

# Wolfgang Jacob

## List of Publications by Citations

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172  
papers

5,247  
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41  
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175  
ext. papers

5,561  
ext. citations

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#	Paper	IF	Citations
172	Surface reactions during growth and erosion of hydrocarbon films. <i>Thin Solid Films</i> , <b>1998</b> , 326, 1-42	2.2	330
171	In-vessel tritium retention and removal in ITER. <i>Journal of Nuclear Materials</i> , <b>1999</b> , 266-269, 14-29	3.3	205
170	Plasma chemical vapor deposition of hydrocarbon films: The influence of hydrocarbon source gas on the film properties. <i>Journal of Applied Physics</i> , <b>1999</b> , 86, 3988-3996	2.5	202
169	On the structure of thin hydrocarbon films. <i>Applied Physics Letters</i> , <b>1993</b> , 63, 1771-1773	3.4	169
168	Growth and erosion of hydrocarbon films investigated by in situ ellipsometry. <i>Journal of Applied Physics</i> , <b>1996</b> , 79, 1092	2.5	123
167	Bulk, surface and thermal effects in inverse photoemission spectra from Cu(100), Cu(110) and Cu(111). <i>European Physical Journal B</i> , <b>1986</b> , 63, 459-470	1.2	102
166	Chemical sputtering of hydrocarbon films. <i>Journal of Applied Physics</i> , <b>2003</b> , 94, 2373-2380	2.5	98
165	Influence of the ion energy on the growth and structure of thin hydrocarbon films. <i>Journal of Applied Physics</i> , <b>1993</b> , 74, 1354-1361	2.5	96
164	Surface loss probabilities of hydrocarbon radicals on amorphous hydrogenated carbon film surfaces: Consequences for the formation of re-deposited layers in fusion experiments. <i>Nuclear Fusion</i> , <b>1999</b> , 39, 1451-1462	3.3	87
163	Quantification of the deuterium ion fluxes from a plasma source. <i>Plasma Sources Science and Technology</i> , <b>2011</b> , 20, 015010	3.5	83
162	Influence of the microstructure on the deuterium retention in tungsten. <i>Journal of Nuclear Materials</i> , <b>2011</b> , 415, S632-S635	3.3	80
161	Experimental determination of the absorption strength of CH vibrations for infrared analysis of hydrogenated carbon films. <i>Applied Physics Letters</i> , <b>1996</b> , 68, 475-477	3.4	80
160	Tritium retention in next step devices and the requirements for mitigation and removal techniques. <i>Plasma Physics and Controlled Fusion</i> , <b>2006</b> , 48, B189-B199	2	79
159	Surface loss probabilities of hydrocarbon radicals on amorphous hydrogenated carbon film surfaces. <i>Journal of Applied Physics</i> , <b>2000</b> , 87, 2719-2725	2.5	77
158	Atomic adsorption of oxygen on Cu(111) and Cu(110). <i>Applied Physics A: Solids and Surfaces</i> , <b>1986</b> , 41, 145-150		76
157	Redeposition of hydrocarbon layers in fusion devices. <i>Journal of Nuclear Materials</i> , <b>2005</b> , 337-339, 839-846		74
156	Erosion behavior of soft, amorphous deuterated carbon films by heat treatment in air and under vacuum. <i>Journal of Nuclear Materials</i> , <b>1999</b> , 264, 56-70	3.3	71

