Carlos QuirÃ³s

List of Publications by Year
in descending order

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78	1,503	394421	330143
papers	citations	19 h-index	37 g-index

79	79	79	1940
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Structure and Reactivity of Surface Oxides on Pt(110) during Catalytic CO Oxidation. Physical Review Letters, 2005, 95, 255505.	7.8	327
2	Self-Limited Growth of a Thin Oxide Layer on Rh(111). Physical Review Letters, 2004, 92, 126102.	7.8	198
3	Friction mechanisms of amorphous carbon nitride films under variable environments: a triboscopic study. Surface and Coatings Technology, 2002, 160, 138-144.	4.8	75
4	Nanoscale imaging of buried topological defects with quantitative X-ray magnetic microscopy. Nature Communications, 2015, 6, 8196.	12.8	61
5	Characterization of carbon nitride thin films prepared by dual ion beam sputtering. Applied Physics Letters, 1996, 69, 764-766.	3.3	41
6	Magnetic anisotropy of ultrathin cobalt films on Pt(111) investigated with x-ray diffraction:â€ƒEffect of atomic mixing at the interface. Physical Review B, 2002, 65, .	3.2	38
7	Hydrogenation of carbon monoxide on Ni(111) investigated with surface X-ray diffraction at atmospheric pressure. Surface Science, 2004, 557, 21-30.	1.9	33
8	Crystal-Field Effects at the TiO2â"SiO2Interface As Observed by X-ray Absorption Spectroscopy. Langmuir, 2000, 16, 7066-7069.	3.5	32
9	Revealing 3D magnetization of thin films with soft X-ray tomography: magnetic singularities and topological charges. Nature Communications, 2020, 11, 6382.	12.8	29
10	Correlation between Nâ€Š1s core level x-ray photoelectron and x-ray absorption spectra of amorphous carbon nitride films. Applied Physics Letters, 2000, 77, 803-805.	3.3	28
11	Fermi surface gapping and nesting in the surface phase transition ofSnâ•Cu(100). Physical Review B, 2005, 72, .	3.2	28
12	Compressibility of CO adsorbed on Ni from 10â"6 mbar to 1.2 bar ambient CO pressures investigated with X-ray diffraction. Surface Science, 2003, 522, 161-166.	1.9	27
13	Bonding and morphology study of carbon nitride films obtained by dual ion beam sputtering. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2000, 18, 515-523.	2.1	26
14	The role of CN chemical bonding on the tribological behaviour of CNx coatings. Surface and Coatings Technology, 1999, 120-121, 594-600.	4.8	25
15	Electronic interaction at the TiO2â€"Al2O3 interface as observed by X-ray absorption spectroscopy. Surface Science, 2001, 482-485, 470-475.	1.9	25
16	Antiferromagnetic coupling in amorphousCoxSi1â"xâ•Simultilayers. Physical Review B, 2005, 71, .	3.2	24
17	Direct chemical in-depth profile analysis and thickness quantification of nanometer multilayers using pulsed-rf-GD-TOFMS. Analytical and Bioanalytical Chemistry, 2010, 396, 2881-2887.	3.7	23
18	Structural and magnetic properties of bcc Co films on Pt(001) studied by magnetic resonant surface x-ray diffraction, STM, and magneto-optical Kerr effect. Physical Review B, 2004, 70, .	3.2	22

