Christian Linsmeier

List of Publications by Citations

293 papers	5,495 citations	37 h-index	60 g-index
301 ext. papers	6,319 ext. citations	2.6 avg, IF	5.57 L-index

#	Paper	IF	Citations
293	Recent progress in research on tungsten materials for nuclear fusion applications in Europe. *Journal of Nuclear Materials*, **2013**, 432, 482-500	3.3	494
292	Developing structural, high-heat flux and plasma facing materials for a near-term DEMO fusion power plant: The EU assessment. *Journal of Nuclear Materials*, **2014**, 455, 277-291	3.3	172
291	Review on the EFDA programme on tungsten materials technology and science. *Journal of Nuclear Materials*, **2011**, 417, 463-467	3.3	139
290	Development of advanced high heat flux and plasma-facing materials. *Nuclear Fusion*, **2017**, 57, 092007	3.3	137
289	Carbon films and carbide formation on tungsten. *Surface Science*, **2000**, 454-456, 78-82	1.8	108
288	Materials R&D for a timely DEMO: Key findings and recommendations of the EU Roadmap Materials Assessment Group. *Fusion Engineering and Design*, **2014**, 89, 1586-1594	1.7	99
287	In situ synchrotron tomography estimation of toughening effect by semi-ductile fibre reinforcement in a tungsten-fibre-reinforced tungsten composite system. *Acta Materialia*, **2013**, 61, 7060-7071	8.4	90
286	Major results from the first plasma campaign of the Wendelstein 7-X stellarator. *Nuclear Fusion*, **2017**, 57, 102020	3.3	88
285	Strong binding of bioactive BMP-2 to nanocrystalline diamond by physisorption. *Biomaterials*, **2006**, 27, 4547-56	15.6	88
284	Molybdenum oxide based partial oxidation catalyst: 1. Thermally induced oxygen deficiency, elemental and structural heterogeneity and the relation to catalytic performance. *Journal of Molecular Catalysis A*, **2000**, 162, 463-492		82
283	Beryllium migration in JET ITER-like wall plasmas. *Nuclear Fusion*, **2015**, 55, 063021	3.3	70
282	Formation of endothermic carbides on iron and nickel. *Physica Status Solidi A*, **2004**, 201, 881-887		69
281	Deuterium retention in tungsten exposed to low-energy, high-flux clean and carbon-seeded deuterium plasmas. *Journal of Nuclear Materials*, **2008**, 375, 192-201	3.3	68
280	Materials for DEMO and reactor applications—boundary conditions and new concepts. *Physica Scripta*, **2016**, T167, 014002	2.6	68
279	Retention mechanisms and binding states of deuterium implanted into beryllium. *New Journal of Physics*, **2009**, 11, 043023	2.9	64
278	A brief summary of the progress on the EFDA tungsten materials program. *Journal of Nuclear Materials*, **2013**, 442, S173-S180	3.3	63
277	Development of tungsten fibre-reinforced tungsten composites—towards their use in DEMO—potassium doped tungsten wire. *Physica Scripta*, **2016**, T167, 014006	2.6	60

276	First nitrogen-seeding experiments in JET with the ITER-like Wall. *Journal of Nuclear Materials*, **2013**, 438, S258-S261	3.3	57
275	Binary beryllium–tungsten mixed materials. *Journal of Nuclear Materials*, **2007**, 363-365, 1129-1137	3.3	57
274	Advanced tungsten materials for plasma-facing components of DEMO and fusion power plants. *Fusion Engineering and Design*, **2016**, 109-111, 1046-1052	1.7	57
273	Interaction of nitrogen plasmas with tungsten. *Nuclear Fusion*, **2010**, 50, 025006	3.3	54
272	Enhanced toughness and stable crack propagation in a novel tungsten fibre-reinforced tungsten composite produced by chemical vapour infiltration. *Physica Scripta*, **2014**, T159, 014031	2.6	51
