

# Yolanda Castro

## List of Publications by Year in descending order

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90  
papers

2,241  
citations

186265

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254184

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93  
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93  
docs citations

93  
times ranked

2284  
citing authors

#	ARTICLE	IF	CITATIONS
1	Synthesis and photocatalytic properties of dense and porous TiO <sub>2</sub> -anatase thin films prepared by sol-gel. Applied Catalysis B: Environmental, 2009, 86, 1-7.	20.2	174
2	Synthesis of mesoporous silica nanoparticles by sol-gel as nanocontainer for future drug delivery applications. Boletin De La Sociedad Espanola De Ceramica Y Vidrio, 2017, 56, 139-145.	1.9	145
3	SiO <sub>2</sub> based hybrid inorganic-organic films doped with TiO <sub>2</sub> -CeO <sub>2</sub> nanoparticles for corrosion protection of AA2024 and Mg-AZ31B alloys. Corrosion Science, 2009, 51, 1998-2005.	6.6	77
4	Coatings produced by electrophoretic deposition from nano-particulate silica sol-gel suspensions. Surface and Coatings Technology, 2004, 182, 199-203.	4.8	72
5	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
6	Protection and surface modification of metals with sol-gel coatings. International Materials Reviews, 2007, 52, 175-192.	19.3	65
7	Improved corrosion resistance of AA2024 alloys through hybrid organic-inorganic sol-gel coatings produced from sols with controlled polymerisation. Surface and Coatings Technology, 2009, 203, 1897-1903.	4.8	64
8	Photocatalytic properties in aqueous solution of porous TiO <sub>2</sub> -anatase films prepared by sol-gel process. Applied Catalysis A: General, 2010, 385, 101-107.	4.3	61
9	Photocatalytic-based strategies for H <sub>2</sub> S elimination. Catalysis Today, 2010, 151, 64-70.	4.4	61
10	Optimization of hybrid sol-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
11	Corrosion behaviour of silica hybrid coatings produced from basic catalysed particulate sols by dipping and EPD. Surface and Coatings Technology, 2005, 191, 228-235.	4.8	51
12	Inhibition effect of cerium in hybrid sol-gel films on aluminium alloy AA2024. Surface and Interface Analysis, 2010, 42, 299-305.	1.8	48
13	Thick Sol-Gel Coatings Produced by Electrophoretic Deposition. Advanced Materials, 2002, 14, 505-508.	21.0	43
14	Hybrid sol-gel coatings based on GPTMS/TEOS containing colloidal SiO <sub>2</sub> and cerium nitrate for increasing corrosion protection of aluminium alloy 7075-T6. Journal of Sol-Gel Science and Technology, 2018, 85, 546-557.	2.4	43
15	Self-Healing Effect of Hybrid Sol-Gel Coatings Based on GPTMS, TEOS, SiO <sub>2</sub> Nanoparticles and Ce(NO <sub>3</sub> ) <sub>3</sub> Applied on Aluminum Alloy 7075-T6. Journal of the Electrochemical Society, 2018, 165, C213-C225.	2.9	42
16	Transparent Glass-Ceramics Produced by Sol-Gel: A Suitable Alternative for Photonic Materials. Materials, 2018, 11, 212.	2.9	42
17	Silica-Zirconia Sol-Gel Coatings Obtained by Different Synthesis Routes. Journal of Sol-Gel Science and Technology, 2005, 35, 41-50.	2.4	41
18	Development and industrial scale-up of ZrO <sub>2</sub> coatings and hybrid organic-inorganic coatings used as pre-treatments before painting aluminium alloys. Progress in Organic Coatings, 2011, 72, 3-14.	3.9	41

