Miguel Manso SilvÃ¡n

List of Publications by Year
in descending order

132 papers	2,250 citations	279487 23 h-index	301761 39 g-index
133 all docs	133 docs citations	133 times ranked	2762 citing authors

#	Article	IF	Citations
1	Regulating cell function through micro- and nanostructured transition metal oxides. , 2022, , 371-405.		0
2	Boosting the Near-Infrared Emission of Ag₂S Nanoparticles by a Controllable Surface Treatment for Bioimaging Applications. ACS Applied Materials & Interfaces, 2022, 14, 4871-4881.	4.0	16
3	Experimental and density functional theory study of the Li+ desorption in spinel/layered lithium manganese oxide nanocomposites using HCl. Chemical Engineering Journal, 2022, 441, 136019.	6.6	18
4	Nanoporous silicon microparticles embedded into oxidized hyaluronic acid/adipic acid dihydrazide hydrogel for enhanced controlled drug delivery. Microporous and Mesoporous Materials, 2021, 310, 110634.	2.2	14
5	Hydrothermal control of the lithium-rich Li₂MnO₃ phase in lithium manganese oxide nanocomposites and their application as precursors for lithium adsorbents. Dalton Transactions, 2021, 50, 10765-10778.	1.6	8
6	Growth of out-of-plane standing MoTe2(1-x)Se2x/MoSe2 composite flake films by solâ€“gel nucleation of MoOy and isothermal closed space telluro-selenization. Applied Surface Science, 2021, 546, 149076.	3.1	5
7	Bringing immuno-assemblies to optoelectronics: sandwich assay integration of a nanostructured porous-silicon/gold-nanoparticle phototransistor. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2021, 271, 115271.	1.7	2
8	Montecarlo Simulation and HAXPES Analysis of Organosilane Segregation in Titania Xerogel Films; Towards a Generic Surface Chemofunctionalization Process. Surfaces, 2020, 3, 352-365.	1.0	1
9	Plasma Fabrication and SERS Functionality of Gold Crowned Silicon Submicrometer Pillars. Materials, 2020, 13, 1244.	1.3	4
10	Engineering nanostructured cell micropatterns on Ti6Al4V by selective ion-beam inhibition of pitting. Corrosion Science, 2020, 167, 108528.	3.0	4
11	Self-Organized In-Depth Gradients in Highly Ti-Doped ZnO Films: Thermal Versus MW Plasma Annealing. Coatings, 2020, 10, 418.	1.2	1
12	A fibrinogen biosensing platform based on plasmonic Ga nanoparticles and aminosilaneâ€“titanate antibody trapping. Medical Devices & Sensors, 2020, 3, e10083.	2.7	3
13	Hybrid porous silicon/silver nanostructures for the development of enhanced photovoltaic devices. Journal of Materials Science, 2020, 55, 5458-5470.	1.7	39
14	Biomimetic hierarchical micro/nano texturing of TiAlV alloys by femtosecond laser processing for the control of cell adhesion and migration. Physical Review Materials, 2020, 4, .	0.9	15
15	Porous Silicon Bragg Reflector and 2D Gold-Polymer Nanograting: A Route Towards a Hybrid Optoplasmonic Platform. Nanomaterials, 2019, 9, 1017.	1.9	4
16	Solâ€“Gel-Deposited Ti-Doped ZnO: Toward Cell Fouling Transparent Conductive Oxides. ACS Omega, 2019, 4, 11354-11363.	1.6	19
17	Loading the dice: The orientation of virus-like particles adsorbed on titanate assisted organosilanized surfaces. Biointerphases, 2019, 14, 011001.	0.6	9
18	Near ambient pressure X-ray photoelectron spectroscopy monitoring of the surface immobilization cascade on a porous silicon-gold nanoparticle FET biosensor. Applied Surface Science, 2019, 492, 362-368.	3.1	22

#	Article	IF	Citations
19	Visible Light Assisted Organosilane Assembly on Mesoporous Silicon Films and Particles. Materials, 2019, 12, 131.	1.3	7
