Ignacio Jimenez

List of Publications by Year
in descending order

92 papers	3,261 citations	109137 35 h-index	161609 54 g-index
92 all docs	92 docs citations	92 times ranked	3783 citing authors

#	Article	IF	Citations
1	Correlated effects of fluorine and hydrogen in fluorinated tin oxide (FTO) transparent electrodes deposited by sputtering at room temperature. Applied Surface Science, 2021, 537, 147906.	3.1	4
2	Production and processing of graphene and related materials. 2D Materials, 2020, 7, 022001.	2.0	333
3	Phase Selectivity in Cr and N Co-Doped TiO2 Films by Modulated Sputter Growth and Post-Deposition Flash-Lamp-Annealing. Coatings, 2019, 9, 448.	1.2	3
4	Structural impact of chromium incorporation in as-grown and flash-lamp-annealed sputter deposited titanium oxide films. Journal of Alloys and Compounds, 2017, 729, 438-445.	2.8	7
5	Tribological comparison of different C-based coatings in lubricated and unlubricated conditions. Surface and Coatings Technology, 2014, 257, 278-285.	2.2	8
6	Reversed texture in nanometric carbon/boron nitride multilayers. Carbon, 2014, 74, 374-378.	5.4	7
7	Chemical changes in irradiated polypropylene studied by X-ray photoabsorption and advanced EPR/ENDOR spectroscopies. European Polymer Journal, 2014, 53, 223-229.	2.6	9
8	The benefit of the European User Community from transnational access to national radiation facilities. Journal of Synchrotron Radiation, 2014, 21, 638-639.	1.0	2
9	A review of monolithic and multilayer coatings within the boronâ€“carbonâ€“nitrogen system by ion-beam-assisted deposition. Journal of Materials Research, 2012, 27, 743-764.	1.2	16
10	Influence of carbon content and nitrogen vacancies on the bonding structure and mechanical performance of graphite-like BCxN thin films. Journal of Applied Physics, 2012, 112, 063525.	1.1	6
11	Coordination chemistry of titanium and zinc in Ti(1â^'x)Zn2xO2 (0 â‰xâ‰ 1) ultrathin films grown by DC reactive magnetron sputtering. RSC Advances, 2012, 2, 2696.	1.7	13
12	Hydrogen stability in hydrogenated amorphous carbon films with polymer-like and diamond-like structure. Journal of Applied Physics, 2012, 112, .	1.1	24
13	Interfacial Interactions in Polypropyleneâ^'Organoclayâ^'Elastomer Nanocomposites: Influence of Polar Modifications on the Location of the Clay. Macromolecules, 2011, 44, 2179-2189.	2.2	30
14	Towards a new generation of polymer nanocomposites based on inorganic nanotubes. Journal of Materials Chemistry, 2011, 21, 3574.	6.7	33
15	Novel melt-processable nylon-6/inorganic fullerene-like WS2 nanocomposites: Complex isothermal crystallization kinetics and melting behaviour. Materials Chemistry and Physics, 2011, 128, 265-273.	2.0	18
16	Novel melt-processable nylon-6/inorganic fullerene-like WS2 nanocomposites for critical applications. Materials Chemistry and Physics, 2011, 129, 641-648.	2.0	33
17	Composition and bonding structure of boron nitride B1â^'xNx thin films grown by ion-beam assisted evaporation. Chemical Physics Letters, 2011, 511, 235-240.	1.2	16
18	Characterization of surfaceâ€modified polyalkanoate films for biomedical applications. Journal of Applied Polymer Science, 2011, 119, 3286-3296.	1.3	19