271	Composition and hydrogen isotope retention analysis of co-deposited C/Be layers. *Journal of Nuclear Materials*, **2005**, 337-339, 590-594	3.3	50
270	Plasma–wall interaction studies within the EUROfusion consortium: progress on plasma-facing components development and qualification. *Nuclear Fusion*, **2017**, 57, 116041	3.3	50
269	Reactions of oxygen atoms and molecules with Au, Be, and W surfaces. *Surface Science*, **2000**, 454-456, 305-309	1.8	49
268	Influence of the interface strength on the mechanical properties of discontinuous tungsten fiber-reinforced tungsten composites produced by field assisted sintering technology. *Composites Part A: Applied Science and Manufacturing*, **2018**, 107, 342-353	8.4	46
267	Quantum Modeling of Hydrogen Retention in Beryllium Bulk and Vacancies. *Journal of Physical Chemistry C*, **2010**, 114, 3588-3598	3.8	46
266	Development of yttrium-containing self-passivating tungsten alloys for future fusion power plants. *Nuclear Materials and Energy*, **2016**, 9, 394-398	2.1	45
265	Oxidation behaviour of silicon-free tungsten alloys for use as the first wall material. *Physica Scripta*, **2011**, T145, 014019	2.6	44
264	Chemically deposited tungsten fibre-reinforced tungsten – The way to a mock-up for divertor applications. *Nuclear Materials and Energy*, **2016**, 9, 75-83	2.1	43
263	Can aluminium or magnesium be a surrogate for beryllium: A critical investigation of their chemistry. *Fusion Engineering and Design*, **2013**, 88, 1718-1721	1.7	43
262	Material testing facilities and programs for plasma-facing component testing. *Nuclear Fusion*, **2017**, 57, 092012	3.3	41
261	Strong metal–support interactions on rhodium model catalysts. *Applied Catalysis A: General*, **2011**, 391, 175-186	5.1	41
260	Carbon reaction and diffusion on Ni(111), Ni(100), and Fe(110): Kinetic parameters from x-ray photoelectron spectroscopy and density functional theory analysis. *Journal of Chemical Physics*, **2008**, 129, 084704	3.9	41
259	Surface alloying of thin beryllium films on tungsten. *New Journal of Physics*, **2006**, 8, 181-181	2.9	38

258	A multi-purpose manipulator system for W7-X as user facility for plasma edge investigation. *Fusion Engineering and Design*, **2017**, 123, 960-964	1.7	37
257	Thermal stability of titanium nitride diffusion barrier films for advanced silver interconnects. *Microelectronic Engineering*, **2004**, 76, 76-81	2.5	37
256	Silver metal organic chemical vapor deposition for advanced silver metallization. *Microelectronic Engineering*, **2005**, 82, 296-300	2.5	37
255	Implantation and erosion of nitrogen in tungsten. *New Journal of Physics*, **2014**, 16, 093018	2.9	36
254	Overview of the JET results. *Nuclear Fusion*, **2015**, 55, 104001	3.3	34
253	Investigation of W components exposed to high thermal and high H/He fluxes. *Journal of Nuclear Materials*, **2011**, 417, 495-498	3.3	34
252	Ultra-fast sintered functionally graded Fe/W composites for the first wall of future fusion reactors. *Composites Part B: Engineering*, **2019**, 164, 205-214	10	33
251	Smart tungsten alloys as a material for the first wall of a future fusion power plant. *Nuclear Fusion*, **2017**, 57, 066020	3.3	32
250	Tensile deformation behavior of tungsten fibre-reinforced tungsten composite specimens in as-fabricated state. *Fusion Engineering and Design*, **2017**, 124, 396-400	1.7	32
249	Advanced materials for a damage resilient divertor concept for DEMO: Powder-metallurgical tungsten-fibre reinforced tungsten. *Fusion Engineering and Design*, **2017**, 124, 964-968	1.7	32
