

Mario Aparicio

List of Publications by Year in descending order

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docs citations

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2633
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| # | ARTICLE | IF | CITATIONS |
|----|---|------|-----------|
| 1 | Effects of Ce-containing sol-gel coatings reinforced with SiO ₂ nanoparticles on the protection of AA2024. <i>Corrosion Science</i> , 2008, 50, 1283-1291. | 6.6 | 156 |
| 2 | Yttrium Silicate Coatings for Oxidation Protection of Carbon-Silicon Carbide Composites. <i>Journal of the American Ceramic Society</i> , 2000, 83, 1351-1355. | 3.8 | 144 |
| 3 | Preparation and characterization of cerium doped silica sol-gel coatings on glass and aluminum substrates. <i>Journal of Non-Crystalline Solids</i> , 2004, 348, 162-171. | 3.1 | 135 |
| 4 | Oxidation Protection Coatings for C/SiC based on Yttrium Silicate. <i>Journal of the European Ceramic Society</i> , 1998, 18, 2345-2350. | 5.7 | 101 |
| 5 | Preparation of lithium ion conductive Al-doped Li ₇ La ₃ Zr ₂ O ₁₂ thin films by a sol-gel process. <i>Journal of Power Sources</i> , 2015, 273, 844-847. | 7.8 | 81 |
| 6 | SiO ₂ based hybrid inorganic-organic films doped with TiO ₂ -CeO ₂ nanoparticles for corrosion protection of AA2024 and Mg-AZ31B alloys. <i>Corrosion Science</i> , 2009, 51, 1998-2005. | 6.6 | 77 |
| 7 | Electrochemical behavior of nanocrystalline Ta/TaN multilayer on 316L stainless steel: Novel bipolar plates for proton exchange membrane fuel-cells. <i>Journal of Power Sources</i> , 2016, 322, 1-9. | 7.8 | 74 |
| 8 | Electrochemical techniques for practical evaluation of corrosion inhibitor effectiveness. Performance of cerium nitrate as corrosion inhibitor for AA2024T3 alloy. <i>Corrosion Science</i> , 2010, 52, 3356-3366. | 6.6 | 70 |
| 9 | Synthesis and characterisation of proton conducting styrene-co-methacrylate-silica sol-gel membranes containing tungstophosphoric acid. <i>Solid State Ionics</i> , 2005, 176, 333-340. | 2.7 | 68 |
| 10 | Sol-gel coatings on carbon steel: Electrochemical evaluation. <i>Surface and Coatings Technology</i> , 2006, 200, 3486-3491. | 4.8 | 65 |
| 11 | Protection and surface modification of metals with sol-gel coatings. <i>International Materials Reviews</i> , 2007, 52, 175-192. | 19.3 | 65 |
| 12 | Structural properties and corrosion resistance of tantalum nitride coatings produced by reactive DC magnetron sputtering. <i>RSC Advances</i> , 2016, 6, 89061-89072. | 3.6 | 65 |
| 13 | Cerium hybrid silica coatings on stainless steel AISI 304 substrate. <i>Journal of Sol-Gel Science and Technology</i> , 2006, 39, 131-138. | 2.4 | 64 |
| 14 | Improved corrosion resistance of AA2024 alloys through hybrid organic-inorganic sol-gel coatings produced from sols with controlled polymerisation. <i>Surface and Coatings Technology</i> , 2009, 203, 1897-1903. | 4.8 | 64 |
| 15 | Optimization of hybrid sol-gel coatings by combination of layers with complementary properties for corrosion protection of AA2024. <i>Progress in Organic Coatings</i> , 2010, 69, 167-174. | 3.9 | 60 |
| 16 | Multilayer silica-methacrylate hybrid coatings prepared by sol-gel on stainless steel 316L: Electrochemical evaluation. <i>Surface and Coatings Technology</i> , 2008, 202, 2194-2201. | 4.8 | 59 |
| 17 | Covalent silica-PEO-LiTFSI hybrid solid electrolytes via sol-gel for Li-ion battery applications. <i>Electrochimica Acta</i> , 2016, 213, 831-841. | 5.2 | 53 |
| 18 | Active corrosion inhibition of mild steel by environmentally-friendly Ce-doped organic-inorganic sol-gel coatings. <i>RSC Advances</i> , 2016, 6, 39577-39586. | 3.6 | 49 |

