# Alberto Somoza

## List of Publications by Year in descending order



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|---|---|---|---|
| 72 papers | 1,552 citations | 257357 24 h-index | 345118 36 g-index |
| 72 all docs | 72 docs citations | 72 times ranked | 1438 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Studies of light alloys by positron annihilation techniques. Acta Materialia, 2004, 52, 4707-4726. | 3.8 | 133 |
| 2 | Microstructural evolution of 7012 alloy during the early stages of artificial ageing. Acta Materialia, 1999, 47, 4355-4364. | 3.8 | 80 |
| 3 | Effect of the nano-cellulose content on the properties of reinforced polyurethanes. A study using mechanical tests and positron anihilation spectroscopy. Polymer Testing, 2013, 32, 115-122. | 2.3 | 70 |
| 4 | Positron trapping at grain boundaries. Physical Review B, 1993, 48, 9235-9245. | 1.1 | 67 |
| 5 | Dependence of the network structure of cured styrene butadiene rubber on the sulphur content. Polymer, 2004, 45, 6037-6044. | 1.8 | 66 |
| 6 | Secondary precipitation in Alâ€“Znâ€“Mgâ€“(Ag) alloys. Acta Materialia, 2003, 51, 5151-5158. | 3.8 | 55 |
| 7 | Measurement of the Young's modulus in particulate epoxy composites using the impulse excitation technique. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2010, 527, 4619-4623. | 2.6 | 46 |
| 8 | A comparative study of the post-quench behaviour of Cuâ€“Alâ€“Be and Cuâ€“Znâ€“Al shape memory alloys. Acta Materialia, 1998, 46, 1045-1053. | 3.8 | 44 |
| 9 | Yield and internal stresses in aluminum filled epoxy resin. A compression test and positron annihilation analysis. Polymer, 2003, 44, 3193-3199. | 1.8 | 44 |
| 10 | Pre-precipitation study in the 7012 Alâ€“Znâ€“Mgâ€“Cu alloy by electrical resistivity. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2002, 334, 1-5. | 2.6 | 43 |
| 11 | Current positron studies of structural modifications in age-hardenable metallic systems. Journal of Physics Condensed Matter, 1998, 10, 10409-10422. | 0.7 | 40 |
| 12 | Influence of vulcanization temperature on the cure kinetics and on the microstructural properties in natural rubber/styrene-butadiene rubber blends prepared by solution mixing. European Polymer Journal, 2015, 69, 50-61. | 2.6 | 37 |
| 13 | Quenched-in defects and martensitic transformation in Cuî—¸Alî—¸Be shape memory alloys. Acta Materialia, 1997, 45, 2101-2107. | 3.8 | 34 |
| 14 | Natural rubber/styrene-butadiene rubber blends prepared by solution mixing: Influence of vulcanization temperature using a Semi-EV sulfur curing system on the microstructural properties. Polymer Testing, 2017, 63, 150-157. | 2.3 | 33 |
| 15 | Influence of the filler content on the thermal expansion behavior of an epoxy matrix particulate composite. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2009, 157, 26-31. | 1.7 | 31 |
| 16 | Influence of a microalloying addition of Ag on the precipitation kinetics of an Alâ€“Cuâ€“Mg alloy with high Mg:Cu ratio. Acta Materialia, 2015, 98, 275-287. | 3.8 | 31 |
| 17 | Direct relationships between volume variations at macro and nanoscale in epoxy systems. PALS/PVT measurements. Polymer, 2004, 45, 6691-6697. | 1.8 | 30 |
| 18 | Nucleation, growth and coarsening of Î³â€²-precipitates in a Niâ€“Crâ€“Al-based commercial superalloy during artificial aging. Journal of Alloys and Compounds, 2009, 479, 129-133. | 2.8 | 30 |