20	Laser writing of nanostructured silicon arrays for the SERS detection of biomolecules with inhibited oxidation. Colloids and Surfaces B: Biointerfaces, 2019, 174, 174-180.	2.5	4
21	Microwave plasma and rapid thermal processing of indium-tin oxide thin films for enhancing their performance as transparent electrodes. Journal of Photonics for Energy, 2019, 9, 1.	0.8	10
22	Synthesis and Characterization of SnO2-TiO2 Nanocomposites Photocatalysts. Current Nanoscience, 2019, 15, 398-406.	0.7	11
23	Organo-Silane Self-Assembly on Porous Silicon and Silica Particle based Sensors. World Scientific Series in Nanoscience and Nanotechnology, 2019, , 305-327.	0.1	0
24	Gold nanoparticle triggered dual optoplasmonic-impedimetric sensing of prostate-specific antigen on interdigitated porous silicon platforms. Sensors and Actuators B: Chemical, 2018, 267, 559-564.	4.0	20
25	Biofunctional porous silicon micropatterns engineered through visible light activated epoxy capping and selective plasma etching. Vacuum, 2018, 150, 232-238.	1.6	5
26	Microwave plasma annealing of sol-gel deposited tantalum oxide and zinc oxide films. Vacuum, 2018, 149, 336-342.	1.6	10
27	Structural, optical and electrical properties of SnO2 doped TiO2 synthesized by the Solâ€“Gel method. Journal of Materials Science: Materials in Electronics, 2018, 29, 3095-3103.	1.1	12
28	Recent developments in surface science and engineering, thin films, nanoscience, biomaterials, plasma science, and vacuum technology. Thin Solid Films, 2018, 660, 120-160.	0.8	27
29	Controlling the Epitaxial Growth of Bi₂Te₃, BiTe, and Bi₄Te₃ Pure Phases by Physical Vapor Transport. Inorganic Chemistry, 2018, 57, 10090-10099.	1.9	13
30	Chemically driven isothermal closed space vapor transport of MoO₂: thin films, flakes and in situ tellurization. Journal of Materials Chemistry C, 2018, 6, 6799-6807.	2.7	19
31	Study of the formation mechanism of hierarchical silicon structures produced by sequential ion beam irradiation and anodic etching. Vacuum, 2017, 138, 238-243.	1.6	2
32	Tunnel conduction regimes, white-light emission and band diagram of porous siliconâ€“zinc oxide nanocomposites. Journal of Luminescence, 2017, 191, 107-111.	1.5	12
33	Electrical behavior of nickel/carbon nanocomposite thin films. Carbon, 2017, 111, 878-886.	5.4	4
34	Direct laser writing of nanorough cell microbarriers on anatase/Si and graphite/Si. Materials Science and Engineering C, 2016, 66, 8-15.	3.8	5
35	Compared Biocompatibility of ZnTiO3, ZnO and TiO2 Sol-Gel Films with Human Mesenchymal Stem Cells. MRS Advances, 2016, 1, 737-742.	0.5	5
36	Biofouling Properties of Nitroxide-Modified Amorphous Carbon Surfaces. ACS Biomaterials Science and Engineering, 2016, 2, 1976-1982.	2.6	4

#	Article	IF	Citations
37	Surface micro- and nano-texturing of stainless steel by femtosecond laser for the control of cell migration. Scientific Reports, 2016, 6, 36296.	1.6	94
38	Microstructural and photocatalytic characterization of cement-paste sol-gel synthesized titanium dioxide. Frontiers of Structural and Civil Engineering, 2016, 10, 189-197.	1.2	23
39	Hydrophobic perfluoro-silane functionalization of porous silicon photoluminescent films and particles. Applied Surface Science, 2016, 380, 243-248.	3.1	13
40	Nanostructured Porous Silicon: The Winding Road from Photonics to Cell Scaffolds Ã¢â‚¬â€œ A Review. Frontiers in Bioengineering and Biotechnology, 2015, 3, 60.	2.0	42
