

Victor J Rico

List of Publications by Year in descending order

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77
papers

1,836
citations

201674
27
h-index

289244
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.	7.8	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.	3.1	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.	2.6	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.	3.1	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.	2.5	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.	5.2	60
7	Nanoindentation of TiO ₂ thin films with different microstructures. Journal Physics D: Applied Physics, 2009, 42, 145305.	2.8	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.	3.3	55
9	Growth of Crystalline TiO ₂ by Plasma Enhanced Chemical Vapor Deposition. Crystal Growth and Design, 2009, 9, 2868-2876.	3.0	54
10	Nanostructured Ti thin films by magnetron sputtering at oblique angles. Journal Physics D: Applied Physics, 2016, 49, 045303.	2.8	54
11	Wetting angles and photocatalytic activities of illuminated TiO ₂ thin films. Catalysis Today, 2009, 143, 347-354.	4.4	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.	11.2	51
13	Laser Treatment of Ag@ZnO Nanorods as Long-Life-Span SERS Surfaces. ACS Applied Materials & Interfaces, 2015, 7, 2331-2339.	8.0	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.	6.2	47
15	Theoretical and experimental characterization of TiO ₂ thin films deposited at oblique angles. Journal Physics D: Applied Physics, 2011, 44, 385302.	2.8	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.	7.8	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, .	1.2	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.	3.1	40

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19	On the Deposition Rates of Magnetron Sputtered Thin Films at Oblique Angles. Plasma Processes and Polymers, 2014, 11, 571-576.	3.0	38
20	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.	3.9	37
21	Preillumination of TiO ₂ and Ta ₂ O ₅ Photoactive Thin Films As a Tool to Tailor the Synthesis of Composite Materials. Langmuir, 2008, 24, 9460-9469.	3.5	37
22	Robust anti-icing superhydrophobic aluminum alloy surfaces by grafting fluorocarbon molecular chains. Applied Materials Today, 2020, 21, 100815.	4.3	37
23	Hybrid catalytic-DBD plasma reactor for the production of hydrogen and preferential CO oxidation (CO-PROX) at reduced temperatures. Chemical Communications, 2009, , 6192.	4.1	36
24	New Copper wide range nanosensor electrode prepared by physical vapor deposition at oblique angles for the non-enzymatic determination of glucose. Electrochimica Acta, 2015, 169, 195-201.	5.2	34
25	Antibacterial Nanostructured Ti Coatings by Magnetron Sputtering: From Laboratory Scales to Industrial Reactors. Nanomaterials, 2019, 9, 1217.	4.1	30
26	Enhanced Stability of Perovskite Solar Cells Incorporating Dopant-Free Crystalline Spiro-OMeTAD Layers by Vacuum Sublimation. Advanced Energy Materials, 2020, 10, 1901524.	19.5	30
27	Wetting Angles on Illuminated Ta ₂ O ₅ Thin Films with Controlled Nanostructure. Journal of Physical Chemistry C, 2009, 113, 3775-3784.	3.1	29
28	Hydrophobicity, Freezing Delay, and Morphology of Laser-Treated Aluminum Surfaces. Langmuir, 2019, 35, 6483-6491.	3.5	29
29	Water plasmas for the revalorisation of heavy oils and cokes from petroleum refining. Environmental Science & Technology, 2009, 43, 2557-2562.	10.0	26
30	Growth of nanocolumnar porous TiO ₂ thin films by magnetron sputtering using particle collimators. Surface and Coatings Technology, 2018, 343, 172-177.	4.8	25
31	Nanocolumnar association and domain formation in porous thin films grown by evaporation at oblique angles. Nanotechnology, 2016, 27, 395702.	2.6	23
32	In Situ Determination of the Water Condensation Mechanisms on Superhydrophobic and Superhydrophilic Titanium Dioxide Nanotubes. Langmuir, 2017, 33, 6449-6456.	3.5	23
33	Nanoindentation of nanocolumnar TiO ₂ thin films with single and stacked zig-zag layers. Thin Solid Films, 2014, 550, 444-449.	1.8	20
34	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
35	Electrocatalytic System for the Simultaneous Hydrogen Production and Storage from Methanol. ACS Catalysis, 2016, 6, 1942-1951.	11.2	17
36	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.	8.0	15