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19	Hybrid Sol-Gel Coatings Produced from TEOS and $\hat{3}$ -MPS. Journal of Sol-Gel Science and Technology, 2003, 28, 81-86.	2.4	39
20	Photocatalytic degradation of TCE in dry and wet air conditions with TiO <sub>2</sub> porous thin films. Applied Catalysis B: Environmental, 2011, 108-109, 14-21.	20.2	38
21	Influence of cerium concentration on the structure and properties of silica-methacrylate sol-gel coatings. Journal of Sol-Gel Science and Technology, 2010, 54, 301-311.	2.4	36
22	Synthesis, characterization and optical properties of Eu <sub>2</sub> O <sub>3</sub> mesoporous thin films. Nanotechnology, 2007, 18, 055705.	2.6	34
23	Integrated self-healing coating system for outstanding corrosion protection of AA2024. Surface and Coatings Technology, 2020, 387, 125521.	4.8	34
24	Electrochemical behaviour of silica basic hybrid coatings deposited on stainless steel by dipping and EPD. Electrochimica Acta, 2008, 53, 6008-6017.	5.2	32
25	Photocatalytic and biocidal activities of novel coating systems of mesoporous and dense TiO <sub>2</sub> -anatase containing silver nanoparticles. Materials Science and Engineering C, 2014, 43, 630-640.	7.3	32
26	Glass-like CexOy sol-gel coatings for corrosion protection of aluminium and magnesium alloys. Surface and Coatings Technology, 2011, 206, 257-264.	4.8	31
27	Silica Sol-Gel Coatings on Metals Produced by EPD. Journal of Sol-Gel Science and Technology, 2003, 26, 735-739.	2.4	30
28	Photocatalytic oxidation of methyl ethyl ketones over sol-gel mesoporous and meso-structured TiO <sub>2</sub> films obtained by EISA method. Applied Catalysis B: Environmental, 2011, 107, 52-58.	20.2	30
29	58S and 68S sol-gel glass-like bioactive coatings for enhancing the implant performance of AZ91D magnesium alloy. Surface and Coatings Technology, 2020, 400, 126224.	4.8	30
30	Solutions of hybrid silica microgels as precursors of sol-gel coatings. Journal of Materials Chemistry, 2006, 16, 3318-3325.	6.7	28
31	Enhanced photocatalytic activity of mesoporous SiO <sub>2</sub> /TiO <sub>2</sub> sol-gel coatings doped with Ag nanoparticles. Journal of Sol-Gel Science and Technology, 2015, 76, 180-194.	2.4	28
32	Improvement of TiN nanoparticles EPD inducing steric stabilization in non-aqueous suspensions. Journal of the European Ceramic Society, 2016, 36, 307-317.	5.7	28
33	Crystallization mechanism in sol-gel oxyfluoride glass-ceramics. Journal of Non-Crystalline Solids, 2018, 501, 145-152.	3.1	28
34	Electrochemical Characterization of Polymeric Coatings for Corrosion Protection: A Review of Advances and Perspectives. Polymers, 2022, 14, 2306.	4.5	28
35	Control of degradation rate of Mg alloys using silica sol-gel coatings for biodegradable implant materials. Journal of Sol-Gel Science and Technology, 2019, 90, 198-208.	2.4	27
36	Preparation, structural and optical characterization of rare earth doped mesoporous Y <sub>2</sub> O <sub>3</sub> thin films by EISA method. Microporous and Mesoporous Materials, 2007, 103, 273-279.	4.4	24

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37	Transparent SiO <sub>2</sub> -GdF <sub>3</sub> sol-gel nano-glass ceramics for optical applications. Journal of Sol-Gel Science and Technology, 2019, 89, 322-332.	2.4	24
38	Glass-like cerium sol-gel coatings on AZ31B magnesium alloy for controlling the biodegradation of temporary implants. Surface and Coatings Technology, 2016, 307, 574-582.	4.8	23
39	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
40	Transparent Sol-Gel Oxyfluoride Glass-Ceramics with High Crystalline Fraction and Study of RE Incorporation. Nanomaterials, 2019, 9, 530.	4.1	21
41	Synthesis and photocatalytic characterisation of mesoporous TiO <sub>2</sub> films doped with Ca, W and N. Boletín De La Sociedad Española De Cerámica Y Vidrio, 2015, 54, 11-20.	1.9	20
42	Oxyfluoride glass-ceramic fibers doped with Nd <sup>3+</sup> : structural and optical characterization. CrystEngComm, 2017, 19, 6620-6629.	2.6	20
43	Sol-gel coatings: An alternative route for producing planar optical waveguides. Thin Solid Films, 2011, 519, 7982-7986.	1.8	19
44	Ca doping of mesoporous TiO <sub>2</sub> films for enhanced photocatalytic efficiency under solar irradiation. Journal of Sol-Gel Science and Technology, 2016, 78, 482-491.	2.4	19
45	Sol-gel hybrid membranes loaded with meso/macroporous SiO <sub>2</sub> , TiO <sub>2</sub> -P <sub>2</sub> O <sub>5</sub> and SiO <sub>2</sub> -TiO <sub>2</sub> -P <sub>2</sub> O <sub>5</sub> materials with high proton conductivity. Materials Chemistry and Physics, 2015, 149-150, 686-694.	4.0	18
46	Mechanical behavior of glass reinforced with SiO <sub>2</sub> hybrid sol-gel coatings. Journal of Non-Crystalline Solids, 2004, 348, 172-179.	3.1	17
47	Protective nature of nano-TiN coatings shaped by EPD on Ti substrates. Journal of the European Ceramic Society, 2018, 38, 495-500.	5.7	17
48	Novel sol-gel SiO <sub>2</sub> -NaGdF <sub>4</sub> transparent nano-glass-ceramics. Journal of Non-Crystalline Solids, 2019, 520, 119447.	3.1	15
49	Effect of rheology and processing parameters on the EPD coatings of basic sol-gel particulate sol. Journal of Materials Science, 2004, 39, 845-849.	3.7	13
50	80SiO <sub>2</sub> -20LaF <sub>3</sub> oxyfluoride glass ceramic coatings doped with Nd <sup>3+</sup> for optical applications. International Journal of Applied Glass Science, 2018, 9, 208-217.	2.0	13
51	Processing and Study of Optical and Electrical Properties of (Mg, Al) Co-Doped ZnO Thin Films Prepared by RF Magnetron Sputtering for Photovoltaic Application. Materials, 2020, 13, 2146.	2.9	13
52	Silica-Zirconia Coatings Produced by Dipping and EPD from Colloidal Sol-gel Suspensions. Journal of Sol-Gel Science and Technology, 2005, 35, 51-55.	2.4	12
53	Synthesis and characterization of erbium-doped SiO <sub>2</sub> -TiO <sub>2</sub> thin films prepared by sol-gel and dip-coating techniques onto commercial glass substrates as a route for obtaining active Gradient-Index materials. Thin Solid Films, 2015, 583, 115-121.	1.8	12
54	Magnesium Alloys Implants Coated with 58S Sol-Gel Bioactive Glass to Retard First Stage Corrosion. Corrosion, 2017, 73, 1448-1460.	1.1	12