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|---|---|---|---|
| 19 | Chitosan-graft-poly(n-butyl acrylate) copolymer: Synthesis and characterization of a natural/synthetic hybrid material. Carbohydrate Polymers, 2016, 145, 86-94. | 5.1 | 30 |
| 20 | On the two-step ageing of a commercial Al - Zn - Mg alloy; a study by positron lifetime spectroscopy. Journal of Physics Condensed Matter, 1996, 8, 8945-8952. | 0.7 | 29 |
| 21 | A study about the structure of vulcanized natural rubber/styrene butadiene rubber blends and the glass transition behavior. Journal of Applied Polymer Science, 2012, 125, 992-999. | 1.3 | 29 |
| 22 | CO_2 Laser irradiation of GeO_2 planar waveguide fabricated by rf-sputtering. Optical Materials Express, 2013, 3, 1561. | 1.6 | 28 |
| 23 | A study of the structural changes in a chitosan matrix produced by the adsorption of copper and chromium ions. Carbohydrate Polymers, 2019, 222, 114987. | 5.1 | 27 |
| 24 | Secondary ageing in Al-Cu-Mg. Philosophical Magazine Letters, 2002, 82, 495-502. | 0.5 | 26 |
| 25 | Electron paramagnetic resonance and positron annihilation study of the compensation mechanisms in donor-doped ceramics. Journal of Physics and Chemistry of Solids, 2007, 68, 1315-1323. | 1.9 | 26 |
| 26 | Porosity study on free mineral addition cement paste. Cement and Concrete Research, 2004, 34, 91-97. | 4.6 | 25 |
| 27 | Positron lifetime spectroscopy and decomposition processes in commercial Al-Zn-Mg-based alloys. Journal of Physics Condensed Matter, 1998, 10, 3903-3918. | 0.7 | 23 |
| 28 | Precipitation kinetics in Alâ€“Znâ€“Mg commercial alloys. Journal of Materials Processing Technology, 2003, 141, 35-40. | 3.1 | 22 |
| 29 | Microstructural analysis of hard amorphous carbon films deposited with high-energy ion beams. Applied Surface Science, 1999, 150, 202-210. | 3.1 | 20 |
| 30 | Characterization of free volume in particulate-filled epoxy resin by means of dynamic mechanical analysis and positron annihilation lifetime spectroscopy. Polymer International, 2002, 51, 1277-1284. | 1.6 | 20 |
| 31 | On the free volume evolution in a deformed epoxy composite. A positron annihilation study. Polymer, 2005, 46, 9081-9087. | 1.8 | 20 |
| 32 | Positron studies of solute aggregation in age-hardenable aluminum alloys. Journal of Materials Processing Technology, 2003, 135, 83-90. | 3.1 | 19 |
| 33 | Evolution of the free volume and glass transition temperature with the degree of cure of polybutadiene rubbers. Polymer Testing, 2013, 32, 686-690. | 2.3 | 19 |
| 34 | Positron Lifetime Spectroscopy in Quenched Î²-Cuï£¿Znï£¿AL. Physica Status Solidi A, 1992, 133, 277-282. | 1.7 | 18 |
| 35 | The post-quench vacancy behavior in Î²-Cuï£¿Znï£¿Al alloy. Physica Status Solidi A, 1993, 138, 111-118. | 1.7 | 18 |
| 36 | Comparative study of thermal, mechanical and structural properties of polybutadiene rubber isomers vulcanized using peroxide. Polymer Testing, 2016, 52, 117-123. | 2.3 | 17 |

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|---|---|---|---|
| 37 | Influence of the BaTiO3 addition to K0.5Na0.5NbO3 lead-free ceramics on the vacancy-like defect structure and dielectric properties. Journal of the European Ceramic Society, 2021, 41, 1288-1298. | 2.8 | 17 |
| 38 | A SAXS and swelling study of cured natural rubber/styreneâ€“butadiene rubber blends. Journal of Polymer Science, Part B: Polymer Physics, 2009, 47, 2320-2327. | 2.4 | 16 |
| 39 | Structural properties of vegetable oil thermosets: Effect of crosslinkers, modifiers and oxidative aging. European Polymer Journal, 2020, 124, 109470. | 2.6 | 15 |
| 40 | Electronic and bonding properties of MgH2â€“Nb containing vacancies. International Journal of Hydrogen Energy, 2010, 35, 12421-12427. | 3.8 | 14 |
| 41 | Positron trapping in BaTiO3perovskite. Journal of Physics Condensed Matter, 2001, 13, 5717-5722. | 0.7 | 13 |
| 42 | Positron annihilation study of Î·' precipitation kinetics in an aluminium alloy. Journal of Physics Condensed Matter, 1989, 1, 3679-3686. | 0.7 | 12 |
| 43 | Age-Hardening and Precipitation Phenomena in the Inconel-713C Superalloy Studied by Means of Positron Lifetime Spectroscopy. Physica Status Solidi A, 1999, 174, 189-198. | 1.7 | 11 |
| 44 | Microstructural analysis of carbon films obtained from C60 fullerene ion beams. Applied Surface Science, 2003, 211, 379-385. | 3.1 | 11 |
| 45 | Intermolecular interactions on amineâ€cured epoxy matrices with different crosslink densities. Influence on the hole and specific volumes and the mechanical behavior. Journal of Polymer Science, Part B: Polymer Physics, 2009, 47, 1240-1252. | 2.4 | 11 |
| 46 | Quench-In Defects in Long Range Ordered Î² Cu-Zn-Al Alloys. Materials Science Forum, 1995, 175-178, 497-500. | 0.3 | 10 |
| 47 | Cure temperature influence on natural rubberâ€”A small angle Xâ€ray scattering study. Journal of Polymer Science, Part B: Polymer Physics, 2007, 45, 2966-2971. | 2.4 | 10 |
| 48 | Impurity migration and effects on vacancy formation enthalpy in polycrystalline depleted uranium. Journal of Nuclear Materials, 2015, 466, 343-350. | 1.3 | 10 |
| 49 | Nanohole volume dependence on the cure schedule in epoxy thermosetting networks: A PALS study. Polymer, 2006, 47, 5066-5070. | 1.8 | 9 |
| 50 | Positron Diffusion and Trapping in Fine-Grained Materials. Materials Science Forum, 1995, 175-178, 35-46. | 0.3 | 8 |
| 51 | On the perfect MgH2(â€“Nb,â€“Zr) systems and the influence of vacancy-like defects on their structural properties. A self-consistent first principle calculations study of the electron and positron parameters. Journal of Alloys and Compounds, 2013, 556, 188-197. | 2.8 | 8 |
| 52 | Aging behavior in Cuâ€“Alâ€“Be shape memory alloy. Journal of Applied Physics, 1999, 85, 130-133. | 1.1 | 7 |
| 53 | On the matrix-particle interphase in epoxy-based composites. Journal of Alloys and Compounds, 2010, 495, 588-591. | 2.8 | 6 |
| 54 | Characterization of Î³-irradiated polymethyl methacrylate by means of mechanical properties and positron annihilation lifetime spectroscopy. Physical Review B, 1999, 60, 3792-3798. | 1.1 | 5 |

