Vicente Torres-Costa

List of Publications by Year
in descending order

104	1,576	331670 21	377865 34
papers	citations	h-index	g-index

106	106	106	1698
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Nanostructures for Photonics and Optoelectronics. Nanomaterials, 2022, 12, 1820.	4.1	0
2	Spatially resolved MoO_x phases by the laser oxidation of MoO₂: a possible route for all-molybdenum oxide devices. Journal of Materials Chemistry C, 2021, 9, 6579-6588.	5.5	9
3	Self-powered broadband hybrid organicâ€“inorganic photodetectors based on PEDOT:PSS and silicon micro-nanostructures. Journal of Materials Chemistry C, 2021, 9, 4682-4694.	5.5	19
4	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.	6.1	5
5	Molecular Analysis of the Mineral Phase and Examination of Possible Intramineral Proteins of Dinosaur Eggshells Collected in El Rosario, Baja California, Mexico. ACS Earth and Space Chemistry, 2021, 5, 1552-1563.	2.7	4
6	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.	3.5	2
7	Optical properties of porous silicon materials. , 2021, , 183-222.		0
8	Fabrication and characterization of nanostructured porous silicon-silver composite layers by cyclic deposition: dip-coating vs spin-coating. Nanotechnology, 2020, 31, 365704.	2.6	2
9	Fabrication of Zinc Oxide and Nanostructured Porous Silicon Composite Micropatterns on Silicon. Coatings, 2020, 10, 529.	2.6	9
10	Interfacial strain defines the self-organization of epitaxial MoO2 flakes and porous films on sapphire: experiments and modelling. Applied Surface Science, 2020, 514, 145875.	6.1	6
11	Porous Silicon Bragg Reflector and 2D Gold-Polymer Nanograting: A Route Towards a Hybrid Optoplasmonic Platform. Nanomaterials, 2019, 9, 1017.	4.1	4
12	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.	6.1	22
13	Synaptic and Fast Switching Memristance in Porous Silicon-Based Structures. Nanomaterials, 2019, 9, 825.	4.1	11
14	Visible Light Assisted Organosilane Assembly on Mesoporous Silicon Films and Particles. Materials, 2019, 12, 131.	2.9	7
15	Optical and electrical properties of MoO₂ and MoO₃ thin films prepared from the chemically driven isothermal close space vapor transport technique. Journal of Physics Condensed Matter, 2019, 31, 295703.	1.8	35
16	Laser writing of nanostructured silicon arrays for the SERS detection of biomolecules with inhibited oxidation. Colloids and Surfaces B: Biointerfaces, 2019, 174, 174-180.	5.0	4
17	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.	1.3	10
18	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.	7.8	20

