Laurent Marot

List of Publications by Year
in descending order

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123	2,655	186265	243625
papers	citations	28 h-index	44 g-index

123	123	123	3069
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Reimann Brake Ramp for planar flow casting processes and analysis of ribbon gluing. Journal of Materials Research and Technology, 2022, 16, 734-742.	5.8	1
2	Novel Titanium Nanospike Structure Using Low-Energy Helium Ion Bombardment for the Transgingival Part of a Dental Implant. Nanomaterials, 2022, 12, 1065.	4.1	4
3	Decomposition studies of NH3 and ND3 in presence of H2 and D2 with Pt/Al2O3 and Ru/Al2O3 catalysts. International Journal of Hydrogen Energy, 2022, 47, 14130-14140.	7.1	9
4	Deuterium plasma sputtering of mixed Be-W layers. Journal of Nuclear Materials, 2022, 564, 153671.	2.7	3
5	Experimental and numerical characterization of a radio-frequency plasma source with a DC-grounded electrode configuration using a quarter-wavelength filter. Plasma Physics and Controlled Fusion, 2021, 63, 045005.	2.1	7
6	RF discharge mirror cleaning for ITER optical diagnostics using 60 MHz very high frequency. Fusion Engineering and Design, 2021, 163, 112140.	1.9	11
7	Reducing the hydrogen content in liquid helium. Cryogenics, 2021, 114, 103239.	1.7	0
8	RF discharge mirror cleaning system development for ITER diagnostics. Fusion Engineering and Design, 2021, 164, 112162.	1.9	16
9	Infrared thermography in metallic environments of WEST and ASDEX Upgrade. Nuclear Materials and Energy, 2021, 26, 100879.	1.3	13
10	Plasma-Assisted Catalysis of Ammonia Using Tungsten at Low Pressures: A Parametric Study. ACS Applied Energy Materials, 2021, 4, 4385-4394.	5.1	10
11	Ion-Imprinted Nanofilms Based on Tannic Acid and Silver Nanoparticles for Sensing of Al(III). ACS Applied Nano Materials, 2021, 4, 5372-5382.	5.0	9
12	Morphological and stoichiometric optimization of Cu2O thin films by deposition conditions and post-growth annealing. Thin Solid Films, 2021, 732, 138763.	1.8	12
13	Bidirectional reflectance measurement of tungsten samples to assess reflection model in WEST tokamak. Review of Scientific Instruments, 2021, 92, 093501.	1.3	8
14	Effect of a Nanostructured Titanium Surface on Gingival Cell Adhesion, Viability and Properties against P. gingivalis. Materials, 2021, 14, 7686.	2.9	12
15	Plasma-activated catalytic formation of ammonia from N₂â€“H₂: influence of temperature and noble gas addition. Nuclear Fusion, 2020, 60, 016026.	3.5	13
16	Decorating Nanostructured Surfaces with Antimicrobial Peptides to Efficiently Fight Bacteria. ACS Applied Bio Materials, 2020, 3, 1533-1543.	4.6	20
17	Plasma-assisted catalytic formation of ammonia in N₂â€“H₂plasma on a tungsten surface. Physical Chemistry Chemical Physics, 2019, 21, 16623-16633.	2.8	31
18	Deuterium as a cleaning gas for ITER first mirrors: experimental study on beryllium deposits from laboratory and JET-ILW. Nuclear Fusion, 2019, 59, 096027.	3.5	15

