 195-198.	1.8	3
62	The synergies between displacement damage creation and hydrogen presence: the effect of D ion energy and flux. Physica Scripta, 0, , .	2.5	0