248	Mixed material formation and erosion. *Journal of Nuclear Materials*, **2001**, 290-293, 25-32	3.3	32
247	Interaction of beryllium containing plasma with ITER materials. *Physica Scripta*, **2007**, T128, 115-120	2.6	31
246	Influence of tungsten microstructure and ion flux on deuterium plasma-induced surface modifications and deuterium retention. *Journal of Nuclear Materials*, **2015**, 463, 320-324	3.3	29
245	Beryllium deposition on International Thermonuclear Experimental Reactor first mirrors: Layer morphology and influence on mirror reflectivity. *Journal of Applied Physics*, **2007**, 102, 083302	2.5	29
244	Influence of oxygen on the carbide formation on tungsten. *Journal of Nuclear Materials*, **2001**, 290-293, 121-125	3.3	29
243	New oxidation-resistant tungsten alloys for use in the nuclear fusion reactors. *Physica Scripta*, **2017**, T170, 014012	2.6	28
242	Atmospheric plasma spraying of functionally graded steel/tungsten layers for the first wall of future fusion reactors. *Surface and Coatings Technology*, **2019**, 366, 170-178	4.4	27
241	Influence of plasma impurities on the deuterium retention in tungsten exposed in the linear plasma generator PSI-2. *Journal of Nuclear Materials*, **2015**, 463, 1021-1024	3.3	27

240	Properties of drawn W wire used as high performance fibre in tungsten fibre-reinforced tungsten composite. *IOP Conference Series: Materials Science and Engineering*, **2016**, 139, 012043	0.4	27
239	The influence of annealing on yttrium oxide thin film deposited by reactive magnetron sputtering: Process and microstructure. *Nuclear Materials and Energy*, **2017**, 10, 1-8	2.1	26
238	Plasma□wall interactions with nitrogen seeding in all-metal fusion devices: Formation of nitrides and ammonia. *Fusion Engineering and Design*, **2015**, 98-99, 1371-1374	1.7	26
237	Development and analyses of self-passivating tungsten alloys for DEMO accidental conditions. *Fusion Engineering and Design*, **2017**, 124, 183-186	1.7	25
236	Beryllium global erosion and deposition at JET-ILW simulated with ERO2.0. *Nuclear Materials and Energy*, **2019**, 18, 331-338	2.1	24
235	Powder Metallurgical Tungsten Fiber-Reinforced Tungsten. *Materials Science Forum*, **2015**, 825-826, 125-133	0.4	24
234	Calculation of cracking under pulsed heat loads in tungsten manufactured according to ITER specifications. *Journal of Nuclear Materials*, **2015**, 467, 165-171	3.3	23
233	Behavior of tungsten fiber-reinforced tungsten based on single fiber push-out study. *Nuclear Materials and Energy*, **2016**, 9, 416-421	2.1	23
232	Surface modification of molten W exposed to high heat flux helium neutral beams. *Journal of Nuclear Materials*, **2013**, 437, 297-302	3.3	23
231	Deuterium release from implanted beryllium and beryllium oxide. *Journal of Nuclear Materials*, **2011**, 415, S724-S727	3.3	23
230	Properties of nitrogen-implanted beryllium and its interaction with energetic deuterium. *Nuclear Fusion*, **2010**, 50, 125001	3.3	23
229	Formation of a surface alloy in the beryllium□tungsten system. *Journal of Nuclear Materials*, **2005**, 337-339, 951-955	3.3	23
228	Improved pseudo-ductile behavior of powder metallurgical tungsten short fiber-reinforced tungsten (Wf/W). *Nuclear Materials and Energy*, **2018**, 15, 214-219	2.1	23
227	Cold atmospheric plasma □A new technology for spacecraft component decontamination. *Planetary and Space Science*, **2014**, 90, 60-71	2	22
226	Ion beam-induced carbide formation at the the titanium□arbon interface. *Nuclear Instruments & Methods in Physics Research B*, **2001**, 182, 218-226	1.2	22
