Victor J Rico

List of Publications by Year
in descending order

77 papers	1,836 citations	201575 27 h-index	289141 40 g-index
78 all docs	78 docs citations	78 times ranked	2535 citing authors

#	Article	IF	Citations
1	Compositional gradients at the nanoscale in substoichiometric thin films deposited by magnetron sputtering at oblique angles: A case study on SiO_x thin films. Plasma Processes and Polymers, 2022, 19, 2100116.	1.6	1
2	Electron Beam Evaporated vs. Magnetron Sputtered Nanocolumnar Porous Stainless Steel: Corrosion Resistance, Wetting Behavior and Anti-bacterial Activity. Materials Today Communications, 2022, 31, 103266.	0.9	7
3	Titania Enhanced Photocatalysis and Dye Giant Absorption in Nanoporous 1D Bragg Microcavities. ACS Applied Nano Materials, 2022, 5, 5487-5497.	2.4	5
4	Patterning and control of the nanostructure in plasma thin films with acoustic waves: mechanicalvs.electrical polarization effects. Materials Horizons, 2021, 8, 515-524.	6.4	9
5	Solid-State Dewetting of Gold on Stochastically Periodic SiO₂ Nanocolumns Prepared by Oblique Angle Deposition. ACS Applied Materials & Interfaces, 2021, 13, 11385-11395.	4.0	12
6	Novel procedure for studying laser-surface material interactions during scanning laser ablation cleaning processes on Cu-based alloys. Applied Surface Science, 2021, 544, 148820.	3.1	13
7	Characterizing the physicochemical and mechanical properties of ZrN thin films deposited on Zr substrates by pulsed laser technique. EPJ Applied Physics, 2021, 95, 10301.	0.3	2
8	Photonic sensor systems for the identification of hydrocarbons and crude oils in static and flow conditions. Sensors and Actuators B: Chemical, 2021, 344, 130265.	4.0	1
9	Enhanced Stability of Perovskite Solar Cells Incorporating Dopantâ€Free Crystalline Spiroâ€OMeTAD Layers by Vacuum Sublimation. Advanced Energy Materials, 2020, 10, 1901524.	10.2	30
10	Positron annihilation analysis of nanopores and growth mechanism of oblique angle evaporated TiO2 and SiO2 thin films and multilayers. Microporous and Mesoporous Materials, 2020, 295, 109968.	2.2	8
11	Robust anti-icing superhydrophobic aluminum alloy surfaces by grafting fluorocarbon molecular chains. Applied Materials Today, 2020, 21, 100815.	2.3	37
12	Optofluidic liquid sensing on electromicrofluidic devices. Materials Research Express, 2020, 7, 036407.	0.8	2
13	Wetting and spreading of liquid lithium onto nanocolumnar tungsten coatings tailored through the topography of stainless steel substrates. Nuclear Fusion, 2020, 60, 126033.	1.6	6
14	Graphene Formation Mechanism by the Electrochemical Promotion of a Ni Catalyst. ACS Catalysis, 2019, 9, 11447-11454.	5.5	5
15	Kinetic energy-induced growth regimes of nanocolumnar Ti thin films deposited by evaporation and magnetron sputtering. Nanotechnology, 2019, 30, 475603.	1.3	13
16	Antibacterial Nanostructured Ti Coatings by Magnetron Sputtering: From Laboratory Scales to Industrial Reactors. Nanomaterials, 2019, 9, 1217.	1.9	30
17	SiOx by magnetron sputtered revisited: Tailoring the photonic properties of multilayers. Applied Surface Science, 2019, 488, 791-800.	3.1	13
18	Hydrophobicity, Freezing Delay, and Morphology of Laser-Treated Aluminum Surfaces. Langmuir, 2019, 35, 6483-6491.	1.6	29

