Mario Aparicio

List of Publications by Year
in descending order

93 papers	2,835 citations	126907 33 h-index	189892 50 g-index
95 all docs	95 docs citations	95 times ranked	2633 citing authors

#	Article	IF	Citations
1	Spectroscopic and Microscopic Characterization of Flashed Glasses from Stained Glass Windows. Applied Sciences (Switzerland), 2022, 12, 5760.	2.5	5
2	New Insights on the Conversion Reaction Mechanism in Metal Oxide Electrodes for Sodium-Ion Batteries. Nanomaterials, 2021, 11, 966.	4.1	6
3	The stability of the Ravenscroft's glass. Influence of the composition and the environment. Journal of Non-Crystalline Solids, 2021, 565, 120854.	3.1	7
4	Sol-Gel Synthesis of Nanocrystalline Mesoporous Li4Ti5O12 Thin-Films as Anodes for Li-Ion Microbatteries. Nanomaterials, 2020, 10, 1369.	4.1	12
5	Hydrolytic resistance of K₂Oâ€“PbOâ€“SiO₂ glasses in aqueous and highâ€humidity environments. Journal of the American Ceramic Society, 2020, 103, 5248-5258.	3.8	9
6	40SiO2â€“40P2O5â€“20ZrO2 sol-gel infiltrated sSEBS membranes with improved methanol crossover and cell performance for direct methanol fuel cell applications. International Journal of Hydrogen Energy, 2020, 45, 20620-20631.	7.1	4
7	Applications of melting gels. Journal of Sol-Gel Science and Technology, 2019, 89, 66-77.	2.4	9
8	Sodium ion storage performance of magnetron sputtered WO3 thin films. Electrochimica Acta, 2019, 321, 134669.	5.2	17
9	Blend Hybrid Solid Electrolytes Based on LiTFSI Doped Silica-Polyethylene Oxide for Lithium-Ion Batteries. Membranes, 2019, 9, 109.	3.0	13
10	Strong and light cellular silicon carbonitride â€“ Reduced graphene oxide material with enhanced electrical conductivity and capacitive response. Additive Manufacturing, 2019, 30, 100849.	3.0	13
11	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
12	Infiltration of 40SiO2â^'40P2O5â^'20ZrO2 sol-gel in sSEBS membranes for PEMFCs application. Journal of Membrane Science, 2018, 551, 136-144.	8.2	8
13	Electrochemical characterization of solâ€“gel coatings for corrosion protection of metal substrates. Journal of Sol-Gel Science and Technology, 2018, 88, 77-89.	2.4	10
14	Lithium Intercalation Materials for Battery Prepared by Sol-Gel Method. , 2018, , 2595-2630.		0
15	Sol-Gel Processing for Battery and Fuel Cell Applications. , 2018, , 2573-2593.		5
16	²⁹Si NMR and SAXS investigation of the hybrid organicâ€“inorganic glasses obtained by consolidation of the melting gels. Dalton Transactions, 2017, 46, 3729-3741.	3.3	17
17	Thickness-properties synergy in organicâ€“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
18	Lithium Intercalation Materials for Battery Prepared by Solâ€“Gel Method. , 2017, , 1-36.		1