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37	Ar + NO microwave plasmas for <i>Escherichia coli</i> sterilization. Journal Physics D: Applied Physics, 2008, 41, 092002.	2.8	14
38	Nitridation of nanocrystalline TiO ₂ thin films by treatment with ammonia. Thin Solid Films, 2011, 519, 3587-3595.	1.8	14
39	Electrochemical activation of an oblique angle deposited Cu catalyst film for H ₂ production. Catalysis Science and Technology, 2015, 5, 2203-2214.	4.1	14
40	Kinetic energy-induced growth regimes of nanocolumnar Ti thin films deposited by evaporation and magnetron sputtering. Nanotechnology, 2019, 30, 475603.	2.6	13
41	SiO _x by magnetron sputtered revisited: Tailoring the photonic properties of multilayers. Applied Surface Science, 2019, 488, 791-800.	6.1	13
42	3D Organic Nanofabrics: Plasma-Assisted Synthesis and Antifreezing Behavior of Superhydrophobic and Lubricant-Infused Slippery Surfaces. Langmuir, 2019, 35, 16876-16885.	3.5	13
43	Novel procedure for studying laser-surface material interactions during scanning laser ablation cleaning processes on Cu-based alloys. Applied Surface Science, 2021, 544, 148820.	6.1	13
44	In situ monitoring of the phenomenon of electrochemical promotion of catalysis. Journal of Catalysis, 2018, 358, 27-34.	6.2	12
45	Solid-State Dewetting of Gold on Stochastically Periodic SiO ₂ Nanocolumns Prepared by Oblique Angle Deposition. ACS Applied Materials & Interfaces, 2021, 13, 11385-11395.	8.0	12
46	Laser induced enhancement of dichroism in supported silver nanoparticles deposited by evaporation at glancing angles. Nanotechnology, 2013, 24, 045301.	2.6	11
47	Growth of nanocolumnar thin films on patterned substrates at oblique angles. Plasma Processes and Polymers, 2019, 16, 1800135.	3.0	11
48	High-Rate Deposition of Stoichiometric Compounds by Reactive Magnetron Sputtering at Oblique Angles. Plasma Processes and Polymers, 2016, 13, 960-964.	3.0	10
49	Modulating Low Energy Ion Plasma Fluxes for the Growth of Nanoporous Thin Films. Plasma Processes and Polymers, 2015, 12, 719-724.	3.0	9
50	Nanoindentation and scratch resistance of multilayered TiO ₂ -SiO ₂ coatings with different nanocolumnar structures deposited by PV-OAD. Journal Physics D: Applied Physics, 2016, 49, 135104.	2.8	9
51	Laser Treatment of Nanoparticulated Metal Thin Films for Ceramic Tile Decoration. ACS Applied Materials & Interfaces, 2016, 8, 24880-24886.	8.0	9
52	Antibacterial response of titanium oxide coatings doped by nitrogen plasma immersion ion implantation. Surface and Coatings Technology, 2017, 314, 67-71.	4.8	9
53	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.	6.7	9
54	Patterning and control of the nanostructure in plasma thin films with acoustic waves: mechanical vs. electrical polarization effects. Materials Horizons, 2021, 8, 515-524.	12.2	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. Journal of the Electrochemical Society, 2016, 163, B704-B709.	2.9	8
56	Positron annihilation analysis of nanopores and growth mechanism of oblique angle evaporated TiO ₂ and SiO ₂ thin films and multilayers. Microporous and Mesoporous Materials, 2020, 295, 109968.	4.4	8
57	Stoichiometric Control of SiO _x Thin Films Grown by Reactive Magnetron Sputtering at Oblique Angles. Plasma Processes and Polymers, 2016, 13, 1242-1248.	3.0	7
58	Metallization of ceramic substrates by laser induced decomposition of coordination complexes. Journal of the European Ceramic Society, 2016, 36, 2831-2836.	5.7	7
59	Electron Beam Evaporated vs. Magnetron Sputtered Nanocolumnar Porous Stainless Steel: Corrosion Resistance, Wetting Behavior and Anti-bacterial Activity. Materials Today Communications, 2022, 31, 103266.	1.9	7
60	Synthesis of undoped and Ni doped InTaO ₄ photoactive thin films by metal organic chemical vapor deposition. Surface and Coatings Technology, 2007, 201, 9365-9368.	4.8	6
61	UV irradiation effects on TiO ₂ thin films. Physica Status Solidi C: Current Topics in Solid State Physics, 2008, 5, 1164-1167.	0.8	6
62	Structural control in porous/compact multilayer systems grown by magnetron sputtering. Nanotechnology, 2017, 28, 465605.	2.6	6
63	Environmentally Tight TiO ₂ –SiO ₂ Porous 1D Photonic Structures. Advanced Materials Interfaces, 2019, 6, 1801212.	3.7	6
64	Wetting and spreading of liquid lithium onto nanocolumnar tungsten coatings tailored through the topography of stainless steel substrates. Nuclear Fusion, 2020, 60, 126033.	3.5	6
65	Nickel/Copper Bilayer–modified Screen Printed Electrode for Glucose Determination in Flow Injection Analysis. Electroanalysis, 2018, 30, 187-193.	2.9	5
66	Graphene Formation Mechanism by the Electrochemical Promotion of a Ni Catalyst. ACS Catalysis, 2019, 9, 11447-11454.	11.2	5
67	Titania Enhanced Photocatalysis and Dye Giant Absorption in Nanoporous 1D Bragg Microcavities. ACS Applied Nano Materials, 2022, 5, 5487-5497.	5.0	5
68	2D compositional self-patterning in magnetron sputtered thin films. Applied Surface Science, 2019, 480, 115-121.	6.1	3
69	Liquid switchable radial polarization converters made of sculptured thin films. Applied Surface Science, 2019, 475, 230-236.	6.1	3
70	Optofluidic liquid sensing on electromicrofluidic devices. Materials Research Express, 2020, 7, 036407.	1.6	2
71	Characterizing the physicochemical and mechanical properties of ZrN thin films deposited on Zr substrates by pulsed laser technique. EPJ Applied Physics, 2021, 95, 10301.	0.7	2
72	Synthesis, characterization, and photoactivity of InTaO ₄ and In _{0.9} Ni _{0.1} TaO ₄ thin films prepared by electron evaporation. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2010, 28, 127-134.	2.1	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.	0.5	1
74	Laser-Induced coloration of ceramic tiles covered with magnetron sputtered precursor layers. Journal of the American Ceramic Society, 2018, 102, 1589.	3.8	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.	7.8	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.	3.0	1
77	Photocatalytic Activity and Antibacterial Response of Titanium Oxide Coatings Doped by Nitrogen Plasma Immersion Ion Implantation. , 2016, , .		0