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|----|---|-----|-----------|
| 19 | Proton-conducting methacrylate-silica sol-gel membranes containing tungstophosphoric acid. <i>Journal of Power Sources</i> , 2005, 145, 231-236. | 7.8 | 48 |
| 20 | Inhibition effect of cerium in hybrid sol-gel films on aluminium alloy AA2024. <i>Surface and Interface Analysis</i> , 2010, 42, 299-305. | 1.8 | 48 |
| 21 | Characterization of SiO ₂ -P ₂ O ₅ -ZrO ₂ Sol-Gel/NAFION [®] , [®] Composite Membranes. <i>Journal of Sol-Gel Science and Technology</i> , 2003, 26, 1055-1059. | 2.4 | 43 |
| 22 | Methods for modifying proton exchange membranes using the sol-gel process. <i>Polymer</i> , 2005, 46, 4504-4509. | 3.8 | 43 |
| 23 | Corrosion Protection of AISI 304 Stainless Steel with Melting Gel Coatings. <i>Electrochimica Acta</i> , 2016, 202, 325-332. | 5.2 | 42 |
| 24 | Hybrid Organic/Inorganic Sol-Gel Materials for Proton Conducting Membranes. <i>Journal of Sol-Gel Science and Technology</i> , 2004, 31, 103-107. | 2.4 | 41 |
| 25 | Silica-Zirconia Sol-Gel Coatings Obtained by Different Synthesis Routes. <i>Journal of Sol-Gel Science and Technology</i> , 2005, 35, 41-50. | 2.4 | 41 |
| 26 | Synthesis and characterization of P ₂ O ₅ -ZrO ₂ -SiO ₂ membranes doped with tungstophosphoric acid (PWA) for applications in PEMFC. <i>Journal of Membrane Science</i> , 2008, 307, 21-27. | 8.2 | 41 |
| 27 | Development and industrial scale-up of ZrO ₂ coatings and hybrid organic-inorganic coatings used as pre-treatments before painting aluminium alloys. <i>Progress in Organic Coatings</i> , 2011, 72, 3-14. | 3.9 | 41 |
| 28 | Film-shaped sol-gel Li ₄ Ti ₅ O ₁₂ electrode for lithium-ion microbatteries. <i>Journal of Power Sources</i> , 2012, 205, 491-494. | 7.8 | 41 |
| 29 | Synthesis and Characterization of Nafion/60SiO ₂ -30P ₂ O ₅ -10ZrO ₂ Sol-Gel Composite Membranes for PEMFCs. <i>Journal of the Electrochemical Society</i> , 2005, 152, A493. | 2.9 | 40 |
| 30 | Sulfonic acid-functionalized hybrid organic-inorganic proton exchange membranes synthesized by sol-gel using 3-mercaptopropyl trimethoxysilane (MPTMS). <i>Journal of Power Sources</i> , 2015, 297, 208-216. | 7.8 | 40 |
| 31 | Li ₄ Ti ₅ O ₁₂ thin-film electrodes by sol-gel for lithium-ion microbatteries. <i>Journal of Power Sources</i> , 2013, 244, 482-487. | 7.8 | 38 |
| 32 | Corrosion protection of aluminium alloy AA2024 with cerium doped methacrylate-silica coatings. <i>Journal of Sol-Gel Science and Technology</i> , 2009, 52, 31-40. | 2.4 | 36 |
| 33 | Influence of cerium concentration on the structure and properties of silica-methacrylate sol-gel coatings. <i>Journal of Sol-Gel Science and Technology</i> , 2010, 54, 301-311. | 2.4 | 36 |
| 34 | ZrO ₂ sol-gel pre-treatments doped with cerium nitrate for the corrosion protection of AA6060. <i>Progress in Organic Coatings</i> , 2012, 74, 311-319. | 3.9 | 32 |
| 35 | Effect of Lithium Salt in Nanostructured Silica-Polyethylene Glycol Solid Electrolytes for Li-Ion Battery Applications. <i>Journal of Physical Chemistry C</i> , 2016, 120, 22852-22864. | 3.1 | 32 |
| 36 | Glass-like CexOy sol-gel coatings for corrosion protection of aluminium and magnesium alloys. <i>Surface and Coatings Technology</i> , 2011, 206, 257-264. | 4.8 | 31 |