#	Article	IF	Citations
19	Controlling the Epitaxial Growth of Bi₂Te₃, BiTe, and Bi₄Te₃ Pure Phases by Physical Vapor Transport. Inorganic Chemistry, 2018, 57, 10090-10099.	4.0	13
20	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.	5.5	19
21	Study of the formation mechanism of hierarchical silicon structures produced by sequential ion beam irradiation and anodic etching. Vacuum, 2017, 138, 238-243.	3.5	2
22	High aspect ratio channels in glass and porous silicon. Nuclear Instruments & Methods in Physics Research B, 2017, 394, 1-5.	1.4	2
23	Tunnel conduction regimes, white-light emission and band diagram of porous siliconâ€“zinc oxide nanocomposites. Journal of Luminescence, 2017, 191, 107-111.	3.1	12
24	Direct laser writing of nanorough cell microbarriers on anatase/Si and graphite/Si. Materials Science and Engineering C, 2016, 66, 8-15.	7.3	5
25	Infiltration of ZnO in Mesoporous Silicon by Isothermal Zn Annealing and Oxidation. ECS Journal of Solid State Science and Technology, 2016, 5, P6-P11.	1.8	0
26	Hydrophobic perfluoro-silane functionalization of porous silicon photoluminescent films and particles. Applied Surface Science, 2016, 380, 243-248.	6.1	13
27	Microscopy of Porous Silicon. , 2016, , 1-14.		0
28	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.	4.1	42
29	Conditioned bio-interfaces of silicon/porous silicon micro-patterns lead to the chondrogenesis of hMSCs. RSC Advances, 2015, 5, 92263-92269.	3.6	5
30	Nanotopography enhanced mobility determines mesenchymal stem cell distribution on micropatterned semiconductors bearing nanorough areas. Colloids and Surfaces B: Biointerfaces, 2015, 126, 146-153.	5.0	10
31	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.	7.2	5
32	Luminescence and fine structure correlation in ZnO permeated porous silicon nanocomposites. Physical Chemistry Chemical Physics, 2015, 17, 20597-20604.	2.8	10
33	Microstructure based optical modeling of ZnO- porous silicon permeated nanocomposites. Journal Physics D: Applied Physics, 2015, 48, 295102.	2.8	4
34	Highly-focused boron implantation in diamond and imaging using the nuclear reaction 11B(p, Î±)8Be. Nuclear Instruments & Methods in Physics Research B, 2015, 348, 174-177.	1.4	10
35	Nanostructured porous silicon-mediated drug delivery. Expert Opinion on Drug Delivery, 2014, 11, 1273-1283.	5.0	21
36	Reprogramming hMSCs morphology with silicon/porous silicon geometric micro-patterns. Biomedical Microdevices, 2014, 16, 229-236.	2.8	8

#	Article	IF	Citations
37	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.	5.0	17
38	Calcium phosphate/porous silicon biocomposites prepared by cyclic deposition methods: Spin coating vs electrochemical activation. Materials Science and Engineering C, 2014, 34, 245-251.	7.3	14
39	Porous silicon-cyclodextrin based polymer composites for drug delivery applications. Carbohydrate Polymers, 2014, 110, 238-252.	10.2	58
40	Microscopy of Porous Silicon. , 2014, , 1-9.		0
41	Adhesion and Proliferation of Human Mesenchymal Stem Cells from Dental Pulp on Porous Silicon Scaffolds. ACS Applied Materials & Interfaces, 2014, 6, 1719-1728.	8.0	62
42	Selective Optical Response of Hydrolytically Stable Stratified Si Rugate Mirrors to Liquid Infiltration. ACS Applied Materials & Interfaces, 2014, 6, 2884-2892.	8.0	18
43	Optical properties of porous silicon materials for biomedical applications. , 2014, , 185-222.		6
44	Enhanced ZnTe infiltration in porous silicon by Isothermal Close Space Sublimation. Microporous and Mesoporous Materials, 2014, 188, 93-98.	4.4	3
45	Hybrid gold/porous silicon thin films for plasmonic solar cells. Scripta Materialia, 2014, 74, 33-37.	5.2	15
46	Microscopy of Porous Silicon. , 2014, , 413-421.		2
47	Design and characterization of biofunctional magnetic porous silicon flakes. Acta Biomaterialia, 2013, 9, 6169-6176.	8.3	14
48	Functionalization of Thermally Carbonized Porous Silicon Optical Multilayer Structures for Sensing Applications. ECS Transactions, 2013, 58, 63-70.	0.5	0
49	Laser fabrication of porous siliconâ€based platforms for cell culturing. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2013, 101, 1463-1468.	3.4	10
50	Laser fabrication of porous silicon-based platforms for cell culturing. , 2013, , n/a-n/a.		0
51	Development of drug delivery systems based on nanostructured porous silicon loaded with the anti-tumoral drug emodin adsorbed on silver nanoparticles. , 2012, , .		1
52	Chemical stabilization of porous silicon for enhanced biofunctionalization with immunoglobulin. Science and Technology of Advanced Materials, 2012, 13, 045009.	6.1	26
53	Intense white luminescence in ZnTe embedded porous silicon. Applied Physics Letters, 2012, 100, 263110.	3.3	1
54	High Surface Water Interaction in Superhydrophobic Nanostructured Silicon Surfaces: Convergence between Nanoscopic and Macroscopic Scale Phenomena. Langmuir, 2012, 28, 1909-1913.	3.5	11

