

Miguel Manso Silvn

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

131
papers

1,865
citations

20
h-index

35
g-index

133
ext. papers

2,057
ext. citations

4.7
avg, IF

4.49
L-index

#	Paper	IF	Citations
131	Regulating cell function through micro- and nanostructured transition metal oxides 2022 , 371-405		
130	Boosting the Near-Infrared Emission of AgS Nanoparticles by a Controllable Surface Treatment for Bioimaging Applications.. <i>ACS Applied Materials & Interfaces</i> , 2022 ,	9.5	1
129	Experimental and density functional theory study of the Li ⁺ desorption in spinel/layered lithium manganese oxide nanocomposites using HCl. <i>Chemical Engineering Journal</i> , 2022 , 441, 136019	14.7	0
128	Growth of out-of-plane standing MoTe ₂ (1-x)Se _{2x} /MoSe ₂ composite flake films by sol-gel nucleation of MoO _y and isothermal closed space telluro-selenization. <i>Applied Surface Science</i> , 2021 , 546, 149076	6.7	2
127	Nanoporous silicon microparticles embedded into oxidized hyaluronic acid/adipic acid dihydrazide hydrogel for enhanced controlled drug delivery. <i>Microporous and Mesoporous Materials</i> , 2021 , 310, 110634	5.3	5
126	Hydrothermal control of the lithium-rich LiMnO phase in lithium manganese oxide nanocomposites and their application as precursors for lithium adsorbents. <i>Dalton Transactions</i> , 2021 , 50, 10765-10778	4.3	1
125	Bringing immuno-assemblies to optoelectronics: sandwich assay integration of a nanostructured porous-silicon/gold-nanoparticle phototransistor. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2021 , 271, 115271	3.1	0
124	Plasma Fabrication and SERS Functionality of Gold Crowned Silicon Submicrometer Pillars. <i>Materials</i> , 2020 , 13,	3.5	3
123	Engineering nanostructured cell micropatterns on Ti6Al4V by selective ion-beam inhibition of pitting. <i>Corrosion Science</i> , 2020 , 167, 108528	6.8	2
122	Self-Organized In-Depth Gradients in Highly Ti-Doped ZnO Films: Thermal Versus MW Plasma Annealing. <i>Coatings</i> , 2020 , 10, 418	2.9	0
121	A fibrinogen biosensing platform based on plasmonic Ga nanoparticles and aminosilane-titanate antibody trapping. <i>Medical Devices & Sensors</i> , 2020 , 3, e10083	1.6	2
120	Biomimetic hierarchical micro/nano texturing of TiAlV alloys by femtosecond laser processing for the control of cell adhesion and migration. <i>Physical Review Materials</i> , 2020 , 4,	3.2	9
119	Hybrid porous silicon/silver nanostructures for the development of enhanced photovoltaic devices. <i>Journal of Materials Science</i> , 2020 , 55, 5458-5470	4.3	14
118	Montecarlo Simulation and HAXPES Analysis of Organosilane Segregation in Titania Xerogel Films; Towards a Generic Surface Chemofunctionalization Process. <i>Surfaces</i> , 2020 , 3, 352-365	2.9	0
117	Loading the dice: The orientation of virus-like particles adsorbed on titanate assisted organosilanized surfaces. <i>Biointerphases</i> , 2019 , 14, 011001	1.8	5
116	Near ambient pressure X-ray photoelectron spectroscopy monitoring of the surface immobilization cascade on a porous silicon-gold nanoparticle FET biosensor. <i>Applied Surface Science</i> , 2019 , 492, 362-368	6.7	16
115	Porous Silicon Bragg Reflector and 2D Gold-Polymer Nanograting: A Route Towards a Hybrid Optoplasmonic Platform. <i>Nanomaterials</i> , 2019 , 9,	5.4	3