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19	Point defects in hexagonal BN, BC3 and BCxN compounds studied by x-ray absorption near-edge structure. Journal of Applied Physics, 2011, 110, 023511.	1.1	45
20	Electron Microscopy (TEM) and X-ray Spectromicroscopy (STXM) of PP/MMT/PP-g-MA and PP/MMT/SEBS Nanocomposites. Materials Research Society Symposia Proceedings, 2010, 1257, 1.	0.1	0
21	Interfacial Interactions in PP/MMT/SEBS Nanocomposites. Macromolecules, 2010, 43, 448-453.	2.2	44
22	Effect of Carbon Incorporation on the Microstructure of BC_{<i>x</i>}N (<i>x</i> = 0.25, 1,) Tj ETQq0 0 0 rgBT /Overlock 10 T 2010, 22, 1949-1951.	3.2	21
23	Novel Melt-Processable Poly(ether ether ketone)(PEEK)/Inorganic Fullerene-like WS₂ Nanoparticles for Critical Applications. Journal of Physical Chemistry B, 2010, 114, 11444-11453.	1.2	66
24	Extended X-ray absorption fine structure (EXAFS) investigations of Ti bonding environment in sputter-deposited nanocomposite TiBC/a-C thin films. IOP Conference Series: Materials Science and Engineering, 2010, 12, 012012.	0.3	4
25	Tribological study of hydrogenated amorphous carbon films with tailored microstructure and composition produced by bias-enhanced plasma chemical vapour deposition. Diamond and Related Materials, 2010, 19, 1093-1102.	1.8	36
26	X-ray emission by electron impact as a surface characterization tool for the light elements B, C, N and O: sensitivity factors and effective attenuation length. Journal of Analytical Atomic Spectrometry, 2010, 25, 150-155.	1.6	4
27	Characterization of Nitrogen-Doped Carbon Nanotubes by Atomic Force Microscopy, X-ray Photoelectron Spectroscopy and X-ray Absorption Near Edge Spectroscopy. Journal of Nanoscience and Nanotechnology, 2009, 9, 3633-3638.	0.9	10
28	Unique Nucleation Activity of Inorganic Fullerene-like WS₂ Nanoparticles in Polyphenylene Sulfide Nanocomposites: Isokinetic and Isoconversional Study of Dynamic Crystallization Kinetics. Journal of Physical Chemistry B, 2009, 113, 7107-7115.	1.2	41
29	Spectromicroscopy Study of Intercalation and Exfoliation in Polypropylene/Montmorillonite Nanocomposites. Journal of Physical Chemistry B, 2009, 113, 11160-11165.	1.2	30
30	Use of Inorganic Fullerene-like WS₂ to Produce New High-Performance Polyphenylene Sulfide Nanocomposites: Role of the Nanoparticle Concentration. Journal of Physical Chemistry B, 2009, 113, 10104-10111.	1.2	54
31	Optimizing the balance between impact strength and stiffness in polypropylene/elastomer blends by incorporation of a nucleating agent. Polymer Engineering and Science, 2008, 48, 80-87.	1.5	42
32	Isothermal crystallization kinetics of isotactic polypropylene with inorganic fullerene-like WS2 nanoparticles. Thermochimica Acta, 2008, 472, 11-16.	1.2	35
33	X-ray Spectroscopic and Magnetic Investigation of C:Ni Nanocomposite Films Grown by Ion Beam Cosputtering. Journal of Physical Chemistry C, 2008, 112, 12628-12637.	1.5	23
34	Unique Isothermal Crystallization Behavior of Novel Polyphenylene Sulfide/Inorganic Fullerene-like WS₂ Nanocomposites. Journal of Physical Chemistry B, 2008, 112, 14819-14828.	1.2	47
35	Boron carbides formed by coevaporation of B and C atoms: Vapor reactivity,<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mi mathvariant="normal">B</mml:mi><mml:mi>x</mml:mi></mml:msub><mml:msub><mml:mi mathvariant="normal">C</mml:mi><mml:mrow><mml:mn>1</mml:mn><mml:mo>â^'</mml:mo><mml:mi>x</mml:mi></mml:mrow> and bonding structure. Physical Review B, 2008, 77.	1.1	42
36	Detection of intrinsic stress in cubic boron nitride films by x-ray absorption near-edge structure: Stress relaxation mechanisms by simultaneous ion implantation during growth. Physical Review B, 2007, 76, .	1.1	11