#	Article	IF	Citations
19	Structure of self-organized Fe clusters grown on Au(111) analyzed by grazing incidence x-ray diffraction. Physical Review B, 2004, 69, .	3.2	22
20	Asymmetric grazing incidence small angle x-ray scattering and anisotropic domain wall motion in obliquely grown nanocrystalline Co films. Nanotechnology, 2014, 25, 335704.	2.6	18
21	Deterministic propagation of vortex-antivortex pairs in magnetic trilayers. Applied Physics Letters, 2017, 110, .	3.3	17
22	3D reconstruction of magnetization from dichroic soft X-ray transmission tomography. Journal of Synchrotron Radiation, 2018, 25, 1144-1152.	2.4	17
23	Observation of asymmetric distributions of magnetic singularities across magnetic multilayers. Physical Review B, 2017, 95, .	3.2	16
24	Tunable ferromagnetic resonance in coupled trilayers with crossed in-plane and perpendicular magnetic anisotropies. Applied Physics Letters, 2019, 115, .	3.3	16
25	Structure and Pt magnetism of FePt nanoparticles investigated with X-ray diffraction. Journal of Magnetism and Magnetic Materials, 2003, 264, 202-208.	2.3	15
26	Minor elements determination and evaluation of diffusion/segregation effects on ultra-thin layers using pulsed-RF-GD-TOFMS. Journal of Analytical Atomic Spectrometry, 2011, 26, 1604.	3.0	15
27	Tuning interfacial domain walls in GdCo/Gd/GdCoâ€² spring magnets. Physical Review B, 2015, 92, .	3.2	15
28	Resonant photoemission of TiN films. Physical Review B, 2001, 63, .	3.2	14
29	Pulsed rf-GD-TOFMS for depth profile analysis of ultrathin layers using the analyte prepeak region. Analytical and Bioanalytical Chemistry, 2012, 403, 2437-2448.	3.7	14
30	Tribological and chemical characterization of ion beam-deposited CNx films. Vacuum, 1999, 52, 199-202.	3.5	13
31	Dielectric Properties of Ti, TiO2 and TiN from 1.5 to 60 eV Determined by Reflection Electron Energy Loss Spectroscopy (REELS) and Ellipsometry. Physica Status Solidi A, 1999, 175, 429-436.	1.7	13
32	Correlation between bonding structure and mechanical properties of amorphous carbon nitride thin films. Surface and Coatings Technology, 2000, 125, 284-288.	4.8	13
33	Resonant Photoemission and X-ray Absorption Study of the Electronic Structure of the TiO2â"Al2O3 Interface. Langmuir, 2001, 17, 7339-7343.	3.5	12
34	Electron inelastic mean free path and dielectric properties of a-boron, a-carbon, and their nitrides as determined by quantitative analysis of reflection electron energy loss spectroscopy. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2006, 24, 396-407.	2.1	12
35	Resolving antiferromagnetic states in magnetically coupled amorphous Co-Si-Si multilayers by soft x-ray resonant magnetic scattering. Physical Review B, 2008, 78, .	3.2	12
36	Determination of the magnetostrictive atomic environments in FeCoB alloys. Physical Review B, 2012, 85, .	3.2	12

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37	Carbon nitride films synthesized by dual ion beam sputtering. Nuclear Instruments & Methods in Physics Research B, 1997, 122, 534-537.	1.4	11
38	Stacking reversal as a source of perpendicular magnetic anisotropy in Ni-Pt multilayers. Physical Review B, 2003, 67, .	3.2	11
39	Interlayer coupling mechanisms in amorphousCoxSi1â^'xâ^•Simultilayers. Physical Review B, 2006, 74, .	3.2	11
40	Electronic structure of TiO2 monolayers grown on Al2O3 and MgO studied by resonant photoemission spectroscopy. Surface Science, 2002, 507-510, 672-677.	1.9	10
41	Dense arrays of Co nanocrystals epitaxially grown on ion-patterned Cu(110) substrates. Applied Physics Letters, 2005, 86, 141906.	3.3	10
42	Surface x-ray diffraction analysis using a genetic algorithm: the case of Sn/Cu(100)-(3sqrt {2}imes) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	1.8	9
43	Low-temperature growth favours hcp structure, flatness and perpendicular magnetic anisotropy of thin (1â€“5 nm) Co films on Pt(111). Journal of Physics Condensed Matter, 2005, 17, 5551-5561.	1.8	8
44	Ultrathin Pt films on Ni(111): Structure determined by surface x-ray diffraction. Physical Review B, 2003, 68, .	3.2	7
45	Multiple-length-scale small-angle X-ray scattering analysis on maghemite nanocomposites. Journal of Applied Crystallography, 2007, 40, s696-s700.	4.5	7
46	Factor analysis applied to the study of valence band resonant photoemission spectra in transition-metal compounds. Surface and Interface Analysis, 2002, 34, 244-247.	1.8	6
47	Large negative thermal expansion of the Co subnetwork measured by EXAFS in highly disordered Nd_{1â^'x}Co_xthin films with perpendicular magnetic anisotropy. Journal of Physics Condensed Matter, 2013, 25, 426002.	1.8	6
48	Thin BN films obtained by dual-ion-beam sputtering: an FT-IR and spectroscopic ellipsometry characterization. Nuclear Instruments & Methods in Physics Research B, 1996, 112, 275-279.	1.4	5
49	Atomic pair ordering and magnetic anisotropy of Feâ€“Si amorphous films studied by linearly polarized EXAFS. Journal of Magnetism and Magnetic Materials, 2007, 316, e390-e392.	2.3	5
50	Enhancement of antiferromagnetic coupling in magnetic multilayers by low energy ion beam substrate nanopatterning. Journal of Physics Condensed Matter, 2009, 21, 224024.	1.8	5
51	Characterization of Zr thin films grown by dual ion-beam sputtering. Vacuum, 1994, 45, 1039-1041.	3.5	4
52	Oxidation study of Co/Cu multilayers by resonant X-ray reflectivity. Vacuum, 1999, 52, 109-113.	3.5	4
53	Friction measurements of CNx and TiCxNy films by scanning force microscopy. Surface and Interface Analysis, 2000, 30, 638-642.	1.8	4
54	Cycloidal Domains in the Magnetization Reversal Process of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" overflow="scroll"><mml:msub><mml:mi>Ni</mml:mi><mml:mn>80</mml:mn></mml:msub><mml:msub><mml:mi>Fe</mml:mi><mml: Physical Review Applied, 2018, 10, .	3.8	4