225	Advanced smart tungsten alloys for a future fusion power plant. *Plasma Physics and Controlled Fusion*, **2017**, 59, 064003	2	21
224	Review of the high heat flux testing as an integrated part of W7-X divertor development. *Fusion Engineering and Design*, **2009**, 84, 848-852	1.7	21
223	Metalorganic chemical vapor deposition of silver thin films for future interconnects by direct liquid injection system. *Materials Science in Semiconductor Processing*, **2004**, 7, 331-335	4.3	21

222	Surface reactions on beryllium after carbon vapour deposition and thermal treatment. *Journal of Nuclear Materials*, **2001**, 290-293, 76-79	3.3	21
221	Modelling of plasma-wall interaction and impurity transport in fusion devices and prompt deposition of tungsten as application. *Plasma Physics and Controlled Fusion*, **2018**, 60, 014041	2	21
220	Hydrogen saturation and permeation barrier performance of yttrium oxide coatings. *Fusion Engineering and Design*, **2017**, 124, 1140-1143	1.7	20
219	Investigation of European tungsten materials exposed to high heat flux H/He neutral beams. *Journal of Nuclear Materials*, **2013**, 442, S256-S260	3.3	20
218	Retention and release mechanisms of deuterium implanted into beryllium. *Nuclear Instruments & Methods in Physics Research B*, **2011**, 269, 1266-1270	1.2	20
217	Temperature programmed desorption of 1 keV deuterium implanted into clean beryllium. *Physica Scripta*, **2007**, T128, 111-114	2.6	20
216	Oxidation resistance of bulk plasma-facing tungsten alloys. *Nuclear Materials and Energy*, **2018**, 15, 226-231	2.1	20
215	Characterization of Electron Beam Evaporated Carbon Films and Compound Formation on Titanium and Silicon. *Physica Scripta*, **2001**, T91, 134	2.6	19
214	Hydrogen embrittlement of tungsten induced by deuterium plasma: Insights from nanoindentation tests. *Journal of Materials Research*, **2018**, 33, 3530-3536	2.5	19
213	Surface roughness effect on Mo physical sputtering and re-deposition in the linear plasma device PSI-2 predicted by ERO2.0. *Nuclear Materials and Energy*, **2019**, 19, 13-18	2.1	18
212	Aiming at understanding thermo-mechanical loads in the first wall of DEMO: Stress–strain evolution in a Eurofer-tungsten test component featuring a functionally graded interlayer. *Fusion Engineering and Design*, **2018**, 135, 141-153	1.7	18
211	Smart alloys for a future fusion power plant: First studies under stationary plasma load and in accidental conditions. *Nuclear Materials and Energy*, **2017**, 12, 1363-1367	2.1	17
210	Ion implanted deuterium retention and release from clean and oxidized beryllium. *Journal of Nuclear Materials*, **2009**, 390-391, 568-571	3.3	17
209	Tungsten sputtering and accumulation of implanted carbon and deuterium by simultaneous bombardment with D and C ions. *Journal of Nuclear Materials*, **2007**, 363-365, 1184-1189	3.3	17
208	Ion scattering and Auger electron spectroscopy analysis of alumina-supported rhodium model catalysts. *Surface Science*, **1992**, 275, 101-113	1.8	17
207	Simulation of neutron irradiation damage in tungsten using higher energy protons. *Nuclear Materials and Energy*, **2016**, 9, 29-35	2.1	17
206	Combined impact of transient heat loads and steady-state plasma exposure on tungsten. *Fusion Engineering and Design*, **2015**, 98-99, 1328-1332	1.7	16
205	Overview of challenges and developments in joining tungsten and steel for future fusion reactors. *Physica Scripta*, **2020**, T171, 014028	2.6	16