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37	The effect of nitrogen incorporation on the bonding structure of hydrogenated carbon nitride films. Journal of Applied Physics, 2007, 101, 063515.	1.1	19
38	Bonding structure of BCN nanopowders prepared by ball milling. Diamond and Related Materials, 2007, 16, 1450-1454.	1.8	27
39	Tribological study of amorphous BC4N coatings. Diamond and Related Materials, 2007, 16, 63-73.	1.8	24
40	Friction and wear of amorphous BC4N coatings under different atmospheres. Diamond and Related Materials, 2007, 16, 1445-1449.	1.8	12
41	Influence of inorganic fullereneâ€like WS₂ nanoparticles on the thermal behavior of isotactic polypropylene. Journal of Polymer Science, Part B: Polymer Physics, 2007, 45, 2309-2321.	2.4	77
42	Influence of a nucleating agent on the crystallization behaviour of isotactic polypropylene and elastomer blends. Polymer, 2007, 48, 5324-5331.	1.8	55
43	Materiales y tÃ©cnicas de fase vapor para la sÃntesis de recubrimientos cerÃ¡micos. Boletin De La Sociedad Espanola De Ceramica Y Vidrio, 2007, 46, 171-176.	0.9	4
44	Identification of a Plum pox virus CI-Interacting Protein from Chloroplast That Has a Negative Effect in Virus Infection. Molecular Plant-Microbe Interactions, 2006, 19, 350-358.	1.4	88
45	Thin Film Growth by Ion-Beam-Assisted Deposition Techniques. , 2006, , 345-382.		6
46	Nitrogen incorporation in carbon nitride films produced by direct and dual ion-beam sputtering. Journal of Applied Physics, 2005, 98, 074907.	1.1	6
47	Correlation between bonding structure and microstructure in fullerenelike carbon nitride thin films. Physical Review B, 2005, 71, .	1.1	40
48	Evolution ofsp2networks with substrate temperature in amorphous carbon films: Experiment and theory. Physical Review B, 2005, 72, .	1.1	61
49	Tribological properties of ternary BCN films with controlled composition and bonding structure. Diamond and Related Materials, 2004, 13, 1532-1537.	1.8	39
50	Fine structure at the X-ray absorption Ï€* and Ïƒ* bands of amorphous carbon. Diamond and Related Materials, 2003, 12, 110-115.	1.8	27
51	BCN films with controlled composition obtained by the interaction between molecular beams of B and C with nitrogen ion beams. Diamond and Related Materials, 2003, 12, 1079-1083.	1.8	34
52	Characterization of the unoccupied and partially occupied states of TTF-TCNQ by XANES and first-principles calculations. Physical Review B, 2003, 68, .	1.1	54
53	Transition from amorphous boron carbide to hexagonal boron carbon nitride thin films induced by nitrogen ion assistance. Journal of Applied Physics, 2002, 92, 5177-5182.	1.1	43
54	X-Ray absorption study of the bonding structure of BCN compounds enriched in carbon by CH4 ion assistance. Diamond and Related Materials, 2002, 11, 1295-1299.	1.8	9

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55	On the bonding structure of hydrogenated carbon nitrides grown by electron cyclotron resonance chemical vapour deposition: towards the synthesis of non-graphitic carbon nitrides. Diamond and Related Materials, 2002, 11, 1161-1165.	1.8	14
56	Thin Films of Molecular Metals TTF-TCNQ. Journal of Solid State Chemistry, 2002, 168, 384-389.	1.4	33
57	Growth and characterisation of boronâ€“carbonâ€“nitrogen coatings obtained by ion beam assisted evaporation. Vacuum, 2002, 64, 199-204.	1.6	36
58	Identification of ternary boronâ€“carbonâ€“nitrogen hexagonal phases by x-ray absorption spectroscopy. Applied Physics Letters, 2001, 78, 3430-3432.	1.5	50
59	Electron-beam-induced reactions at O2/GaAs(1 0 0) interfaces. Surface Science, 2001, 482-485, 121-127.	0.8	7
60	Influence of Si oxidation methods on the distribution of suboxides at Si/SiO2 interfaces and their band alignment: a synchrotron photoemission study. Surface Science, 2001, 482-485, 272-278.	0.8	22
61	Detecting with X-ray absorption spectroscopy the modifications of the bonding structure of graphitic carbon by amorphisation, hydrogenation and nitrogenation. Surface Science, 2001, 482-485, 530-536.	0.8	42
62	X-Ray absorption studies of cubic boronâ€“carbonâ€“nitrogen films grown by ion beam assisted evaporation. Diamond and Related Materials, 2001, 10, 1165-1169.	1.8	40
63	X-Ray absorption studies of bonding environments in graphitic carbon nitride. Diamond and Related Materials, 2001, 10, 1170-1174.	1.8	30
64	Hardening Mechanisms in Graphitic Carbon Nitride Films Grown with N2/Ar Ion Assistance. Chemistry of Materials, 2001, 13, 129-135.	3.2	35
65	Choice of boronâ€“carbonâ€“nitrogen coating material for electron emission based on photoelectric yield measurements during x-ray absorption studies. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2001, 19, 1358.	1.6	7
66	Boronâ€“carbonâ€“nitrogen compounds grown by ion beam assisted evaporation. Thin Solid Films, 2000, 373, 277-281.	0.8	28
67	Spectroscopy of Ï€ bonding in hard graphitic carbon nitride films: Superstructure of basal planes and hardening mechanisms. Physical Review B, 2000, 62, 4261-4264.	1.1	68
68	Electronic structure of the energetic material 1,3,5-triamino-2,4,6-trinitrobenzene. Physical Review B, 2000, 62, 15666-15672.	1.1	38
69	Electronic structure and nature of the bonding at the Cu(110)+c(2Ã—2)-Si surface alloy. Surface Science, 2000, 466, 144-154.	0.8	14
70	Bonding and hardness in nonhydrogenated carbon films with moderate sp3 content. Journal of Applied Physics, 2000, 87, 8174-8180.	1.1	57
71	Model of the bias-enhanced nucleation of diamond on silicon based on atomic force microscopy and x-ray-absorption studies. Physical Review B, 2000, 61, 10383-10387.	1.1	16
72	Photoemission, X-ray absorption and X-ray emission study of boron carbides. Journal of Electron Spectroscopy and Related Phenomena, 1999, 101-103, 611-615.	0.8	25