155	Oxidation and hydrogen isotope exchange in amorphous, deuterated carbon films. <i>Journal of Nuclear Materials</i> , <b>1997</b> , 245, 66-71	3.3	69
154	Elementary processes in plasma-surface interaction: H-atom and ion-induced chemisorption of methyl on hydrocarbon film surfaces. <i>Progress in Surface Science</i> , <b>2004</b> , 76, 21-54	6.6	66
153	Direct identification of the synergism between methyl radicals and atomic hydrogen during growth of amorphous hydrogenated carbon films. <i>Applied Physics Letters</i> , <b>2000</b> , 76, 676-678	3.4	66
152	Erosion of thin hydrogenated carbon films in oxygen, oxygen/hydrogen and water plasmas. <i>Journal of Nuclear Materials</i> , <b>1999</b> , 264, 48-55	3.3	58
151	Redeposition of amorphous hydrogenated carbon films during thermal decomposition. <i>Journal of Nuclear Materials</i> , <b>2008</b> , 376, 160-168	3.3	57
150	Chemical sputtering of hydrocarbon films by low-energy Ar <sup>+</sup> ion and H atom impact. <i>Nuclear Fusion</i> , <b>2002</b> , 42, L27-L30	3.3	57
149	Novel method for absolute quantification of the flux and angular distribution of a radical source for atomic hydrogen. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , <b>2000</b> , 18, 995-1001	2.9	56
148	Simultaneous interaction of methyl radicals and atomic hydrogen with amorphous hydrogenated carbon films. <i>Journal of Applied Physics</i> , <b>2001</b> , 89, 2979-2986	2.5	56
147	Interaction of nitrogen plasmas with tungsten. <i>Nuclear Fusion</i> , <b>2010</b> , 50, 025006	3.3	54
146	Inverse photoemission of adsorbed xenon multilayers on Ru(001): Refutation of final-state screening effects. <i>Physical Review Letters</i> , <b>1986</b> , 57, 1643-1646	7.4	52
145	Mechanisms of the Deposition of Hydrogenated Carbon Films. <i>Japanese Journal of Applied Physics</i> , <b>1995</b> , 34, 2163-2171	1.4	50
144	Plasma-wall interaction studies within the EUROfusion consortium: progress on plasma-facing components development and qualification. <i>Nuclear Fusion</i> , <b>2017</b> , 57, 116041	3.3	50
143	Comparing deuterium retention in tungsten films measured by temperature programmed desorption and nuclear reaction analysis. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , <b>2013</b> , 300, 54-61	1.2	49
142	Amorphous hydrogenated carbon films as barrier for gas permeation through polymer films. <i>Diamond and Related Materials</i> , <b>2000</b> , 9, 1971-1978	3.5	48
141	Surface loss probabilities of the dominant neutral precursors for film growth in methane and acetylene discharges. <i>Applied Physics Letters</i> , <b>1999</b> , 74, 3800-3802	3.4	48
140	Potassium-induced empty electronic states on Ag(110). <i>Physical Review B</i> , <b>1987</b> , 35, 5910-5912	3.3	48
139	Deuterium inventory in Tore Supra: reconciling particle balance and post-mortem analysis. <i>Nuclear Fusion</i> , <b>2009</b> , 49, 075011	3.3	47
138	Surface relaxation during plasma-enhanced chemical vapor deposition of hydrocarbon films, investigated by in situ ellipsometry. <i>Journal of Applied Physics</i> , <b>1997</b> , 81, 1531-1535	2.5	47

