Fernando Alvarez

List of Publications by Year
in descending order

176 papers	3,451 citations	147801 31 h-index	189892 50 g-index
178 all docs	178 docs citations	178 times ranked	3080 citing authors

#	Article	IF	Citations
1	Electronic structure of nitrogen-carbon alloys(aâˆ’CNx)determined by photoelectron spectroscopy. Physical Review B, 1998, 57, 2536-2540.	3.2	228
2	Electronic structure of hydrogenated carbon nitride films. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1998, 16, 2941-2949.	2.1	162
3	Surface and Electronic Structure of Titanium Dioxide Photocatalysts. Journal of Physical Chemistry B, 2000, 104, 9851-9858.	2.6	157
4	Nitrogen substitution of carbon in graphite: Structure evolution toward molecular forms. Physical Review B, 1998, 58, 13918-13924.	3.2	148
5	Incorporation of nitrogen in carbon nanotubes. Journal of Non-Crystalline Solids, 2002, 299-302, 874-879.	3.1	92
6	The role of hydrogen in nitrogen-containing diamondlike films studied by photoelectron spectroscopy. Applied Physics Letters, 1997, 70, 1539-1541.	3.3	77
7	Comparative study on the bonding structure of hydrogenated and hydrogen free carbon nitride films with high N content. Diamond and Related Materials, 2000, 9, 577-581.	3.9	68
8	Influence of microstructure on the corrosion behavior of nitrocarburized AISI H13 tool steel obtained by pulsed DC plasma. Surface and Coatings Technology, 2009, 203, 1293-1297.	4.8	67
9	Comprehensive spectroscopic study of nitrogenated carbon nanotubes. Physical Review B, 2004, 69, .	3.2	65
10	Influence of the process temperature on the steel microstructure and hardening in pulsed plasma nitriding. Surface and Coatings Technology, 2006, 201, 452-457.	4.8	63
11	Infrared analysis of deuterated carbonâ€“nitrogen films obtained by dual-ion-beam-assisted-deposition. Applied Physics Letters, 1998, 73, 1065-1067.	3.3	58
12	Chemical (dis)order in a-Si1âˆ’xCx:H for x<0.6. Physical Review B, 1997, 55, 4426-4434.	3.2	57
13	Effects of increasing nitrogen concentration on the structure of carbon nitride films deposited by ion beam assisted deposition. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2000, 18, 2277.	2.1	51
14	The influence of different silicon adhesion interlayers on the tribological behavior of DLC thin films deposited on steel by EC-PECVD. Surface and Coatings Technology, 2015, 283, 115-121.	4.8	49
15	Influence of chemical sputtering on the composition and bonding structure of carbon nitride films. Thin Solid Films, 2001, 398-399, 116-123.	1.8	47
16	Hard graphitic-like amorphous carbon films with high stress and local microscopic density. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2001, 19, 971-975.	2.1	47
17	Identification of the Chemical Bonding Prompting Adhesion of a-C:H Thin Films on Ferrous Alloy Intermediated by a SiC_{<i>x</i>}:H <i>Buffer Layer</i>. ACS Applied Materials & Interfaces, 2015, 7, 15909-15917.	8.0	44
18	Morphological and magnetic properties of carbonâ€“nickel nanocomposite thin films. Journal of Applied Physics, 2005, 97, 044313.	2.5	43

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19	Time resolved photoluminescence of porous silicon: Evidence for tunneling limited recombination in a band of localized states. Applied Physics Letters, 1993, 62, 2381-2383.	3.3	42
20	Vibrational analysis of amorphous carbon-nitrogen alloys by15Nand D isotopic substitution. Physical Review B, 2000, 61, 1083-1087.	3.2	42
21	A simple method to determine the optical constants and thicknesses of ZnxCd1â^'xS thin films. Thin Solid Films, 1996, 289, 238-241.	1.8	41
22	The influence of the ion current density on plasma nitriding process. Surface and Coatings Technology, 2005, 200, 2165-2169.	4.8	40
23	Nanosized precipitates in H13 tool steel low temperature plasma nitriding. Surface and Coatings Technology, 2012, 207, 72-78.	4.8	40
24	Stability of Small Carbon-Nitride Heterofullerenes. Physical Review Letters, 2003, 90, 015501.	7.8	38