41	Conditioned bio-interfaces of silicon/porous silicon micro-patterns lead to the chondrogenesis of hMSCs. RSC Advances, 2015, 5, 92263-92269.	1.7	5
42	Nanotopography enhanced mobility determines mesenchymal stem cell distribution on micropatterned semiconductors bearing nanorough areas. Colloids and Surfaces B: Biointerfaces, 2015, 126, 146-153.	2.5	10
43	Interface between cement paste and thin TiN film for corrosion resistance enhancement; structural, morphological and electrochemical properties. Construction and Building Materials, 2015, 80, 48-55.	3.2	5
44	Luminescence and fine structure correlation in ZnO permeated porous silicon nanocomposites. Physical Chemistry Chemical Physics, 2015, 17, 20597-20604.	1.3	10
45	Microstructure based optical modeling of ZnO- porous silicon permeated nanocomposites. Journal Physics D: Applied Physics, 2015, 48, 295102.	1.3	4
46	Monodisperse Î±-Fe2O3 nanoplatelets: Synthesis and characterization. Ceramics International, 2015, 41, 2228-2233.	2.3	30
47	Nanostructured porous silicon-mediated drug delivery. Expert Opinion on Drug Delivery, 2014, 11, 1273-1283.	2.4	21
48	Reprogramming hMSCs morphology with silicon/porous silicon geometric micro-patterns. Biomedical Microdevices, 2014, 16, 229-236.	1.4	8
49	Fabrication and characterization of a chemically oxidized-nanostructured porous silicon based biosensor implementing orienting protein A. Colloids and Surfaces B: Biointerfaces, 2014, 115, 310-316.	2.5	17
50	Calcium phosphate/porous silicon biocomposites prepared by cyclic deposition methods: Spin coating vs electrochemical activation. Materials Science and Engineering C, 2014, 34, 245-251.	3.8	14
51	Porous silicon-cyclodextrin based polymer composites for drug delivery applications. Carbohydrate Polymers, 2014, 110, 238-252.	5.1	58
52	Photoassisted Immersion Deposition of Cu Clusters onto Porous Silicon: A Langmuirâ€“Hill Ligandâ€“Locus Model Applied to the Growth Kinetics. Journal of Physical Chemistry C, 2014, 118, 14905-14912.	1.5	8
53	Design and characterization of biofunctional magnetic porous silicon flakes. Acta Biomaterialia, 2013, 9, 6169-6176.	4.1	14
54	Surface Plasmon Resonance Study of Au Nanorod Structures Templated in Mesoporous Silicon. Plasmonics, 2013, 8, 35-40.	1.8	6

#	Article	IF	Citations
55	Laser fabrication of porous siliconâ€based platforms for cell culturing. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2013, 101, 1463-1468.	1.6	10
56	Chemical stabilization of porous silicon for enhanced biofunctionalization with immunoglobulin. Science and Technology of Advanced Materials, 2012, 13, 045009.	2.8	26
57	High Surface Water Interaction in Superhydrophobic Nanostructured Silicon Surfaces: Convergence between Nanoscopic and Macroscopic Scale Phenomena. Langmuir, 2012, 28, 1909-1913.	1.6	11
58	Nanostructured porous silicon micropatterns as a tool for substrate-conditioned cell research. Nanoscale Research Letters, 2012, 7, 396.	3.1	15
59	Characterization of hybrid cobalt-porous silicon systems: protective effect of the Matrix in the metal oxidation. Nanoscale Research Letters, 2012, 7, 495.	3.1	6
60	Polymerized nanoporous titania surfaces: modification of cell adhesion by acrylic acid functionalization. Composite Interfaces, 2012, 19, 251-258.	1.3	6
61	Engineering of silicon surfaces at the micro- and nanoscales for cell adhesion and migration control. International Journal of Nanomedicine, 2012, 7, 623.	3.3	13
62	Nanostructured Porous Silicon Photonic Crystal for Applications in the Infrared. Journal of Nanotechnology, 2012, 2012, 1-6.	1.5	8