114	Sol-Gel-Deposited Ti-Doped ZnO: Toward Cell Fouling Transparent Conductive Oxides. <i>ACS Omega</i> , 2019 , 4, 11354-11363	3.9	12
113	Microwave plasma and rapid thermal processing of indium-tin oxide thin films for enhancing their performance as transparent electrodes. <i>Journal of Photonics for Energy</i> , 2019 , 9, 1	1.2	7
112	Synthesis and Characterization of SnO ₂ -TiO ₂ Nanocomposites Photocatalysts. <i>Current Nanoscience</i> , 2019 , 15, 398-406	1.4	5
111	Organo-Silane Self-Assembly on Porous Silicon and Silica Particle based Sensors. <i>World Scientific Series in Nanoscience and Nanotechnology</i> , 2019 , 305-327	0.1	
110	Visible Light Assisted Organosilane Assembly on Mesoporous Silicon Films and Particles. <i>Materials</i> , 2019 , 12,	3.5	3
109	Laser writing of nanostructured silicon arrays for the SERS detection of biomolecules with inhibited oxidation. <i>Colloids and Surfaces B: Biointerfaces</i> , 2019 , 174, 174-180	6	3
108	Gold nanoparticle triggered dual optoplasmonic-impedimetric sensing of prostate-specific antigen on interdigitated porous silicon platforms. <i>Sensors and Actuators B: Chemical</i> , 2018 , 267, 559-564	8.5	16
107	Biofunctional porous silicon micropatterns engineered through visible light activated epoxy capping and selective plasma etching. <i>Vacuum</i> , 2018 , 150, 232-238	3.7	4
106	Microwave plasma annealing of sol-gel deposited tantalum oxide and zinc oxide films. <i>Vacuum</i> , 2018 , 149, 336-342	3.7	10
105	Controlling the Epitaxial Growth of BiTe, Bi ₂ Te ₃ , and Bi ₂ Te ₃ Pure Phases by Physical Vapor Transport. <i>Inorganic Chemistry</i> , 2018 , 57, 10090-10099	5.1	10
104	Chemically driven isothermal closed space vapor transport of MoO ₃ : thin films, flakes and in situ tellurization. <i>Journal of Materials Chemistry C</i> , 2018 , 6, 6799-6807	7.1	12
103	Structural, optical and electrical properties of SnO ₂ doped TiO ₂ synthesized by the Sol-Gel method. <i>Journal of Materials Science: Materials in Electronics</i> , 2018 , 29, 3095-3103	2.1	7
102	Recent developments in surface science and engineering, thin films, nanoscience, biomaterials, plasma science, and vacuum technology. <i>Thin Solid Films</i> , 2018 , 660, 120-160	2.2	16
101	Study of the formation mechanism of hierarchical silicon structures produced by sequential ion beam irradiation and anodic etching. <i>Vacuum</i> , 2017 , 138, 238-243	3.7	2
100	Tunnel conduction regimes, white-light emission and band diagram of porous silicon/zinc oxide nanocomposites. <i>Journal of Luminescence</i> , 2017 , 191, 107-111	3.8	8
99	Electrical behavior of nickel/carbon nanocomposite thin films. <i>Carbon</i> , 2017 , 111, 878-886	10.4	4
98	Biofouling Properties of Nitroxide-Modified Amorphous Carbon Surfaces. <i>ACS Biomaterials Science and Engineering</i> , 2016 , 2, 1976-1982	5.5	2
97	Surface micro- and nano-texturing of stainless steel by femtosecond laser for the control of cell migration. <i>Scientific Reports</i> , 2016 , 6, 36296	4.9	70

