

Pierre-Yves py Tessier

List of Publications by Year in descending order

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236925

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330143

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93
all docs

93
docs citations

93
times ranked

2574
citing authors

#	ARTICLE	IF	CITATIONS
1	Plasma etching: principles, mechanisms, application to micro- and nano-technologies. Applied Surface Science, 2000, 164, 72-83.	6.1	172
2	Thermal conductivity of aluminium nitride thin films prepared by reactive magnetron sputtering. Journal Physics D: Applied Physics, 2012, 45, 015301.	2.8	86
3	Unusual Dealloying Effect in Gold/Copper Alloy Thin Films: The Role of Defects and Column Boundaries in the Formation of Nanoporous Gold. ACS Applied Materials & Interfaces, 2015, 7, 2310-2321.	8.0	70
4	Highly Ordered Hollow Oxide Nanostructures: The Kirkendall Effect at the Nanoscale. Small, 2013, 9, 2838-2843.	10.0	66
5	XPS study of the surface composition modification of nc-TiC/C nanocomposite films under in situ argon ion bombardment. Thin Solid Films, 2011, 519, 3982-3985.	1.8	59
6	Galvanic Replacement Reaction: A Route to Highly Ordered Bimetallic Nanotubes. Journal of Physical Chemistry C, 2016, 120, 17652-17659.	3.1	52
7	Nitrogen effect on the electrical properties of CN _x thin films deposited by reactive magnetron sputtering. Thin Solid Films, 2005, 482, 258-263.	1.8	51
8	Planar Arrays of Nanoporous Gold Nanowires: When Electrochemical Dealloying Meets Nanopatterning. ACS Applied Materials & Interfaces, 2016, 8, 6611-6620.	8.0	49
9	Carbon nanowalls as material for electrochemical transducers. Applied Physics Letters, 2009, 95, .	3.3	47
10	Bonding structure of carbon nitride films deposited by reactive plasma beam sputtering. Diamond and Related Materials, 2001, 10, 1142-1146.	3.9	42
11	Far ultraviolet photoelectric study of thin SnSe evaporated films. Physica Status Solidi (B): Basic Research, 1983, 117, 51-56.	1.5	38
12	Microstructure and composition of TiC/a-C:H nanocomposite thin films deposited by a hybrid IPVD/PECVD process. Surface and Coatings Technology, 2010, 204, 1880-1883.	4.8	35
13	Carbon nitride thin films as protective coatings for biomaterials: synthesis, mechanical and biocompatibility characterizations. Diamond and Related Materials, 2003, 12, 1066-1069.	3.9	34
14	Thickness and substrate effects on AlN thin film growth at room temperature. EPJ Applied Physics, 2008, 43, 309-313.	0.7	34
15	Electron Beam Nanosculpting of Kirkendall Oxide Nanochannels. ACS Nano, 2014, 8, 1854-1861.	14.6	34
16	Creating nanoporosity in silver nanocolumns by direct exposure to radio-frequency air plasma. Nanoscale, 2016, 8, 141-148.	5.6	34
17	Impact of magnetron configuration on plasma and film properties of sputtered aluminum nitride thin films. Journal of Applied Physics, 2008, 104, .	2.5	32
18	Comparison of lanthanum substituted bismuth titanate (BLT) thin films deposited by sputtering and pulsed laser deposition. Thin Solid Films, 2006, 495, 86-91.	1.8	31