63	Aging of porous silicon in physiological conditions: Cell adhesion modes on scaled 1D micropatterns. Journal of Biomedical Materials Research - Part A, 2012, 100A, 1615-1622.	2.1	25
64	Properties of bilayer contacts to porous silicon. Applied Physics A: Materials Science and Processing, 2012, 107, 293-300.	1.1	8
65	Electroless nanoworm Au films on columnar porous silicon layers. Materials Chemistry and Physics, 2012, 134, 664-669.	2.0	8
66	MeV Si ion beam implantation as an effective patterning tool for the localized formation of porous silicon. Nuclear Instruments & Methods in Physics Research B, 2012, 282, 25-28.	0.6	9
67	Surface Functionalization of Nanostructured Porous Silicon by APTS: Toward the Fabrication of Electrical Biosensors of Bacterium Escherichia coli. Current Nanoscience, 2011, 7, 178-182.	0.7	20
68	Hybrid luminescent/magnetic nanostructured porous silicon particles for biomedical applications. Journal of Biomedical Optics, 2011, 16, 025002.	1.4	24
69	A multi-ion beam microanalysis approach for the characterization of plasma polymerized allylamine films. EPJ Applied Physics, 2011, 56, 24021.	0.3	1
70	Controlled skeletal progenitor cell migration on nanostructured porous silicon/silicon micropatterns. Proceedings of SPIE, 2011, , .	0.8	0
71	Effects of He+ ion implantation on surface properties of UV-cured Bis-GMA/TEGDMA bio-compatible resins. Nuclear Instruments & Methods in Physics Research B, 2011, 269, 111-116.	0.6	5
72	Optimized allylamine deposition for improved pluripotential cell culture. Vacuum, 2011, 85, 1071-1075.	1.6	4

#	Article	IF	Citations
73	TiN_xO_y/TiN dielectric contrasts obtained by ion implantation of ; structural, optical and electrical properties. Journal Physics D: Applied Physics, 2011, 44, 235501.	1.3	7
74	Gold Nanostructures for Surface-Enhanced Raman Spectroscopy, Prepared by Electrodeposition in Porous Silicon. Materials, 2011, 4, 791-800.	1.3	42
75	Nanostructured porous silicon-based dual luminescent/magnetic particles for biomedical tracking. Proceedings of SPIE, 2010, , .	0.8	0
76	Towards the Development of Electrical Biosensors Based on Nanostructured Porous Silicon. Materials, 2010, 3, 755-763.	1.3	17
77	Functionality of porous silicon particles: Surface modification for biomedical applications. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2010, 169, 123-127.	1.7	25
78	Evaluation of Plasma Modified Polycaprolactone Honeycomb Scaffolds by Human Mesenchymal Stem Cells Cultured in Vitamin D Differentiation Medium. Plasma Processes and Polymers, 2010, 7, 794-801.	1.6	10
79	A hybrid approach to the surface biofunctionalization of nanostructured porous alumina. Physica Status Solidi C: Current Topics in Solid State Physics, 2010, 7, 206-209.	0.8	0
80	Preparation, modification and cellular evaluation of PEGâ€“PEGd supports with titania nanoparticle loads. Surface and Interface Analysis, 2010, 42, 481-485.	0.8	1
81	Application of hybrid agaroseâ€aminosilane gels to the biofunctionalization of honeycombâ€structured polycaprolactone scaffolds. Surface and Interface Analysis, 2010, 42, 448-451.	0.8	3
82	Characterization and cytocompatibility of hybrid aminosilane-agarose hydrogel scaffolds. Biointerphases, 2010, 5, 23-29.	0.6	17
83	Porous Silicon Devices for the Electrical Biosensing of <I>Escherichia Coli</I>. Sensor Letters, 2010, 8, 387-391.	0.4	3
84	Finite-thickness photonic crystals based on nanostructured porous silicon for optical sensing. Journal of Nanophotonics, 2009, 3, 031504.	0.4	5
