

# Wim M Arnoldbik

## List of Publications by Year in descending order

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49  
papers

1,238  
citations

394421

19  
h-index

377865

34  
g-index

49  
all docs

49  
docs citations

49  
times ranked

1174  
citing authors

#	ARTICLE	IF	CITATIONS
1	In-situ LIBS and NRA deuterium retention study in porous W-O and compact W coatings loaded by Magnum-PSI. Fusion Engineering and Design, 2021, 168, 112403.	1.9	9
2	Atomic Layer Deposition of LiCoO <sub>2</sub> Thin-Film Electrodes for All-Solid-State Li-Ion Micro-Batteries. Journal of the Electrochemical Society, 2013, 160, A3066-A3071.	2.9	99
3	Growth stress in tungsten carbide-diamond-like carbon coatings. Journal of Applied Physics, 2009, 105, 033502.	2.5	7
4	The effect of composition on the bond structure and refractive index of silicon nitride deposited by HWCVD and PECVD. Thin Solid Films, 2009, 517, 3499-3502.	1.8	33
5	Electrochemical Growth of Micrometer-Thick Oxide on SiC in Acidic Fluoride Solution. Chemistry of Materials, 2009, 21, 3297-3305.	6.7	17
6	On the argon and oxygen incorporation into SiO <sub>x</sub> through ion implantation during reactive plasma magnetron sputter deposition. Applied Surface Science, 2008, 255, 3079-3084.	6.1	7
7	On the ion and neutral atom bombardment of the growth surface in magnetron plasma sputter deposition. Applied Physics Letters, 2007, 91, 171501.	3.3	32
8	Distinct processes in radio-frequency reactive magnetron plasma sputter deposition of silicon suboxide films. Journal of Applied Physics, 2007, 102, .	2.5	11
9	Swift heavy ion induced modifications of silicon (sub) oxide nitride layer structures. Nuclear Instruments & Methods in Physics Research B, 2007, 256, 300-304.	1.4	15
10	Nano-scale effects of swift heavy ion irradiation in SiO <sub>x</sub> layers and multilayers. Nuclear Instruments & Methods in Physics Research B, 2007, 258, 199-204.	1.4	17
11	On-line characterisation of radiofrequency magnetron sputter deposition of SiO <sub>x</sub> using elastic recoil detection. Thin Solid Films, 2006, 494, 13-17.	1.8	4
12	Silicon nitride at high deposition rate by Hot Wire Chemical Vapor Deposition as passivating and antireflection layer on multicrystalline silicon solar cells. Thin Solid Films, 2006, 501, 51-54.	1.8	28
13	Unambiguous determination of Fourier-transform infrared spectroscopy proportionality factors: The case of silicon nitride. Physical Review B, 2006, 73, .	3.2	44
14	A round robin characterisation of the thickness and composition of thin to ultra-thin AlNO films. Nuclear Instruments & Methods in Physics Research B, 2005, 227, 397-419.	1.4	5
15	Thickness determination of thin ( $\sim 1/4$ 20nm) microcrystalline silicon layers. Solar Energy Materials and Solar Cells, 2005, 87, 445-455.	6.2	9
16	Improving the control of the electroless plating synthesis of Pd/Ag membranes for hydrogen separation using Rutherford backscattering. Journal of Membrane Science, 2005, 254, 241-248.	8.2	12
17	Electronic Sputtering of Silicon Suboxide Films by Swift Heavy Ions. Physical Review Letters, 2005, 94, .	7.8	23
18	High-energy ion-beam-induced phase separation in SiO <sub>x</sub> films. Physical Review B, 2005, 71, .	3.2	68