96	Microstructural and photocatalytic characterization of cement-paste sol-gel synthesized titanium dioxide. <i>Frontiers of Structural and Civil Engineering</i> , 2016 , 10, 189-197	2.5	16
95	Hydrophobic perfluoro-silane functionalization of porous silicon photoluminescent films and particles. <i>Applied Surface Science</i> , 2016 , 380, 243-248	6.7	9
94	Direct laser writing of nanorough cell microbarriers on anatase/Si and graphite/Si. <i>Materials Science and Engineering C</i> , 2016 , 66, 8-15	8.3	5
93	Compared Biocompatibility of ZnTiO ₃ , ZnO and TiO ₂ Sol-Gel Films with Human Mesenchymal Stem Cells. <i>MRS Advances</i> , 2016 , 1, 737-742	0.7	4
92	Luminescence and fine structure correlation in ZnO permeated porous silicon nanocomposites. <i>Physical Chemistry Chemical Physics</i> , 2015 , 17, 20597-604	3.6	9
91	Microstructure based optical modeling of ZnO- porous silicon permeated nanocomposites. <i>Journal Physics D: Applied Physics</i> , 2015 , 48, 295102	3	3
90	Monodisperse Fe ₂ O ₃ nanoplatelets: Synthesis and characterization. <i>Ceramics International</i> , 2015 , 41, 2228-2233	5.1	22
89	Silicon-Based Nanoparticles for Biosensing and Biomedical Applications 2015 , 1-11		2
88	Nanostructured porous silicon: the winding road from photonics to cell scaffolds - a review. <i>Frontiers in Bioengineering and Biotechnology</i> , 2015 , 3, 60	5.8	33
87	Conditioned bio-interfaces of silicon/porous silicon micro-patterns lead to the chondrogenesis of hMSCs. <i>RSC Advances</i> , 2015 , 5, 92263-92269	3.7	5
86	Nanotopography enhanced mobility determines mesenchymal stem cell distribution on micropatterned semiconductors bearing nanorough areas. <i>Colloids and Surfaces B: Biointerfaces</i> , 2015 , 126, 146-53	6	9
85	Interface between cement paste and thin TiN film for corrosion resistance enhancement; structural, morphological and electrochemical properties. <i>Construction and Building Materials</i> , 2015 , 80, 48-55	6.7	4
84	Fabrication and characterization of a chemically oxidized-nanostructured porous silicon based biosensor implementing orienting protein A. <i>Colloids and Surfaces B: Biointerfaces</i> , 2014 , 115, 310-6	6	16
83	Calcium phosphate/porous silicon biocomposites prepared by cyclic deposition methods: spin coating vs electrochemical activation. <i>Materials Science and Engineering C</i> , 2014 , 34, 245-51	8.3	10
82	Porous silicon-cyclodextrin based polymer composites for drug delivery applications. <i>Carbohydrate Polymers</i> , 2014 , 110, 238-52	10.3	48
81	Photoassisted Immersion Deposition of Cu Clusters onto Porous Silicon: A Langmuir-Hill Ligand-Focus Model Applied to the Growth Kinetics. <i>Journal of Physical Chemistry C</i> , 2014 , 118, 14905-14912	3.8	8
80	Nanostructured porous silicon-mediated drug delivery. <i>Expert Opinion on Drug Delivery</i> , 2014 , 11, 1273-83		18
79	Reprogramming hMSCs morphology with silicon/porous silicon geometric micro-patterns. <i>Biomedical Microdevices</i> , 2014 , 16, 229-36	3.7	7

