

Alberto Herrera-Gomez

List of Publications by Year in descending order

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73
papers

1,775
citations

218662

26
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302107

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74
all docs

74
docs citations

74
times ranked

1893
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 1 | Oxidation mechanism of metallic chromium at room temperature. Applied Surface Science, 2021, 542, 148636. | 6.1 | 18 |
| 2 | A discussion of approaches for fitting asymmetric signals in X-ray photoelectron spectroscopy (XPS), noting the importance of Voigt-like peak shapes. Surface and Interface Analysis, 2021, 53, 689-707. | 1.8 | 20 |
| 3 | Introductory guide to backgrounds in XPS spectra and their impact on determining peak intensities. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2020, 38, . | 2.1 | 62 |
| 4 | Assessment of the frequency and nature of erroneous x-ray photoelectron spectroscopy analyses in the scientific literature. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2020, 38, . | 2.1 | 105 |
| 5 | Uncertainties in photoemission peak fitting accounting for the covariance with background parameters. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2020, 38, . | 2.1 | 16 |
| 6 | Proliferation of Faulty Materials Data Analysis in the Literature. Microscopy and Microanalysis, 2020, 26, 1-2. | 0.4 | 59 |
| 7 | A self-consistent multiple-peak structure of the photoemission spectra of metallic Fe 2 <i>p</i> as a function of film thickness. Surface and Interface Analysis, 2020, 52, 591-599. | 1.8 | 5 |
| 8 | Versailles Project on Advanced Materials and Standards interlaboratory study on intensity calibration for x-ray photoelectron spectroscopy instruments using low-density polyethylene. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2020, 38, 063208. | 2.1 | 21 |
| 9 | Corrosion Resistant TiTaN and TiTaAlN Thin Films Grown by Hybrid HiPIMS/DCMS Using Synchronized Pulsed Substrate Bias with No External Substrate Heating. Coatings, 2019, 9, 841. | 2.6 | 5 |
| 10 | Intensity modulation of the Shirley background of the Cr 3 <i>p</i> spectra with photon energies around the Cr 2 <i>p</i> edge. Surface and Interface Analysis, 2018, 50, 246-252. | 1.8 | 15 |
| 11 | Response to the letter: Comment on "Intensity modulation of the Shirley background of the Cr 3 <i>p</i> spectra with photon energies around the Cr 2 <i>p</i> edge" by R. Bavand, L. Chen, R. FranÅsa, et al. Surface and Interface Analysis, 2018, 50, 686-687. | 1.8 | 0 |
| 12 | Micro-tribological performance of fullerene-like carbon and carbon-nitride surfaces. Tribology International, 2018, 128, 104-112. | 5.9 | 11 |
| 13 | Laser Reflection as a Simple Prospect Tool for Nondestructive Quality Control of Charged Lapping Plates. Journal of Tribology, 2017, 139, . | 1.9 | 0 |
| 14 | Accurate modeling of gate tunneling currents in Metal-Insulator-Semiconductor capacitors based on ultra-thin atomic-layer deposited Al ₂ O ₃ and post-metallization annealing. Thin Solid Films, 2017, 638, 48-56. | 1.8 | 19 |
| 15 | Facile obtaining of Iridium(0), Platinum(0) and Platinum(0)-Iridium(0) alloy nanoparticles and the catalytic reduction of 4-nitrophenol. Materials Chemistry and Physics, 2017, 201, 289-296. | 4.0 | 12 |
| 16 | Detailed peak fitting analysis of the Zn 2 <i>p</i> photoemission spectrum for metallic films and its initial oxidation stages. Surface and Interface Analysis, 2017, 49, 1078-1087. | 1.8 | 35 |
| 17 | Composition assessment of ferric oxide by accurate peak fitting of the Fe 2 <i>p</i> photoemission spectrum. Surface and Interface Analysis, 2017, 49, 253-260. | 1.8 | 43 |
| 18 | Atomic force acoustic microscopy: Influence of the lateral contact stiffness on the elastic measurements. Ultrasonics, 2016, 71, 271-277. | 3.9 | 9 |