#	Article	IF	Citations
55	Nanostructured porous silicon micropatterns as a tool for substrate-conditioned cell research. Nanoscale Research Letters, 2012, 7, 396.	5.7	15
56	Isothermal close space sublimation for II-VI semiconductor filling of porous matrices. Nanoscale Research Letters, 2012, 7, 409.	5.7	3
57	Silicon-based photonic crystals fabricated using proton beam writing combined with electrochemical etching method. Nanoscale Research Letters, 2012, 7, 416.	5.7	22
58	Highly flexible method for the fabrication of photonic crystal slabs based on the selective formation of porous silicon. Nanoscale Research Letters, 2012, 7, 449.	5.7	13
59	Characterization of hybrid cobalt-porous silicon systems: protective effect of the Matrix in the metal oxidation. Nanoscale Research Letters, 2012, 7, 495.	5.7	6
60	Engineering of silicon surfaces at the micro- and nanoscales for cell adhesion and migration control. International Journal of Nanomedicine, 2012, 7, 623.	6.7	13
61	Nanostructured Porous Silicon Photonic Crystal for Applications in the Infrared. Journal of Nanotechnology, 2012, 2012, 1-6.	3.4	8
62	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.	4.0	25
63	Properties of bilayer contacts to porous silicon. Applied Physics A: Materials Science and Processing, 2012, 107, 293-300.	2.3	8
64	Electroless nanoworm Au films on columnar porous silicon layers. Materials Chemistry and Physics, 2012, 134, 664-669.	4.0	8
65	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.	1.4	9
66	Surface Functionalization of Nanostructured Porous Silicon by APTS: Toward the Fabrication of Electrical Biosensors of Bacterium Escherichia coli. Current Nanoscience, 2011, 7, 178-182.	1.2	20
67	Hybrid luminescent/magnetic nanostructured porous silicon particles for biomedical applications. Journal of Biomedical Optics, 2011, 16, 025002.	2.6	24
68	Structural considerations on multistopband mesoporous silicon rugate filters prepared for gas sensing purposes. Optics Express, 2011, 19, 13291.	3.4	15
69	A multi-ion beam microanalysis approach for the characterization of plasma polymerized allylamine films. EPJ Applied Physics, 2011, 56, 24021.	0.7	1
70	Controlled skeletal progenitor cell migration on nanostructured porous silicon/silicon micropatterns. Proceedings of SPIE, 2011, , .	0.8	0
71	TiN_xO_y/TiN dielectric contrasts obtained by ion implantation of ; structural, optical and electrical properties. Journal Physics D: Applied Physics, 2011, 44, 235501.	2.8	7
72	Silicon-based hybrid luminescent/magnetic porous nanoparticles for biomedical applications. Journal of Nanophotonics, 2011, 5, 051505.	1.0	5