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19	2D compositional self-patterning in magnetron sputtered thin films. Applied Surface Science, 2019, 480, 115-121.	3.1	3
20	3D Organic Nanofabrics: Plasma-Assisted Synthesis and Antifreezing Behavior of Superhydrophobic and Lubricant-Infused Slippery Surfaces. Langmuir, 2019, 35, 16876-16885.	1.6	13
21	Liquid switchable radial polarization converters made of sculptured thin films. Applied Surface Science, 2019, 475, 230-236.	3.1	3
22	Environmentally Tight TiO₂â€“SiO₂ Porous 1Dâ€Photonic Structures. Advanced Materials Interfaces, 2019, 6, 1801212.	1.9	6
23	Growth of nanocolumnar thin films on patterned substrates at oblique angles. Plasma Processes and Polymers, 2019, 16, 1800135.	1.6	11
24	Nickel/Copper Bilayerâ€modified Screen Printed Electrode for Glucose Determination in Flow Injection Analysis. Electroanalysis, 2018, 30, 187-193.	1.5	5
25	Self-Assembly of the Nonplanar Fe(III) Phthalocyanine Small-Molecule: Unraveling the Impact on the Magnetic Properties of Organic Nanowires. Chemistry of Materials, 2018, 30, 879-887.	3.2	9
26	Growth of nanocolumnar porous TiO 2 thin films by magnetron sputtering using particle collimators. Surface and Coatings Technology, 2018, 343, 172-177.	2.2	25
27	In situ monitoring of the phenomenon of electrochemical promotion of catalysis. Journal of Catalysis, 2018, 358, 27-34.	3.1	12
28	Laserâ€induced coloration of ceramic tiles covered with magnetron sputtered precursor layers. Journal of the American Ceramic Society, 2018, 102, 1589.	1.9	1
29	Antibacterial response of titanium oxide coatings doped by nitrogen plasma immersion ion implantation. Surface and Coatings Technology, 2017, 314, 67-71.	2.2	9
30	In Situ Determination of the Water Condensation Mechanisms on Superhydrophobic and Superhydrophilic Titanium Dioxide Nanotubes. Langmuir, 2017, 33, 6449-6456.	1.6	23
31	(Invited) Plasma Assisted Oblique Angle Deposition of Transparent and Conductive in-Plane Anisotropic ITO Thin Films. ECS Transactions, 2017, 77, 9-15.	0.3	1
32	Non-enzymatic hydrogen peroxide detection at NiO nanoporous thin film- electrodes prepared by physical vapor deposition at oblique angles. Electrochimica Acta, 2017, 235, 534-542.	2.6	60
33	Structural control in porous/compact multilayer systems grown by magnetron sputtering. Nanotechnology, 2017, 28, 465605.	1.3	6
34	Formation of Subsurface W⁵⁺ Species in Gasochromic Pt/WO₃ Thin Films Exposed to Hydrogen. Journal of Physical Chemistry C, 2017, 121, 15719-15727.	1.5	40
35	Highâ€Rate Deposition of Stoichiometric Compounds by Reactive Magnetron Sputtering at Oblique Angles. Plasma Processes and Polymers, 2016, 13, 960-964.	1.6	10
36	Non-Enzymatic Glucose Sensors Based on Nickel Nanoporous Thin Films Prepared by Physical Vapor Deposition at Oblique Angles for Beverage Industry Applications. Journal of the Electrochemical Society, 2016, 163, B704-B709.	1.3	8

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37	Nanocolumnar association and domain formation in porous thin films grown by evaporation at oblique angles. Nanotechnology, 2016, 27, 395702.	1.3	23
38	Nanoindentation and scratch resistance of multilayered TiO2-SiO2coatings with different nanocolumnar structures deposited by PV-OAD. Journal Physics D: Applied Physics, 2016, 49, 135104.	1.3	9
39	Stoichiometric Control of SiO_x Thin Films Grown by Reactive Magnetron Sputtering at Oblique Angles. Plasma Processes and Polymers, 2016, 13, 1242-1248.	1.6	7
40	Laser Treatment of Nanoparticulated Metal Thin Films for Ceramic Tile Decoration. ACS Applied Materials & Interfaces, 2016, 8, 24880-24886.	4.0	9
41	Metallization of ceramic substrates by laser induced decomposition of coordination complexes. Journal of the European Ceramic Society, 2016, 36, 2831-2836.	2.8	7
42	Electrocatalytic System for the Simultaneous Hydrogen Production and Storage from Methanol. ACS Catalysis, 2016, 6, 1942-1951.	5.5	17
43	Nickelâ€“copper bilayer nanoporous electrode prepared by physical vapor deposition at oblique angles for the non-enzymatic determination of glucose. Sensors and Actuators B: Chemical, 2016, 226, 436-443.	4.0	45
44	Nanostructured Ti thin films by magnetron sputtering at oblique angles. Journal Physics D: Applied Physics, 2016, 49, 045303.	1.3	54
45	Photocatalytic Activity and Antibacterial Response of Titanium Oxide Coatings Doped by Nitrogen Plasma Immersion Ion Implantation. , 2016, , .		0
46	Modulating Low Energy Ion Plasma Fluxes for the Growth of Nanoporous Thin Films. Plasma Processes and Polymers, 2015, 12, 719-724.	1.6	9
47	Laser Treatment of Ag@ZnO Nanorods as Long-Life-Span SERS Surfaces. ACS Applied Materials & Interfaces, 2015, 7, 2331-2339.	4.0	50
48	Anisotropic In-Plane Conductivity and Dichroic Gold Plasmon Resonance in Plasma-Assisted ITO Thin Films e-Beam-Evaporated at Oblique Angles. ACS Applied Materials & Interfaces, 2015, 7, 10993-11001.	4.0	15
49	New Copper wide range nanosensor electrode prepared by physical vapor deposition at oblique angles for the non-enzimatic determination of glucose. Electrochimica Acta, 2015, 169, 195-201.	2.6	34
50	Electrochemical activation of an oblique angle deposited Cu catalyst film for H₂ production. Catalysis Science and Technology, 2015, 5, 2203-2214.	2.1	14
51	Nanoindentation of nanocolumnar TiO2 thin films with single and stacked zig-zag layers. Thin Solid Films, 2014, 550, 444-449.	0.8	20
52	On the Deposition Rates of Magnetron Sputtered Thin Films at Oblique Angles. Plasma Processes and Polymers, 2014, 11, 571-576.	1.6	38
53	Nanocolumnar growth of thin films deposited at oblique angles: Beyond the tangent rule. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2014, 32, .	0.6	42
54	Low Temperature Production of Formaldehyde from Carbon Dioxide and Ethane by Plasma-Assisted Catalysis in a Ferroelectrically Moderated Dielectric Barrier Discharge Reactor. ACS Catalysis, 2014, 4, 402-408.	5.5	51