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|----|--|------|-----------|
| 19 | Modeling the limited degree of starch gelatinization. <i>Starch/Staerke</i> , 2016, 68, 727-733. | 2.1 | 9 |
| 20 | New Data Analysis Tools for X-ray Photoelectron Spectroscopy (XPS) and Spectroscopic Ellipsometry (SE): Uniqueness Plots and Width Functions in XPS, and Distance, Principal Component, and Cluster Analyses in SE. <i>Microscopy and Microanalysis</i> , 2016, 22, 344-345. | 0.4 | 0 |
| 21 | Uniqueness plots: A simple graphical tool for identifying poor peak fits in X-ray photoelectron spectroscopy. <i>Applied Surface Science</i> , 2016, 387, 155-162. | 6.1 | 51 |
| 22 | Formation of Si ¹⁺ in the early stages of the oxidation of the Si[001] 2 \times 1 surface. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2016, 34, . | 2.1 | 5 |
| 23 | Accurate peak fitting and subsequent quantitative composition analysis of the spectrum of Co 2 <i>p</i> obtained with Al K α radiation: I: cobalt spinel. <i>Surface and Interface Analysis</i> , 2016, 48, 252-256. | 1.8 | 105 |
| 24 | Aperture-time of oxygen-precursor for minimum silicon incorporation into the interface-layer in atomic layer deposition-grown HfO ₂ /Si nanofilms. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2015, 33, . | 2.1 | 7 |
| 25 | Solventless synthesis of ruthenium nanoparticles. <i>Applied Surface Science</i> , 2015, 340, 25-34. | 6.1 | 29 |
| 26 | Elastic heterogeneities at the nanoscale in DLC films grown by PLD. <i>Materials Research Express</i> , 2015, 2, 025009. | 1.6 | 12 |
| 27 | Indium and gallium diffusion through zirconia in the TiN/ZrO ₂ /InGaAs stack. <i>Applied Physics Letters</i> , 2015, 106, . | 3.3 | 12 |
| 28 | As ₄ overpressure effects on the phase purity of cubic GaN layers grown on GaAs substrates by RF-MBE. <i>Applied Surface Science</i> , 2015, 353, 588-593. | 6.1 | 15 |
| 29 | Controlling the Optical, Electrical and Chemical Properties of Carbon Inverse Opal by Nitrogen Doping. <i>Advanced Functional Materials</i> , 2014, 24, 2612-2619. | 14.9 | 22 |
| 30 | Porous Materials: Controlling the Optical, Electrical and Chemical Properties of Carbon Inverse Opal by Nitrogen Doping (<i>Adv. Funct. Mater.</i> 18/2014). <i>Advanced Functional Materials</i> , 2014, 24, 2611-2611. | 14.9 | 1 |
| 31 | Practical methods for background subtraction in photoemission spectra. <i>Surface and Interface Analysis</i> , 2014, 46, 897-905. | 1.8 | 128 |
| 32 | Characterization of lead zirconate titanate (53/47) films fabricated by a simplified sol-gel acetic-acid route. <i>Journal of Materials Science: Materials in Electronics</i> , 2013, 24, 1981-1988. | 2.2 | 4 |
| 33 | Physical and electrical characteristics of atomic-layer deposition-HfO ₂ films deposited on Si substrates having different silanol Si-OH densities. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2013, 31, . | 2.1 | 6 |
| 34 | Interface layer in hafnia/Si films as a function of ALD cycles. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2013, 31, . | 2.1 | 12 |
| 35 | Study of the pseudo-(1 \times 1) surface by RHEED and XPS for InGaN/GaN (0001)/Al ₂ O ₃ heterostructures grown by PA-MBE. <i>Journal of Crystal Growth</i> , 2013, 378, 295-298. | 1.5 | 10 |
| 36 | The slope-background for the near-peak regimen of photoemission spectra. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 2013, 189, 76-80. | 1.7 | 48 |

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|----|---|------|-----------|
| 37 | Photocatalytic degradation of 2,4-dichlorophenoxyacetic acid under visible light: Effect of synthesis route. <i>Materials Chemistry and Physics</i> , 2013, 139, 423-430. | 4.0 | 38 |
| 38 | Diffusion of In and Ga in TiN/HfO ₂ /InGaAs nanofilms. <i>Journal of Applied Physics</i> , 2013, 114, . | 2.5 | 20 |
| 39 | Characterization of geometrical factors for quantitative angle-resolved photoelectron spectroscopy. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2012, 30, 040605. | 2.1 | 3 |
| 40 | Following the Integration of Diamond Particles on the Lapping-Plate Surface: Towards a More Efficient Charging Process. <i>Journal of Tribology</i> , 2012, 134, . | 1.9 | 3 |
| 41 | Chitosan Supported onto Agave Fiber "Postconsumer HDPE Composites for Cr(VI) Adsorption. <i>Industrial & Engineering Chemistry Research</i> , 2012, 51, 5939-5946. | 3.7 | 28 |
| 42 | Resolving overlapping peaks in ARXPS data: The effect of noise and fitting method. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 2012, 184, 533-541. | 1.7 | 42 |
| 43 | Self-Assembly of ¹² GaN/MgO Nanobars. <i>Advanced Science Letters</i> , 2012, 16, 229-236. | 0.2 | 0 |
| 44 | Instrument-related geometrical factors affecting the intensity in XPS and ARXPS experiments. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 2011, 184, 487-500. | 1.7 | 35 |
| 45 | Structure of Ultra-Thin Diamond-Like Carbon Films Grown with Filtered Cathodic Arc on Si(001). <i>Analytical Sciences</i> , 2010, 26, 267-272. | 1.6 | 21 |
| 46 | Postconsumer high-density polyethylene/agave fiber foamed composites coated with chitosan for the removal of heavy metals. <i>Journal of Applied Polymer Science</i> , 2010, 115, 2971-2980. | 2.6 | 5 |
| 47 | Effect of monochromator X-ray Bragg reflection on photoelectric cross section. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 2010, 182, 81-83. | 1.7 | 31 |
| 48 | Thermal stability of nitrogen in nitrided HfSiO ₂ /SiO ₂ /Si(001) ultrathin films. <i>Journal of Applied Physics</i> , 2008, 104, . | 2.5 | 23 |
| 49 | Aggregate Formation and Segregation of Maize Starch Granules Cooked at Reduced Moisture Conditions. <i>Starch/Staerke</i> , 2005, 57, 301-309. | 2.1 | 17 |
| 50 | Elastic Anomaly for SrTiO ₃ Thin Films Grown on Si(001). <i>Microscopy and Microanalysis</i> , 2004, 10, 826-827. | 0.4 | 0 |
| 51 | Identification of bound water through infrared spectroscopy in methylcellulose. <i>Journal of Food Engineering</i> , 2003, 59, 79-84. | 5.2 | 70 |
| 52 | Theoretical determination of first adsorbed layer of water in methylcellulose. <i>Journal of Food Engineering</i> , 2003, 59, 45-50. | 5.2 | 6 |
| 53 | Chemical depth profile of ultrathin nitrided SiO ₂ films. <i>Applied Physics Letters</i> , 2002, 81, 1014-1016. | 3.3 | 65 |
| 54 | Aggregation in cooked maize starch. <i>Carbohydrate Polymers</i> , 2002, 50, 387-392. | 10.2 | 10 |

