

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	Elastic recoil detection. Reports on Progress in Physics, 1993, 56, 859-902.	20.1	134
2	Diffusion of hydrogen in low-pressure chemical vapor deposited silicon nitride films. Applied Physics Letters, 1990, 56, 2530-2532.	3.3	100
3	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
4	Atomic Layer Deposition of LiCoO_2 Thin-Film Electrodes for All-Solid-State Li-Ion Micro-Batteries. Journal of the Electrochemical Society, 2013, 160, A3066-A3071.	2.9	99
5	High-energy ion-beam-induced phase separation in SiO_x films. Physical Review B, 2005, 71, .	3.2	68
6	Nitrogen and oxygen incorporation during rapid thermal processing of Si in N_2O . Applied Physics Letters, 1992, 61, 1031-1033.	3.3	45
7	Electronic sputtering of thin SiO_2 films by MeV heavy ions. Nuclear Instruments & Methods in Physics Research B, 2003, 203, 151-157.	1.4	45
8	Unambiguous determination of Fourier-transform infrared spectroscopy proportionality factors: The case of silicon nitride. Physical Review B, 2006, 73, .	3.2	44
9	Role of spinodal decomposition in the structure of SiO_x . Physical Review B, 2004, 69, .	3.2	41
10	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
11	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
12	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
13	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
14	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
15	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
16	Characterization of the plasma in a radio-frequency magnetron sputtering system. Journal of Applied Physics, 2004, 95, 7611-7618.	2.5	27
17	The optimum oxidation state of AlO_x magnetic tunnel junctions. IEEE Transactions on Magnetics, 1999, 35, 2991-2993.	2.1	24
18	On the deposition process of silicon suboxides by a RF magnetron reactive sputtering in Ar-O_2 mixtures: theoretical and experimental approach. Surface and Coatings Technology, 2004, 177-178, 215-221.	4.8	23

#	ARTICLE	IF	CITATIONS
19	Electronic Sputtering of Silicon Suboxide Films by Swift Heavy Ions. <i>Physical Review Letters</i> , 2005, 94, .	7.8	23
20	Structure of sputtered silicon suboxide single- and multi-layers. <i>Thin Solid Films</i> , 2002, 420-421, 382-385.	1.8	19
21	Temperature-dependent aluminum incorporation in Al _x Ga _{1-x} As layers grown by metalorganic vapor phase epitaxy. <i>Journal of Applied Physics</i> , 1988, 64, 195-199.	2.5	17
22	Nano-scale effects of swift heavy ion irradiation in SiO _x layers and multilayers. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2007, 258, 199-204.	1.4	17
23	Electrochemical Growth of Micrometer-Thick Oxide on SiC in Acidic Fluoride Solution. <i>Chemistry of Materials</i> , 2009, 21, 3297-3305.	6.7	17
24	Experimental characterization of the deposition of silicon suboxide films in a radiofrequency magnetron reactive sputtering system. <i>Surface and Coatings Technology</i> , 2004, 188-189, 399-403.	4.8	16
25	Swift heavy ion induced modifications of silicon (sub) oxide nitride layer structures. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2007, 256, 300-304.	1.4	15
26	Ion beam induced desorption from thin films: SiO ₂ single layers and SiO ₂ /Si multilayers. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2002, 190, 433-438.	1.4	14
27	Improving the control of the electroless plating synthesis of Pd/Ag membranes for hydrogen separation using Rutherford backscattering. <i>Journal of Membrane Science</i> , 2005, 254, 241-248.	8.2	12
28	Distinct processes in radio-frequency reactive magnetron plasma sputter deposition of silicon suboxide films. <i>Journal of Applied Physics</i> , 2007, 102, .	2.5	11
29	Positron annihilation study of low pressure chemical vapor deposited silicon nitride films. <i>Applied Physics Letters</i> , 1991, 59, 1687-1689.	3.3	10
30	Desorption of O ₂ from SiO ₂ films during irradiation of SiO ₂ with MeV/a.m.u. heavy ions. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2004, 219-220, 312-316.	1.4	10
31	Study of the a-Si/a-SiO ₂ interface deposited by r.f. magnetron sputtering. <i>Thin Solid Films</i> , 2004, 447-448, 306-310.	1.8	10
32	Argon plasma modelling in a RF magnetron sputtering system. <i>Surface and Coatings Technology</i> , 2004, 188-189, 392-398.	4.8	10
33	Hydrogen distribution in oxynitride/oxide structures. <i>Applied Surface Science</i> , 1987, 30, 197-203.	6.1	9
34	Thickness determination of thin (~20nm) microcrystalline silicon layers. <i>Solar Energy Materials and Solar Cells</i> , 2005, 87, 445-455.	6.2	9
35	In-situ LIBS and NRA deuterium retention study in porous W-O and compact W coatings loaded by Magnum-PSI. <i>Fusion Engineering and Design</i> , 2021, 168, 112403.	1.9	9
36	Deuterium diffusion in ¹⁵ Si:H studied with elastic recoil detection. <i>Journal of Non-Crystalline Solids</i> , 1991, 137-138, 29-32.	3.1	8

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37	Bending MeV proton beams in graded composition Si _{1-x} Gex/Si layers. Nuclear Instruments & Methods in Physics Research B, 2000, 171, 387-400.	1.4	8
38	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
39	On the argon and oxygen incorporation into SiO _x through ion implantation during reactive plasma magnetron sputter deposition. Applied Surface Science, 2008, 255, 3079-3084.	6.1	7
40	Growth stress in tungsten carbide-diamond-like carbon coatings. Journal of Applied Physics, 2009, 105, 033502.	2.5	7
41	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
42	Modifications in thin film structures by swift heavy ions. Vacuum, 2004, 73, 109-114.	3.5	5
43	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
44	On combining surface and bulk passivation of SiN/sub x/:H layers for mc-Si solar cells. , 0, , .		4
45	On-line characterisation of radiofrequency magnetron sputter deposition of SiO _x using elastic recoil detection. Thin Solid Films, 2006, 494, 13-17.	1.8	4
46	Deuteron implantation into hexagonal silicon carbide: defects and deuterium behaviour. EPJ Applied Physics, 2003, 23, 11-18.	0.7	1
47	Hydrogen related effects in semiconductor layers. , 0, , .		0
48	High-rate (< 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