#	Article	IF	Citations
73	Nanostructured porous silicon-based dual luminescent/magnetic particles for biomedical tracking. Proceedings of SPIE, 2010, , .	0.8	0
74	Towards the Development of Electrical Biosensors Based on Nanostructured Porous Silicon. Materials, 2010, 3, 755-763.	2.9	17
75	Application of nanostructured porous silicon in the field of optics. A review. Journal of Materials Science, 2010, 45, 2823-2838.	3.7	134
76	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.	3.5	25
77	Planar polar liquid crystalline alignment in nanostructured porous silicon one-dimensional photonic crystals. Applied Physics Letters, 2010, 97, 113106.	3.3	13
78	Biomedical applications of nanostructured porous silicon: a review. Journal of Nanophotonics, 2010, 4, 042502.	1.0	69
79	Porous Silicon Devices for the Electrical Biosensing of <I>Escherichia Coli</I>. Sensor Letters, 2010, 8, 387-391.	0.4	3
80	Finite-thickness photonic crystals based on nanostructured porous silicon for optical sensing. Journal of Nanophotonics, 2009, 3, 031504.	1.0	5
81	Distributed Bragg reflectors based on chalcogenide glasses for chemical optical sensing. Journal Physics D: Applied Physics, 2009, 42, 055109.	2.8	13
82	Optical Biosensors Based on Semiconductor Nanostructures. Sensors, 2009, 9, 5149-5172.	3.8	61
83	Development of electrical biosensors based on nanostructured porous silicon. , 2009, , .		0
84	Carbonization of porous silicon optical gas sensors for enhanced stability and sensitivity. Physica Status Solidi (A) Applications and Materials Science, 2009, 206, 1306-1308.	1.8	13
85	Optical gas sensing properties of thermally hydrocarbonized porous silicon Bragg reflectors. Optics Express, 2009, 17, 5446.	3.4	60
86	Surface modification, characterization and biofunctionality of pegylated titanate films obtained by the solâ€gel method. Surface and Interface Analysis, 2008, 40, 205-209.	1.8	4
87	Passivation of nanostructured silicon optical devices by thermal carbonization. Microporous and Mesoporous Materials, 2008, 111, 636-638.	4.4	11
88	Applications of nanostructured porous silicon in the field of optical sensing. , 2008, , .		0
89	Effective passivation of porous silicon optical devices by thermal carbonization. Journal of Applied Physics, 2008, 103, 083124.	2.5	24
90	All-silicon color-sensitive photodetectors in the visible. Materials Science and Engineering C, 2007, 27, 954-956.	7.3	22

#	ARTICLE	IF	CITATIONS
91	Nanostructured-porous-silicon-based two-dimensional photonic crystals. Applied Physics Letters, 2006, 89, 053126.	3.3	14
92	Porous silicon optical filters for biosensing applications. Journal of Non-Crystalline Solids, 2006, 352, 2457-2460.	3.1	23
93	In-depth RBS study of optical layers based on nanostructured silicon. Journal of Non-Crystalline Solids, 2006, 352, 2521-2525.	3.1	4
94	Photoluminiscence of Naphthalimide Derivatives Deposited onto Nanostructured Porous Silicon. Journal of the Electrochemical Society, 2006, 153, D134.	2.9	3
95	Optical and compositional analysis of functional SiOxCy:H coatings on polymers. Thin Solid Films, 2006, 515, 2493-2496.	1.8	23
96	Porous silicon optical devices for sensing applications. Optical Materials, 2005, 27, 1084-1087.	3.6	61
97	Porosity profile determination of porous silicon interference filters by RBS. Physica Status Solidi C: Current Topics in Solid State Physics, 2005, 2, 3208-3212.	0.8	10
98	Optical and In-Depth RBS Characterization of Porous Silicon Interference Filters. Journal of the Electrochemical Society, 2005, 152, G846.	2.9	10
99	RBS Characterization of Porous Silicon Multilayer Interference Filters. Electrochemical and Solid-State Letters, 2004, 7, G244.	2.2	13
100	Porous SiGe Nanostructures Formed by Electrochemical Etching of Thin Poly-SiGe Films. Journal of the Electrochemical Society, 2004, 151, C326.	2.9	3
101	Optical characterization of porous silicon films and multilayer filters. Applied Physics A: Materials Science and Processing, 2004, 79, 1919-1923.	2.3	38
102	Porous silicon multilayer stacks for optical biosensing applications. Microelectronics Journal, 2004, 35, 45-48.	2.0	29
103	Optical constants of porous silicon films and multilayers determined by genetic algorithms. Journal of Applied Physics, 2004, 96, 4197-4203.	2.5	40
104	Development of interference filters based on multilayer porous silicon structures. Materials Science and Engineering C, 2003, 23, 1043-1046.	7.3	17