204	Modelling of Impurity Transport and Plasma–Wall Interaction in Fusion Devices with the ERO Code: Basics of the Code and Examples of Application. *Contributions To Plasma Physics*, **2016**, 56, 622-627	1.4	16
203	First ERO2.0 modeling of Be erosion and non-local transport in JET ITER-like wall. *Physica Scripta*, **2017**, T170, 014018	2.6	16
202	Surface chemistry of first wall materials – From fundamental data to modeling. *Journal of Nuclear Materials*, **2011**, 415, S212-S218	3.3	16
201	Quantum study of tungsten interaction with beryllium (0001). *Journal of Physics: Conference Series*, **2008**, 117, 012002	0.3	16
200	ARTOSS ? A New Surface Science Experiment to Study the Hydrogen Inventory in Multi-Component Materials. *Physica Scripta*, **2001**, T94, 28	2.6	16
199	WCrY smart alloys as advanced plasma-facing materials – Exposure to steady-state pure deuterium plasmas in PSI-2. *Nuclear Materials and Energy*, **2018**, 15, 220-225	2.1	15
198	Absorption and diffusion of beryllium in graphite, beryllium carbide formation investigated by density functional theory. *Journal of Applied Physics*, **2013**, 113, 213514	2.5	15
197	Development and characterization of powder metallurgically produced discontinuous tungsten fiber reinforced tungsten composites. *Physica Scripta*, **2017**, T170, 014005	2.6	15
196	Quantum modeling (DFT) and experimental investigation of beryllium-tungsten alloy formation. *Journal of Physics Condensed Matter*, **2009**, 21, 355011	1.8	15
195	Structural investigation of the Be–W intermetallic system. *Physica Scripta*, **2007**, T128, 133-136	2.6	15
194	Ion scattering analysis of alumina supported model catalysts. *Nuclear Instruments & Methods in Physics Research B*, **1992**, 64, 596-602	1.2	15
193	Evaluation of the high temperature oxidation of W-Cr-Zr self-passivating alloys. *Corrosion Science*, **2019**, 147, 201-211	6.8	15
192	The microstructure of tungsten exposed to D plasma with different impurities. *Nuclear Materials and Energy*, **2017**, 12, 302-306	2.1	14
191	Modelling of tungsten erosion and deposition in the divertor of JET-ILW in comparison to experimental findings. *Nuclear Materials and Energy*, **2019**, 18, 239-244	2.1	14
190	ERO2.0 modelling of the effects of surface roughness on molybdenum erosion and redeposition in the PSI-2 linear plasma device. *Physica Scripta*, **2020**, T171, 014057	2.6	14
189	Reaction-diffusion modeling of hydrogen transport and surface effects in application to single-crystalline Be. *Nuclear Instruments & Methods in Physics Research B*, **2018**, 430, 23-30	1.2	14
188	Laser induced ablation spectroscopy for in situ characterization of the first wall on EAST tokamak. *Fusion Engineering and Design*, **2018**, 135, 95-101	1.7	14
187	Surface modifications and deuterium retention in polycrystalline and single crystal tungsten as a function of particle flux and temperature. *Journal of Nuclear Materials*, **2017**, 495, 211-219	3.3	14

186	Diagnostic set-up and modelling for investigation of synergy between 3D edge physics and plasma-wall interactions on Wendelstein 7-X. *Nuclear Fusion*, **2017**, 57, 066049	3.3	14
185	Combined ion and electron spectroscopy study of the surface reactions of beryllium with carbon. *Nuclear Instruments & Methods in Physics Research B*, **2000**, 161-163, 411-414	1.2	14
184	Auger electron spectroscopy. *Vacuum*, **1994**, 45, 673-690	3.7	14
183	Nitrogen retention mechanisms in tokamaks with beryllium and tungsten plasma-facing surfaces. *Physica Scripta*, **2016**, T167, 014077	2.6	14