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19	Argon plasma treatment to enhance the electrochemical reactivity of screen-printed carbon surfaces. <i>Electrochimica Acta</i> , 2009, 54, 3026-3032.	5.2	29
20	Etching of Si at low temperatures using a SF ₆ reactive ion beam: Effect of the ion energy and current density. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 1997, 15, 2661-2669.	2.1	28
21	Effect of nitrogen incorporation in CN _x thin films deposited by RF magnetron sputtering. <i>Surface and Coatings Technology</i> , 2002, 151-152, 175-179.	4.8	27
22	EELS and NEXAFS structural investigations on the effects of the nitrogen incorporation in a-CN _x films deposited by r.f. magnetron sputtering. <i>Diamond and Related Materials</i> , 2004, 13, 1433-1436.	3.9	27
23	Evaluation of composition, mechanical properties and structure of nc-TiC/a-C:H coatings prepared by balanced magnetron sputtering. <i>Surface and Coatings Technology</i> , 2012, 211, 111-116.	4.8	27
24	Plasma functionalization and etching for enhancing metal adhesion onto polymeric substrates. <i>RSC Advances</i> , 2015, 5, 62348-62357.	3.6	26
25	Synthesis of nickel-filled carbon nanotubes at 350 Å°C. <i>Carbon</i> , 2011, 49, 4595-4598.	10.3	25
26	Shape control of nickel nanostructures incorporated in amorphous carbon films: From globular nanoparticles toward aligned nanowires. <i>Journal of Applied Physics</i> , 2012, 111, .	2.5	24
27	Hierarchical carbon nanostructure design: ultra-long carbon nanofibers decorated with carbon nanotubes. <i>Nanotechnology</i> , 2011, 22, 435302.	2.6	23
28	Kirkendall Effect vs Corrosion of Silver Nanocrystals by Atomic Oxygen: From Solid Metal Silver to Nanoporous Silver Oxide. <i>Journal of Physical Chemistry C</i> , 2017, 121, 19497-19504.	3.1	22
29	An XPS study of the SF ₆ reactive ion beam etching of silicon at low temperatures. <i>Nuclear Instruments & Methods in Physics Research B</i> , 1999, 155, 280-288.	1.4	21
30	Epitaxial growth of aluminum nitride on AlGaN by reactive sputtering at low temperature. <i>Applied Physics Letters</i> , 2008, 93, 052905.	3.3	21
31	The Kirkendall Effect in Binary Alloys: Trapping Gold in Copper Oxide Nanoshells. <i>Chemistry of Materials</i> , 2015, 27, 6374-6384.	6.7	21
32	Effect of a r.f. antenna on carbon nitride films deposited by ionized r.f. magnetron sputtering. <i>Diamond and Related Materials</i> , 2003, 12, 1093-1097.	3.9	20
33	Carbon nanotube growth at 420 Å°C using nickel/carbon composite thin films as catalyst supports. <i>Diamond and Related Materials</i> , 2013, 34, 76-83.	3.9	20
34	Carbon nitride thin films deposited by reactive plasma beam sputtering. <i>Surface and Coatings Technology</i> , 2000, 125, 295-300.	4.8	19
35	Examination of the electrochemical reactivity of screen printed carbon electrode treated by radio-frequency argon plasma. <i>Electrochemistry Communications</i> , 2007, 9, 1798-1804.	4.7	19
36	Large-Scale Fabrication of Porous Gold Nanowires via Laser Interference Lithography and Dealloying of Gold-Silver Nano-Alloys. <i>Micromachines</i> , 2017, 8, 168.	2.9	18

