

# Sabina Markelj

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/5555692/publications.pdf>

Version: 2024-02-01

65  
papers

1,114  
citations

394421

19  
h-index

477307

29  
g-index

65  
all docs

65  
docs citations

65  
times ranked

879  
citing authors

#	ARTICLE	IF	CITATIONS
1	Non-uniform He bubble formation in W/W <sub>2</sub> C composite: Experimental and ab-initio study. Acta Materialia, 2022, 226, 117608.	7.9	3
2	Microstructure evolution in helium implanted self-irradiated tungsten annealed at 1700ÅK studied by TEM. Materials Characterization, 2021, 174, 110991.	4.4	8
3	Experiments and modelling of multiple sequential MeV ion irradiations and deuterium exposures in tungsten. Journal of Nuclear Materials, 2021, 550, 152947.	2.7	13
4	Modelling of hydrogen isotopes trapping, diffusion and permeation in divertor monoblocks under ITER-like conditions. Nuclear Fusion, 2021, 61, 126003.	3.5	9
5	Gross and net erosion balance of plasma-facing materials in full-W tokamaks. Nuclear Fusion, 2021, 61, 116006.	3.5	13
6	Tritium measurements by nuclear reaction analysis using <sup>3</sup> He beam in the energy range between 0.7ÅMeV and 5.1ÅMeV. Nuclear Materials and Energy, 2021, 28, 101057.	1.3	0
7	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
8	Ion beam analysis of fusion plasma-facing materials and components: facilities and research challenges. Nuclear Fusion, 2020, 60, 025001.	3.5	54
9	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
10	Kinetic model for hydrogen absorption in tungsten with coverage dependent surface mechanisms. Nuclear Fusion, 2020, 60, 106011.	3.5	11
11	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
12	Effect of D on the evolution of radiation damage in W during high temperature annealing. Nuclear Fusion, 2020, 60, 106028.	3.5	11
13	Experimental cross section and angular distribution of the <sup>2</sup> H(p, $\gamma$ ) <sup>3</sup> He reaction at Big-Bang nucleosynthesis energies. European Physical Journal A, 2019, 55, 1.	2.5	17
14	Towards ps-LIBS tritium measurements in W/Al materials. Fusion Engineering and Design, 2019, 146, 1971-1974.	1.9	8
15	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
16	Displacement damage stabilization by hydrogen presence under simultaneous W ion damage and D ion exposure. Nuclear Fusion, 2019, 59, 086050.	3.5	32
17	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
18	Influence of grain size on deuterium transport and retention in self-damaged tungsten. Journal of Nuclear Materials, 2019, 513, 198-208.	2.7	19

#	ARTICLE	IF	CITATIONS
19	Influence of the presence of deuterium on displacement damage in tungsten. Nuclear Materials and Energy, 2018, 17, 228-234.	1.3	35
20	Hydrogen isotope accumulation in the helium implantation zone in tungsten. Nuclear Fusion, 2017, 57, 064002.	3.5	37
21	Retention and release of hydrogen isotopes in tungsten plasma-facing components: the role of grain boundaries and the native oxide layer from a joint experiment-simulation integrated approach. Nuclear Fusion, 2017, 57, 076019.	3.5	33
22	Micro-NRA and micro-3HIXE with 3 He microbeam on samples exposed in ASDEX Upgrade and Pilot-PSI machines. Nuclear Instruments & Methods in Physics Research B, 2017, 404, 179-184.	1.4	5
23	LIBS detection of erosion/deposition and deuterium retention resulting from exposure to Pilot-PSI plasmas. Journal of Nuclear Materials, 2017, 489, 129-136.	2.7	19
24	Simulations of atomic deuterium exposure in self-damaged tungsten. Nuclear Fusion, 2017, 57, 056002.	3.5	33
25	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
26	Recent progress in the understanding of H transport and trapping in W. Physica Scripta, 2017, T170, 014037.	2.5	24
27	Estimation of the tritium retention in ITER tungsten divertor target using macroscopic rate equations simulations. Physica Scripta, 2017, T170, 014033.	2.5	15
28	Interaction of ammonia and hydrogen with tungsten at elevated temperature studied by gas flow through a capillary. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2017, 35, 061602.	2.1	4
29	Deuterium atom loading of self-damaged tungsten at different sample temperatures. Journal of Nuclear Materials, 2017, 496, 1-8.	2.7	29
30	Observation of electron emission in the nuclear reaction between protons and deuterons. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2017, 773, 553-556.	4.1	6
31	Study of lateral distribution of impurities on samples exposed in the ASDEX Upgrade using microbeam of 3He and 1H. Physica Scripta, 2017, T170, 014067.	2.5	1
32	Plasma-wall interaction studies within the EUROfusion consortium: progress on plasma-facing components development and qualification. Nuclear Fusion, 2017, 57, 116041.	3.5	75
33	The influence of the annealing temperature on deuterium retention in self-damaged tungsten. Physica Scripta, 2016, T167, 014031.	2.5	30
34	Large electron screening effect in different environments. EPJ Web of Conferences, 2016, 117, 09012.	0.3	0
35	Deuterium removal from radiation damage in tungsten by isotopic exchange with hydrogen atomic beam. Journal of Physics: Conference Series, 2016, 748, 012007.	0.4	2
36	Interaction of atomic and low-energy deuterium with tungsten pre-irradiated with self-ions. Journal of Applied Physics, 2016, 119, .	2.5	23