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|----|--|------|-----------|
| 37 | Sol-Gel Synthesis and Characterization of SiO ₂ -P ₂ O ₅ -ZrO ₂ . Journal of Sol-Gel Science and Technology, 2003, 28, 199-204. | 2.4 | 30 |
| 38 | Hybrid organic-inorganic nanostructured membranes for high temperature proton exchange membranes fuel cells (PEMFC). Journal of Sol-Gel Science and Technology, 2006, 40, 309-315. | 2.4 | 29 |
| 39 | Nanocrystalline mesoporous LiFePO ₄ thin-films as cathodes for Li-ion microbatteries. Journal of Materials Chemistry A, 2014, 2, 3038. | 10.3 | 29 |
| 40 | Solutions of hybrid silica microgels as precursors of sol-gel coatings. Journal of Materials Chemistry, 2006, 16, 3318-3325. | 6.7 | 28 |
| 41 | Electrochemical evaluation of multilayer silica-metacrylate hybrid sol-gel coatings containing bioactive particles on surgical grade stainless steel. Surface and Coatings Technology, 2008, 203, 80-86. | 4.8 | 26 |
| 42 | Consolidated Melting Gel Coatings on AZ31 Magnesium Alloy with Excellent Corrosion Resistance in NaCl Solutions: An Interface Study. ACS Applied Materials & Interfaces, 2019, 11, 3493-3505. | 8.0 | 26 |
| 43 | Thick sol-gel coatings based on the B ₂ O ₃ -SiO ₂ system. Journal of Non-Crystalline Solids, 1997, 218, 146-150. | 3.1 | 24 |
| 44 | Hybrid silica sol-gel coatings on Austempered Ductile Iron (ADI). Materials Letters, 2005, 59, 2219-2222. | 2.6 | 22 |
| 45 | Proton Conducting Organic/Inorganic Sol-Gel Membranes Produced from Phenyltriethoxysilane and 3-Methacryloxypropyl Trimethoxysilane. Journal of Sol-Gel Science and Technology, 2005, 34, 233-239. | 2.4 | 22 |
| 46 | Thin and Thick RuO ₂ -TiO ₂ Coatings on Titanium Substrates by the Sol-Gel Process. Journal of Sol-Gel Science and Technology, 2004, 29, 81-88. | 2.4 | 21 |
| 47 | Synthesis of hybrid silica sol-gel coatings containing Zn particles on carbon steel and Al/Zn coated carbon steel. Materials Letters, 2005, 59, 3937-3940. | 2.6 | 19 |
| 48 | Epoxy-polystyrene-silica sol-gel membranes with high proton conductivity by combination of sulfonation and tungstophosphoric acid doping. Journal of Membrane Science, 2010, 361, 135-142. | 8.2 | 19 |
| 49 | Preparation and characterization of 50SiO ₂ -50Y ₂ O ₃ sol-gel coatings on glass and SiC(C/SiC) composites. Ceramics International, 2005, 31, 631-634. | 4.8 | 18 |
| 50 | Epoxy-silica hybrid organic-inorganic electrolytes with a high Li-ion conductivity. Electrochimica Acta, 2013, 110, 200-207. | 5.2 | 18 |
| 51 | Li ₄ Ti ₅ O ₁₂ thin-film electrodes by in-situ synthesis of lithium alkoxide for Li-ion microbatteries. Electrochimica Acta, 2014, 149, 293-299. | 5.2 | 18 |
| 52 | Sol-gel hybrid membranes loaded with meso/macroporous SiO ₂ , TiO ₂ -P ₂ O ₅ and SiO ₂ -TiO ₂ -P ₂ O ₅ materials with high proton conductivity. Materials Chemistry and Physics, 2015, 149-150, 686-694. | 4.0 | 18 |
| 53 | Thickness-properties synergy in organic-inorganic consolidated melting-gel coatings for protection of 304 stainless steel in NaCl solutions. Surface and Coatings Technology, 2017, 315, 426-435. | 4.8 | 18 |
| 54 | ²⁹ Si NMR and SAXS investigation of the hybrid organic-inorganic glasses obtained by consolidation of the melting gels. Dalton Transactions, 2017, 46, 3729-3741. | 3.3 | 17 |