25	Effect of hydrogen and oxygen on stainless steel nitriding. Journal of Applied Physics, 2002, 92, 764-770.	2.5	36
26	Influence of hydrogen dilution on the optoelectronic properties of glow discharge amorphous silicon carbon alloys. Journal of Applied Physics, 1992, 71, 267-272.	2.5	35
27	Microstructure and properties of the compound layer obtained by pulsed plasma nitriding in steel gears. Surface and Coatings Technology, 2009, 203, 1457-1461.	4.8	35
28	Pack-boriding of low alloy steel: microstructure evolution and migration behaviour of alloying elements. Philosophical Magazine, 2020, 100, 353-378.	1.6	35
29	Pressure-induced physical changes of noble gases implanted in highly stressed amorphous carbon films. Physical Review B, 2003, 68, .	3.2	34
30	Magnetic and structural properties of ion nitrided stainless steel. Journal of Applied Physics, 2009, 105, .	2.5	34
31	On the structure of argon assisted amorphous carbon films. Diamond and Related Materials, 2000, 9, 796-800.	3.9	33
32	Evidence of quantum size effects in a-Si:H/a-SiCx:H superlattices. Observation of negative resistance in double barrier structures. Journal of Non-Crystalline Solids, 1987, 97-98, 871-874.	3.1	31
33	Single chamber PVD/PECVD process for in situ control of the catalyst activity on carbon nanotubes growth. Surface and Coatings Technology, 2005, 200, 1101-1105.	4.8	30
34	Infrared study of the Siâ€H stretching band inaâ€SiC:H. Journal of Applied Physics, 1991, 69, 7805-7811.	2.5	28
35	Direct evidence of porosity in carbonâ€rich hydrogenated amorphous silicon carbide films. Journal of Applied Physics, 1989, 66, 4544-4546.	2.5	27
36	On the effect of substrate oscillation on CrN coatings deposited by HiPIMS and dcMS. Surface and Coatings Technology, 2018, 340, 112-120.	4.8	27

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37	Hydrogen induced changes on the electronic structure of carbon nitride films. Journal of Non-Crystalline Solids, 1998, 227-230, 645-649.	3.1	26
38	Structural modifications and corrosion behavior of martensitic stainless steel nitrided by plasma immersion ion implantation. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2005, 23, 693-698.	2.1	26
39	Physicochemical structure of SiC<i>_x</i>:H to improve DLC adhesion on steel. Surface Engineering, 2016, 32, 779-785.	2.2	26
40	Nanosize structures connectivity in porous silicon and its relation to photoluminescence efficiency. Applied Physics Letters, 1993, 63, 1927-1929.	3.3	25
41	Identification of structural changes in carbonâ€“nitrogen alloys by studying the dependence of the plasmon energy on nitrogen concentration. Applied Physics Letters, 1998, 73, 3521-3523.	3.3	24
42	Structural properties of aluminumâ€“nitrogen films prepared at low temperature. Applied Physics Letters, 2002, 81, 1005-1007.	3.3	24
43	On the hydrogenated silicon carbide (SiCx:H) interlayer properties prompting adhesion of hydrogenated amorphous carbon (a-C:H) deposited on steel. Vacuum, 2014, 109, 180-183.	3.5	24
44	Low-energy ion irradiation in HiPIMS to enable anatase TiO₂ selective growth. Journal Physics D: Applied Physics, 2018, 51, 235301.	2.8	24
45	Optical properties of non-stoichiometric germanium nitride compounds (a-GeNx). Journal of Non-Crystalline Solids, 1985, 77-78, 1309-1312.	3.1	22
46	On the hydrogen etching mechanism in plasma nitriding of metals. Applied Surface Science, 2006, 253, 1806-1809.	6.1	22
47	Effect of Carbon on the Compound Layer Properties of AISI H13 Tool Steel in Pulsed Plasma Nitrocarburizing. Plasma Processes and Polymers, 2007, 4, S728-S731.	3.0	22
48	Boron thin films and CR-39 detectors in BNCT: A method to measure the 10B(n,Î±)7Li reaction rate. Radiation Measurements, 2013, 50, 181-186.	1.4	22
49	Influence of the ion mean free path and the role of oxygen in nitriding processes. Journal of Applied Physics, 2003, 94, 2242-2247.	2.5	21
50	Study of nitrogen ion doping of titanium dioxide films. Applied Surface Science, 2018, 443, 619-627.	6.1	21