#	Article	IF	Citations
19	Plasma cleaning of steam ingressed ITER first mirrors. Nuclear Materials and Energy, 2019, 21, 100702.	1.3	13
20	Diagnostic mirrors for ITER: research in the frame of International Tokamak Physics Activity. Nuclear Fusion, 2019, 59, 066029.	3.5	41
21	Chemical and morphological characterization of photoactive SiOx films electrodeposited on Pt substrate. Journal of Electroanalytical Chemistry, 2019, 832, 311-320.	3.8	1
22	Sputtering effects on mirrors made of different tungsten grades. Journal of Nuclear Materials, 2018, 500, 56-63.	2.7	2
23	Plasma cleaning of ITER edge Thomson scattering mock-up mirror in the EAST tokamak. Nuclear Fusion, 2018, 58, 026008.	3.5	19
24	Valence band behaviour of zirconium oxide, Photoelectron and Auger spectroscopy study. Scientific Reports, 2018, 8, 16251.	3.3	53
25	Quartz micro-balance and in situ XPS study of the adsorption and decomposition of ammonia on gold, tungsten, boron, beryllium and stainless steel surfaces. Nuclear Fusion, 2018, 58, 106012.	3.5	10
26	Plasma impact on diagnostic mirrors in JET. Nuclear Materials and Energy, 2017, 12, 506-512.	1.3	25
27	In situcleaning of diagnostic first mirrors: an experimental comparison between plasma and laser cleaning in ITER-relevant conditions. Nuclear Fusion, 2017, 57, 046014.	3.5	19
28	Surface chemistry of rare-earth oxide surfaces at ambient conditions: reactions with water and hydrocarbons. Scientific Reports, 2017, 7, 43369.	3.3	66
29	Investigation and plasma cleaning of first mirrors coated with relevant ITER contaminants: beryllium and tungsten. Nuclear Fusion, 2017, 57, 086019.	3.5	17
30	TCV mirrors cleaned by plasma. Nuclear Materials and Energy, 2017, 12, 605-610.	1.3	2
31	Anisotropic etching of graphite and graphene in a remote hydrogen plasma. Npj 2D Materials and Applications, 2017, 1, .	7.9	16
32	Spectroscopic characterization and photoactivity of SiO x -based films electrochemically grown on Cu surfaces. Journal of Applied Electrochemistry, 2017, 47, 917-930.	2.9	2
33	Restoring the Electrical Properties of CVD Graphene via Physisorption of Molecular Adsorbates. ACS Applied Materials & Interfaces, 2017, 9, 25014-25022.	8.0	27
34	Antibacterial effects of bio-inspired nanostructured materials. Journal of Oral Microbiology, 2017, 9, 1325241.	2.7	2
35	Plasma cleaning of ITER first mirrors. Physica Scripta, 2017, T170, 014047.	2.5	29
36	Nanostructuring of an alkali halide surface by low temperature plasma exposure. Physical Chemistry Chemical Physics, 2017, 19, 16251-16256.	2.8	2

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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	PEG Brushes on Porous, PDMS-Coated Surfaces and Their Interaction with Carbon Dioxide. Macromolecular Chemistry and Physics, 2016, 217, 966-973.	2.2	5
39	ITER first mirror mock-ups exposed in Magnum-PSI. Nuclear Fusion, 2016, 56, 066015.	3.5	4
40	Work function of few layer graphene covered nickel thin films measured with Kelvin probe force microscopy. Applied Physics Letters, 2016, 108, .	3.3	7
41	Cleaning of first mirrors in ITER by means of radio frequency discharges. Review of Scientific Instruments, 2016, 87, 11D439.	1.3	32
42	ITER perspective on fusion reactor diagnosticsâ€”A spectroscopic view. Journal of Instrumentation, 2016, 11, P08010-P08010.	1.2	6
43	Understanding the formation of aligned, linear arrays of Ag nanoparticles. RSC Advances, 2016, 6, 28388-28392.	3.6	8
44	Electrodeposition and Characterization of SiO_xFilms Photoactive in Organic Solution. Journal of the Electrochemical Society, 2016, 163, D100-D106.	2.9	4
45	Plasma cleaning of beryllium coated mirrors. Physica Scripta, 2016, T167, 014069.	2.5	24
46	Optical Coatings as Mirrors for Optical Diagnostics. Journal of Coating Science and Technology, 2016, 2, 72-78.	0.3	16
47	Chain-like structure elements in Ni40Ta60 metallic glasses observed by scanning tunneling microscopy. Scientific Reports, 2015, 5, 13143.	3.3	10
48	Surface Modifications Induced by High Fluxes of Low Energy Helium Ions. Scientific Reports, 2015, 5, 9779.	3.3	39
49	Nanocrystalline Lowâ€Refractive Magnesium Fluoride Films Deposited by Reactive Magnetron Sputtering: Optical and Structural Properties. Advanced Engineering Materials, 2015, 17, 1652-1659.	3.5	24
50	Overview of the JET results. Nuclear Fusion, 2015, 55, 104001.	3.5	50
51	Spectroscopic ellipsometry on Si/SiO2/graphene tri-layer system exposed to downstream hydrogen plasma: Effects of hydrogenation and chemical sputtering. Applied Physics Letters, 2015, 106, .	3.3	9
52	Towards plasma cleaning of ITER first mirrors. Nuclear Fusion, 2015, 55, 063020.	3.5	41
53	Plasma cleaning of ITER First Mirrors in magnetic field. Journal of Nuclear Materials, 2015, 463, 940-943.	2.7	36
54	An overview of the comprehensive First Mirror Test in JET with ITER-like wall. Physica Scripta, 2014, T159, 014011.	2.5	59

