

Victor J Rico

List of Publications by Year in descending order

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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	Hydrogen production by reforming of hydrocarbons and alcohols in a dielectric barrier discharge. Journal of Power Sources, 2007, 169, 140-143.	4.0	112
2	Effect of Visible and UV Illumination on the Water Contact Angle of TiO ₂ Thin Films with Incorporated Nitrogen. Journal of Physical Chemistry C, 2007, 111, 1801-1808.	1.5	71
3	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
4	Chemical State of Nitrogen and Visible Surface and Schottky Barrier Driven Photoactivities of N-Doped TiO ₂ Thin Films. Journal of Physical Chemistry C, 2009, 113, 13341-13351.	1.5	63
5	Evaluation of Different Dielectric Barrier Discharge Plasma Configurations As an Alternative Technology for Green C ₁ 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
6	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
7	Nanoindentation of TiO ₂ thin films with different microstructures. Journal Physics D: Applied Physics, 2009, 42, 145305.	1.3	56
8	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
9	Growth of Crystalline TiO ₂ by Plasma Enhanced Chemical Vapor Deposition. Crystal Growth and Design, 2009, 9, 2868-2876.	1.4	54
10	Nanostructured Ti thin films by magnetron sputtering at oblique angles. Journal Physics D: Applied Physics, 2016, 49, 045303.	1.3	54
11	Wetting angles and photocatalytic activities of illuminated TiO ₂ thin films. Catalysis Today, 2009, 143, 347-354.	2.2	51
12	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
13	Laser Treatment of Ag@ZnO Nanorods as Long-Life-Span SERS Surfaces. ACS Applied Materials & Interfaces, 2015, 7, 2331-2339.	4.0	50
14	Effect of visible light on the water contact angles on illuminated oxide semiconductors other than TiO ₂ . Solar Energy Materials and Solar Cells, 2006, 90, 2944-2949.	3.0	47
15	Theoretical and experimental characterization of TiO ₂ thin films deposited at oblique angles. Journal Physics D: Applied Physics, 2011, 44, 385302.	1.3	45
16	Nickel-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
17	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
18	Formation of Subsurface W ⁵⁺ Species in Gasochromic Pt/WO ₃ Thin Films Exposed to Hydrogen. Journal of Physical Chemistry C, 2017, 121, 15719-15727.	1.5	40

#	ARTICLE	IF	CITATIONS
19	On the Deposition Rates of Magnetron Sputtered Thin Films at Oblique Angles. <i>Plasma Processes and Polymers</i> , 2014, 11, 571-576.	1.6	38
20	Determination of the hydrogen content in diamond-like carbon and polymeric thin films by reflection electron energy loss spectroscopy. <i>Diamond and Related Materials</i> , 2007, 16, 107-111.	1.8	37
21	Preillumination of TiO ₂ and Ta ₂ O ₅ Photoactive Thin Films As a Tool to Tailor the Synthesis of Composite Materials. <i>Langmuir</i> , 2008, 24, 9460-9469.	1.6	37
22	Robust anti-icing superhydrophobic aluminum alloy surfaces by grafting fluorocarbon molecular chains. <i>Applied Materials Today</i> , 2020, 21, 100815.	2.3	37
23	Hybrid catalytic-DBD plasma reactor for the production of hydrogen and preferential CO oxidation (CO-PROX) at reduced temperatures. <i>Chemical Communications</i> , 2009, , 6192.	2.2	36
24	New Copper wide range nanosensor electrode prepared by physical vapor deposition at oblique angles for the non-enzymatic determination of glucose. <i>Electrochimica Acta</i> , 2015, 169, 195-201.	2.6	34
25	Antibacterial Nanostructured Ti Coatings by Magnetron Sputtering: From Laboratory Scales to Industrial Reactors. <i>Nanomaterials</i> , 2019, 9, 1217.	1.9	30
26	Enhanced Stability of Perovskite Solar Cells Incorporating Dopant-Free Crystalline Spiro-OMeTAD Layers by Vacuum Sublimation. <i>Advanced Energy Materials</i> , 2020, 10, 1901524.	10.2	30
27	Wetting Angles on Illuminated Ta ₂ O ₅ Thin Films with Controlled Nanostructure. <i>Journal of Physical Chemistry C</i> , 2009, 113, 3775-3784.	1.5	29
28	Hydrophobicity, Freezing Delay, and Morphology of Laser-Treated Aluminum Surfaces. <i>Langmuir</i> , 2019, 35, 6483-6491.	1.6	29
29	Water plasmas for the revalorisation of heavy oils and cokes from petroleum refining. <i>Environmental Science & Technology</i> , 2009, 43, 2557-2562.	4.6	26
30	Growth of nanocolumnar porous TiO ₂ thin films by magnetron sputtering using particle collimators. <i>Surface and Coatings Technology</i> , 2018, 343, 172-177.	2.2	25
31	Nanocolumnar association and domain formation in porous thin films grown by evaporation at oblique angles. <i>Nanotechnology</i> , 2016, 27, 395702.	1.3	23
32	In Situ Determination of the Water Condensation Mechanisms on Superhydrophobic and Superhydrophilic Titanium Dioxide Nanotubes. <i>Langmuir</i> , 2017, 33, 6449-6456.	1.6	23
33	Nanoindentation of nanocolumnar TiO ₂ thin films with single and stacked zig-zag layers. <i>Thin Solid Films</i> , 2014, 550, 444-449.	0.8	20
34	Electron temperature measurement in a slot antenna 2.45 GHz microwave plasma source. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 2001, 19, 410.	1.6	19
35	Electrocatalytic System for the Simultaneous Hydrogen Production and Storage from Methanol. <i>ACS Catalysis</i> , 2016, 6, 1942-1951.	5.5	17
36	Anisotropic In-Plane Conductivity and Dichroic Gold Plasmon Resonance in Plasma-Assisted ITO Thin Films e-Beam-Evaporated at Oblique Angles. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 10993-11001.	4.0	15