137	Influence of a direct current bias on the energy of ions from an electron cyclotron resonance plasma. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , <b>1992</b> , 10, 434-438	2.9	46
136	Formation of deuterium-carbon inventories in gaps of plasma facing components. <i>Journal of Nuclear Materials</i> , <b>2007</b> , 363-365, 870-876	3.3	45
135	Some problems arising due to plasma-surface interaction for operation of the in-vessel mirrors in a fusion reactor. <i>Journal of Nuclear Materials</i> , <b>2001</b> , 290-293, 336-340	3.3	45
134	Raman spectroscopy investigation of the H content of heated hard amorphous carbon layers. <i>Diamond and Related Materials</i> , <b>2013</b> , 34, 100-104	3.5	41
133	Growth precursors for a-C:H film deposition in pulsed inductively coupled methane plasmas. <i>Journal of Applied Physics</i> , <b>2005</b> , 98, 073302	2.5	41
132	Ion-induced surface activation, chemical sputtering, and hydrogen release during plasma-assisted hydrocarbon film growth. <i>Journal of Applied Physics</i> , <b>2005</b> , 97, 094904	2.5	41
131	Sputtering of iron, chromium and tungsten by energetic deuterium ion bombardment. <i>Nuclear Materials and Energy</i> , <b>2016</b> , 8, 1-7	2.1	41
130	Chemical Sputtering <b>2007</b> , 329-400		40
129	Ion chemistry in H <sub>2</sub> -Ar low temperature plasmas. <i>Journal of Applied Physics</i> , <b>2013</b> , 114, 063302	2.5	39
128	Chemical sputtering of carbon by nitrogen ions. <i>Applied Physics Letters</i> , <b>2005</b> , 86, 204103	3.4	39
127	Deuterium retention in different tungsten grades. <i>Physica Scripta</i> , <b>2009</b> , T138, 014053	2.6	37
126	Release of deuterium from carbon-deuterium films on beryllium during carbide formation and oxidation. <i>Journal of Nuclear Materials</i> , <b>1997</b> , 250, 23-28	3.3	37
125	Bombardment of graphite with hydrogen isotopes: A model for the energy dependence of the chemical sputtering yield. <i>Journal of Nuclear Materials</i> , <b>2005</b> , 342, 141-147	3.3	37
124	Chemical sputtering of carbon materials due to combined bombardment by ions and atomic hydrogen. <i>Physica Scripta</i> , <b>2006</b> , T124, 32-36	2.6	36
123	Determination of the absolute CH <sub>3</sub> radical flux emanating from a methane electron cyclotron resonance plasma. <i>Applied Physics Letters</i> , <b>1998</b> , 73, 31-33	3.4	36
122	Quantification of a radical beam source for methyl radicals. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , <b>2001</b> , 19, 101-107	2.9	35
121	Role of hydrogen ions in plasma-enhanced chemical vapor deposition of hydrocarbon films, investigated by in situ ellipsometry. <i>Applied Physics Letters</i> , <b>1995</b> , 66, 1322-1324	3.4	35
120	Oxidative erosion of graphite in air between 600 and 1000 K. <i>Journal of Nuclear Materials</i> , <b>2005</b> , 341, 31-44	3.3	33

119	Measurement and modeling of neutral, radical, and ion densities in H <sub>2</sub> -N <sub>2</sub> -Ar plasmas. <i>Journal of Applied Physics</i> , <b>2015</b> , 117, 083303	2.5	32
118	Erosion study of Fe/W binary mixed layer prepared as model system for RAFM steel. <i>Journal of Nuclear Materials</i> , <b>2015</b> , 463, 272-275	3.3	32
117	Deuterium inventory in Tore Supra: Coupled carbon-deuterium balance. <i>Journal of Nuclear Materials</i> , <b>2013</b> , 438, S120-S125	3.3	32
116	Structure of plasma-deposited amorphous hydrogenated boron-carbon thin films. <i>Thin Solid Films</i> , <b>1998</b> , 312, 147-155	2.2	31
115	Direct verification of the ion-neutral synergism during hydrocarbon film growth. <i>Journal of Applied Physics</i> , <b>2003</b> , 93, 3352-3358	2.5	30
114	Chemical sputtering of carbon films by simultaneous irradiation with argon ions and molecular oxygen. <i>New Journal of Physics</i> , <b>2008</b> , 10, 093022	2.9	29
113	Oxygen glow discharge cleaning in ASDEX Upgrade. <i>Journal of Nuclear Materials</i> , <b>2007</b> , 363-365, 882-887	3.3	29
112	Hydrogen plasma treatment of poly(ethylene terephthalate) surfaces. <i>Surface and Coatings Technology</i> , <b>2001</b> , 138, 256-263	4.4	29
111	Removal of codeposited layers by ECR discharge cleaning. <i>Journal of Nuclear Materials</i> , <b>1999</b> , 266-269, 552-556	3.3	29
110	Hydrogen bonding in plasma-deposited amorphous hydrogenated boron films. <i>Journal of Applied Physics</i> , <b>1997</b> , 82, 1905-1908	2.5	28
109	Growth and erosion of amorphous carbon (a-C:H) films by low-temperature laboratory plasmas containing H and N mixtures. <i>Journal of Nuclear Materials</i> , <b>2007</b> , 363-365, 174-178	3.3	28
108	The influence of hydrogen ion bombardment on plasma-assisted hydrocarbon film growth. <i>Diamond and Related Materials</i> , <b>2003</b> , 12, 85-89	3.5	28
107	Deuterium supersaturation in low-energy plasma-loaded tungsten surfaces. <i>Nuclear Fusion</i> , <b>2017</b> , 57, 016026	3.3	27
106	Temperature dependence of the chemical sputtering of amorphous hydrogenated carbon films by hydrogen. <i>Journal of Nuclear Materials</i> , <b>2008</b> , 376, 33-37	3.3	27
105	Surface reactions of hydrocarbon radicals: suppression of the re-deposition in fusion experiments via a divertor liner. <i>Journal of Nuclear Materials</i> , <b>2001</b> , 290-293, 231-237	3.3	27
104	Quantitative determination of mass-resolved ion densities in H <sub>2</sub> -Ar inductively coupled radio frequency plasmas. <i>Journal of Applied Physics</i> , <b>2013</b> , 113, 093304	2.5	26
103	Deuterium implantation into tungsten nitride: Negligible diffusion at 300K. <i>Journal of Nuclear Materials</i> , <b>2014</b> , 451, 352-355	3.3	25
102	Oxygen glow discharge cleaning in nuclear fusion devices. <i>Journal of Nuclear Materials</i> , <b>2008</b> , 374, 413-421	3.3	25