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55	A new sol-gel route towards Nd <sup>3+</sup> -doped SiO <sub>2</sub> -LaF <sub>3</sub> glass-ceramics for photonic applications. <i>Materials Advances</i> , 2020, 1, 3589-3596.	5.4	11
56	Hybrid Sol-Gel Silica Coatings Containing Graphene Nanosheets for Improving the Corrosion Protection of AA2024-T3. <i>Nanomaterials</i> , 2020, 10, 1050.	4.1	11
57	Hybrid Epoxy-Alkyl Sol-Gel Coatings Reinforced with SiO <sub>2</sub> Nanoparticles for Corrosion Protection of Anodized AZ31B Mg Alloy. <i>Gels</i> , 2022, 8, 242.	4.5	11
58	Electrophoretic Deposition (EPD) Coatings of Sol-Gel Solutions and Suspensions. <i>Journal of Sol-Gel Science and Technology</i> , 2002, 23, 187-189.	2.4	10
59	Transparent oxyfluoride glass-ceramics obtained by different sol-gel routes. <i>Journal of Sol-Gel Science and Technology</i> , 0, , 1.	2.4	10
60	Nanostructured glass coatings for solar control with photocatalytic properties. <i>Journal of Non-Crystalline Solids</i> , 2013, 377, 250-253.	3.1	9
61	SiO <sub>2</sub> -TiO <sub>2</sub> Films Supported on Ignimbrite by Spray Coating for the Photocatalytic Degradation of NO <sub>x</sub> Gas and Methyl Orange Dye. <i>International Journal of Photoenergy</i> , 2020, 2020, 1-6.	2.5	9
62	Simultaneous Determination of Refractive Index and Thickness of Submicron Optical Polymer Films from Transmission Spectra. <i>Polymers</i> , 2021, 13, 2545.	4.5	9
63	One-pot manufacture of nanoparticle-based films in aqueous media via an electric field-driven assembly process. <i>Green Chemistry</i> , 2014, 16, 3286-3296.	9.0	8
64	Integrated corrosion-resistant system for AZ31B Mg alloy via plasma electrolytic oxidation (PEO) and sol-gel processes. <i>International Journal of Applied Glass Science</i> , 2021, 12, 519-530.	2.0	8
65	Multiscale numerical modeling of Ce <sup>3+</sup> -inhibitor release from novel corrosion protection coatings. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2011, 19, 025009.	2.0	7
66	Surface Modification of Powder Metallurgy Titanium by Colloidal Techniques and Diffusion Processes for Biomedical Applications. <i>Advanced Engineering Materials</i> , 2017, 19, 1600207.	3.5	6
67	Hydrophobic and oleophobic sol-gel coatings on glass substrates for usage at high temperatures. <i>International Journal of Applied Glass Science</i> , 2018, 9, 413-420.	2.0	6
68	Crystallization Process and Site-Selective Excitation of Nd <sup>3+</sup> in LaF <sub>3</sub> /NaLaF <sub>4</sub> Sol-Gel-Synthesized Transparent Glass-Ceramics. <i>Crystals</i> , 2021, 11, 464.	2.2	6
69	Mesoporous and mesostructured TiO <sub>2</sub> coatings for photocatalytic applications. <i>Journal of Sol-Gel Science and Technology</i> , 2014, 70, 254-262.	2.4	5
70	Repair and Restoration of the Optical Properties of Sandblasted Glasses By Silica-Based Sol-Gel Coatings. <i>International Journal of Applied Glass Science</i> , 2015, 6, 94-102.	2.0	5
71	Recubrimientos sol-gel obtenidos por deposición electroforética (EPD) sobre metales. <i>Boletín De La Sociedad Española De Cerámica Y Vidrio</i> , 2000, 39, 705-710.	1.9	5
72	Mesostructured HSO <sub>3</sub> -functionalized TiO <sub>2</sub> -P <sub>2</sub> O <sub>5</sub> 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