182	First direct comparative test of single crystal rhodium and molybdenum mirrors for ITER diagnostics. *Fusion Engineering and Design*, **2017**, 123, 674-677	1.7	13
181	Plasma-wall interaction of advanced materials. *Nuclear Materials and Energy*, **2017**, 12, 307-312	2.1	13
180	Tensile behaviour of drawn tungsten wire used in tungsten fibre-reinforced tungsten composites. *Physica Scripta*, **2017**, T170, 014032	2.6	13
179	On the nature of carbon embrittlement of tungsten fibers during powder metallurgical processes. *Fusion Engineering and Design*, **2019**, 145, 18-22	1.7	13
178	Recent ASDEX Upgrade research in support of ITER and DEMO. *Nuclear Fusion*, **2015**, 55, 104010	3.3	13
177	Hydrogen retention in beryllium: concentration effect and nanocrystalline growth. *Journal of Physics Condensed Matter*, **2015**, 27, 475401	1.8	13
176	Crack bridging in as-fabricated and embrittled tungsten single fibre-reinforced tungsten composites shown by a novel in-situ high energy synchrotron tomography bending test. *Nuclear Materials and Energy*, **2018**, 15, 1-12	2.1	13
175	On Oxidation Resistance Mechanisms at 1273 K of Tungsten-Based Alloys Containing Chromium and Yttria. *Metals*, **2018**, 8, 488	2.3	13
174	Influence of plasma impurities on the fuel retention in tungsten. *Nuclear Fusion*, **2019**, 59, 086029	3.3	13
173	Laser-induced breakdown spectroscopy for Wendelstein 7-X stellarator limiter tile analysis. *Physica Scripta*, **2017**, T170, 014004	2.6	13
172	Structure-dependent deuterium release from ion implanted beryllium: Comparison between Be(11. *Nuclear Instruments & Methods in Physics Research B*, **2009**, 267, 718-722	1.2	13
171	Measurement of beryllium depth profiles in carbon. *Nuclear Instruments & Methods in Physics Research B*, **2004**, 219-220, 947-952	1.2	13
170	Erosion and deposition investigations on Wendelstein 7-X first wall components for the first operation phase in divertor configuration. *Fusion Engineering and Design*, **2019**, 146, 242-245	1.7	13
169	Surface modification of He pre-exposed tungsten samples by He plasma impact in the divertor manipulator of ASDEX Upgrade. *Nuclear Materials and Energy*, **2017**, 12, 575-581	2.1	12

168	Dynamic outgassing of deuterium, helium and nitrogen from plasma-facing materials under DEMO relevant conditions. *Nuclear Fusion*, **2017**, 57, 016020	3.3	12
167	Erosion behavior of actively cooled tungsten under H/He high heat flux load. *Journal of Nuclear Materials*, **2013**, 438, S921-S924	3.3	12
166	Oxidation of beryllium and exposure of beryllium oxide to deuterium plasmas in PISCES B. *Journal of Nuclear Materials*, **2013**, 438, S1044-S1047	3.3	12
165	Deuterium retention in RAFM steels after high fluence plasma exposure. *Nuclear Materials and Energy*, **2017**, 12, 648-654	2.1	12
164	Time resolved imaging of laser induced ablation spectroscopy (LIAS) in TEXTOR and comparison with modeling. *Physica Scripta*, **2016**, T167, 014034	2.6	12
163	Materials development for new high heat-flux component mock-ups for DEMO. *Fusion Engineering and Design*, **2019**, 146, 1431-1436	1.7	11
162	Deuterium trapping and release in Be(0001), Be(11$\bar{2}$0) and polycrystalline beryllium. *Journal of Nuclear Materials*, **2013**, 438, S1072-S1075	3.3	11
161	Adsorption of beryllium atoms and clusters both on graphene and in a bilayer of graphite investigated by DFT. *Journal of Physics Condensed Matter*, **2013**, 25, 015002	1.8	11