78	Design and characterization of biofunctional magnetic porous silicon flakes. <i>Acta Biomaterialia</i> , 2013 , 9, 6169-76	10.8	14
77	Surface Plasmon Resonance Study of Au Nanorod Structures Templated in Mesoporous Silicon. <i>Plasmonics</i> , 2013 , 8, 35-40	2.4	6
76	Laser fabrication of porous silicon-based platforms for cell culturing. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2013 , 101, 1463-8	3.5	8
75	Electroless nanoworm Au films on columnar porous silicon layers. <i>Materials Chemistry and Physics</i> , 2012 , 134, 664-669	4.4	8
74	MeV Si ion beam implantation as an effective patterning tool for the localized formation of porous silicon. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2012 , 282, 25-28	1.2	9
73	Chemical stabilization of porous silicon for enhanced biofunctionalization with immunoglobulin. <i>Science and Technology of Advanced Materials</i> , 2012 , 13, 045009	7.1	23
72	High surface water interaction in superhydrophobic nanostructured silicon surfaces: convergence between nanoscopic and macroscopic scale phenomena. <i>Langmuir</i> , 2012 , 28, 1909-13	4	8
71	Nanostructured porous silicon micropatterns as a tool for substrate-conditioned cell research. <i>Nanoscale Research Letters</i> , 2012 , 7, 396	5	11
70	Characterization of hybrid cobalt-porous silicon systems: protective effect of the Matrix in the metal oxidation. <i>Nanoscale Research Letters</i> , 2012 , 7, 495	5	6
69	Polymerized nanoporous titania surfaces: modification of cell adhesion by acrylic acid functionalization. <i>Composite Interfaces</i> , 2012 , 19, 251-258	2.3	6
68	Engineering of silicon surfaces at the micro- and nanoscales for cell adhesion and migration control. <i>International Journal of Nanomedicine</i> , 2012 , 7, 623-30	7.3	13
67	Nanostructured Porous Silicon Photonic Crystal for Applications in the Infrared. <i>Journal of Nanotechnology</i> , 2012 , 2012, 1-6	3.5	6
66	Aging of porous silicon in physiological conditions: cell adhesion modes on scaled 1D micropatterns. <i>Journal of Biomedical Materials Research - Part A</i> , 2012 , 100, 1615-22	5.4	23
65	Properties of bilayer contacts to porous silicon. <i>Applied Physics A: Materials Science and Processing</i> , 2012 , 107, 293-300	2.6	7
64	Hybrid luminescent/magnetic nanostructured porous silicon particles for biomedical applications. <i>Journal of Biomedical Optics</i> , 2011 , 16, 025002	3.5	19
63	A multi-ion beam microanalysis approach for the characterization of plasma polymerized allylamine films. <i>EPJ Applied Physics</i> , 2011 , 56, 24021	1.1	1
62	Surface Functionalization of Nanostructured Porous Silicon by APTS: Toward the Fabrication of Electrical Biosensors of Bacterium Escherichia coli. <i>Current Nanoscience</i> , 2011 , 7, 178-182	1.4	19
61	Effects of He ⁺ ion implantation on surface properties of UV-cured Bis-GMA/TEGDMA bio-compatible resins. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2011 , 269, 111-116	1.2	5

60	Optimized allylamine deposition for improved pluripotential cell culture. <i>Vacuum</i> , 2011 , 85, 1071-1075	3.7	4
59	TiN _x O _y /TiN dielectric contrasts obtained by ion implantation of $\{rm O\}_2^+$; structural, optical and electrical properties. <i>Journal Physics D: Applied Physics</i> , 2011 , 44, 235501	3	6
58	Gold Nanostructures for Surface-Enhanced Raman Spectroscopy, Prepared by Electrodeposition in Porous Silicon. <i>Materials</i> , 2011 , 4, 791-800	3.5	38
57	Characterization and cytocompatibility of hybrid aminosilane-agarose hydrogel scaffolds. <i>Biointerphases</i> , 2010 , 5, 23-9	1.8	17
56	Towards the Development of Electrical Biosensors Based on Nanostructured Porous Silicon. <i>Materials</i> , 2010 , 3, 755-763	3.5	16
55	Functionality of porous silicon particles: Surface modification for biomedical applications. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2010 , 169, 123-127	3.1	25
54	Evaluation of Plasma Modified Polycaprolactone Honeycomb Scaffolds by Human Mesenchymal Stem Cells Cultured in Vitamin D Differentiation Medium. <i>Plasma Processes and Polymers</i> , 2010 , 7, 794-804	3.4	10
53	A hybrid approach to the surface biofunctionalization of nanostructured porous alumina. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2010 , 7, 206-209		
52	Preparation, modification and cellular evaluation of PEG/BEGd supports with titania nanoparticle loads. <i>Surface and Interface Analysis</i> , 2010 , 42, 481-485	1.5	1
51	Application of hybrid agarose-aminosilane gels to the biofunctionalization of honeycomb-structured polycaprolactone scaffolds. <i>Surface and Interface Analysis</i> , 2010 , 42, 448-451	1.5	2
50	Porous Silicon Devices for the Electrical Biosensing of Escherichia Coli. <i>Sensor Letters</i> , 2010 , 8, 387-391	0.9	3
49	Finite-thickness photonic crystals based on nanostructured porous silicon for optical sensing. <i>Journal of Nanophotonics</i> , 2009 , 3, 031504	1.1	5
48	Optical biosensors based on semiconductor nanostructures. <i>Sensors</i> , 2009 , 9, 5149-72	3.8	55
47	Ordered arrays of nanocolumns grown by the oblique angle deposition technique on a self-assembled layer of polystyrene spheres. <i>Materials Letters</i> , 2009 , 63, 197-199	3.3	5
46	Aminofunctionalization and sub-micrometer patterning on silicon through silane doped agarose hydrogels. <i>Journal of Materials Chemistry</i> , 2009 , 19, 5226		15
45	Characterization of biofunctional thin films deposited by activated vapor silanization. <i>Journal of Materials Research</i> , 2008 , 23, 1931-1939	2.5	12
44	Surface modification, characterization and biofunctionality of pegylated titanate films obtained by the sol-gel method. <i>Surface and Interface Analysis</i> , 2008 , 40, 205-209	1.5	4
43	Polypropylene glycol is a selective binding inhibitor for LTA and other structurally related TLR2 agonists. <i>European Journal of Immunology</i> , 2008 , 38, 797-808	6.1	8