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37	Deposition of boron nitride films by PVD methods: transition from h-BN to c-BN. <i>Surface and Coatings Technology</i> , 2004, 180-181, 174-177.	4.8	17
38	Preparation and modification of carbon nanotubes electrodes by cold plasmas processes toward the preparation of amperometric biosensors. <i>Electrochimica Acta</i> , 2010, 55, 7916-7922.	5.2	17
39	Growth control, structure, chemical state, and photoresponse of CuO@CdS core-shell heterostructure nanowires. <i>Nanotechnology</i> , 2013, 24, 265603.	2.6	17
40	Vapor dealloying of ultra-thin films: a promising concept for the fabrication of highly flexible transparent conductive metal nanomesh electrodes. <i>Npj Flexible Electronics</i> , 2019, 3, .	10.7	16
41	Ionized Physical Vapour Deposition combined with PECVD, for synthesis of carbon-metal nanocomposite thin films. <i>Solid State Sciences</i> , 2009, 11, 1824-1827.	3.2	14
42	Lamellar nanoporous gold thin films with tunable porosity for ultrasensitive SERS detection in liquid and gas phase. <i>Nanoscale</i> , 2020, 12, 12602-12612.	5.6	14
43	Improved film deposition of carbon and carbon nitride materials on patterned substrates by ionized magnetron sputtering. <i>Surface and Coatings Technology</i> , 2004, 180-181, 59-65.	4.8	13
44	Titanium carbide/carbon composite nanofibers prepared by a plasma process. <i>Nanotechnology</i> , 2010, 21, 435603.	2.6	13
45	Template synthesis of carbon nanotubes from porous alumina matrix on silicon. <i>Microelectronic Engineering</i> , 2006, 83, 2432-2436.	2.4	12
46	Residual stress control in MoCr thin films deposited by ionized magnetron sputtering. <i>Surface and Coatings Technology</i> , 2006, 200, 6549-6553.	4.8	12
47	Magnetron Sputtering of Aluminium Nitride Thin Films for Thermal Management. <i>Plasma Processes and Polymers</i> , 2007, 4, S1-S5.	3.0	12
48	Titanium carbide/carbon nanocomposite hard coatings: A comparative study between various chemical analysis tools. <i>Surface and Coatings Technology</i> , 2014, 256, 41-46.	4.8	12
49	Sponge-like carbon thin films: The dealloying concept applied to copper/carbon nanocomposite. <i>Carbon</i> , 2015, 83, 250-261.	10.3	12
50	Controlling the Formation of Nanocavities in Kirkendall Nanoobjects through Sequential Thermal Ex Situ Oxidation and In Situ Reduction Reactions. <i>Small</i> , 2016, 12, 2885-2892.	10.0	12
51	Impact of the morphology and composition on the dealloying process of sputtered silver-aluminum alloy thin films. <i>Physica Status Solidi (B): Basic Research</i> , 2016, 253, 2167-2174.	1.5	11
52	Co-sputtering of gold and copper onto liquids: a route towards the production of porous gold nanoparticles. <i>Nanotechnology</i> , 2020, 31, 455303.	2.6	11
53	Surface and bulk characterizations of CN _x thin films made by r.f. magnetron sputtering. <i>Surface and Coatings Technology</i> , 2002, 151-152, 184-188.	4.8	10
54	Screen-printed carbon electrode modified on its surface with amorphous carbon nitride thin film: Electrochemical and morphological study. <i>Electrochimica Acta</i> , 2007, 52, 5053-5061.	5.2	10

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55	Fabrication of a nickel nanowire mesh electrode suspended on polymer substrate. <i>Nanotechnology</i> , 2012, 23, 275603.	2.6	10
56	Effect of the substrate temperature during gold-copper alloys thin film deposition by magnetron co-sputtering on the dealloying process. <i>Surface and Coatings Technology</i> , 2020, 383, 125220.	4.8	10
57	Evidence for PT-ferroelectrics interface scenario of different fatigue behaviors between Bi ₄ Ti ₃ O ₁₂ and Bi _{3.25} La _{0.75} Ti ₃ O ₁₂ thin film capacitors. <i>Materials Science in Semiconductor Processing</i> , 2002, 5, 179-182.	4.0	9
58	The wrinkling concept applied to plasma-deposited polymer-like thin films: A promising method for the fabrication of flexible electrodes. <i>Plasma Processes and Polymers</i> , 2020, 17, 2000119.	3.0	9
59	Characterizations of CN _x thin films made by ionized physical vapor deposition. <i>Thin Solid Films</i> , 2005, 482, 192-196.	1.8	8
60	Relation between residual stresses and microstructure in Mo(Cr) thin films elaborated by ionized magnetron sputtering. <i>Surface and Coatings Technology</i> , 2008, 202, 2247-2251.	4.8	8
61	Integration of a carbon nanotube based electrode in silicon microtechnology to fabricate electrochemical transducers. <i>Nanotechnology</i> , 2008, 19, 435502.	2.6	8
62	Temperature effect on the nitrogen insertion in carbon nitride films deposited by ECR. <i>Diamond and Related Materials</i> , 2009, 18, 1091-1097.	3.9	8
63	Highly ordered ultralong magnetic nanowires wrapped in stacked graphene layers. <i>Beilstein Journal of Nanotechnology</i> , 2012, 3, 846-851.	2.8	8
64	Structural characterization and electrochemical behavior of titanium carbon thin films. <i>Surface and Coatings Technology</i> , 2012, 211, 192-195.	4.8	7
65	The influence of Ni content on the characteristics of Cu-Ni thin films. <i>Surface and Coatings Technology</i> , 2012, 211, 188-191.	4.8	7
66	Dealloying of gold-copper alloy nanowires: From hillocks to ring-shaped nanopores. <i>Beilstein Journal of Nanotechnology</i> , 2016, 7, 1361-1367.	2.8	7
67	Tailoring the chemistry and the nano-architecture of organic thin films using cold plasma processes. <i>Plasma Processes and Polymers</i> , 2017, 14, 1700042.	3.0	6
68	Study of the Coarsening of Nanoporous Gold Nanowires by In Situ Scanning Transmission Electron Microscopy During Annealing. <i>Physica Status Solidi - Rapid Research Letters</i> , 2019, 13, 1900376.	2.4	6
69	Neon ion beam-induced surface reactions of SF ₆ adsorbed molecules with silicon at low temperature. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 1996, 14, 234-239.	2.1	5
70	Model for power coupled to RF planar magnetrons. Experimental validation and application to CN _x thin film deposition. <i>Surface and Coatings Technology</i> , 2003, 174-175, 49-54.	4.8	5
71	Polarization-dependent ultrafast plasmon relaxation dynamics in nanoporous gold thin films and nanowires. <i>Journal Physics D: Applied Physics</i> , 2019, 52, 225103.	2.8	5
72	Small scale mechanical properties of polycrystalline materials: in situ diffraction studies. <i>International Journal of Nanotechnology</i> , 2008, 5, 609.	0.2	4