51	Tunneling-current-induced local excitonic luminescence in p-doped WSe₂monolayers. Nanoscale, 2020, 12, 13460-13470.	5.6	21
52	Identification of the mechanism-limiting nitrogen diffusion in metallic alloys by in situ photoemission electron spectroscopy. Journal of Applied Physics, 2003, 94, 5435.	2.5	20
53	Physical and micro-nano-structure properties of chromium nitride coating deposited by RF sputtering using dynamic glancing angle deposition. Surface and Coatings Technology, 2019, 372, 268-277.	4.8	20
54	Influence of substrate bias and temperature on the crystallization of metallic NbTaTiVZr high-entropy alloy thin films. Surface and Coatings Technology, 2021, 421, 127357.	4.8	20

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55	Electrical conductivity of amorphous silicon doped with rare-earth elements. Physical Review B, 1991, 43, 8946-8950.	3.2	19
56	New pathways in plasma nitriding of metal alloys. Surface and Coatings Technology, 2005, 200, 498-501.	4.8	19
57	Oxygen, hydrogen, and deuterium effects on plasma nitriding of metal alloys. Scripta Materialia, 2006, 54, 1335-1338.	5.2	19
58	A comprehensive study of the influence of the stoichiometry on the physical properties of TiOx films prepared by ion beam deposition. Journal of Applied Physics, 2010, 108, .	2.5	19
59	Substrate Bias Voltage Tailoring the Interfacial Chemistry of a-SiC<i>_x</i>:H: A Surprising Improvement in Adhesion of a-C:H Thin Films Deposited on Ferrous Alloys Controlled by Oxygen. ACS Applied Materials & Interfaces, 2019, 11, 18024-18033.	8.0	19
60	Surface treatment response of AISI 2205 and AISI 304L steels: SMAT and plasma-nitriding. Surface Engineering, 2019, 35, 205-215.	2.2	19
61	Photoelectronic properties of amorphous silicon nitride compounds. Solar Energy Materials and Solar Cells, 1984, 10, 151-170.	0.4	17
62	A comprehensive nitriding study by low energy ion beam implantation on stainless steel. Surface and Coatings Technology, 2001, 146-147, 405-409.	4.8	17
63	On the phonon dissipation contribution to nanoscale friction by direct contact. Scientific Reports, 2017, 7, 3242.	3.3	17
64	Doping effects in offâ€stoichiometric glow discharge amorphous silicon nitride. Applied Physics Letters, 1984, 44, 116-118.	3.3	16
65	Photoluminescence and compositional-structural properties of ion-beam sputter deposited Er-doped TiO2â^'xNx films: Their potential as a temperature sensor. Journal of Applied Physics, 2015, 117, .	2.5	16
66	High-temperature oxidation behaviour of nanostructure surface layered austenitic stainless steel. Applied Surface Science, 2022, 581, 152437.	6.1	16
67	Red and Green Light Emission From Samarium-Doped Amorphous Aluminum Nitride Films. Advanced Materials, 2002, 14, 1154.	21.0	15
68	Photochromic W-TiO2 membranes. Journal of Materials Science Letters, 2002, 21, 501-504.	0.5	15
69	Nitriding of AISI 4140 steel by a low energy broad ion source. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2006, 24, 2113-2116.	2.1	15
70	A suitable (wide-range + linear) temperature sensor based on Tm3+ ions. Scientific Reports, 2017, 7, 14113.	3.3	15
71	Hydrogen etching mechanism in nitrogen implanted iron alloys studied with in situ photoemission electron spectroscopy. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2005, 23, L9-L12.	2.1	14
72	Previous heat treatment inducing different plasma nitriding behaviors in martensitic stainless steels. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2006, 24, 1795-1801.	2.1	14

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73	Growth of nitrogenated fullerene-like carbon on Ni islands by ion beam sputtering. Carbon, 2007, 45, 2678-2684.	10.3	14
74	Microstructure of tool steel after low temperature ion nitriding. Materials Science and Technology, 2009, 25, 726-732.	1.6	14
75	Electronic and structural properties of amorphous carbonâ€“nitrogen alloys. Journal of Non-Crystalline Solids, 2000, 266-269, 808-814.	3.1	13