85	Optical Biosensors Based on Semiconductor Nanostructures. Sensors, 2009, 9, 5149-5172.	2.1	61
86	Ordered arrays of nanocolumns grown by the oblique angle deposition technique on a self-assembled layer of polystyrene spheres. Materials Letters, 2009, 63, 197-199.	1.3	6
87	Aminofunctionalization and sub-micrometer patterning on silicon through silane doped agarose hydrogels. Journal of Materials Chemistry, 2009, 19, 5226.	6.7	16
88	Surface modification, characterization and biofunctionality of pegylated titanate films obtained by the solâ€gel method. Surface and Interface Analysis, 2008, 40, 205-209.	0.8	4
89	Polypropylene glycol is a selective binding inhibitor for LTA and other structurally related TLR2 agonists. European Journal of Immunology, 2008, 38, 797-808.	1.6	11
90	Smart modification of magnetron sputtered TiN surfaces for stimulated differentiation. Surface and Coatings Technology, 2008, 203, 905-908.	2.2	3

#	Article	IF	Citations
91	Characterization of biofunctional thin films deposited by activated vapor silanization. Journal of Materials Research, 2008, 23, 1931-1939.	1.2	13
92	Hybrid titaniaâ€“aminosilane platforms evaluated with human mesenchymal stem cells. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2007, 83B, 232-239.	1.6	7
93	Surface Characterization of Biopolymer Micropatterns Processed by Ion-Beam Modification and PECVD. Chemical Vapor Deposition, 2007, 13, 211-218.	1.4	8
94	One step processing of aminofunctionalized gate oxides. Biosensors and Bioelectronics, 2007, 22, 2786-2789.	5.3	20
95	Cellular response to oxygen containing biomedical polymers modified by Ar and He implantation. Acta Biomaterialia, 2007, 3, 735-743.	4.1	15
96	Bioactivity test for amine-based functionalized meso- and macro-porous silicon substrates. Materials Science and Engineering C, 2007, 27, 1211-1214.	3.8	9
97	Microanalysis of Ar and He bombarded biomedical polymer films. Nuclear Instruments & Methods in Physics Research B, 2007, 257, 496-500.	0.6	4
98	Porous silicon based structures for the electrical biosensing of glucose. Sensors and Actuators B: Chemical, 2007, 126, 82-85.	4.0	24
99	Micro-spot, UV and wetting patterning pathways for applications of biofunctional aminosilane-titanate coatings. Biomedical Microdevices, 2007, 9, 287-294.	1.4	12
100	Preparation of interfaces for TEM cross-section observation. Nuclear Instruments & Methods in Physics Research B, 2007, 257, 623-626.	0.6	17
101	Structured porous silicon sub-micrometer wells grown by colloidal lithography. Europhysics Letters, 2006, 76, 690-695.	0.7	17
102	Nanostructured-porous-silicon-based two-dimensional photonic crystals. Applied Physics Letters, 2006, 89, 053126.	1.5	14
103	Plasma functionalization, surface characterization and protein retention of multiple-sized polymer beads. Surface and Interface Analysis, 2006, 38, 322-325.	0.8	5
104	Ion beam induced crystal-edge nanoclusters at the origin of poly(ethylene glycol) film stabilization. Applied Surface Science, 2006, 253, 810-813.	3.1	2
105	Tailoring surface properties of biomedical polymers by implantation of Ar and He ions. Acta Biomaterialia, 2005, 1, 431-440.	4.1	44
106	Acid/base Micropatterned Devices for pH-Dependent Biosensors. Plasma Processes and Polymers, 2005, 2, 334-339.	1.6	19
107	Nanostructuring surfaces with conjugated silica colloids deposited using silicon-based microcantilevers. Nanotechnology, 2005, 16, 525-531.	1.3	20