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73	Direct Synthesis of ZnO Nanowires on Nanopatterned Surface by Magnetron Sputtering. Chemical Vapor Deposition, 2011, 17, 337-341.	1.3	4
74	Electrical behavior of nickel/carbon nanocomposite thin films. Carbon, 2017, 111, 878-886.	10.3	4
75	Patterning of silver on the micro- and nano-scale by local oxidation using air plasma. Nano Structures Nano Objects, 2019, 19, 100320.	3.5	4
76	In situ tensile tests in SEM of sputtered CNx films deposited on Ti6Al4V substrate: effect of film thickness and plasma surface pretreatment. Thin Solid Films, 2005, 482, 324-329.	1.8	3
77	Effect of temperature on the synthesis of nanoporous carbon from copper/carbon thin films to nanoporous carbon for sensing applications. Thin Solid Films, 2017, 630, 59-65.	1.8	3
78	Growth control of carbon nanotubes using nanocomposite nickel/carbon thin films. Thin Solid Films, 2017, 630, 38-47.	1.8	3
79	TWO STEP REACTIVE MAGNETRON SPUTTERING OF BLT THIN FILMS. Integrated Ferroelectrics, 2007, 94, 94-104.	0.7	2
80	Carbon nanochannels elaborated by buckle delamination control on patterned substrates. Applied Physics Letters, 2007, 91, .	3.3	2
81	Improvement of dielectric properties of BLT thin films deposited by magnetron sputtering. Journal of Physics: Conference Series, 2008, 94, 012006.	0.4	2
82	Current developments in ionised physical vapour deposition by magnetron sputtering " state of the art " prospects for the future in terms of applications. Surface Engineering, 2008, 24, 319-321.	2.2	2
83	Response to "Comment on "Carbon nanowalls as material for electrochemical transducers" [Appl. Phys. Lett. 96 126102 (2010)]. Applied Physics Letters, 2010, 96, 126103.	3.3	2
84	Growth control of CuO nanowires on copper thin films: Toward the development of pn nanojunction arrays. , 2013, , .		2
85	Hollow Nanostructures: Highly Ordered Hollow Oxide Nanostructures: The Kirkendall Effect at the Nanoscale (Small 17/2013). Small, 2013, 9, 2837-2837.	10.0	1
86	(Invited) Dual-Gate TFT for Chemical Detection. ECS Transactions, 2018, 86, 169-176.	0.5	1
87	Fabrication of highly ordered hollow oxide nanostructures based on nanoscale Kirkendall effect and ostwald ripening. , 2013, , .		0
88	Ultra-thin films on transparent conductor oxides for the development of spectro-electrochemical transducers. Applied Surface Science, 2013, 276, 306-311.	6.1	0
89	(Invited) Plasma Synthesis of Conductive Carbon Based Nanomaterials. ECS Transactions, 2017, 77, 37-39.	0.5	0
90	Dual Gate Microsensors and Nanomaterials for Chemical Detection. Proceedings (mdpi), 2017, 1, 478.	0.2	0