101	The effect of ion flux on plasma-induced modification and deuterium retention in tungsten and tungsten-tantalum alloys. <i>Journal of Nuclear Materials</i> , <b>2015</b> , 464, 69-72	3.3	24
100	Interaction of hydrogen plasmas with hydrocarbon films, investigated by infrared spectroscopy using an optical cavity substrate. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , <b>1997</b> , 15, 402-407	2.9	24
99	Inverse photoemission studies of oxygen on Ni(110) and Ni(100). <i>Surface Science</i> , <b>1985</b> , 154, 695-703	1.8	24
98	Depth profiling of the modification induced by high-flux deuterium plasma in tungsten and tungsten-tantalum alloys. <i>Nuclear Fusion</i> , <b>2014</b> , 54, 123013	3.3	23
97	Chemical sputtering of carbon by combined exposure to nitrogen ions and atomic hydrogen. <i>New Journal of Physics</i> , <b>2008</b> , 10, 053037	2.9	23
96	Particle-beam experiment to study heterogeneous surface reactions relevant to plasma-assisted thin film growth and etching. <i>Review of Scientific Instruments</i> , <b>2003</b> , 74, 5123-5136	1.7	23
95	Transport and structural modification during nitrogen implantation of hard amorphous carbon films. <i>Journal of Applied Physics</i> , <b>1998</b> , 83, 5185-5194	2.5	23
94	Absolute density determination of CH radicals in a methane plasma. <i>Applied Physics Letters</i> , <b>1994</b> , 64, 971-973	3.4	23
93	Statistical analysis of blister bursts during temperature-programmed desorption of deuterium-implanted polycrystalline tungsten. <i>Physica Scripta</i> , <b>2011</b> , T145, 014038	2.6	20
92	Chemical erosion of amorphous hydrogenated boron films. <i>Applied Physics Letters</i> , <b>1997</b> , 71, 1326-1328	3.4	20
91	Deuterium retention in tungsten films deposited by magnetron sputtering. <i>Physica Scripta</i> , <b>2014</b> , T159, 014046	2.6	19
90	Recent progress in the understanding of H transport and trapping in W. <i>Physica Scripta</i> , <b>2017</b> , T170, 014037		18
89	Effects of surface modifications on deuterium retention in F82H and EUROFER exposed to low-energy deuterium plasmas. <i>Fusion Engineering and Design</i> , <b>2016</b> , 112, 236-239	1.7	18
88	Influence of nitrogen pre-implantation on deuterium retention in tungsten. <i>Physica Scripta</i> , <b>2014</b> , T159, 014023	2.6	18
87	Quantitative analysis of deuterium in a-C:D layers, a Round Robin experiment. <i>Journal of Nuclear Materials</i> , <b>2000</b> , 281, 42-56	3.3	18
86	Alkali-metal oxides. II. Unoccupied and excited states. <i>Physical Review B</i> , <b>1989</b> , 39, 6087-6095	3.3	18
85	Erosion and deuterium retention of CLF-1 steel exposed to deuterium plasma. <i>Physica Scripta</i> , <b>2017</b> , T170, 014025	2.6	17
84	Characterization of temperature-induced changes in amorphous hydrogenated carbon thin films. <i>Diamond and Related Materials</i> , <b>2013</b> , 37, 97-103	3.5	17