108	Surface biofunctionalization of materials by amine groups. Journal of Materials Research, 2004, 19, 2415-2420.	1.2	32

#	Article	IF	Citations
109	Activation of PCL Surface by Ion Beam Treatment to Enhance Protein Adsorption. Journal of Bioactive and Compatible Polymers, 2004, 19, 287-300.	0.8	8
110	Porous silicon multilayer stacks for optical biosensing applications. Microelectronics Journal, 2004, 35, 45-48.	1.1	29
111	Ion-beam treatment of PEO; towards a physically stabilized anti-fouling film. Surface and Interface Analysis, 2004, 36, 733-736.	0.8	17
112	Surface topographic and structural characterization of plasma treated PMAAâ€“PMMA copolymer films. Surface Science, 2004, 560, 121-129.	0.8	6
113	Surface analysis of plasma-patterned biofunctional hybrid titanateâ€“aminosilane xerogel films. Journal of Colloid and Interface Science, 2004, 275, 577-583.	5.0	8
114	An evaluation of poly(ethylene-glycol) films stabilized by plasma and ion beam methods. Applied Surface Science, 2004, 235, 119-125.	3.1	12
115	Fabrication of Nanostructured Polymeric Surfaces for Biosensing Devices. Nano Letters, 2004, 4, 1047-1050.	4.5	90
116	Textured hydroxyapatite interface onto biomedical titanium-based coatings. Journal of Biomedical Materials Research - Part A, 2003, 64A, 600-605.	2.1	9
117	Ion beam induced nanometric structure and oligopeptide adsorption on patterned polymer surfaces. Materials Science and Engineering C, 2003, 23, 779-786.	3.8	16
118	Testing solâ€“gel CaTiO3 coatings for biocompatible applications. Materials Science and Engineering C, 2003, 23, 447-450.	3.8	62
119	Surface and interface analysis of hydroxyapatite/TiO2 biocompatible structures. Materials Science and Engineering C, 2003, 23, 451-454.	3.8	21
120	Calcium phosphate coatings prepared by aerosol-gel. Journal of the European Ceramic Society, 2003, 23, 243-246.	2.8	22
121	Corrosion behavior of sputter-deposited TiN thin films. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2003, 21, 1635-1638.	0.9	5
122	Microstructural study of aerosolâ€“gel derived hydroxyapatite coatings. New Biotechnology, 2002, 19, 63-66.	2.7	21
123	Testing biomaterials by the in-situ evaluation of cell response. New Biotechnology, 2002, 19, 239-242.	2.7	18
124	Surface functionalisation by the condensation of hybrid titanateâ€“amino sols. Thin Solid Films, 2002, 415, 253-257.	0.8	8
125	Mechanical and in vitro testing of aerosolâ€“gel deposited titania coatings for biocompatible applications. Biomaterials, 2002, 23, 349-356.	5.7	35
126	Biological evaluation of aerosolâ€“gel-derived hydroxyapatite coatings with human mesenchymal stem cells. Biomaterials, 2002, 23, 3985-3990.	5.7	30

#	Article	IF	Citations
127	BaTiO3 thin films obtained by solâ€“gel spin coating. Surface and Coatings Technology, 2002, 151-152, 118-121.	2.2	29
128	Development of human mesenchymal stem cells on DC sputtered titanium nitride thin films. Journal of Materials Science: Materials in Medicine, 2002, 13, 289-293.	1.7	18
129	Hydroxyapatite coatings obtained by the thermal activation of polymeric sols. Solid State Sciences, 2001, 3, 1153-1155.	0.8	15
130	Apatite films produced by electrodeposition: characterization by TEM and AFM. Surface and Interface Analysis, 2001, 31, 1104-1109.	0.8	9
131	Title is missing!. Journal of Sol-Gel Science and Technology, 2001, 22, 139-150.	1.1	91
132	Electrodeposition of hydroxyapatite coatings in basic conditions. Biomaterials, 2000, 21, 1755-1761.	5.7	221