42	Smart modification of magnetron sputtered TiN surfaces for stimulated differentiation. <i>Surface and Coatings Technology</i> , 2008 , 203, 905-908	4.4	3
41	Hybrid titania-aminosilane platforms evaluated with human mesenchymal stem cells. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2007 , 83, 232-9	3.5	7
40	Surface Characterization of Biopolymer Micropatterns Processed by Ion-Beam Modification and PECVD. <i>Chemical Vapor Deposition</i> , 2007 , 13, 211-218		8
39	One step processing of aminofunctionalized gate oxides. <i>Biosensors and Bioelectronics</i> , 2007 , 22, 2786-9	11.8	20
38	Cellular response to oxygen containing biomedical polymers modified by Ar and He implantation. <i>Acta Biomaterialia</i> , 2007 , 3, 735-43	10.8	15
37	Bioactivity test for amine-based functionalized meso- and macro-porous silicon substrates. <i>Materials Science and Engineering C</i> , 2007 , 27, 1211-1214	8.3	9
36	Microanalysis of Ar and He bombarded biomedical polymer films. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2007 , 257, 496-500	1.2	4
35	Porous silicon based structures for the electrical biosensing of glucose. <i>Sensors and Actuators B: Chemical</i> , 2007 , 126, 82-85	8.5	23
34	Micro-spot, UV and wetting patterning pathways for applications of biofunctional aminosilane-titanate coatings. <i>Biomedical Microdevices</i> , 2007 , 9, 287-94	3.7	11
33	Preparation of interfaces for TEM cross-section observation. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2007 , 257, 623-626	1.2	16
32	Structured porous silicon sub-micrometer wells grown by colloidal lithography. <i>Europhysics Letters</i> , 2006 , 76, 690-695	1.6	17
31	Nanostructured-porous-silicon-based two-dimensional photonic crystals. <i>Applied Physics Letters</i> , 2006 , 89, 053126	3.4	13
30	Plasma functionalization, surface characterization and protein retention of multiple-sized polymer beads. <i>Surface and Interface Analysis</i> , 2006 , 38, 322-325	1.5	5
29	Ion beam induced crystal-edge nanoclusters at the origin of poly(ethylene glycol) film stabilization. <i>Applied Surface Science</i> , 2006 , 253, 810-813	6.7	2
28	Tailoring surface properties of biomedical polymers by implantation of Ar and He ions. <i>Acta Biomaterialia</i> , 2005 , 1, 431-40	10.8	41
27	Acid/base Micropatterned Devices for pH-Dependent Biosensors. <i>Plasma Processes and Polymers</i> , 2005 , 2, 334-339	3.4	15
26	Nanostructuring surfaces with conjugated silica colloids deposited using silicon-based microcantilevers. <i>Nanotechnology</i> , 2005 , 16, 525-531	3.4	16
25	Surface biofunctionalization of materials by amine groups. <i>Journal of Materials Research</i> , 2004 , 19, 2415-2420	24.20	26