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19	Active corrosion inhibition of mild steel by environmentally-friendly Ce-doped organicâ€“inorganic solâ€“gel coatings. RSC Advances, 2016, 6, 39577-39586.	3.6	49
20	Synthesis and properties of TiO2-P2O5 and SiO2-TiO2-P2O5 porous hybrids obtained by templating in highly concentrated emulsions. Ceramics International, 2016, 42, 18965-18973.	4.8	4
21	Covalent silica-PEO-LiTFSI hybrid solid electrolytes via sol-gel for Li-ion battery applications. Electrochimica Acta, 2016, 213, 831-841.	5.2	53
22	Choosing the best molecular precursor to prepare Li₄Ti₅O₁₂ by the solâ€“gel method using ¹H NMR: evidence of [Ti₃(OEt)₁₃]^{â^'} in solution. Dalton Transactions, 2016, 45, 13888-13898.	3.3	5
23	Structural properties and corrosion resistance of tantalum nitride coatings produced by reactive DC magnetron sputtering. RSC Advances, 2016, 6, 89061-89072.	3.6	65
24	Effect of Lithium Salt in Nanostructured Silicaâ€“Polyethylene Glycol Solid Electrolytes for Li-Ion Battery Applications. Journal of Physical Chemistry C, 2016, 120, 22852-22864.	3.1	32
25	Electrochemical behavior of nanocrystalline Ta/TaN multilayer on 316L stainless steel: Novel bipolar plates for proton exchange membrane fuel-cells. Journal of Power Sources, 2016, 322, 1-9.	7.8	74
26	Corrosion Protection of AISI 304 Stainless Steel with Melting Gel Coatings. Electrochimica Acta, 2016, 202, 325-332.	5.2	42
27	Solâ€“Gel Processing for Battery and Fuel Cell Applications. , 2016, , 1-21.		3
28	DiseÃ±o de recubrimientos multicapa barrera-biomimÃ©tico base TEOS-GPTMS sobre la aleaciÃ³n de magnesio Elektron 21 de potencial aplicaciÃ³n en la fabricaciÃ³n de implantes ortopÃ©dicos. Revista De Metalurgia, 2016, 52, e075.	0.5	4
29	Preparation of Li₄Ti₅O₁₂ electrode thin films by a mist CVD process with aqueous precursor solution. Journal of Asian Ceramic Societies, 2015, 3, 88-91.	2.3	13
30	Mesostructured HSO 3 -functionalized TiO 2 -P 2 O 5 sol-gel films prepared by evaporation induced self-assembly method with high proton conductivity. Electrochimica Acta, 2015, 173, 215-222.	5.2	4
31	Sulfonic acid-functionalized hybrid organicâ€“inorganic proton exchange membranes synthesized by solâ€“gel using 3-mercaptopropyl trimethoxysilane (MPTMS). Journal of Power Sources, 2015, 297, 208-216.	7.8	40
32	Solâ€“gel hybrid membranes loaded with meso/macroporous SiO2, TiO2â€“P2O5 and SiO2â€“TiO2â€“P2O5 materials with high proton conductivity. Materials Chemistry and Physics, 2015, 149-150, 686-694.	4.0	18
33	Preparation of lithium ion conductive Al-doped Li7La3Zr2O12 thin films by a solâ€“gel process. Journal of Power Sources, 2015, 273, 844-847.	7.8	81
34	Nanocrystalline mesoporous LiFePO4 thin-films as cathodes for Li-ion microbatteries. Journal of Materials Chemistry A, 2014, 2, 3038.	10.3	29
35	Li4Ti5O12 thin-film electrodes by in-situ synthesis of lithium alkoxide for Li-ion microbatteries. Electrochimica Acta, 2014, 149, 293-299.	5.2	18
36	Li4Ti5O12 thin-film electrodes by solâ€“gel for lithium-ion microbatteries. Journal of Power Sources, 2013, 244, 482-487.	7.8	38

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37	Epoxy-silica hybrid organicâ€“inorganic electrolytes with a high Li-ion conductivity. Electrochimica Acta, 2013, 110, 200-207.	5.2	18
38	Synthesis and evaluation of MgF₂ coatings by chemical conversion on magnesium alloys for producing biodegradable orthopedic implants of temporary use. Journal of Physics: Conference Series, 2013, 466, 012003.	0.4	11
39	Hybrid Materials for High Ionic Conductivity. , 2012, , 99-122.		2
40	Film-shaped solâ€“gel Li4Ti5O12 electrode for lithium-ion microbatteries. Journal of Power Sources, 2012, 205, 491-494.	7.8	41
41	ZrO2 solâ€“gel pre-treatments doped with cerium nitrate for the corrosion protection of AA6060. Progress in Organic Coatings, 2012, 74, 311-319.	3.9	32
42	Multiscale numerical modeling of Ce³⁺-inhibitor release from novel corrosion protection coatings. Modelling and Simulation in Materials Science and Engineering, 2011, 19, 025009.	2.0	7
43	Glass-like CexOy solâ€“gel coatings for corrosion protection of aluminium and magnesium alloys. Surface and Coatings Technology, 2011, 206, 257-264.	4.8	31
44	Development and industrial scale-up of ZrO2 coatings and hybrid organicâ€“inorganic coatings used as pre-treatments before painting aluminium alloys. Progress in Organic Coatings, 2011, 72, 3-14.	3.9	41
45	Influence of cerium concentration on the structure and properties of silica-methacrylate solâ€“gel coatings. Journal of Sol-Gel Science and Technology, 2010, 54, 301-311.	2.4	36
46	Optimization of hybrid solâ€“gel coatings by combination of layers with complementary properties for corrosion protection of AA2024. Progress in Organic Coatings, 2010, 69, 167-174.	3.9	60
47	Epoxy-polystyrene-silica solâ€“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
48	Inhibition effect of cerium in hybrid solâ€“gel films on aluminium alloy AA2024. Surface and Interface Analysis, 2010, 42, 299-305.	1.8	48
49	Electrochemical techniques for practical evaluation of corrosion inhibitor effectiveness. Performance of cerium nitrate as corrosion inhibitor for AA2024T3 alloy. Corrosion Science, 2010, 52, 3356-3366.	6.6	70
50	Improved corrosion resistance of AA2024 alloys through hybrid organicâ€“inorganic solâ€“gel coatings produced from sols with controlled polymerisation. Surface and Coatings Technology, 2009, 203, 1897-1903.	4.8	64
51	Corrosion protection of aluminium alloy AA2024 with cerium doped methacrylate-silica coatings. Journal of Sol-Gel Science and Technology, 2009, 52, 31-40.	2.4	36
52	Proton conducting solâ€“gel sulfonated membranes produced from 2-allylphenol, 3-glycidoxypropyl trimethoxysilane and tetraethyl orthosilicate. Journal of Power Sources, 2009, 192, 138-143.	7.8	16
53	SiO2 based hybrid inorganicâ€“organic films doped with TiO2â€“CeO2 nanoparticles for corrosion protection of AA2024 and Mg-AZ31B alloys. Corrosion Science, 2009, 51, 1998-2005.	6.6	77
54	Multilayer silica-methacrylate hybrid coatings prepared by solâ€“gel on stainless steel 316L: Electrochemical evaluation. Surface and Coatings Technology, 2008, 202, 2194-2201.	4.8	59