76	Physicochemical, structural, and mechanical properties of Si3N4 films annealed in O2. Journal of Applied Physics, 2010, 107, 073521.	2.5	13
77	Wettability, Photoactivity, and Antimicrobial Activity of Glazed Ceramic Tiles Coated with Titania Films Containing Tungsten. ACS Omega, 2018, 3, 17629-17636.	3.5	13
78	Influence of the Anatase and Rutile phases on the luminescent properties of rare-earth-doped TiO2 films. Journal of Alloys and Compounds, 2019, 780, 491-497.	5.5	13
79	In situ photoemission electron spectroscopy study of nitrogen ion implanted AISI-H13 steel. Surface and Coatings Technology, 2005, 200, 2566-2570.	4.8	12
80	Enhanced nitrogen diffusion induced by atomic attrition. Applied Physics Letters, 2006, 88, 254109.	3.3	12
81	A comprehensive study of the TiN/Si interface by X-ray photoelectron spectroscopy. Applied Surface Science, 2018, 448, 502-509.	6.1	12
82	Role of Rare Earth Elements and Entropy on the Anatase-To-Rutile Phase Transformation of TiO₂ Thin Films Deposited by Ion Beam Sputtering. ACS Omega, 2020, 5, 28027-28036.	3.5	12
83	Reducible oxide and allotropic transition induced by hydrogen annealing: synthesis routes of TiO2 thin films to tailor optical response. Journal of Materials Research and Technology, 2021, 12, 1623-1637.	5.8	12
84	Oxygen plasma etching of carbon nano-structures containing nitrogen. Journal of Non-Crystalline Solids, 2006, 352, 1314-1318.	3.1	11
85	Carbon nano-structures containing nitrogen and hydrogen prepared by ion beam assisted deposition. Journal of Non-Crystalline Solids, 2006, 352, 1303-1306.	3.1	11
86	Effect of bombarding steel with Xe+ ions on the surface nanostructure and on pulsed plasma nitriding process. Materials Chemistry and Physics, 2015, 149-150, 261-269.	4.0	11
87	Towards superlubricity in nanostructured surfaces: the role of van der Waals forces. Physical Chemistry Chemical Physics, 2018, 20, 21949-21959.	2.8	11
88	Enhanced mobility and controlled transparency in multilayered reduced graphene oxide quantum dots: a charge transport study. Nanotechnology, 2019, 30, 275701.	2.6	11
89	A thermodynamic study on phase formation and thermal stability of AlSiTaTiZr high-entropy alloy thin films. Journal of Alloys and Compounds, 2020, 838, 155580.	5.5	11
90	Negative conductance and sequential tunneling in amorphous silicon-silicon carbide double barrier devices. Journal of Non-Crystalline Solids, 1989, 110, 175-178.	3.1	10

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91	Photoelectron spectroscopic study of amorphous GaAsN films. Applied Physics Letters, 2000, 76, 2211-2213.	3.3	10
92	Spin current in the MÃ¶bius cyclacene belts. Chemical Physics Letters, 2009, 471, 276-279.	2.6	10
93	Effect of the period of the substrate oscillation in the dynamic glancing angle deposition technique: A columnar periodic nanostructure formation. Surface and Coatings Technology, 2020, 383, 125237.	4.8	10
94	X-ray photoelectron spectroscopic study of rare-earth-doped amorphous siliconâ€“nitrogen films. Journal of Applied Physics, 2003, 93, 1948-1953.	2.5	9
95	Surface hardness increasing of iron alloys by nitrogen-deuterium ion implanting. Journal of Applied Physics, 2004, 96, 7742-7743.	2.5	9
96	Influence of the microstructure on steel hardening in pulsed plasma nitriding. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2008, 26, 328-332.	2.1	9
97	Influence of hydrogen etching on the adhesion of coated ferrous alloy by hydrogenated amorphous carbon deposited at low temperature. Vacuum, 2017, 144, 243-246.	3.5	9
98	Polyethyleneimine-Functionalized Carbon Nanotube/Graphene Oxide Composite: A Novel Sensing Platform for Pb(II) Acetate in Aqueous Solution. ACS Omega, 2021, 6, 18190-18199.	3.5	9
99	EXAFS study of noble gases implanted in highly stressed amorphous carbon films. Journal of Non-Crystalline Solids, 2002, 299-302, 805-809.	3.1	8