83	Overview of the recent DiMES and MiMES experiments in DIII-D. <i>Physica Scripta</i> , <b>2009</b> , T138, 014007	2.6	17
82	On the presence of molecular nitrogen in nitrogen-implanted amorphous carbon. <i>Applied Physics Letters</i> , <b>1997</b> , 70, 1387-1389	3.4	17
81	Deposition and characterization of dense and stable amorphous hydrogenated boron films at low substrate temperatures. <i>Journal of Non-Crystalline Solids</i> , <b>1997</b> , 209, 240-246	3.9	17
80	DiMES studies of temperature dependence of carbon erosion and re-deposition in the lower divertor of DIII-D under detachment. <i>Physica Scripta</i> , <b>2007</b> , T128, 29-34	2.6	17
79	The implications of high-Z first-wall materials on noble gas wall recycling. <i>Nuclear Fusion</i> , <b>2007</b> , 47, 984-989	3.3	16
78	Interaction of deuterium plasma with sputter-deposited tungsten nitride films. <i>Nuclear Fusion</i> , <b>2016</b> , 56, 016004	3.3	15
77	Study of deuterium retention in/release from ITER-relevant Be-containing mixed material layers implanted at elevated temperatures. <i>Journal of Nuclear Materials</i> , <b>2013</b> , 438, S1113-S1116	3.3	15
76	Stability of plasma-deposited amorphous hydrogenated boron films. <i>Thin Solid Films</i> , <b>1997</b> , 300, 101-106	2.2	15
75	Chemical sputtering of carbon films by argon ions and molecular oxygen at cryogenic temperatures. <i>Applied Physics Letters</i> , <b>2007</b> , 90, 224106	3.4	15
74	Modeling of hydrocarbon species in ECR methane plasmas. <i>Journal of Nuclear Materials</i> , <b>2003</b> , 313-316, 434-438	3.3	15
73	Raman micro-spectroscopy as a tool to measure the absorption coefficient and the erosion rate of hydrogenated amorphous carbon films heat-treated under hydrogen bombardment. <i>Diamond and Related Materials</i> , <b>2012</b> , 22, 92-95	3.5	14
72	The energy influx during plasma deposition of amorphous hydrogenated carbon films. <i>Surface and Coatings Technology</i> , <b>2002</b> , 149, 206-216	4.4	14
71	Consequences of the temperature and flux dependent sticking coefficient of methyl radicals for nuclear fusion experiments. <i>Nuclear Fusion</i> , <b>2003</b> , 43, 25-29	3.3	14
70	New calibration method for the determination of the absolute density of CH radicals through laser-induced fluorescence. <i>Applied Optics</i> , <b>1995</b> , 34, 4542-51	1.7	14
69	Investigation of deuterium retention in/desorption from beryllium-containing mixed layers. <i>Nuclear Materials and Energy</i> , <b>2016</b> , 6, 1-9	2.1	13
68	Determination of the sticking coefficient of energetic hydrocarbon molecules by molecular dynamics. <i>Journal of Nuclear Materials</i> , <b>2012</b> , 420, 291-296	3.3	13
67	Suppression of hydrogen-induced blistering of tungsten by pre-irradiation at low temperature. <i>Nuclear Fusion</i> , <b>2014</b> , 54, 122003	3.3	13
66	Raman study of CFC tiles extracted from the toroidal pump limiter of Tore Supra. <i>Journal of Nuclear Materials</i> , <b>2011</b> , 415, S254-S257	3.3	13