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55	Electrochemical evaluation of multilayer silicaâ€“metacrylate hybrid solâ€“gel coatings containing bioactive particles on surgical grade stainless steel. Surface and Coatings Technology, 2008, 203, 80-86.	4.8	26
56	Synthesis and characterization of P2O5â€“ZrO2â€“SiO2 membranes doped with tungstophosphoric acid (PWA) for applications in PEMFC. Journal of Membrane Science, 2008, 307, 21-27.	8.2	41
57	Effects of Ce-containing solâ€“gel coatings reinforced with SiO2 nanoparticles on the protection of AA2024. Corrosion Science, 2008, 50, 1283-1291.	6.6	156
58	Protection and surface modification of metals with solâ€“gel coatings. International Materials Reviews, 2007, 52, 175-192.	19.3	65
59	Membranas hÃbridas basadas en estireno-metacrilato-sÃlice y Ã¡cido fosfowolfrÃ¡mico obtenidas por sol-gel para pilas de combustible de intercambio protÃ³nico (PEMFC). Boletin De La Sociedad Espanola De Ceramica Y Vidrio, 2007, 46, 267-272.	1.9	4
60	Solutions of hybrid silica microgels as precursors of solâ€“gel coatings. Journal of Materials Chemistry, 2006, 16, 3318-3325.	6.7	28
61	Infiltration under isostatic pressure of porous silica glasses with silica sols. Journal of Non-Crystalline Solids, 2006, 352, 3478-3483.	3.1	7
62	Sol-gel coatings on carbon steel: Electrochemical evaluation. Surface and Coatings Technology, 2006, 200, 3486-3491.	4.8	65
63	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
64	Cerium hybrid silica coatings on stainless steel AISI 304 substrate. Journal of Sol-Gel Science and Technology, 2006, 39, 131-138.	2.4	64
65	Proton-conducting methacrylateâ€“silica solâ€“gel membranes containing tungstophosphoric acid. Journal of Power Sources, 2005, 145, 231-236.	7.8	48
66	Synthesis and characterization of proton-conducting solâ€“gel membranes produced from 1,4-bis(triethoxysilyl)benzene and (3-glycidoxypropyl)trimethoxysilane. Journal of Power Sources, 2005, 151, 57-62.	7.8	14
67	Methods for modifying proton exchange membranes using the solâ€“gel process. Polymer, 2005, 46, 4504-4509.	3.8	43
68	Synthesis and characterisation of proton conducting styrene-co-methacrylate?silica sol?gel membranes containing tungstophosphoric acid. Solid State Ionics, 2005, 176, 333-340.	2.7	68
69	Preparation and characterization of 50SiO2â€“50Y2O3 solâ€“gel coatings on glass and SiC(C/SiC) composites. Ceramics International, 2005, 31, 631-634.	4.8	18
70	Hybrid silica solâ€“gel coatings on Austempered Ductile Iron (ADI). Materials Letters, 2005, 59, 2219-2222.	2.6	22
71	Synthesis of hybrid silica solâ€“gel coatings containing Zn particles on carbon steel and Al/Zn coated carbon steel. Materials Letters, 2005, 59, 3937-3940.	2.6	19
72	Proton Conducting Organic/Inorganic Solâ€“Gel Membranes Produced from Phenyltriethoxysilane and 3-Methacryloxypropyl Trimethoxysilane. Journal of Sol-Gel Science and Technology, 2005, 34, 233-239.	2.4	22