100	Oriented Carbon Nanostructures Containing Nitrogen Obtained by Ion Beam Assisted Deposition. Journal of Nanoscience and Nanotechnology, 2005, 5, 188-191.	0.9	8
101	Tantalum based coated substrates for controlling the diameter of carbon nanotubes. Carbon, 2009, 47, 3424-3426.	10.3	8
102	Nanostructured tantalum nitride films as buffer-layer for carbon nanotube growth. Thin Solid Films, 2011, 519, 4097-4100.	1.8	8
103	Hydrogenated amorphous carbon thin films deposited by plasma-assisted chemical vapor deposition enhanced by electrostatic confinement: structure, properties, and modeling. Applied Physics A: Materials Science and Processing, 2014, 117, 1217-1225.	2.3	8
104	Influence of ion-beam bombardment on the physical properties ofÂ100Cr6 steel. Materials Chemistry and Physics, 2014, 147, 105-112.	4.0	8
105	Influence of substrate pre-treatments by Xe + ion bombardment and plasma nitriding on the behavior of TiN coatings deposited by plasma reactive sputtering on 100Cr6 steel. Materials Chemistry and Physics, 2016, 177, 156-163.	4.0	8
106	Self-organized nickel nanoparticles on nanostructured silicon substrate intermediated by a titanium oxynitride (TiNxOy) interface. AIP Advances, 2018, 8, 015025.	1.3	8
107	The response of boronized 34CrAlMo5-10 (EN41B) steel to nanoindentation, oxidation, and wear. Philosophical Magazine, 2021, 101, 777-818.	1.6	8
108	Bias dependence of doping efficiency in hydrogenated amorphous silicon. Applied Physics Letters, 1985, 47, 960-962.	3.3	7

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109	New paramagnetic center in amorphous silicon doped with rare-earth elements. Physical Review B, 1989, 39, 2860-2863.	3.2	7
110	The influence of an external dc substrate bias on the density of states in hydrogenated amorphous silicon. Journal of Applied Physics, 1989, 65, 4869-4873.	2.5	7
111	Influence of the chemical surface structure on the nanoscale friction in plasma nitrided and post-oxidized ferrous alloy. Applied Physics Letters, 2014, 105, 111603.	3.3	7
112	On the Effect of Aluminum on the Microstructure and Mechanical Properties of CrN Coatings deposited by HiPIMS. Materials Research, 2018, 21, .	1.3	7
113	The Thermomechanical Properties of Thermally Evaporated Bismuth Triiodide Thin Films. Scientific Reports, 2019, 9, 11785.	3.3	7
114	Electroluminescence from amorphous silicon carbide heterojunctions under reverse biased conditions. Journal of Applied Physics, 1988, 63, 244-246.	2.5	6
115	Photoluminescence studies on silicon carbon alloys. Journal of Non-Crystalline Solids, 1993, 164-166, 1027-1030.	3.1	6
116	Selected Properties of Hydrogenated Amorphous Silicon and Silicon-Carbon Alloys. Solid State Phenomena, 1995, 44-46, 3-24.	0.3	6
117	Tool steel ion beam assisted nitrocarburization. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2007, 465, 194-198.	5.6	6
118	Effect of O2+, H2++â€‰O2+, and N2++â€‰O2+ ion-beam irradiation on the field emission properties of carbon nanotubes. Journal of Applied Physics, 2011, 109, 114317.	2.5	6
119	The effect of noble gas bombarding on nitrogen diffusion in steel. Materials Chemistry and Physics, 2013, 143, 116-123.	4.0	6
120	Physicochemical, structural, mechanical, and tribological characteristics of Si3N4â€“MoS2 thin films deposited by reactive magnetron sputtering. Surface and Coatings Technology, 2014, 254, 327-332.	4.8	6
121	On the relationship between the Raman scattering features and the Ti-related chemical states of TixOyNz films. Journal of Materials Research and Technology, 2021, 14, 864-870.	5.8	6
122	Influence of stress on the electron core level energies of noble gases implanted in hard amorphous carbon films. Diamond and Related Materials, 2001, 10, 956-959.	3.9	5
123	Electronic structure of xenon implanted with low energy in amorphous silicon. Journal of Electron Spectroscopy and Related Phenomena, 2007, 156-158, 409-412.	1.7	5
124	Oxygen etching mechanism in carbon-nitrogen (CNx) domelike nanostructures. Journal of Applied Physics, 2008, 103, 124907.	2.5	5