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|----|--|-----|-----------|
| 55 | Sodium ion storage performance of magnetron sputtered WO ₃ thin films. <i>Electrochimica Acta</i> , 2019, 321, 134669. | 5.2 | 17 |
| 56 | Colloidal Stability and Sintering of Yttria-Silica and Yttria-Silica-Alumina aqueous suspensions. <i>Journal of the European Ceramic Society</i> , 1999, 19, 1717-1724. | 5.7 | 16 |
| 57 | Proton conducting sol-gel sulfonated membranes produced from 2-allylphenol, 3-glycidoxypropyl trimethoxysilane and tetraethyl orthosilicate. <i>Journal of Power Sources</i> , 2009, 192, 138-143. | 7.8 | 16 |
| 58 | Synthesis and characterization of proton-conducting sol-gel membranes produced from 1,4-bis(triethoxysilyl)benzene and (3-glycidoxypropyl)trimethoxysilane. <i>Journal of Power Sources</i> , 2005, 151, 57-62. | 7.8 | 14 |
| 59 | Preparation of Li ₄ Ti ₅ O ₁₂ electrode thin films by a mist CVD process with aqueous precursor solution. <i>Journal of Asian Ceramic Societies</i> , 2015, 3, 88-91. | 2.3 | 13 |
| 60 | Blend Hybrid Solid Electrolytes Based on LiTFSI Doped Silica-Polyethylene Oxide for Lithium-Ion Batteries. <i>Membranes</i> , 2019, 9, 109. | 3.0 | 13 |
| 61 | Strong and light cellular silicon carbonitride Reduced graphene oxide material with enhanced electrical conductivity and capacitive response. <i>Additive Manufacturing</i> , 2019, 30, 100849. | 3.0 | 13 |
| 62 | Sol-Gel Synthesis of Nanocrystalline Mesoporous Li ₄ Ti ₅ O ₁₂ Thin-Films as Anodes for Li-Ion Microbatteries. <i>Nanomaterials</i> , 2020, 10, 1369. | 4.1 | 12 |
| 63 | Synthesis and evaluation of MgF ₂ coatings by chemical conversion on magnesium alloys for producing biodegradable orthopedic implants of temporary use. <i>Journal of Physics: Conference Series</i> , 2013, 466, 012003. | 0.4 | 11 |
| 64 | Electrochemical characterization of sol-gel coatings for corrosion protection of metal substrates. <i>Journal of Sol-Gel Science and Technology</i> , 2018, 88, 77-89. | 2.4 | 10 |
| 65 | Oxidation Protection Coatings for C/SiC Based on Y ₂ SiO ₅ . <i>Key Engineering Materials</i> , 1997, 132-136, 1641-1644. | 0.4 | 9 |
| 66 | Applications of melting gels. <i>Journal of Sol-Gel Science and Technology</i> , 2019, 89, 66-77. | 2.4 | 9 |
| 67 | Hydrolytic resistance of K ₂ O-PbO-SiO ₂ glasses in aqueous and high-humidity environments. <i>Journal of the American Ceramic Society</i> , 2020, 103, 5248-5258. | 3.8 | 9 |
| 68 | Infiltration of 40SiO ₂ -40P ₂ O ₅ -20ZrO ₂ sol-gel in sSEBS membranes for PEMFCs application. <i>Journal of Membrane Science</i> , 2018, 551, 136-144. | 8.2 | 8 |
| 69 | Infiltration under isostatic pressure of porous silica glasses with silica sols. <i>Journal of Non-Crystalline Solids</i> , 2006, 352, 3478-3483. | 3.1 | 7 |
| 70 | Multiscale numerical modeling of Ce ³⁺ -inhibitor release from novel corrosion protection coatings. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2011, 19, 025009. | 2.0 | 7 |
| 71 | The stability of the Ravenscroft's glass. Influence of the composition and the environment. <i>Journal of Non-Crystalline Solids</i> , 2021, 565, 120854. | 3.1 | 7 |
| 72 | Infiltration of C/SiC composites with silica sol-gel solutions: Part I. Infiltration by dipping. <i>Journal of Materials Research</i> , 1999, 14, 4230-4238. | 2.6 | 6 |