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|----|--|-----|-----------|
| 55 | Analysis of the water bound to a polymer matrix by infrared spectroscopy. Journal of Applied Physics, 2001, 89, 5431-5437. | 2.5 | 42 |
| 56 | Photoemission from the Sr/Si(001) interface. Journal of Applied Physics, 2001, 90, 6070-6072. | 2.5 | 41 |
| 57 | Geometrical structure of the 12Å^{-1} and 13Å^{-1} Ba/Si(001) interfaces. Physical Review B, 2000, 61, 12988-12991. | 3.2 | 36 |
| 58 | Lattice compression of Si crystals and crystallographic position of As impurities measured with x-ray standing wave spectroscopy. Journal of Applied Physics, 1999, 85, 1429-1437. | 2.5 | 15 |
| 59 | Can studies of the II-VIs profit from the use of synchrotron radiation and the DOE financial support thereof?. Journal of Electronic Materials, 1999, 28, 804-809. | 2.2 | 0 |
| 60 | Calculated electron energy distribution of negative electron affinity cathodes. Surface Science, 1999, 436, 83-90. | 1.9 | 33 |
| 61 | Electron transverse energy distribution in GaAs negative electron affinity cathodes: Calculations compared to experiments. Journal of Applied Physics, 1996, 80, 1809-1815. | 2.5 | 23 |
| 62 | Evolution of the crystallographic position of As impurities in heavily doped Si crystals as their electrical activity changes. Applied Physics Letters, 1996, 68, 3090-3092. | 3.3 | 23 |
| 63 | Physics of high intensity nanosecond electron source: Charge limit phenomenon in GaAs photocathodes. Journal of Applied Physics, 1996, 79, 7318-7323. | 2.5 | 32 |
| 64 | Large-angle bond-rotation relaxation for CdTe(110). Physical Review B, 1995, 51, 10774-10778. | 3.2 | 13 |
| 65 | Threshold K-LL Auger spectra of P in InP. Physical Review A, 1994, 50, 1359-1371. | 2.5 | 32 |
| 66 | In/Si(111)- $\sqrt{3}\times\sqrt{3}$ interface: An unrelaxed T_4 geometry. Physical Review Letters, 1993, 71, 1204-1207. | 7.8 | 34 |
| 67 | Electronic structure and Schottky-barrier formation on GaAs (100) surfaces prepared by thermal desorption of a protective arsenic coating. Physical Review B, 1992, 45, 11108-11119. | 3.2 | 33 |
| 68 | Effects of annealing InP(110) surfaces on Schottky barrier heights at Pd/InP(110) interfaces. Journal of Applied Physics, 1992, 71, 314-317. | 2.5 | 6 |
| 69 | X-ray standing-wave study of monolayers of Sb on GaAs(110). Physical Review B, 1992, 46, 7276-7279. | 3.2 | 31 |
| 70 | Photoemission study of interfacial chemistry at metal-InP(110) interfaces with Sb interlayers. Physical Review B, 1992, 45, 13531-13537. | 3.2 | 1 |
| 71 | Thermal stability of Schottky barriers at Au and Ag/InP(110) interfaces with Sb interlayers. Applied Physics Letters, 1991, 59, 3121-3123. | 3.3 | 7 |
| 72 | Effect of annealing Sb/InP(110) interfaces and Schottky barrier formation of Ag on annealed Sb/InP(110) surfaces. Applied Physics Letters, 1991, 58, 2243-2245. | 3.3 | 21 |

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|----|---|-----|-----------|
| 73 | Annealing out of Thermal Process-Induced Defects at InP(110) Surfaces-A Novel Method. Japanese Journal of Applied Physics, 1991, 30, L1982-L1984. | 1.5 | 4 |