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|---|---|---|---|
| 55 | Microstructural changes in the Alî—¸Caî—¸Zn superplastic alloy studied by positron lifetime spectroscopy. Scripta Metallurgica Et Materialia, 1990, 24, 2225-2229. | 1.0 | 4 |
| 56 | Temperature dependence of positron trapping at grain boundaries. Journal of Physics Condensed Matter, 1997, 9, 6749-6759. | 0.7 | 3 |
| 57 | Correlation between nanohole volume and mechanical properties of amineâ€cured epoxy resin blended with poly(ethylene oxide). Polymers for Advanced Technologies, 2009, 20, 35-38. | 1.6 | 3 |
| 58 | Depth profiling and morphological characterization of AlN thin films deposited on Si substrates using a reactive sputter magnetron. EPJ Applied Physics, 2014, 67, 21301. | 0.3 | 3 |
| 59 | Interstitial oxygen related defects and nanovoids in Au implanteda-SiO<sub>2</sub>glass depth profiled by positron annihilation spectroscopy. Journal Physics D: Applied Physics, 2015, 48, 495302. | 1.3 | 3 |
| 60 | Effect of the composition and chemical aging in tung oil-styrene networks: Free volume and dynamic-mechanical properties. European Polymer Journal, 2017, 87, 231-240. | 2.6 | 3 |
| 61 | Positron and transmission electron microscopy study of precipitation phenomena in an Al[sbnd]Li[sbnd]Zr alloy. Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties, 1996, 73, 203-211. | 0.7 | 2 |
| 62 | Vacancyâ€“solute interaction in magnesium alloy WE54 during artificial ageing: a positron annihilation spectroscopy study. International Journal of Materials Research, 2009, 100, 378-381. | 0.1 | 2 |
| 63 | Hamiltonian formulation for the positron trapping model. Nuovo Cimento Della Societa Italiana Di Fisica D - Condensed Matter, Atomic, Molecular and Chemical Physics, Biophysics, 1989, 11, 1113-1121. | 0.4 | 1 |
| 64 | Positron study of defects in a-SixC1â^'xfilms produced by ion beam deposition method. Applied Surface Science, 2001, 177, 96-102. | 3.1 | 1 |
| 65 | Thermal formation of atomic vacancies in Î³ Cuâ€“Zn. Scripta Materialia, 2006, 54, 437-440. | 2.6 | 1 |
| 66 | On the cure process in an epoxy-anhydride system. Physica Status Solidi C: Current Topics in Solid State Physics, 2009, 6, 2423-2425. | 0.8 | 1 |
| 67 | A Microstructural Study of Acrylic-Modified Chitosan by Means of PALS and SAXS. Defect and Diffusion Forum, 0, 373, 265-268. | 0.4 | 1 |
| 68 | CHANGES IN THE MECHANICAL, MICRO-, AND NANO-STRUCTURAL PROPERTIES OF REINFORCED VULCANIZED NATURAL RUBBER COMPOUNDS: THEIR DEPENDENCE ON THE SiO2/CB RATIO. Rubber Chemistry and Technology, 2021, , . | 0.6 | 1 |
| 69 | Directional response of a scintillation detector to gamma-rays. Journal of Radioanalytical and Nuclear Chemistry, 1990, 145, 5-10. | 0.7 | 0 |
| 70 | Hamiltonian formulation for the positron trapping model: An extended treatment. Nuovo Cimento Della Societa Italiana Di Fisica D - Condensed Matter, Atomic, Molecular and Chemical Physics, Biophysics, 1993, 15, 969-976. | 0.4 | 0 |
| 71 | Influence of the cure temperature and the accelerator content on the free volume in a DGEBA epoxy-anhydride-imidazole system. Physica Status Solidi C: Current Topics in Solid State Physics, 2009, 6, 2426-2428. | 0.8 | 0 |
| 72 | Influence of the Crosslinking Content on the Structural Properties of Polybutadiene Rubbers with Different Isomeric Composition. Defect and Diffusion Forum, 0, 373, 269-273. | 0.4 | 0 |