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73	Silica-Zirconia Solâ€“Gel Coatings Obtained by Different Synthesis Routes. Journal of Sol-Gel Science and Technology, 2005, 35, 41-50.	2.4	41
74	Synthesis and Characterization of Nafion/60SiO[sub 2]-30P[sub 2]O[sub 5]-10ZrO[sub 2] Sol-Gel Composite Membranes for PEMFCs. Journal of the Electrochemical Society, 2005, 152, A493.	2.9	40
75	Electrochemical Characterization of Phosphosilicate-modified Nafion Membranes. Materials Research Society Symposia Proceedings, 2004, 847, 122.	0.1	0
76	Thin and Thick RuO2-TiO2Coatings on Titanium Substrates by the Sol-Gel Process. Journal of Sol-Gel Science and Technology, 2004, 29, 81-88.	2.4	21
77	Hybrid Organic/Inorganic Sol-Gel Materials for Proton Conducting Membranes. Journal of Sol-Gel Science and Technology, 2004, 31, 103-107.	2.4	41
78	Preparation and characterization of cerium doped silica solâ€“gel coatings on glass and aluminum substrates. Journal of Non-Crystalline Solids, 2004, 348, 162-171.	3.1	135
79	Sol-Gel Synthesis and Characterization of SiO2â€”P2O5â€”ZrO2. Journal of Sol-Gel Science and Technology, 2003, 28, 199-204.	2.4	30
80	Characterization of SiO2-P2O5-ZrO2 Sol-Gel/NAFIONâ„¢ Composite Membranes. Journal of Sol-Gel Science and Technology, 2003, 26, 1055-1059.	2.4	43
81	Materiales compuestos C/SiC para aplicaciones estructurales de alta temperatura. Parte II: Sistemas de protecciÃ³n contra la oxidaciÃ³n. Boletin De La Sociedad Espanola De Ceramica Y Vidrio, 2001, 40, 7-15.	1.9	5
82	ProtecciÃ³n contra la oxidaciÃ³n de materiales compuestos SiC(C/SiC) mediante la combinaciÃ³n de recubrimientos de silicatos de itrio y sÃłice. Boletin De La Sociedad Espanola De Ceramica Y Vidrio, 2001, 40, 441-445.	1.9	2
83	Yttrium Silicate Coatings for Oxidation Protection of Carbonâ€“Silicon Carbide Composites. Journal of the American Ceramic Society, 2000, 83, 1351-1355.	3.8	144
84	Materiales compuestos C/SiC para aplicaciones estructurales de alta temperatura. Parte I: estabilidad termodinÃ¡mica y quÃmica. Boletin De La Sociedad Espanola De Ceramica Y Vidrio, 2000, 39, 687-698.	1.9	6
85	Infiltration of C/SiC composites with silica sol-gel solutions: Part I. Infiltration by dipping. Journal of Materials Research, 1999, 14, 4230-4238.	2.6	6
86	Infiltration of C/SiC composites with silica sol-gel solutions: Part II. Infiltration under isostatic pressure and oxidation resistance. Journal of Materials Research, 1999, 14, 4239-4245.	2.6	5
87	Colloidal Stability and Sintering of Yttriaâ€“Silica and Yttriaâ€“Silicaâ€“Alumina aqueous suspensions. Journal of the European Ceramic Society, 1999, 19, 1717-1724.	5.7	16
88	Oxidation Protection Coatings for C/SiC based on Yttrium Silicate. Journal of the European Ceramic Society, 1998, 18, 2345-2350.	5.7	101
89	Reinfiltration Processes for Polymer Derived Fiber Reinforced Ceramics. Key Engineering Materials, 1997, 127-131, 287-294.	0.4	4
90	Oxidation Protection Coatings for C/SiC Based on Y₂SiO₅. Key Engineering Materials, 1997, 132-136, 1641-1644.	0.4	9

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91	Thick solâ€”gel coatings based on the B2O3î—¸SiO2 system. Journal of Non-Crystalline Solids, 1997, 218, 146-150.	3.1	24
92	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
93	Electrochemical Properties of Melting Gel Coatings. , 0, , 233-241.		1