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73	Bonding modifications in carbon nitride films induced by thermal annealing: An x-ray absorption near edge study. Applied Physics Letters, 1999, 74, 2620-2622.	1.5	54
74	X-ray photoemission and photoabsorption of organic electroluminescent materials. Journal of Applied Physics, 1999, 86, 88-93.	1.1	37
75	Photoemission and x-ray-absorption study of boron carbide and its surface thermal stability. Physical Review B, 1998, 57, 13167-13174.	1.1	134
76	Orientation of graphitic planes during the bias-enhanced nucleation of diamond on silicon: An x-ray absorption near-edge study. Applied Physics Letters, 1998, 73, 2911-2913.	1.5	27
77	X-ray absorption spectroscopy and atomic force microscopy study of bias-enhanced nucleation of diamond films. Applied Physics Letters, 1998, 72, 2105-2107.	1.5	41
78	Core-level photoabsorption study of defects and metastable bonding configurations in boron nitride. Physical Review B, 1997, 55, 12025-12037.	1.1	146
79	The chemisorption of H2C[Si(CH3)3]2 and Si6(CH3)12 on Si(100) surfaces. Journal of Applied Physics, 1997, 82, 3567-3571.	1.1	8
80	Accurate valence band width of diamond. Physical Review B, 1997, 56, 7215-7221.	1.1	45
81	Nearâ€edge xâ€ray absorption fine structure study of bonding modifications in BN thin films by ion implantation. Applied Physics Letters, 1996, 68, 2816-2818.	1.5	100
82	Photoâ€oxidation of electroluminescent polymers studied by coreâ€level photoabsorption spectroscopy. Applied Physics Letters, 1996, 68, 2046-2048.	1.5	105
83	Near-Edge X-Ray Absorption Fine Structure Examination of Chemical Bonding in Sputter Deposited Boron and Boron-Nitride Films. Materials Research Society Symposia Proceedings, 1996, 437, 207.	0.1	2
84	Synthesis and characterization of amorphous carbon nitride films. Thin Solid Films, 1996, 290-291, 94-98.	0.8	46
85	Stoichiometry reversal and depth-profiling in the growth of thin oxynitride films with N2O on Si(100) surfaces. Journal of Electron Spectroscopy and Related Phenomena, 1996, 80, 133-136.	0.8	1
86	Photon assisted field electron emission from SiO2/Si substrates. Applied Physics Letters, 1996, 68, 3602-3604.	1.5	3
87	Characterization of nanocrystalline diamond films by coreâ€level photoabsorption. Applied Physics Letters, 1996, 68, 1640-1642.	1.5	111
88	Surface and interface analysis at 3rd generation light sources. Progress in Surface Science, 1995, 50, 37-51.	3.8	1
89	Stoichiometry reversal in the growth of thin oxynitride films on Si(100) surfaces. Journal of Applied Physics, 1995, 78, 6761-6769.	1.1	55
90	GaAs formation by reduction of As2O3 and Ga2O3 at SiO2/GaAs oxides/GaAs interfaces. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1994, 12, 1170-1175.	0.9	1

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91	SiO2growth on GaAs by reduction of GaAs oxides: Separation of stoichiometric changes fromSiO2/GaAs band-lineup effects. Physical Review B, 1994, 49, 11117-11126.	1.1	14
92	Thermal effects on the growth of SiO2 on GaAs(100) by reduction of native oxides. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1993, 11, 1028-1032.	0.9	7