65	Progress of the European R&D on plasma-wall interactions, neutron effects and tritium removal in ITER plasma facing materials. <i>Fusion Engineering and Design</i> , <b>2001</b> , 56-57, 179-187	1.7	13
64	Infrared analysis of thin films: amorphous, hydrogenated carbon on silicon. <i>Brazilian Journal of Physics</i> , <b>2000</b> , 30, 508-516	1.2	13
63	Laser-induced coalescence of gold clusters in fluorocarbon composite thin films. <i>Applied Surface Science</i> , <b>1994</b> , 79-80, 196-202	6.7	13
62	The bandstructure of Pd(110) above the fermi level. <i>Applied Physics A: Solids and Surfaces</i> , <b>1990</b> , 50, 207-214		13
61	Deuterium retention in tungsten films after different heat treatments. <i>Journal of Nuclear Materials</i> , <b>2015</b> , 456, 192-199	3.3	12
60	Surface loss probability of atomic hydrogen for different electrode cover materials investigated in H <sub>2</sub> -Ar low-pressure plasmas. <i>Journal of Applied Physics</i> , <b>2014</b> , 116, 013302	2.5	12
59	Ion energy distributions from electron cyclotron resonance methane plasmas. <i>Diamond and Related Materials</i> , <b>1993</b> , 2, 378-382	3.5	12
58	Xe and K coadsorption on Ag(110): Observation of a wetting-to-nonwetting phase transition. <i>Physical Review B</i> , <b>1987</b> , 36, 2421-2424	3.3	12
57	Deuterium retention in tungsten irradiated by different ions. <i>Nuclear Fusion</i> , <b>2020</b> , 60, 096002	3.3	11
56	Long-term H-release of hard and intermediate between hard and soft amorphous carbon evidenced by in situ Raman microscopy under isothermal heating. <i>Diamond and Related Materials</i> , <b>2013</b> , 37, 92-96	3.5	11
55	Can plasma experiments unravel microscopic surface processes in thin film growth and erosion? Implications of particle beam experiments on the understanding of a-C:H growth. <i>Vacuum</i> , <b>2003</b> , 71, 361-376	3.7	11
54	Erosion of amorphous hydrogenated boron-carbon thin films. <i>Journal of Nuclear Materials</i> , <b>1996</b> , 231, 151-154	3.3	11
53	Deuterium diffusion and retention in a tungsten-carbon multilayer system. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , <b>2014</b> , 329, 6-13	1.2	10
52	The adsorption of Xenon on both low and high work-function metals. <i>Applied Physics A: Materials Science and Processing</i> , <b>1987</b> , 44, 93-95	2.6	10
51	Erosion of EUROFER steel by mass-selected deuterium ion bombardment. <i>Nuclear Materials and Energy</i> , <b>2018</b> , 16, 114-122	2.1	10
50	Deuterium implantation into Y <sub>2</sub> O <sub>3</sub> -doped and pure tungsten: Deuterium retention and blistering behavior. <i>Journal of Nuclear Materials</i> , <b>2017</b> , 487, 75-83	3.3	9
49	High-flux hydrogen irradiation-induced cracking of tungsten reproduced by low-flux plasma exposure. <i>Nuclear Fusion</i> , <b>2019</b> , 59, 056023	3.3	9
48	Stages in the interaction of deuterium atoms with amorphous hydrogenated carbon films: Isotope exchange, soft-layer formation, and steady-state erosion. <i>Journal of Applied Physics</i> , <b>2010</b> , 108, 043307	2.5	9