125	Phototribology: Control of Friction by Light. ACS Applied Materials & Interfaces, 2021, 13, 43746-43754.	8.0	5
126	Photoluminescence of hydrogenated amorphous silicon. Journal of Non-Crystalline Solids, 1982, 50, 139-148.	3.1	4

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127	Cathodo and photoluminescence studies of non-stoichiometric amorphous silicon carbide and nitride. Journal of Non-Crystalline Solids, 1989, 115, 42-44.	3.1	4
128	Equilibrium density of defects in hydrogenated amorphous silicon carbon alloys. Journal of Applied Physics, 1992, 71, 5969-5975.	2.5	4
129	X-ray photoelectron spectroscopy of amorphous AlN alloys prepared by reactive rf sputtering. Journal of Non-Crystalline Solids, 2002, 299-302, 323-327.	3.1	4
130	Co-Sputtered Carbon-Nickel Nanocomposite Thin Films. Journal of Metastable and Nanocrystalline Materials, 2004, 20-21, 700-704.	0.1	4
131	In situ photoemission electron spectroscopy of plasma-nitrided metal alloys. Journal of Applied Physics, 2005, 97, 103528.	2.5	4
132	Single- and Few-Walled Carbon Nanotubes Grown at Temperatures as Low as 450 Â°C: Electrical and Field Emission Characterization. Journal of Nanoscience and Nanotechnology, 2007, 7, 3350-3353.	0.9	4
133	Precipitates Temperature Dependence in Ion Beam Nitrited AISI H13 Tool Steel. Plasma Processes and Polymers, 2007, 4, S736-S740.	3.0	4
134	Influence of the structure and composition of titanium nitride substrates on carbon nanotubes grown by chemical vapour deposition. Journal Physics D: Applied Physics, 2013, 46, 155308.	2.8	4
135	Self-organized 2D Ni particles deposited on titanium oxynitride-coated Si sculpted by a low energy ion beam. Journal Physics D: Applied Physics, 2014, 47, 195303.	2.8	4
136	Effect of Low Temperature Nitriding of 100Cr6 Substrates on TiN Coatings Deposited by IBAD. Materials Research, 2015, 18, 54-58.	1.3	4
137	On the physicochemical origin of nanoscale friction: the polarizability and electronegativity relationship tailoring nanotribology. Physical Chemistry Chemical Physics, 2021, 23, 2873-2884.	2.8	4
138	Chemisorption Competition between H₂O and H₂ for Sites on the Si Surface under Xe⁺ Ion Bombardment: An XPS Study. Langmuir, 2022, 38, 2109-2116.	3.5	4
139	Temperature and light intensity dependence of photoconductivity in off-stoichiometric hydrogenated amorphous silicon nitride. Journal of Non-Crystalline Solids, 1986, 83, 1-11.	3.1	3
140	Photoinduced effects in diamondlike hydrogenated amorphous carbon films. Journal of Non-Crystalline Solids, 1991, 137-138, 835-838.	3.1	3
141	Residual stress in nano-structured stainless steel (AISI 316L) prompted by Xe+ ion bombardment at different impinging angles. Journal of Applied Physics, 2016, 120, 145306.	2.5	3
142	Stress, Hardness and Elastic Modulus of Bismuth Triiodide (BiI3). MRS Advances, 2018, 3, 3925-3931.	0.9	3
143	Effect of ion peening and pulsed plasma nitriding on the structural properties of TiN coatings sputtered onto 100Cr6 steel. Materials Chemistry and Physics, 2019, 235, 121723.	4.0	3
144	Visible light emission from reverse biased amorphous silicon carbide P-I-N structures. Journal of Non-Crystalline Solids, 1987, 97-98, 1319-1322.	3.1	2

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145	Reply to â€˜â€˜Comment on â€˜Infrared study of the Siâ€H stretching band inaâ€SiC:Hâ€™ â€™â€™ [J. Appl. Phys 69, 7805 (1991)]. Journal of Applied Physics, 1992, 71, 4092-4093.	2.5	2
146	Study of RF Sputtered aï£¿Si: H and aï£¿Ge: H by Photothermal Deflection Spectroscopy. Physica Status Solidi (B): Basic Research, 1995, 192, 535-541.	1.5	2
147	Photoelectron spectroscopy of shallow core levels using He II(40.8 eV) excitation. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1995, 13, 2278-2280.	2.1	2
148	Electronic structure of amorphous germanium-nitrogen alloys: a UV photoelectron spectroscopy study. Journal of Non-Crystalline Solids, 1996, 198-200, 136-139.	3.1	2