#	ARTICLE	IF	CITATIONS
37	In situ hydrogen isotope detection by ion beam methods ERDA and NRA. Nuclear Instruments & Methods in Physics Research B, 2016, 371, 167-173.	1.4	13
38	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
39	Molecular screening in nuclear reactions. Physical Review C, 2015, 92, .	2.9	13
40	Large electron screening effect in different environments. AIP Conference Proceedings, 2015, , .	0.4	0
41	The influence of nitrogen co-deposition in mixed layers on deuterium retention and thermal desorption. Journal of Nuclear Materials, 2015, 467, 472-479.	2.7	4
42	Thermal desorption from self-damaged tungsten exposed to deuterium atoms. Journal of Nuclear Materials, 2015, 463, 1013-1016.	2.7	33
43	Dynamic fuel retention in tokamak wall materials: An in situ laboratory study of deuterium release from polycrystalline tungsten at room temperature. Journal of Nuclear Materials, 2015, 467, 432-438.	2.7	41
44	<i>In situ</i> nuclear reaction analysis of D retention in undamaged and self-damaged tungsten under atomic D exposure. Physica Scripta, 2014, T159, 014047.	2.5	17
45	Temperature dependence of D atom adsorption on polycrystalline tungsten. Applied Surface Science, 2013, 282, 478-486.	6.1	33
46	Study of thermal hydrogen atom interaction with undamaged and self-damaged tungsten. Journal of Nuclear Materials, 2013, 438, S1027-S1031.	2.7	13
47	Deuterium inventory in Tore Supra: Coupled carbon-deuterium balance. Journal of Nuclear Materials, 2013, 438, S120-S125.	2.7	38
48	<i>In situ</i> study of erosion and deposition of amorphous hydrogenated carbon films by exposure to a hydrogen atom beam. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2012, 30, .	2.1	9
49	Dissociative electron attachment cross sections for H <sub>2</sub> and D <sub>2</sub> using ion momentum imaging spectrometer. Journal of Physics: Conference Series, 2012, 388, 052015.	0.4	0
50	Low energy H <sup>+</sup> production by electron collision with small hydrocarbons. European Physical Journal D, 2012, 66, 1.	1.3	6
51	Fuel retention study in fusion reactor walls by micro-NRA deuterium mapping. Nuclear Instruments & Methods in Physics Research B, 2011, 269, 2317-2321.	1.4	11
52	Deuterium Inventory in Tore Supra (DITS): 2nd post-mortem analysis campaign and fuel retention in the gaps. Journal of Nuclear Materials, 2011, 415, S757-S760.	2.7	16
53	Influence of hydrocarbons on vibrational excitation of H <sub>2</sub> molecules. Nuclear Engineering and Design, 2011, 241, 1267-1271.	1.7	3
54	Production of vibrationally excited hydrogen molecules by atom recombination on Cu and W materials. Journal of Chemical Physics, 2011, 134, 124707.	3.0	24

#	ARTICLE	IF	CITATIONS
55	<p>Dissociative Electron Attachment Cross Sections for <math>H_2</math> and <math>D_2</math>. Physical Review Letters, 2011, 106, 243201.</p>	7.8	44
56	Electron screening in the $^7Li(\alpha, n)^4He$ reaction. European Physical Journal A, 2010, 44, 71-75.	2.5	13
57	Electron Screening in Reaction Between Protons and Lithium Nuclei. , 2009, , .		0
58	Reemission of neutral hydrogen molecules from tungsten. Journal of Nuclear Materials, 2009, 390-391, 520-523.	2.7	4
59	An extraction system for low-energy hydrogen ions formed by electron impact. International Journal of Mass Spectrometry, 2008, 275, 64-74.	1.5	7
60	Processes with neutral hydrogen and deuterium molecules relevant to edge plasma in tokamaks. Journal of Physics: Conference Series, 2008, 133, 012029.	0.4	14
61	Studying processes of hydrogen interaction with metallic surfaces in situ and in real-time by ERDA. Nuclear Instruments & Methods in Physics Research B, 2007, 259, 989-996.	1.4	13
62	Studying permeation of hydrogen (H and D) through Palladium membrane dynamically with ERDA method. Nuclear Instruments & Methods in Physics Research B, 2007, 261, 498-503.	1.4	6
63	Simple and accurate spectra normalization in ion beam analysis using a transmission mesh-based charge integration. Nuclear Instruments & Methods in Physics Research B, 2006, 243, 392-396.	1.4	17
64	Elastic recoil detection analysis of hydrogen with $^7Li$ ions using a polyimide foil as a thick hydrogen reference. Nuclear Instruments & Methods in Physics Research B, 2005, 227, 591-596.	1.4	12
65	The synergies between displacement damage creation and hydrogen presence: the effect of D ion energy and flux. Physica Scripta, 0, , .	2.5	0