160	Towards a detailed understanding of the mechanisms of hydrogen retention in beryllium. *Physica Scripta*, **2009**, T138, 014036	2.6	11
159	Thermally induced reaction and diffusion of carbon films on Ni(1 1 1) and Ni(1 0 0). *Surface Science*, **2008**, 602, 3623-3631	1.8	11
158	Deuterium bombardment of carbon and carbon layers on titanium. *Journal of Nuclear Materials*, **2003**, 313-316, 56-61	3.3	11
157	Formation of mixed layers and compounds on beryllium due to C+ and CO+ bombardment. *Journal of Nuclear Materials*, **2001**, 290-293, 71-75	3.3	11
156	Investigation of laser ablation features of molybdenum bulk for picosecond laser-based techniques in fusion devices. *Fusion Engineering and Design*, **2020**, 151, 111379	1.7	11
155	Depth resolved analysis of hydrogen in W7-X graphite components using laser-induced ablation-quadrupole mass spectrometry (LIA-QMS). *Nuclear Materials and Energy*, **2019**, 18, 153-158	2.1	11
154	Identification of BeO and BeOxDy in melted zones of the JET Be limiter tiles: Raman study using comparison with laboratory samples. *Nuclear Materials and Energy*, **2018**, 17, 295-301	2.1	11
153	Quantitative analysis of elemental depth on Wendelstein 7-X divertor baffle screws by picosecond laser-induced breakdown spectroscopy. *Spectrochimica Acta, Part B: Atomic Spectroscopy*, **2019**, 160, 105689	3.1	10
152	Improved ERO modelling of beryllium erosion at ITER upper first wall panel using JET-ILW and PISCES-B experience. *Nuclear Materials and Energy*, **2019**, 19, 510-515	2.1	10
151	Comparison of the hydrogen permeation through fusion relevant steels and the influence of oxidized and rough surfaces. *Nuclear Materials and Energy*, **2019**, 19, 55-58	2.1	10

150	Ero-structured tungsten: an advanced plasma-facing material. *Nuclear Materials and Energy*, **2019**, 19, 7-12	2.1	10
149	Smart first wall materials for intrinsic safety of a fusion power plant. *Fusion Engineering and Design*, **2018**, 136, 878-882	1.7	10
148	Depth-resolved sample composition analysis using laser-induced ablation-quadrupole mass spectrometry and laser-induced breakdown spectroscopy. *Spectrochimica Acta, Part B: Atomic Spectroscopy*, **2018**, 144, 38-45	3.1	10
147	Theoretical investigation on the point defect formation energies in beryllium and comparison with experiments. *Nuclear Materials and Energy*, **2017**, 12, 453-457	2.1	10
146	The microstructure of reduced activation ferritic/martensitic (RAFM) steels exposed to D plasma with different seeding impurities. *Physica Scripta*, **2017**, T170, 014036	2.6	10
145	Studies of protection and recovery techniques of diagnostic mirrors for ITER. *Nuclear Fusion*, **2015**, 55, 093015	3.3	10
144	Influence of support and promotor on the catalytic activity of Rh/VOx/SiO2 model catalysts. *Physical Chemistry Chemical Physics*, **2001**, 3, 4639-4643	3.6	10
143	Plastic deformation of tungsten due to deuterium plasma exposure: Insights from micro-compression tests. *Scripta Materialia*, **2019**, 162, 132-135	5.6	10
142	First Monte-Carlo modelling of global beryllium migration in ITER using ERO2.0. *Contributions To Plasma Physics*, **2020**, 60, e201900149	1.4	9
141	Aggravated blistering and increased deuterium retention in iron-damaged tungsten after exposure to deuterium plasma with various surface temperatures. *Nuclear Fusion*, **2018**, 58, 106005	3.3	9
140	Real-time protection of the JET ITER-like wall based on near infrared imaging diagnostic systems. *Nuclear Fusion*, **2018**, 58, 106021	3.3	9