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37	Ar + NO microwave plasmas for <i>Escherichia coli</i> sterilization. <i>Journal Physics D: Applied Physics</i> , 2008, 41, 092002.	1.3	14
38	Nitridation of nanocrystalline TiO ₂ thin films by treatment with ammonia. <i>Thin Solid Films</i> , 2011, 519, 3587-3595.	0.8	14
39	Electrochemical activation of an oblique angle deposited Cu catalyst film for H ₂ production. <i>Catalysis Science and Technology</i> , 2015, 5, 2203-2214.	2.1	14
40	Kinetic energy-induced growth regimes of nanocolumnar Ti thin films deposited by evaporation and magnetron sputtering. <i>Nanotechnology</i> , 2019, 30, 475603.	1.3	13
41	SiO _x by magnetron sputtered revisited: Tailoring the photonic properties of multilayers. <i>Applied Surface Science</i> , 2019, 488, 791-800.	3.1	13
42	3D Organic Nanofabrics: Plasma-Assisted Synthesis and Antifreezing Behavior of Superhydrophobic and Lubricant-Infused Slippery Surfaces. <i>Langmuir</i> , 2019, 35, 16876-16885.	1.6	13
43	Novel procedure for studying laser-surface material interactions during scanning laser ablation cleaning processes on Cu-based alloys. <i>Applied Surface Science</i> , 2021, 544, 148820.	3.1	13
44	In situ monitoring of the phenomenon of electrochemical promotion of catalysis. <i>Journal of Catalysis</i> , 2018, 358, 27-34.	3.1	12
45	Solid-State Dewetting of Gold on Stochastically Periodic SiO ₂ Nanocolumns Prepared by Oblique Angle Deposition. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 11385-11395.	4.0	12
46	Laser induced enhancement of dichroism in supported silver nanoparticles deposited by evaporation at glancing angles. <i>Nanotechnology</i> , 2013, 24, 045301.	1.3	11
47	Growth of nanocolumnar thin films on patterned substrates at oblique angles. <i>Plasma Processes and Polymers</i> , 2019, 16, 1800135.	1.6	11
48	High-Rate Deposition of Stoichiometric Compounds by Reactive Magnetron Sputtering at Oblique Angles. <i>Plasma Processes and Polymers</i> , 2016, 13, 960-964.	1.6	10
49	Modulating Low Energy Ion Plasma Fluxes for the Growth of Nanoporous Thin Films. <i>Plasma Processes and Polymers</i> , 2015, 12, 719-724.	1.6	9
50	Nanoindentation and scratch resistance of multilayered TiO ₂ -SiO ₂ coatings with different nanocolumnar structures deposited by PV-OAD. <i>Journal Physics D: Applied Physics</i> , 2016, 49, 135104.	1.3	9
51	Laser Treatment of Nanoparticulated Metal Thin Films for Ceramic Tile Decoration. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 24880-24886.	4.0	9
52	Antibacterial response of titanium oxide coatings doped by nitrogen plasma immersion ion implantation. <i>Surface and Coatings Technology</i> , 2017, 314, 67-71.	2.2	9
53	Self-Assembly of the Nonplanar Fe(III) Phthalocyanine Small-Molecule: Unraveling the Impact on the Magnetic Properties of Organic Nanowires. <i>Chemistry of Materials</i> , 2018, 30, 879-887.	3.2	9
54	Patterning and control of the nanostructure in plasma thin films with acoustic waves: mechanical vs. electrical polarization effects. <i>Materials Horizons</i> , 2021, 8, 515-524.	6.4	9