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55	Laser-assisted cleaning of beryllium-containing mirror samples from JET and PISCES-B. Fusion Engineering and Design, 2014, 89, 122-130.	1.9	23
56	Spontaneous synthesis of carbon nanowalls, nanotubes and nanotips using high flux density plasmas. Carbon, 2014, 68, 695-707.	10.3	20
57	Hydrogen-induced buckling of gold films. Journal Physics D: Applied Physics, 2014, 47, 025302.	2.8	16
58	Carbon nanotube growth on AlN support: Comparison between Ni and Fe chemical states and morphology. Chemical Physics Letters, 2014, 609, 82-87.	2.6	5
59	Nanostructuring of Iron Surfaces by Low-Energy Helium Ions. ACS Applied Materials & Interfaces, 2014, 6, 3462-3468.	8.0	40
60	Morphological Changes of Tungsten Surfaces by Low-Flux Helium Plasma Treatment and Helium Incorporation via Magnetron Sputtering. ACS Applied Materials & Interfaces, 2014, 6, 11609-11616.	8.0	37
61	Deuterium plasma exposure of rhodium films: Role of morphology and crystal structure. Journal of Nuclear Materials, 2014, 446, 106-112.	2.7	5
62	Graphene Synthesis via Thermal Polymerization of Aromatic Quinone Molecules. ACS Nano, 2014, 8, 5932-5938.	14.6	14
63	Picosecond and Nanosecond Laser Ablation of Mixed Tungsten/Aluminum Films. Fusion Science and Technology, 2014, 66, 308-314.	1.1	4
64	Laser damage thresholds of ITER mirror materials and first results on in situ laser cleaning of stainless steel mirrors. Fusion Engineering and Design, 2013, 88, 388-399.	1.9	22
65	Performances of Rh and Mo mirrors under JET exposure. Journal of Nuclear Materials, 2013, 438, S1187-S1191.	2.7	14
66	In situ evaluation of the reflectivity of molybdenum and rhodium coatings in an ITER-like mixed environment. Journal of Nuclear Materials, 2013, 438, S852-S855.	2.7	19
67	Deuterium plasma exposure on rhodium: Reflectivity monitoring and evidence of subsurface deuteride formation. Applied Surface Science, 2013, 273, 94-100.	6.1	7
68	Roughening and reflection performance of molybdenum coatings exposed to a high-flux deuterium plasma. Nuclear Fusion, 2013, 53, 113013.	3.5	11
69	Helium effects on tungsten under fusion-relevant plasma loading conditions. Journal of Nuclear Materials, 2013, 438, S78-S83.	2.7	89
70	Assessment of cleaning methods for first mirrors tested in JET for ITER. Journal of Nuclear Materials, 2013, 438, S1241-S1244.	2.7	6
71	Can aluminium or magnesium be a surrogate for beryllium: A critical investigation of their chemistry. Fusion Engineering and Design, 2013, 88, 1718-1721.	1.9	51
72	Hydrogen plasma microlithography of graphene supported on a Si/SiO2 substrate. Applied Physics Letters, 2013, 102, .	3.3	7