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|----|--|-----|-----------|
| 73 | New Insights on the Conversion Reaction Mechanism in Metal Oxide Electrodes for Sodium-Ion Batteries. <i>Nanomaterials</i> , 2021, 11, 966. | 4.1 | 6 |
| 74 | Materiales compuestos C/SiC para aplicaciones estructurales de alta temperatura. Parte I: estabilidad termodinámica y química. <i>Boletín De La Sociedad Española De Cerámica Y Vidrio</i> , 2000, 39, 687-698. | 1.9 | 6 |
| 75 | Infiltration of C/SiC composites with silica sol-gel solutions: Part II. Infiltration under isostatic pressure and oxidation resistance. <i>Journal of Materials Research</i> , 1999, 14, 4239-4245. | 2.6 | 5 |
| 76 | Choosing the best molecular precursor to prepare $\text{Li}_4\text{Ti}_5\text{O}_{12}$ by the sol-gel method using ^1H NMR: evidence of $[\text{Ti}_3(\text{OEt})_{13}]^+$ in solution. <i>Dalton Transactions</i> , 2016, 45, 13888-13898. | 3.3 | 5 |
| 77 | Sol-Gel Processing for Battery and Fuel Cell Applications. , 2018, , 2573-2593. | | 5 |
| 78 | Materiales compuestos C/SiC para aplicaciones estructurales de alta temperatura. Parte II: Sistemas de protección contra la oxidación. <i>Boletín De La Sociedad Española De Cerámica Y Vidrio</i> , 2001, 40, 7-15. | 1.9 | 5 |
| 79 | Spectroscopic and Microscopic Characterization of Flashed Glasses from Stained Glass Windows. <i>Applied Sciences (Switzerland)</i> , 2022, 12, 5760. | 2.5 | 5 |
| 80 | Reinfiltration Processes for Polymer Derived Fiber Reinforced Ceramics. <i>Key Engineering Materials</i> , 1997, 127-131, 287-294. | 0.4 | 4 |
| 81 | Mesostructured HSO ₃ -functionalized TiO ₂ -P ₂ O ₅ sol-gel films prepared by evaporation induced self-assembly method with high proton conductivity. <i>Electrochimica Acta</i> , 2015, 173, 215-222. | 5.2 | 4 |
| 82 | Synthesis and properties of TiO ₂ -P ₂ O ₅ and SiO ₂ -TiO ₂ -P ₂ O ₅ porous hybrids obtained by templating in highly concentrated emulsions. <i>Ceramics International</i> , 2016, 42, 18965-18973. | 4.8 | 4 |
| 83 | 40SiO ₂ -40P ₂ O ₅ -20ZrO ₂ sol-gel infiltrated sSEBS membranes with improved methanol crossover and cell performance for direct methanol fuel cell applications. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 20620-20631. | 7.1 | 4 |
| 84 | Membranas híbridas basadas en estireno-metacrilato-silice y ácido fosfotungsténico obtenidas por sol-gel para pilas de combustible de intercambio protónico (PEMFC). <i>Boletín De La Sociedad Española De Cerámica Y Vidrio</i> , 2007, 46, 267-272. | 1.9 | 4 |
| 85 | Diseño de recubrimientos multicapa barrera-biomimético base TEOS-GPTMS sobre la aleación de magnesio Elektron 21 de potencial aplicación en la fabricación de implantes ortopédicos. <i>Revista De Metalurgia</i> , 2016, 52, e075. | 0.5 | 4 |
| 86 | Sol-Gel Processing for Battery and Fuel Cell Applications. , 2016, , 1-21. | | 3 |
| 87 | Hybrid Materials for High Ionic Conductivity. , 2012, , 99-122. | | 2 |
| 88 | Protección contra la oxidación de materiales compuestos SiC(C/SiC) mediante la combinación de recubrimientos de silicatos de itrio y silice. <i>Boletín De La Sociedad Española De Cerámica Y Vidrio</i> , 2001, 40, 441-445. | 1.9 | 2 |
| 89 | Electrochemical Properties of Melting Gel Coatings. , 0, , 233-241. | | 1 |
| 90 | Lithium Intercalation Materials for Battery Prepared by Sol-Gel Method. , 2017, , 1-36. | | 1 |

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|----|--|-----|-----------|
| 91 | Electrochemical Characterization of Phosphosilicate-modified Nafion Membranes. Materials Research Society Symposia Proceedings, 2004, 847, 122. | 0.1 | 0 |
| 92 | Lithium Intercalation Materials for Battery Prepared by Sol-Gel Method. , 2018, , 2595-2630. | | 0 |
| 93 | Shape Memory Effect in Diffusion Bonded Cu Base Shape Memory Alloys/Steel Interfaces. European Physical Journal Special Topics, 1995, 05, C2-373-C2-378. | 0.2 | 0 |