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55	Growth regimes of porous gold thin films deposited by magnetron sputtering at oblique incidence: from compact to columnar microstructures. Nanotechnology, 2013, 24, 045604.	1.3	71
56	Laser induced enhancement of dichroism in supported silver nanoparticles deposited by evaporation at glancing angles. Nanotechnology, 2013, 24, 045301.	1.3	11
57	Nitridation of nanocrystalline TiO2 thin films by treatment with ammonia. Thin Solid Films, 2011, 519, 3587-3595.	0.8	14
58	Theoretical and experimental characterization of TiO₂ thin films deposited at oblique angles. Journal Physics D: Applied Physics, 2011, 44, 385302.	1.3	45
59	Synthesis, characterization, and photoactivity of InTaO4 and In0.9Ni0.1TaO4 thin films prepared by electron evaporation. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2010, 28, 127-134.	0.9	1
60	Evaluation of Different Dielectric Barrier Discharge Plasma Configurations As an Alternative Technology for Green C₁ Chemistry in the Carbon Dioxide Reforming of Methane and the Direct Decomposition of Methanol. Journal of Physical Chemistry A, 2010, 114, 4009-4016.	1.1	62
61	Wetting angles and photocatalytic activities of illuminated TiO2 thin films. Catalysis Today, 2009, 143, 347-354.	2.2	51
62	Chemical State of Nitrogen and Visible Surface and Schottky Barrier Driven Photoactivities of N-Doped TiO₂ Thin Films. Journal of Physical Chemistry C, 2009, 113, 13341-13351.	1.5	63
63	Nanoindentation of TiO₂thin films with different microstructures. Journal Physics D: Applied Physics, 2009, 42, 145305.	1.3	56
64	Water plasmas for the revalorisation of heavy oils and cokes from petroleum refining. Environmental Science & Technology, 2009, 43, 2557-2562.	4.6	26
65	Wetting Angles on Illuminated Ta2O5 Thin Films with Controlled Nanostructure. Journal of Physical Chemistry C, 2009, 113, 3775-3784.	1.5	29
66	Growth of Crystalline TiO2 by Plasma Enhanced Chemical Vapor Deposition. Crystal Growth and Design, 2009, 9, 2868-2876.	1.4	54
67	Hybrid catalytic-DBD plasma reactor for the production of hydrogen and preferential CO oxidation (CO-PROX) at reduced temperatures. Chemical Communications, 2009, , 6192.	2.2	36
68	UV irradiation effects on TiO₂ thin films. Physica Status Solidi C: Current Topics in Solid State Physics, 2008, 5, 1164-1167.	0.8	6
69	Preillumination of TiO2 and Ta2O5 Photoactive Thin Films As a Tool to Tailor the Synthesis of Composite Materials. Langmuir, 2008, 24, 9460-9469.	1.6	37
70	Ar + NO microwave plasmas forEscherichia colisterilization. Journal Physics D: Applied Physics, 2008, 41, 092002.	1.3	14
71	Determination of the hydrogen content in diamond-like carbon and polymeric thin films by reflection electron energy loss spectroscopy. Diamond and Related Materials, 2007, 16, 107-111.	1.8	37
72	Effect of Visible and UV Illumination on the Water Contact Angle of TiO2Thin Films with Incorporated Nitrogen. Journal of Physical Chemistry C, 2007, 111, 1801-1808.	1.5	71

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73	Synthesis of undoped and Ni doped InTaO4 photoactive thin films by metal organic chemical vapor deposition. Surface and Coatings Technology, 2007, 201, 9365-9368.	2.2	6
74	Hydrogen production by reforming of hydrocarbons and alcohols in a dielectric barrier discharge. Journal of Power Sources, 2007, 169, 140-143.	4.0	112
75	Effect of visible light on the water contact angles on illuminated oxide semiconductors other than TiO2. Solar Energy Materials and Solar Cells, 2006, 90, 2944-2949.	3.0	47
76	Quantification of the H content in diamondlike carbon and polymeric thin films by reflection electron energy loss spectroscopy. Applied Physics Letters, 2005, 87, 084101.	1.5	55
77	Electron temperature measurement in a slot antenna 2.45 GHz microwave plasma source. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2001, 19, 410.	1.6	19