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73	Dispersion and Stabilization of TiN and TiC Nanoparticles in Organic Suspensions. Key Engineering Materials, 0, 654, 203-207.	0.4	4
74	Synthesis and properties of TiO <sub>2</sub> -P <sub>2</sub> O <sub>5</sub> and SiO <sub>2</sub> -TiO <sub>2</sub> -P <sub>2</sub> O <sub>5</sub> porous hybrids obtained by templating in highly concentrated emulsions. Ceramics International, 2016, 42, 18965-18973.	4.8	4
75	Hybrid SiO <sub>2</sub> -ZrO <sub>2</sub> coatings for restoring and repairing glasses damaged by sandblasting. Ceramics International, 2020, 46, 10634-10640.	4.8	4
76	Nd <sup>3+</sup> -doped- SiO <sub>2</sub> -KLaF <sub>4</sub> oxyfluoride glass-ceramics prepared by sol-gel. Journal of Luminescence, 2021, 235, 118035.	3.1	4
77	Improving corrosion protection of Mg alloys (AZ31B) using graphene-based hybrid coatings. International Journal of Applied Glass Science, 0, , .	2.0	4
78	Electric field driven assembly of hybrid micelles for shaping of porous silica films. Advances in Applied Ceramics, 2014, 113, 28-34.	1.1	3
79	Sol-Gel Protective Coatings for Metals. , 2018, , 2369-2433.		3
80	Glasses and Glass-Ceramics Prepared by Sol-Gel. , 2021, , 695-708.		2
81	Recubrimientos meso-porosos de SiO <sub>2</sub> -TiO <sub>2</sub> -P <sub>2</sub> O <sub>5</sub> -O <sub>5</sub> para aplicaciones en pilas de combustible de intercambio protónico. Boletín De La Sociedad Española De Cerámica Y Vidrio, 2014, 53, 171-178.	1.9	2
82	Sol-Gel Protective Coatings for Metals. , 2016, , 1-65.		1
83	Resistencia al desgaste de recubrimientos sol-gel de SiO <sub>2</sub> y SiO <sub>2</sub> -ZrO <sub>2</sub> sobre materiales vitrocerámicos obtenidos por sinterización. Boletín De La Sociedad Española De Cerámica Y Vidrio, 2013, 52, 225-230.	1.9	1
84	Lanthanide-doped oxyfluoride transparent glass-ceramics prepared by sol-gel. , 2020, , 227-252.		1
85	The Role of Silane Sol-Gel Coatings on the Corrosion Protection of Magnesium Alloys. , 0, , .		1
86	Development of photocatalysts based on TiO <sub>2</sub> films with embedded Ag nanoparticles. International Journal of Applied Glass Science, 2022, 13, 429-443.	2.0	1
87	Recubrimientos vítreos de cerio para la protección activa de aleaciones de aluminio. Boletín De La Sociedad Española De Cerámica Y Vidrio, 2015, 54, 28-36.	1.9	0
88	Epd: From Order to Chaos By the LbL Modification of the Particle Surfaces. ECS Meeting Abstracts, 2016, , .	0.0	0
89	Oxyfluoride transparent glass-ceramics: a promising family of materials for photonic applications. , 2017, , .		0
90	Sol Gel Glass Coating on Magnesium Alloys to be Used As Temporary Implants: Electrochemical and Surface Study in Simulated Body Fluid. ECS Meeting Abstracts, 2017, , .	0.0	0