47	Carbon removal from tile gap structures with oxygen glow discharges. <i>Journal of Nuclear Materials</i> , <b>2009</b> , 390-391, 602-605	3.3	9
46	In situ study of erosion and deposition of amorphous hydrogenated carbon films by exposure to a hydrogen atom beam. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , <b>2012</b> , 30, 041601	2.9	9
45	Divertor and midplane materials evaluation system in DIII-D. <i>Journal of Nuclear Materials</i> , <b>2007</b> , 363-365, 276-281	3.3	9
44	An SEM compatible plasma cell for in situ studies of hydrogen-material interaction. <i>Review of Scientific Instruments</i> , <b>2020</b> , 91, 043705	1.7	8
43	Deuterium retention behavior of pure and Y2O3-doped tungsten investigated by nuclear reaction analysis and thermal desorption spectroscopy. <i>Nuclear Materials and Energy</i> , <b>2018</b> , 15, 32-42	2.1	8
42	Pyrolysis and laser ablation of plasma-polymerized fluorocarbon films: Effects of gold particles. <i>Journal of Applied Physics</i> , <b>1992</b> , 72, 2462-2471	2.5	8
41	Impact of surface enrichment and morphology on sputtering of EUROFER by deuterium. <i>Nuclear Materials and Energy</i> , <b>2020</b> , 23, 100749	2.1	7
40	Fuel removal from tile gaps with oxygen discharges: reactivity of neutrals. <i>Physica Scripta</i> , <b>2009</b> , T138, 014009	2.6	7
39	Formation of Hard Amorphous Hydrogenated Carbon Films with Low Hydrogen Concentration and Their Erosion in Air. <i>Japanese Journal of Applied Physics</i> , <b>2001</b> , 40, 788-793	1.4	7
38	Alkali metal oxides: Occupied, unoccupied and excited states. <i>Applied Physics A: Solids and Surfaces</i> , <b>1988</b> , 47, 87-89		7
37	Effect of exposure temperature on deuterium retention and surface blistering of tungsten exposed to sequential nitrogen and deuterium plasma. <i>Nuclear Fusion</i> , <b>2018</b> , 58, 106027	3.3	6
36	Erosion of tungsten-doped amorphous carbon films in oxygen plasma. <i>Journal of Nuclear Materials</i> , <b>2012</b> , 420, 101-109	3.3	5
35	What makes a dangling bond a binding site for thermal CH3 radicals? A combined molecular dynamics and potential energy analysis study on amorphous hydrocarbon films. <i>Diamond and Related Materials</i> , <b>2013</b> , 40, 41-50	3.5	5
34	Critical Review of Complex Plasma (Dusty Plasma) Diagnostics and Manipulation Techniques for the Fusion Community and Others. <i>IEEE Transactions on Plasma Science</i> , <b>2009</b> , 37, 270-280	1.3	5
33	Determination of the sticking probability of hydrocarbons on an amorphous hydrocarbon surface. <i>Physica Scripta</i> , <b>2009</b> , T138, 014015	2.6	5
32	Reactivity of soft amorphous hydrogenated carbon films in ambient atmosphere. <i>Journal of Nuclear Materials</i> , <b>2007</b> , 363-365, 944-948	3.3	5
31	Particle growth in hydrogen-methane plasmas. <i>Thin Solid Films</i> , <b>2006</b> , 506-507, 652-655	2.2	5
30	Erosion of tungsten-doped amorphous carbon films exposed to deuterium plasmas. <i>Journal of Nuclear Materials</i> , <b>2012</b> , 426, 277-286	3.3	4