#	ARTICLE	IF	CITATIONS
19	Desorption of O <sub>2</sub> from SiO <sub>2</sub> films during irradiation of SiO <sub>2</sub> with MeV/a.m.u. heavy ions. Nuclear Instruments & Methods in Physics Research B, 2004, 219-220, 312-316.	1.4	10
20	Study of the a-Si/a-SiO <sub>2</sub> interface deposited by r.f. magnetron sputtering. Thin Solid Films, 2004, 447-448, 306-310.	1.8	10
21	Characterization of the plasma in a radio-frequency magnetron sputtering system. Journal of Applied Physics, 2004, 95, 7611-7618.	2.5	27
22	Modifications in thin film structures by swift heavy ions. Vacuum, 2004, 73, 109-114.	3.5	5
23	Computer-aided band gap engineering and experimental verification of amorphous silicon-germanium solar cells. Solar Energy Materials and Solar Cells, 2004, 81, 73-86.	6.2	38
24	On the deposition process of silicon suboxides by a RF magnetron reactive sputtering in Ar-O <sub>2</sub> mixtures: theoretical and experimental approach. Surface and Coatings Technology, 2004, 177-178, 215-221.	4.8	23
25	Argon plasma modelling in a RF magnetron sputtering system. Surface and Coatings Technology, 2004, 188-189, 392-398.	4.8	10
26	Experimental characterization of the deposition of silicon suboxide films in a radiofrequency magnetron reactive sputtering system. Surface and Coatings Technology, 2004, 188-189, 399-403.	4.8	16
27	Stress reduction in a-C:H coatings through the addition of nitrogen to the feed gas. Diamond and Related Materials, 2004, 13, 1645-1657.	3.9	8
28	Role of spinodal decomposition in the structure of SiO <sub>x</sub> . Physical Review B, 2004, 69, .	3.2	41
29	Electronic sputtering of thin SiO <sub>2</sub> films by MeV heavy ions. Nuclear Instruments & Methods in Physics Research B, 2003, 203, 151-157.	1.4	45
30	Influence of the high-temperature firing-step on high-rate plasma deposited silicon nitride films used as bulk passivating antireflection coatings on silicon solar cells. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2003, 21, 2123.	1.6	99
31	Deuteron implantation into hexagonal silicon carbide: defects and deuterium behaviour. EPJ Applied Physics, 2003, 23, 11-18.	0.7	1
32	Ion beam induced desorption from thin films: SiO <sub>2</sub> single layers and SiO <sub>2</sub> /Si multilayers. Nuclear Instruments & Methods in Physics Research B, 2002, 190, 433-438.	1.4	14
33	Structure of sputtered silicon suboxide single- and multi-layers. Thin Solid Films, 2002, 420-421, 382-385.	1.8	19
34	Bending MeV proton beams in graded composition Si <sub>1-x</sub> Gex/Si layers. Nuclear Instruments & Methods in Physics Research B, 2000, 171, 387-400.	1.4	8
35	The optimum oxidation state of AlO/sub x/ magnetic tunnel junctions. IEEE Transactions on Magnetics, 1999, 35, 2991-2993.	2.1	24
36	Elastic recoil detection. Reports on Progress in Physics, 1993, 56, 859-902.	20.1	134

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37	Structural, compositional and optical properties of hydrogenated amorphous silicon-carbon alloys. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 1992, 66, 787-800.	0.6	29
38	Nitrogen and oxygen incorporation during rapid thermal processing of Si in N <sub>2</sub> O. Applied Physics Letters, 1992, 61, 1031-1033.	3.3	45
39	On the use of a gas filled magnetic spectrograph in elastic recoil detection. Nuclear Instruments & Methods in Physics Research B, 1992, 64, 292-295.	1.4	6
40	On the use of a d E-E telescope in elastic recoil detection. Nuclear Instruments & Methods in Physics Research B, 1992, 64, 832-835.	1.4	38
41	Deuterium diffusion in $\hat{1}\pm$ -Si:H studied with elastic recoil detection. Journal of Non-Crystalline Solids, 1991, 137-138, 29-32.	3.1	8
42	Positron annihilation study of low pressure chemical vapor deposited silicon nitride films. Applied Physics Letters, 1991, 59, 1687-1689.	3.3	10
43	Diffusion of hydrogen in lowâ€pressure chemical vapor deposited silicon nitride films. Applied Physics Letters, 1990, 56, 2530-2532.	3.3	100
44	Temperatureâ€dependent aluminum incorporation in Al <sub>x</sub> Ga <sub>1-x</sub> As layers grown by metalorganic vapor phase epitaxy. Journal of Applied Physics, 1988, 64, 195-199.	2.5	17
45	Hydrogen distribution in oxynitride/oxide structures. Applied Surface Science, 1987, 30, 197-203.	6.1	9
46	Hydrogen related effects in semiconductor layers. , 0, , .		0
47	On combining surface and bulk passivation of SiN/sub x/:H layers for mc-Si solar cells. , 0, , .		4
48	High-rate (&lt; 1 nm/s) plasma deposited a-SiN/sub x/:H films for mc-Si solar cell application. , 0, , .		0
49	Hot-wire chemical vapor deposition of silicon nitride for multicrystalline silicon solar cells. , 0, , .		0