139	Temperature-dependent in-situ LEIS measurement of W surface enrichment by 250 eV D sputtering of EUROFER. *Nuclear Materials and Energy*, **2018**, 16, 181-190	2.1	9
138	Roughening and reflection performance of molybdenum coatings exposed to a high-flux deuterium plasma. *Nuclear Fusion*, **2013**, 53, 113013	3.3	9
137	Tungsten erosion under combined hydrogen/helium high heat flux loading. *Physica Scripta*, **2014**, T159, 014019	2.6	9
136	Resonant electron capture by C60 ions at a metal surface with projected band gap. *Physical Review B*, **2010**, 81,	3.3	9
135	Investigation of chemical phase formation in the ternary system beryllium, carbon and tungsten with depth-resolved photoelectron spectroscopy. *Journal of Nuclear Materials*, **2009**, 390-391, 975-978	3.3	9
134	Depth profile analysis of strong metal-support interactions on model catalysts. *Nuclear Instruments & Methods in Physics Research B*, **1996**, 118, 533-540	1.2	9
133	Preparation of erosion and deposition investigations on plasma facing components in Wendelstein 7-X. *Physica Scripta*, **2017**, T170, 014010	2.6	9

132	Determination of tungsten sources in the JET-ILW divertor by spectroscopic imaging in the presence of a strong plasma continuum. *Nuclear Materials and Energy*, **2019**, 18, 118-124	2.1	9
131	The effect of the isotope on the H-mode density limit. *Nuclear Fusion*, **2017**, 57, 086007	3.3	8
130	Sublimation of advanced tungsten alloys under DEMO relevant accidental conditions. *Fusion Engineering and Design*, **2019**, 146, 1198-1202	1.7	8
129	Smart Tungsten-based Alloys for a First Wall of DEMO. *Fusion Engineering and Design*, **2020**, 159, 111742	1.7	8
128	Ablation mass features in multi-pulses femtosecond laser ablate molybdenum target. *Nuclear Instruments & Methods in Physics Research B*, **2018**, 418, 54-59	1.2	8
127	Morphology and composition of Fe□N coatings after deuterium plasma exposure as a model system for RAFM steels. *Physica Scripta*, **2016**, T167, 014013	2.6	8
126	Impact on the deuterium retention of simultaneous exposure of tungsten to a steady state plasma and transient heat cycling loads. *Physica Scripta*, **2016**, T167, 014046	2.6	8
125	Response of the imaging cameras to hard radiation during JET operation. *Fusion Engineering and Design*, **2017**, 123, 669-673	1.7	8
124	Development of laser-based technology for the routine first wall diagnostic on the tokamak EAST: LIBS and LIAS. *Physica Scripta*, **2017**, T170, 014046	2.6	8
123	Density limit of H-mode plasmas on JET-ILW. *Journal of Nuclear Materials*, **2015**, 463, 445-449	3.3	8
122	Advanced materials characterization and modeling using synchrotron, neutron, TEM, and novel micro-mechanical techniques□A European effort to accelerate fusion materials development. *Journal of Nuclear Materials*, **2013**, 442, S834-S845	3.3	8
121	Formation of D inventories and structural modifications by deuterium bombardment of tungsten thin films. *Journal of Nuclear Materials*, **2005**, 337-339, 965-969	3.3	8
120	Erosion of beryllium and deposition of carbon and oxygen due to bombardment with C+ and CO+ ions. *Journal of Nuclear Materials*, **1999**, 266-269, 581-586	3.3	8
119	An upgraded LIBS system on linear plasma device PSI-2 for in situ diagnostics of plasma-facing materials. *Fusion Engineering and Design*, **2019**, 146, 96-99	1.7	8
118	Influence of the grain structure of yttria thin films on the hydrogen isotope permeation. *International Journal of Hydrogen Energy*, **2018**, 43, 22976-22985	6.7	8
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