149	Conductivity dependence on the thickness of hydrogenated, amorphous silicon-carbon films. Thin Solid Films, 1997, 295, 287-294.	1.8	2
150	Structural properties of hydrogenated carbon-nitride films produced by ion-beam-assisted evaporation of the molecular precursor C4N6H4. Journal of Applied Physics, 2001, 89, 7852-7859.	2.5	2
151	Structural properties of amorphous carbon nitride films prepared by ion beam assisted deposition. Journal of Non-Crystalline Solids, 2004, 338-340, 486-489.	3.1	2
152	Nitrogen diffusion enhancement in a ferrous alloy by deuterium isotopic effect. Journal of Applied Physics, 2007, 101, 116106.	2.5	2
153	Oxygen Effects in Plasma Nitriding of Ferrous Alloys. Plasma Processes and Polymers, 2007, 4, S732-S735.	3.0	2
154	On the elastic constants of amorphous carbon nitride. Diamond and Related Materials, 2008, 17, 1850-1852.	3.9	2
155	Nickel nanoparticles decoration of ordered mesoporous silica thin films for carbon nanotubes growth. Thin Solid Films, 2010, 519, 214-217.	1.8	2
156	Influence of Xe Ion-Bombardment on the Substrate Microstructure and the Residual Stresses of Tin Coatings Deposited by Plasma Reactive Sputtering onto AISI 4140 Steel. Advanced Materials Research, 0, 996, 841-847.	0.3	2
157	Nanoindentation unidirectional sliding and lateral force microscopy: Evaluation of experimental techniques to measure friction at the nanoscale. AIP Advances, 2018, 8, 125013.	1.3	2
158	Nanoscopic origin of the dissipative friction forces on a diamond tip sliding on magnetite surfaces. Thin Solid Films, 2018, 660, 258-262.	1.8	2
159	Structure and property relationships of amorphous CNx: a joint experimental and theoretical study. Brazilian Journal of Physics, 2000, 30, 495-507.	1.4	2
160	Adhesion of Amorphous Carbon Nanofilms on Ferrous Alloy Substrates Using a Nanoscale Silicon Interlayer: Implications for Solid-State Lubrication. ACS Applied Nano Materials, 2022, 5, 3763-3772.	5.0	2
161	Design and implementation of a device based on an off-axis parabolic mirror to perform luminescence experiments in a scanning tunneling microscope. Review of Scientific Instruments, 2022, 93, 043704.	1.3	2
162	On the influence of an external D.C. substrate bias on boron and phosphorus doping efficiencies in a-Si:H. Journal of Non-Crystalline Solids, 1985, 77-78, 527-530.	3.1	1

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163	Electron spin resonance in amorphous silicon doped with Gd. Physical Review B, 1989, 39, 8398-8402.	3.2	1
164	Cathodoluminescence of Diamond-Like and Hydrogenated Amorphous Silicon Carbide Materials. Materials Research Society Symposia Proceedings, 1990, 192, 181.	0.1	1
165	Metastability of Light-Induced Defects in Very Low Density of Gap States Î±- Si1-Î±CÎ±:H Alloys. Materials Research Society Symposia Proceedings, 1992, 258, 601.	0.1	1
166	Properties of amorphous silicon-carbon alloys with very low densities of states. Journal of Physics Condensed Matter, 1993, 5, A329-A330.	1.8	1
167	Comment on â€œIon-assisted pulsed laser deposition of aluminum nitride thin filmsâ€•[J. Appl. Phys.87, 1540 (2000)]. Journal of Applied Physics, 2002, 92, 6349-6350.	2.5	1
168	Corrosion protection of fluorzirconate glasses coated by a layer of surface modified tin oxide nanoparticles. Thin Solid Films, 2006, 502, 94-98.	1.8	1
169	Functionalization of Ordered Iron-Based Nanoparticles Deposited on Mesoporous Films. Journal of Nanoscience and Nanotechnology, 2008, 8, 448-451.	0.9	1
170	Molecular dynamics simulations of the isotopic effect on nanoscale friction. Applied Physics A: Materials Science and Processing, 2021, 127, 1.	2.3	1
171	Different desorption rates prompting an indirect isotopic effect on nanoscale friction. Applied Surface Science Advances, 2022, 7, 100201.	6.8	1
172	Gradual and selective achievement of Rutile-TiO2 by thermal annealing amorphous TixOyNz films. Journal of Non-Crystalline Solids, 2022, 579, 121375.	3.1	1
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