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73	Reduced damage threshold for tungsten using combined steady state and transient sources. Journal of Nuclear Materials, 2013, 438, S784-S787.	2.7	12
74	Synergistic effects of hydrogen plasma exposure, pulsed laser heating and temperature on rhodium surfaces. Journal of Nuclear Materials, 2013, 432, 388-394.	2.7	2
75	Reorganization of graphite surfaces into carbon micro- and nanoparticles under high flux hydrogen plasma bombardment. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2013, 31, .	2.1	12
76	Imaging Challenges for ITER Plasma-Facing Component Protection. Fusion Science and Technology, 2013, 64, 735-740.	1.1	6
77	Spectroscopic reflectometry of mirror surfaces during plasma exposure. Review of Scientific Instruments, 2012, 83, 013509.	1.3	23
78	Nanostructuring of molybdenum and tungsten surfaces by low-energy helium ions. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2012, 30, .	2.1	119
79	Thermo-mechanical analysis of ITER first mirrors and its use for the ITER equatorial visible/infrared wide angle viewing system optical design. Review of Scientific Instruments, 2012, 83, 10E506.	1.3	3
80	The ITER Thomson scattering core LIDAR diagnostic. Journal of Instrumentation, 2012, 7, C03043-C03043.	1.2	9
81	Nanocomposites of carbon nanotubes embedded in a (Ti,Al)N coated film. Surface and Coatings Technology, 2012, 212, 223-228.	4.8	5
82	Achievements on Engineering and Manufacturing of ITER First-Mirror Mock-ups. IEEE Transactions on Plasma Science, 2012, 40, 692-696.	1.3	17
83	Quantum Hall Effect in Graphene with Superconducting Electrodes. Nano Letters, 2012, 12, 1942-1945.	9.1	99
84	Pure hydrogen low-temperature plasma exposure of HOPG and graphene: Graphane formation?. Beilstein Journal of Nanotechnology, 2012, 3, 852-859.	2.8	30
85	The ITER VIS/IR wide angle viewing system: Challenges and on-going R&D. , 2011, , .		5
86	Achievements on engineering and manufacturing of ITER first mirrors mock-ups. , 2011, , .		0
87	Development of in situ cleaning techniques for diagnostic mirrors in ITER. Fusion Engineering and Design, 2011, 86, 1780-1783.	1.9	28
88	Reflective metallic coatings for first mirrors on ITER. Fusion Engineering and Design, 2011, 86, 2593-2596.	1.9	22
89	Suppression of electronic friction on Nb films in the superconducting state. Nature Materials, 2011, 10, 119-122.	27.5	137
90	Nitrogen and neon retention in plasma-facing materials. Journal of Nuclear Materials, 2011, 415, S223-S226.	2.7	34