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55	Tailoring block copolymer nanoporous thin films with acetic acid as a small guest molecule. Polymer International, 2019, 68, 1914-1920.	3.1	4
56	3D magnetic configuration of ferrimagnetic multilayers with competing interactions visualized by soft X-ray vector tomography. Communications Physics, 2022, 5, .	5.3	4
57	Quantitative chemical depth profiles of ZrN/BN multilayers. Surface and Interface Analysis, 1998, 26, 806-814.	1.8	3
58	Quantitative REELS of amorphous carbon and carbon nitride films. Surface and Interface Analysis, 2004, 36, 820-823.	1.8	3
59	Stacking dependent disordering processes in Gd/Co/Pt(111) studied with surface x-ray diffraction. Physical Review B, 2008, 78, .	3.2	3
60	Switchable field-tuned control of magnetic domain wall pinning along Co microwires by 3D e-beam lithographed structures. Journal of Magnetism and Magnetic Materials, 2016, 400, 213-218.	2.3	3
61	Chiral asymmetry detected in a 2D array of permalloy square nanomagnets using circularly polarized x-ray resonant magnetic scattering. Nanotechnology, 2020, 31, 025702.	2.6	3
62	Ferromagnetic Resonance Studies in Magnetic Nanosystems. Magnetochemistry, 2021, 7, 126.	2.4	3
63	Combination of specular and off-specular low-angle X-ray diffraction in the study of metallic multilayers. Solid State Communications, 1998, 108, 769-773.	1.9	2
64	Combination of specular and off-specular low-angle x-ray diffraction in the study of Co/Cu multilayers: mesoscopic structure and layer oxidation. Surface and Interface Analysis, 1999, 27, 1-7.	1.8	2
65	Structural and magnetic properties of Co_xSi_{1â^'x}thin films and multilayers. Journal of Physics Condensed Matter, 2007, 19, 486003.	1.8	2
66	Magnetic order and disorder in nanomagnets probed by superconducting vortices. Scientific Reports, 2018, 8, 12374.	3.3	2
67	Magnetic textures and singularities in ferri/ferromagnetic multilayers. Journal of Magnetism and Magnetic Materials, 2021, 539, 168384.	2.3	2
68	Zr-BN multilayers obtained by ion-assisted sputtering: an FT-IR, GAXRD and AES depth profiling characterization. Surface and Coatings Technology, 1996, 84, 392-397.	4.8	1
69	Determination of resputtering yields in carbon nitride films grown by dual ion beam sputtering. Surface and Coatings Technology, 2000, 125, 366-370.	4.8	1
70	Magnetic anisotropy of submonolayer Pt films grown on Ni(110). Journal of Physics Condensed Matter, 2003, 15, 4279-4285.	1.8	1
71	Temperature effects on the magnetic properties of antiferromagnetically coupled amorphous Co0.74Si0.26/Si multilayers. Physica Status Solidi (A) Applications and Materials Science, 2006, 203, 1420-1424.	1.8	1
72	Influence of the number of periods on the magnetization reversal process of antiferromagnetically coupled amorphous CoxSi1â^'x/Si multilayers. Journal of Non-Crystalline Solids, 2007, 353, 959-961.	3.1	1

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73	Interface effects on Gd induced disordering of Co films on Pt(111). Surface Science, 2012, 606, 933-937.	1.9	1
74	Crystalline Structure and Vacancy Ordering across a Surface Phase Transition in Sn/Cu(001). Journal of Physical Chemistry B, 2018, 122, 745-756.	2.6	1
75	Layer-dependence of macroscopic and atomic magnetic correlations in Co/Pd multilayers. AIP Advances, 2020, 10, 065321.	1.3	1
76	Two-Step Resist Deposition of E-Beam Patterned Thick Py Nanostructures for X-ray Microscopy. Micromachines, 2022, 13, 204.	2.9	1
77	BN and ZrN AES Spectra Obtained by Depth Profiling of ZrN/BN Multilayers. Surface Science Spectra, 2000, 7, 86-92.	1.3	0
78	Magnetic properties of amorphous Co0.74Si0.26â^•Si multilayers with different numbers of periods. Low Temperature Physics, 2010, 36, 821-825.	0.6	0