29	Fit formulas for the angular dependence of the sticking coefficient of energetic hydrocarbon molecules. <i>Journal of Nuclear Materials</i> , <b>2011</b> , 415, S196-S199	3.3	4
28	SIESTA: A high current ion source for erosion and retention studies. <i>Review of Scientific Instruments</i> , <b>2018</b> , 89, 103501	1.7	4
27	Study of the temperature-dependent nitrogen retention in tungsten surfaces using X-ray photoelectron spectroscopy. <i>Nuclear Materials and Energy</i> , <b>2018</b> , 17, 48-55	2.1	4
26	Deposition of thermally stable tungsten nitride thin films by reactive magnetron sputtering. <i>Surface and Coatings Technology</i> , <b>2019</b> , 375, 701-707	4.4	3
25	Wall loss of atomic nitrogen determined by ionization threshold mass spectrometry. <i>Journal of Applied Physics</i> , <b>2014</b> , 116, 193302	2.5	3
24	13th International Workshop on Plasma-Facing Materials and Components for Fusion Applications/1st International Conference on Fusion Energy Materials Science. <i>Physica Scripta</i> , <b>2011</b> , T145, 011001	2.6	3
23	Molecular size effect in the chemical sputtering of a-C:H thin films by low energy H <sup>+</sup> , H <sub>2</sub> <sup>+</sup> , and H <sub>3</sub> <sup>+</sup> ions. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , <b>2011</b> , 269, 1276-1279	1.2	3
22	Surface relaxation during plasma chemical vapor deposition of diamond-like carbon films, investigated by in-situ ellipsometry. <i>Thin Solid Films</i> , <b>1997</b> , 308-309, 195-198	2.2	3
21	Surface Loss Probabilities of Neutral Hydrocarbon Radicals on Amorphous Hydrogenated Carbon Film Surfaces: Consequences For The Formation of Re-Deposited Layers in Fusion Experiments <b>2000</b> , 331-337		3
20	Hydrogen atom-ion synergy in surface lattice modification at sub-threshold energy. <i>Acta Materialia</i> , <b>2020</b> , 201, 55-62	8.4	3
19	Interaction of Low-Energy Ions and Hydrocarbon Radicals with Carbon Surfaces. <i>Springer Series in Chemical Physics</i> , <b>2005</b> , 249-285	0.3	3
18	Bonding States of Hydrogen in Plasma-Deposited Hydrocarbon Films. <i>Journal of Carbon Research</i> , <b>2020</b> , 6, 3	3.3	2
17	Deuterium retention in tungsten-doped amorphous carbon films exposed to deuterium plasma. <i>Journal of Nuclear Materials</i> , <b>2013</b> , 438, S1134-S1137	3.3	2
16	Levitation and collection of diamond fine particles in the rf plasma chamber equipped with a hot filament. <i>Physics of Plasmas</i> , <b>2011</b> , 18, 113703	2.1	2
15	Erosion of a-C:D thin films by low energy D <sup>+</sup> . <i>Journal of Nuclear Materials</i> , <b>2011</b> , 415, S125-S128	3.3	2
14	Chemical sputtering of a-C:H films by simultaneous exposure to energetic Ar <sup>+</sup> ions and water vapor. <i>Journal of Physics: Conference Series</i> , <b>2008</b> , 100, 062012	0.3	2
13	The approach to diamond growth on levitating seed particles. <i>Applied Surface Science</i> , <b>2007</b> , 254, 177-180.	7	2
12	Influence of thin tungsten oxide films on hydrogen isotope uptake and retention in tungsten □ Evidence for permeation barrier effect. <i>Nuclear Materials and Energy</i> , <b>2021</b> , 27, 100991	2.1	2

11	Environment with reduced ion bombardment energy for levitated particles in an rf plasma. <i>Plasma Sources Science and Technology</i> , <b>2008</b> , 17, 035014	3.5	1
10	Secondary electron emission coefficient of C:H and Si:C thin films and some relations to their morphology and composition. <i>Diamond and Related Materials</i> , <b>1996</b> , 5, 1087-1095	3.5	1
9	Comparison experiment on the sputtering of EUROFER, RUSFER and CLAM steels by deuterium ions. <i>Nuclear Materials and Energy</i> , <b>2022</b> , 30, 101118	2.1	1
8	Cross section of 15N-2D nuclear reactions from 3.3 to 7.0 MeV for simultaneous hydrogen and deuterium quantitation in surface layers with 15N ion beams. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , <b>2020</b> , 478, 56-61	1.2	0
7	Surface blistering and deuterium retention in tungsten exposed to low-energy deuterium plasma at different temperatures. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , <b>2019</b> , 450, 210-214	1.2	0
6	Influence of thin surface oxide films on hydrogen isotope release from ion-irradiated tungsten. <i>Nuclear Materials and Energy</i> , <b>2022</b> , 30, 101137	2.1	0
5	Deuterium absorption in reduced activation ferritic/martensitic steel F82H under exposure to D2O vapor/water at room temperature. <i>Journal of Nuclear Materials</i> , <b>2018</b> , 507, 54-58	3.3	
4	Synthesis of diamond fine particles on levitated seed particles in a rf CH4/H2 plasma chamber equipped with a hot filament. <i>Journal of Applied Physics</i> , <b>2012</b> , 112, 073303	2.5	
3	Hydrogen interaction with Al2O3-coated tungsten under plasma irradiation. <i>Bulletin of the Russian Academy of Sciences: Physics</i> , <b>2010</b> , 74, 263-267	0.4	
2	The Schottky Contact in a Xe/Metal Interface Probed by Inverse Photoemission. <i>Perspectives in Condensed Matter Physics</i> , <b>1990</b> , 238-243		
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