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91	Co-deposition of rhodium and tungsten films for the first-mirror on ITER. Journal of Nuclear Materials, 2011, 415, S1203-S1205.	2.7	7
92	Erosion yields of carbon under various plasma conditions in Pilot-PSI. Journal of Nuclear Materials, 2011, 415, S149-S152.	2.7	13
93	Active control over carbon deposition on diagnostic components and in remote areas of ITER. Journal of Nuclear Materials, 2011, 417, 830-833.	2.7	5
94	Characterization of hydrocarbon and mixed layers in TEXTOR by laser induced ablation spectroscopy. Physica Scripta, 2011, T145, 014026.	2.5	6
95	ELM simulation experiments on Pilot-PSI using simultaneous high flux plasma and transient heat/particle source. Nuclear Fusion, 2011, 51, 073008.	3.5	82
96	Overview of the second stage in the comprehensive mirrors test in JET. Physica Scripta, 2011, T145, 014070.	2.5	20
97	The effect of low temperature deuterium plasma on molybdenum reflectivity. Nuclear Fusion, 2011, 51, 103025.	3.5	35
98	Rhodium and silicon system: I. Glassy metallic alloy formation. Nanotechnology, 2010, 21, 365706.	2.6	8
99	Rhodium and silicon system: II. Rhodium silicide formation. Nanotechnology, 2010, 21, 365707.	2.6	14
100	Engineering and manufacturing of ITER first mirror mock-ups. Review of Scientific Instruments, 2010, 81, 10E108.	1.3	11
101	Overview of the recent DiMES and MiMES experiments in DIII-D. Physica Scripta, 2009, T138, 014007.	2.5	20
102	Nitrogen-assisted removal of deuterated carbon layers. Journal of Nuclear Materials, 2009, 390-391, 647-650.	2.7	11
103	Reactivity of rhodium during co-deposition of rhodium and carbon. Journal of Nuclear Materials, 2009, 390-391, 1135-1137.	2.7	9
104	Temperature effect on hydrocarbon deposition on molybdenum mirrors under ITER-relevant long-term plasma operation. Physica Scripta, 2009, 2009, 014067.	2.5	4
105	Interactions of diamond surfaces with fusion relevant plasmas. Physica Scripta, 2009, T138, 014013.	2.5	22
106	Characterization of magnetron sputtered rhodium films for reflective coatings. Surface and Coatings Technology, 2008, 202, 2837-2843.	4.8	50
107	Characterization of sub-stoichiometric rhodium oxide deposited by magnetron sputtering. Surface Science, 2008, 602, 3375-3380.	1.9	29
108	Adhesion of rhodium films on metallic substrates. Thin Solid Films, 2008, 516, 7604-7608.	1.8	21

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109	nc-VO2/Al2O3 nanocomposite films prepared by dual target magnetron sputtering. Thin Solid Films, 2008, 516, 8513-8516.	1.8	7
110	Modeling the effect of reflection from metallic walls on spectroscopic measurements. Review of Scientific Instruments, 2008, 79, 10F527.	1.3	18
111	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	30
112	Rhodium coated mirrors deposited by magnetron sputtering for fusion applications. Review of Scientific Instruments, 2007, 78, 103507.	1.3	53
113	Temperature-induced metalâ€“semiconductor transition in W-doped VO2 films studied by photoelectron spectroscopy. Solar Energy Materials and Solar Cells, 2007, 91, 1831-1835.	6.2	94
114	First mirror tests for ITER: Influence of material choice on the erosion/deposition mechanisms affecting optical reflectivity. Journal of Nuclear Materials, 2007, 363-365, 259-263.	2.7	31
115	Direct writing of microtunnels using proton beam micromachining. Applied Surface Science, 2006, 252, 7343-7346.	6.1	8
116	Friction properties of ta-C and a-C:H coatings under high vacuum. Surface and Coatings Technology, 2005, 200, 1976-1981.	4.8	26
117	Improved nitridation efficiency and mechanical property of stainless steel surface after N2â€“H2 plasma nitridation at low temperature. Materials Letters, 2002, 56, 76-79.	2.6	18
118	High temperature plasma based ionic implantation of titanium alloys and silicon. Surface and Coatings Technology, 2002, 156, 155-158.	4.8	21
119	Ã‰tude par diffraction des rayons X de la nitruration plasma d'un acier 304L â€“ Influence sur l'oxydation Ã 1000Âà—‹C. European Physical Journal Special Topics, 2002, 12, 215-222.	0.2	1
120	A new thermally assisted, plasma based, ionic implantation system of treatment and deposition.. Surface and Coatings Technology, 2001, 142-144, 384-387.	4.8	17
121	Improved nitrogen transport in Feâ€“C alloys during NH3 plasma nitridation. Materials Letters, 2000, 44, 35-38.	2.6	16
122	Study of wall re-deposition on DC-grounded ITER-relevant mirrors with RF plasma in a first mirror unit. Nuclear Fusion, 0, , .	3.5	3
123	The role of tungsten chemical state and boron on ammonia formation using N2-H2 radiofrequency discharges. Nuclear Fusion, 0, , .	3.5	3