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55	Non-Enzymatic Glucose Sensors Based on Nickel Nanoporous Thin Films Prepared by Physical Vapor Deposition at Oblique Angles for Beverage Industry Applications. <i>Journal of the Electrochemical Society</i> , 2016, 163, B704-B709.	1.3	8
56	Positron annihilation analysis of nanopores and growth mechanism of oblique angle evaporated TiO ₂ and SiO ₂ thin films and multilayers. <i>Microporous and Mesoporous Materials</i> , 2020, 295, 109968.	2.2	8
57	Stoichiometric Control of SiO _x Thin Films Grown by Reactive Magnetron Sputtering at Oblique Angles. <i>Plasma Processes and Polymers</i> , 2016, 13, 1242-1248.	1.6	7
58	Metallization of ceramic substrates by laser induced decomposition of coordination complexes. <i>Journal of the European Ceramic Society</i> , 2016, 36, 2831-2836.	2.8	7
59	Electron Beam Evaporated vs. Magnetron Sputtered Nanocolumnar Porous Stainless Steel: Corrosion Resistance, Wetting Behavior and Anti-bacterial Activity. <i>Materials Today Communications</i> , 2022, 31, 103266.	0.9	7
60	Synthesis of undoped and Ni doped InTaO ₄ photoactive thin films by metal organic chemical vapor deposition. <i>Surface and Coatings Technology</i> , 2007, 201, 9365-9368.	2.2	6
61	UV irradiation effects on TiO ₂ thin films. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2008, 5, 1164-1167.	0.8	6
62	Structural control in porous/compact multilayer systems grown by magnetron sputtering. <i>Nanotechnology</i> , 2017, 28, 465605.	1.3	6
63	Environmentally Tight TiO ₂ "SiO ₂ Porous 1D Photonic Structures. <i>Advanced Materials Interfaces</i> , 2019, 6, 1801212.	1.9	6
64	Wetting and spreading of liquid lithium onto nanocolumnar tungsten coatings tailored through the topography of stainless steel substrates. <i>Nuclear Fusion</i> , 2020, 60, 126033.	1.6	6
65	Nickel/Copper Bilayer Modified Screen Printed Electrode for Glucose Determination in Flow Injection Analysis. <i>Electroanalysis</i> , 2018, 30, 187-193.	1.5	5
66	Graphene Formation Mechanism by the Electrochemical Promotion of a Ni Catalyst. <i>ACS Catalysis</i> , 2019, 9, 11447-11454.	5.5	5
67	Titania Enhanced Photocatalysis and Dye Giant Absorption in Nanoporous 1D Bragg Microcavities. <i>ACS Applied Nano Materials</i> , 2022, 5, 5487-5497.	2.4	5
68	2D compositional self-patterning in magnetron sputtered thin films. <i>Applied Surface Science</i> , 2019, 480, 115-121.	3.1	3
69	Liquid switchable radial polarization converters made of sculptured thin films. <i>Applied Surface Science</i> , 2019, 475, 230-236.	3.1	3
70	Optofluidic liquid sensing on electromicrofluidic devices. <i>Materials Research Express</i> , 2020, 7, 036407.	0.8	2
71	Characterizing the physicochemical and mechanical properties of ZrN thin films deposited on Zr substrates by pulsed laser technique. <i>EPL Applied Physics</i> , 2021, 95, 10301.	0.3	2
72	Synthesis, characterization, and photoactivity of InTaO ₄ and In _{0.9} Ni _{0.1} TaO ₄ thin films prepared by electron evaporation. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2010, 28, 127-134.	0.9	1

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73	(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
74	Laser-induced coloration of ceramic tiles covered with magnetron sputtered precursor layers. Journal of the American Ceramic Society, 2018, 102, 1589.	1.9	1
75	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
76	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
77	Photocatalytic Activity and Antibacterial Response of Titanium Oxide Coatings Doped by Nitrogen Plasma Immersion Ion Implantation. , 2016, , .		0