24	Activation of PCL Surface by Ion Beam Treatment to Enhance Protein Adsorption. <i>Journal of Bioactive and Compatible Polymers</i> , 2004 , 19, 287-300	2	7
23	Porous silicon multilayer stacks for optical biosensing applications. <i>Microelectronics Journal</i> , 2004 , 35, 45-48	1.8	24
22	Ion-beam treatment of PEO; towards a physically stabilized anti-fouling film. <i>Surface and Interface Analysis</i> , 2004 , 36, 733-736	1.5	15
21	Surface topographic and structural characterization of plasma treated PMAA/PMMA copolymer films. <i>Surface Science</i> , 2004 , 560, 121-129	1.8	5
20	Surface analysis of plasma-patterned biofunctional hybrid titanate-aminosilane xerogel films. <i>Journal of Colloid and Interface Science</i> , 2004 , 275, 577-83	9.3	7
19	An evaluation of poly(ethylene-glycol) films stabilized by plasma and ion beam methods. <i>Applied Surface Science</i> , 2004 , 235, 119-125	6.7	10
18	Fabrication of Nanostructured Polymeric Surfaces for Biosensing Devices. <i>Nano Letters</i> , 2004 , 4, 1047-1055	10.5	82
17	Textured hydroxyapatite interface onto biomedical titanium-based coatings. <i>Journal of Biomedical Materials Research - Part A</i> , 2003 , 64, 600-5	5.4	9
16	Ion beam induced nanometric structure and oligopeptide adsorption on patterned polymer surfaces. <i>Materials Science and Engineering C</i> , 2003 , 23, 779-786	8.3	15
15	Testing sol-gel CaTiO ₃ coatings for biocompatible applications. <i>Materials Science and Engineering C</i> , 2003 , 23, 447-450	8.3	55
14	Surface and interface analysis of hydroxyapatite/TiO ₂ biocompatible structures. <i>Materials Science and Engineering C</i> , 2003 , 23, 451-454	8.3	19
13	Calcium phosphate coatings prepared by aerosol-gel. <i>Journal of the European Ceramic Society</i> , 2003 , 23, 243-246	6	19
12	Corrosion behavior of sputter-deposited TiN thin films. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2003 , 21, 1635-1638	2.9	4
11	Microstructural study of aerosol-gel derived hydroxyapatite coatings. <i>New Biotechnology</i> , 2002 , 19, 63-6		19
10	Testing biomaterials by the in-situ evaluation of cell response. <i>New Biotechnology</i> , 2002 , 19, 239-42		17
9	Surface functionalisation by the condensation of hybrid titanate-amino sols. <i>Thin Solid Films</i> , 2002 , 415, 253-257	2.2	8
8	Mechanical and in vitro testing of aerosol-gel deposited titania coatings for biocompatible applications. <i>Biomaterials</i> , 2002 , 23, 349-56	15.6	32
7	Biological evaluation of aerosol-gel-derived hydroxyapatite coatings with human mesenchymal stem cells. <i>Biomaterials</i> , 2002 , 23, 3985-90	15.6	27

6	BaTiO ₃ thin films obtained by sol-gel spin coating. <i>Surface and Coatings Technology</i> , 2002 , 151-152, 118-121	4.1	28
5	Development of human mesenchymal stem cells on DC sputtered titanium nitride thin films. <i>Journal of Materials Science: Materials in Medicine</i> , 2002 , 13, 289-93	4.5	16
4	Apatite films produced by electrodeposition: characterization by TEM and AFM. <i>Surface and Interface Analysis</i> , 2001 , 31, 1104-1109	1.5	8
3	Low Temperature Preparation of High Refractive Index and Mechanically Resistant Sol-gel TiO ₂ Films for Multilayer Antireflective Coating Applications. <i>Journal of Sol-Gel Science and Technology</i> , 2001 , 22, 139-150	2.3	79
2	Hydroxyapatite coatings obtained by the thermal activation of polymeric sols. <i>Solid State Sciences</i> , 2001 , 3, 1153-1155		15
1	Electrodeposition of hydroxyapatite coatings in basic conditions. <i>Biomaterials</i> , 2000 , 21, 1755-61	15.6	194